

CEC
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API Reference

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1 Interface Overview

The section describes open interfaces provided by the CEC for external use. For details about the types and basic functions of main interfaces, see [Table 1-1](#).

NOTICE

Some interfaces contain distributed locks to ensure that only one modification or addition request from an agent can be processed at a time in concurrent scenarios, preventing the atomicity and consistency of businesses from being damaged. A distributed lock is triggered when an interface is invoked. It is automatically released after the interface invocation is complete (whether the invocation succeeds or not) so that the interface can be invoked again.

Table 1-1 Interfaces

Interface Type	Description
Call center configuration interfaces	Interfaces related to agent management, skill queue management, number management, and IVR management. These interfaces can be used to create agents and skill queues, query information about agents, skill queues, access codes, and IVR flows, and upload IVR voice files.
Agent workbench interfaces	Interfaces of the agent control, agent bidirectional call (used in the mobile app scenario), voice recognition result subscription, and app personal settings (used in the mobile app scenario). These interfaces can be used for agent sign-in and sign-out, call control, call data query, agent bidirectional call, and voice recognition result subscription to the CTI platform of the call center. To use the interfaces related to the agent workbench, you also need to consider to use the phone. For details, see <i>Development Guide</i> .

Interface Type	Description
Telemarketing outbound call interfaces	Interfaces of the CC-iSales (telemarketing outbound calls). These interfaces can be used for businesses such as adding outbound call campaigns, adding outbound numbers, and querying outbound call results.
Survey interfaces	Interfaces of the CC-Survey. These interfaces can be used for businesses such as creating surveys, creating answers to questions, and updating surveys.
Knowledge base interfaces	Interfaces of the CC-iKBS. These interfaces can be used for businesses such as querying knowledge details and the knowledge list.
Chatbot management interfaces	Interfaces of the Online Intelligent Assistant Platform (OIAP). These interfaces can be used for businesses such as domain query, dialog query, Q&A management, and FAQ group management.
Web client access interfaces	Interfaces for accessing the web client. These interfaces can be used for users to send online messages, send and receive files, and initiate click-to-dial businesses.
Inspection, monitoring, and statistics collection interfaces	<p>Interfaces of real-time inspection, real-time data query, historical data query, and configuration data query.</p> <p>These interfaces can be used for inspectors to perform real-time inspection operations such as insertion, listening, and interception on agents, and query real-time and historical monitoring indicators in different dimensions such as agents and skill queues of tenant space.</p> <p>NOTICE</p> <p>For monitoring and statistics interfaces, the following structure is used to be compatible with earlier versions. In this version, resultCode instead of result is used as the result code, and resultDesc instead of resultDatas is used as the data returned by the interface.</p> <ul style="list-style-type: none"> • result: Query result. The data type is string. The options are as follows: <ul style="list-style-type: none"> • 0: success • Other values: failure • resultDatas: JSON object array in the returned result after a successful query.
Recording/CDR interfaces	Interfaces related to recording playback, recording download, video download, and CDR download. These interfaces can be used to play recordings to agents after agents sign-in, download voice and video files from agents, download CDRs from third parties, and play recordings.

Interface Type	Description
Voice notification interfaces	<p>Interfaces for querying voice notification recording files and creating voice notifications.</p> <p>These interfaces can be used to initiate voice notifications and play specified voice files to specified customers.</p>
OMA interfaces	<p>Interfaces for customer information query, subscription information query, and more.</p> <p>These interfaces can be used to invoke the business software mall to query related information. Currently, these interfaces are for trial use only.</p>
DataProcess interfaces	<p>Interfaces for querying call result data.</p>
Other interfaces	<p>Interfaces for token information authentication, one-click trial use, and more.</p>

2 Glossary

Table 2-1 Terms

Term	Description
VDN	The virtual directory number (VDN) is a concept on the CTI platform. In the AICC, a tenant corresponds to a VDN after being created and configured. A VDN is equivalent to a tenant or tenant space.
skill queue	<p>A skill queue is a group of agents who can handle problems of the same type or answer questions of the same type. Skill queues can improve the work efficiency of agents and shorten the service duration. Skill queues are classified into the voice, multimedia, video, voice click-to-dial, and video click-to-dial types, which are used to handle different problems.</p> <p>When a user requests a media service, the user's call accesses a skill queue of the media service, and an agent who signs in to the skill queue provides services for the user.</p>
access code	An access code is a customer service hotline provided for customers. Customers can dial an access code to connect to agents.
extension code	To set multiple destination devices for an access code, you can configure extension codes. Assume that the access code is 12345. Extension code 1 is added for routing calls to skill queue A, and extension code 2 to skill queue B. In this way, customers can dial 123451 to directly access skill queue A.
softphone number	A softphone number is a login account on the OpenEye. The OpenEye is a multimedia soft terminal.
app key	An app key (AK or app ID) indicates a developer account. When a third party invokes an open API of the AICC, the third party needs to obtain token authentication information using the AK and SK.
app secret	An app secret (SK) indicates an authentication key. When a third party invokes an open API of the AICC, the third party needs to obtain token authentication information using the AK and SK.

Term	Description
<i>ip:port</i>	<i>ip:port</i> indicates the domain name of the AICC sign-in page. It is used in the URLs in interface documents. Take the URL <code>https://ip:port/oifde/rest/api/spellcheck</code> as an example. If the domain name of the AICC sign-in page is <code>southvideo.aicccloud.com</code> , you can replace <i>ip:port</i> in the URL with <code>southvideo.aicccloud.com</code> .

3 Change History

Issue 12 (2023-05-13)

This issue is released with MicroService 2.2.0.0. The following interfaces are modified.

Table 3-1 Interface change history

No.	Interface	Type	Remarks
1	Interface for the Huawei IMC to call back data (https://Domain name/apiaccess/rest/oma/v1/imcopenapi/callback)	New	This interface is invoked by the Huawei IMC to call back data.
2	Interface for the business software mall to query basic trial tenant information (https://Domain name/rest/oma/softwareconsole/trialtenant/querytenantinfo)	New	This interface is invoked by the business software mall to query basic trial tenant information.
3	Interface for the business software mall to query system parameters	New	This interface is invoked to query system parameters. It is open to the business software mall official website.
4	Interface for querying customer information	Modified	The vdn , createDate , tenantSpaceStatus , and portalUrl parameters are added to the response body.

Issue 11 (2023-04-07)

This issue is released with MicroService 2.1.0.0. The following interfaces are modified.

Table 3-2 Interface change history

No.	Interface	Type	Remarks
1	https:// <i>Domain name</i> /rest/oma/softwareconsole/tenant/queryresource	New	This interface is invoked by the business software mall to query business software mall subscription information stored on the OMA.

Issue 10 (2023-03-07)

This issue is released with MicroService 2.0.0.0. The following interfaces are modified.

Table 3-3 Interface change history

No.	Interface	Type	Remarks
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Issue 09 (2022-12-05)

This issue is released with MicroService 1.11.0 The following interfaces are modified.

Table 3-4 Interface change history

No.	Interface	Type	Remarks
16	https:// <i>Domain name</i> /oifde/rest/crs/process	Modified	The interface invoked after dialog interaction (inaction=9) (V1) is modified.

No.	Interface	Type	Remarks
17	https:// <i>Domain name</i> /oifde/rest/crs/process	Modified	The interface invoked after dialog interaction (inaction=9) (V2) is modified.
18	Release event callback interface	Modified	The releaseReason parameter is added to the request body.

Issue 08 (2022-10-20)

This issue is released with MicroService 1.10.0. The following interfaces are modified.

Table 3-5 Interface change history

No.	Interface	Type	Remarks
1	https:// <i>Domain name</i> /apiaccess/rest/cc-management/v1/agentAccount/create	Modified	The maximum length of the request body parameter phone is changed to 25 characters.
2	https:// <i>Domain name</i> /apiaccess/rest/cc-management/v1/agentAccount/update	New	The maximum length of the request body parameter phone is changed to 25 characters.
3	https:// <i>Domain name</i> /apiaccess/ccmessaging/queryHistoryChatMessage	New	The interface for querying historical messages is added.
4	https:// <i>Domain name</i> /apiaccess/ccmessaging/send (For example, the domain name is https://service.besclouds.com.)	Modified	The value LOCATE (location message) is added to the mediaType request parameter.

Issue 07 (2022-08-31)

This issue is released with MicroService 1.0.9. The following interfaces are modified.

Table 3-6 Interface change history

No.	Interface	Type	Remarks
1	https:// <i>Domain name</i> /apiaccess/CC-Management/v1/mobileAgent/createCall	Modified	The agentWorkNo request parameter is added to the interface for creating a bidirectional call (V1.0.0).
2	https:// <i>Domain name</i> /apiaccess/CC-Management/v1/openapp/agentsettings/create	New	The interface for creating app personal settings is added.
3	https:// <i>Domain name</i> /apiaccess/CC-Management/v1/openapp/agentsettings/update	New	The interface for updating app personal settings is added.
4	https:// <i>Domain name</i> /apiaccess/CC-Management/v1/openapp/agentsettings/query	New	The interface for querying app personal settings is added.
5	https:// <i>Domain name</i> /apiaccess/CC-Management/v1/openapp/agentsettings/delete	New	The interface for deleting app personal settings is added.
6	https:// <i>Domain name</i> /service-cloud/rest/isales/v1/openapi/campaigns/{vdnId}/callresult/{campaignId}	Modified	The beginTime and endTime request parameters are added to the interface for querying outbound call results.

Issue 06 (2022-07-31)

This issue is released with MicroService 1.0.8. The following interfaces are modified.

Table 3-7 Interface change history

No.	Interface	Type	Remarks
1	https:// <i>ip.port</i> /oifde/rest/api/queryRecordHistory	Modified	For the interface for querying session records, the locationId field (node ID) is added to the JSON string of the response parameter businessInfoStr .
2	https:// <i>ip.port</i> /CCFS/resource/ccfs/downloadOiapRecord?locationId= <i>xx</i>	Modified	For the interface for downloading an intelligent IVR recording file, the locationId field in the request URL is changed from mandatory in CTI pool mode to optional.
3	https:// <i>ip.port</i> /CCFS/resource/ccfs/downloadIVRRecordFile?locationId= <i>xx</i>	Modified	For the interface for downloading IVR voice messages, the locationId field in the request URL is changed from mandatory in CTI pool mode to optional.
4	https:// <i>Domain name</i> /apiaccess/rest/cc-management/v1/ita/twopartiescall/statusnotify	New	The interface for sending an ITA bidirectional call result notification is added.

Issue 05 (2022-05-30)

This issue is released with MicroService 1.0.7. The following interfaces are modified.

Table 3-8 Interface change history

No.	Interface	Type	Remarks
1	https:// <i>Domain name</i> /apiaccess/rest/voiceNotification/v2/createVoiceNotification	Modified	The following optional request parameter is added to the interface for creating a voice notification (V2): voiceFileName (IVR voice name)

No.	Interface	Type	Remarks
2	https:// <i>Domain name</i> /apiaccess/rest/cc-management/v1/importVoiceFile/upload	Modified	The following optional request parameter is added to the interface for uploading IVR voice files: voiceFileName (IVR voice name)
3	https:// <i>Domain name</i> /apiaccess/rest/cc-management/v1/createVoiceTemplate	New	The interface for uploading TTS template files of voice notifications is added.
4	https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/callRecord	New	The interface for querying call records of automatic and intelligent outbound calls is added.

Issue 04 (2022-04-30)

This issue is released with MicroService 1.0.6. The following interfaces are modified.

Table 3-9 Interface change history

No.	Interface	Type	Remarks
1	https:// <i>ip.port</i> /rest/isales/v1/openapi/campaigns/{vdnId}/blocklist/add	Modified	The following optional request parameters are added to the interface for adding outbound numbers to the blacklist: restrictTimes (maximum number of calls) restrictPeriod (restriction period)
2	https:// <i>ip.port</i> /oifde/rest/api/tts/texttovoice	New	The interface for generating TTS voices based on texts is added.
3	https:// <i>Domain name</i> /apiaccess/rest/voiceNotification/v2/createVoiceNotification	New	The interface for creating a voice notification (V2) is added.

No.	Interface	Type	Remarks
4	https:// <i>Domain name</i> /apiaccess/rest/cc-management/v1/satisfactionconfig/querySatisfaction-Config	Modified	The following optional parameter is added to the response parameters of the interface for querying the IVR flows for satisfaction surveys: accessCode (flow access code)
5	https:// <i>ip.port</i> /rest/cmsapp/v1/openapi/hisindex/skill https:// <i>ip.port</i> /rest/cmsapp/v1/openapi/hisindex/skillforday https:// <i>ip.port</i> /rest/cmsapp/v1/openapi/hisindex/skillformonth	Modified	Interface for obtaining historical monitoring indicators by skill Interface for obtaining historical monitoring indicators by skill on a specified date Interface for obtaining historical monitoring indicators by skill in a specified month The calculation logic of the IDX_COUNT_SKILL_INCOMING_CALL (number of manual inbound call requests) parameter of the preceding three interfaces is modified.

Issue 03 (2022-03-31)

This issue is released with MicroService 1.0.5. The following interfaces are modified.

Table 3-10 Interface change history

No.	Interface	Type	Remarks
1	<p>https://<i>ip.port</i>/CCFS/resource/ccfs/queryBillData</p> <p>https://<i>ip.port</i>/CCFS/resource/ccfs/downloadBillFile</p>	Modified	<p>The following parameters are added to the CDR and recording index files downloaded using the interface for generating CDRs and recording indexes and the interface for downloading CDRs and recording indexes.</p> <p>Parameters added to CDR index files:</p> <ul style="list-style-type: none"> • vdn (VDN ID) • pre_device_type (type of the previous device that a call passes through) • pre_device_no (No. of the previous device that a call passes through) • skill_id (skill queue ID to which a call belongs) • current_skill_id (skill queue ID that processes the current call) <p>Parameters added to recording index files:</p> <ul style="list-style-type: none"> • vdn (VDN ID) • call_type (call type) • media_type (media type) • user_wanted_skill_id (direction skill) • current_skill_id (skill queue ID that processes the current call)
2	<p>https://<i>Domain name</i>/apiaccess/rest/cc-management/v1/importVoiceFile/upload</p>	Modified	<p>The MP3 voice file type is added to the request parameter fileType of the interface for uploading IVR voice files.</p>

No.	Interface	Type	Remarks
3	https:// <i>ip.port</i> /rest/cmsapp/v1/openapi/agent/agentoprinfo	Modified	For the interface for obtaining agent operation details, the request parameter operateType is changed from mandatory to optional.
4	https:// <i>Domain name</i> /apiaccess/ccmessaging/send	Modified	WEBCARD (web card) is added to the request parameter mediaType (message media type) of the interface for sending messages from a web client.
5	https:// <i>ip.port</i> /rest/cmsapp/v1/openapi/hisindex/skill https:// <i>ip.port</i> /rest/cmsapp/v1/openapi/hisindex/skillforday https:// <i>ip.port</i> /rest/cmsapp/v1/openapi/hisindex/skillformonth	Modified	Interface for obtaining historical monitoring indicators by skill Interface for obtaining historical monitoring indicators by skill on a specified date Interface for obtaining historical monitoring indicators by skill in a specified month The following monitoring indicator is added for the preceding three interfaces: IDX_COUNT_SKILL_INCOMING_CALL (number of manual inbound call requests)
6	https:// <i>Domain name</i> /apiaccess/rest/cc-management/v1/satisfaction/query	New	The interface for querying satisfaction survey results is added.
7	https:// <i>Domain name</i> /apiaccess/rest/service-pub/authentication	New	The interface for authenticating token information is added.

Issue 02 (2022-02-11)

This issue is released with MicroService 1.0.4. The following interfaces are modified.

No.	Interface	Type	Remarks
1	https://Domain name/apiaccess/rest/cc-management/v1/agentAccount/query	Modified	The transparentDisplay-Flag parameter is added to the request and response parameters of the interface for querying agent account information.
2	https://Domain name/apiaccess/rest/cc-management/v1/importVoiceFile/upload	New	The interface for uploading IVR voice files is added.
3	https://Domain name/apiaccess/rest/voiceNotification/v1/queryVoiceNotificationRecording	New	The interface for querying recording files of voice notifications is added.
4	https://Domain name/apiaccess/rest/voiceNotification/v1/createVoiceNotification	New	The interface for creating a voice notification is added.
5	https://Domain name/apiaccess/CC-Management/v1/mobileAgent/createCall	Modified	The request parameter callbackUrl is added to the interface for creating a bidirectional call (V1.0.0).
6	https://ip.port/rest/isales/v1/openapi/campaigns/{vdnId}/callresultdetail/{callId}	New	The interface for querying details about a single outbound call result is added.
7	https://ip.port/CCFS/resource/ccfs/getRecordFileUrlFromObs	Modified	The response parameter url of the interface for obtaining the recording download and playback URL is modified. If a call ID corresponds to multiple recording files, the download and playback URLs of multiple recording files are returned.

Issue 01 (2021-12-15)

This issue is released with Service Cloud 8.21.0. The following interfaces are modified.

No.	Interface	Type	Remarks
1	https:// <i>Domain name</i> /apiaccess/rest/cc-management/v1/agentAccount/create	New	The interface for creating an agent account is added.
2	https:// <i>Domain name</i> /apiaccess/rest/cc-management/v1/agentAccount/delete	New	The interface for deleting a specified agent account is added.
3	https:// <i>Domain name</i> /apiaccess/rest/cc-management/v1/agentAccount/update	New	The interface for modifying agent account information is added.
4	https:// <i>Domain name</i> /apiaccess/rest/cc-management/v1/agentAccount/query	New	The interface for querying agent account information is added.
5	https:// <i>Domain name</i> /apiaccess/rest/cc-management/v1/agentAccount/addSkillsToAgent	New	The interface for binding an agent to a skill queue is added.
6	https:// <i>Domain name</i> /apiaccess/rest/cc-management/v1/agentAccount/releaseAgentBySkillId	New	The interface for unbinding an agent from a skill queue is added.
7	https:// <i>Domain name</i> /apiaccess/rest/cc-management/v1/sipPhone/updateSipPhonePassword	New	The interface for changing the softphone number login password of an agent is added.
8	https:// <i>Domain name</i> /apiaccess/rest/cc-management/v1/agentAccount/queryAgentInfoBySkillId	New	The interface for querying agent information by skill queue ID is added.
9	https:// <i>Domain name</i> /apiaccess/rest/cc-management/v1/skill/createSkill	New	The interface for creating a skill queue is added.

No.	Interface	Type	Remarks
10	https://Domain name/apiaccess/rest/cc-management/v1/skill/deleteSkill	New	The interface for deleting a skill queue is added.
11	https://Domain name/apiaccess/rest/cc-management/v1/skill/modifySkill	New	The interface for modifying a skill queue is added.
12	https://Domain name/apiaccess/rest/cc-management/v1/skill/querySkills	New	The interface for querying skill queues is added.
13	https://Domain name/apiaccess/rest/cc-management/v1/accessCodeInfo/queryAccessCodeList	New	The interface for querying access codes of a specified tenant space is added.
14	https://Domain name/apiaccess/rest/cc-management/v1/calledRoute/createCalledRoute	New	The interface for creating a binding relationship between an access code, skill queue, and IVR is added.
15	https://Domain name/apiaccess/rest/cc-management/v1/calledRoute/deleteCalledRoute	New	The interface for deleting the binding relationships between access codes, skill queues, and IVRs is added.
16	https://Domain name/apiaccess/rest/cc-management/v1/calledRoute/modifyCalledRoute	New	The interface for modifying a binding relationship between an access code, skill queue, and IVR is added.
17	https://Domain name/apiaccess/rest/cc-management/v1/calledRoute/queryCalledRoute	New	The interface for querying the binding relationships between access codes, skill queues, and IVRs is added.
18	https://Domain name/apiaccess/rest/cc-management/v1/phonearea/getPhoneNoRegionInfo	New	The interface for querying the home region of a phone number is added.

No.	Interface	Type	Remarks
19	https://Domain name/apiaccess/rest/cc-management/v1/ivrFlow/queryIVRFlowList	New	The interface for querying all IVR flows of a specified tenant space is added.
20	https://Domain name/apiaccess/rest/cc-management/v1/satisfactionconfig/querySatisfyConfig	New	The interface for querying the IVR flows for satisfaction surveys is added.
21	https://Domain name/apiaccess/rest/cc-management/v1/offline/agent/login	New	The interface for answering calls on a mobile phone is added.
22	https://Domain name/apiaccess/rest/cc-management/v1/offline/agent/logout	New	The interface for exiting the function of answering calls on a mobile phone is added.
23	https://Domain name/apiaccess/rest/cc-management/v1/offline/agent/isOfflineAgent	New	The interface for querying whether a specified agent answers calls on a mobile phone is added.
24	https://ip.port/rest/cmsapp/v2/openapi/vdn/querycalls	New	The interface for querying call information of a specified VDN (V2) is added.
25	https://ip.port/rest/cmsapp/v1/openapi/vdn/queryAgentByStatus	New	The interface for querying agent information by agent status in pagination mode is added.
26	https://ip.port/CCFS/resource/ccfs/getRecordFileUrlFromObs	New	The interface for obtaining the recording download and playback URL is added.

No.	Interface	Type	Remarks
27	https:// <i>ip.port</i> /rest/cmsapp/v1/openapi/hisindex/agent	Modified	The following two monitoring indicators are added: IDX_COUNT_TOTAL_AGENT_CALL_OUT (total number of outbound calls) IDX_RATE_AGENT_SUCC_CALL_OUT (success rate of outbound calls)
28	https:// <i>ip.port</i> /rest/cmsapp/v1/openapi/hisindex/agentforday	Modified	The following two monitoring indicators are added: IDX_COUNT_TOTAL_AGENT_CALL_OUT (total number of outbound calls) IDX_RATE_AGENT_SUCC_CALL_OUT (success rate of outbound calls)
29	https:// <i>ip.port</i> /rest/cmsapp/v1/openapi/hisindex/agentformonth	Modified	The following two monitoring indicators are added: IDX_COUNT_TOTAL_AGENT_CALL_OUT (total number of outbound calls) IDX_RATE_AGENT_SUCC_CALL_OUT (success rate of outbound calls)
30	https:// <i>ip.port</i> /rest/cmsapp/v1/callinday/querymanualindexesbycondition	Modified	The following response parameter is added: inCallAllCostMinute (total charging duration of each call, in minutes)

No.	Interface	Type	Remarks
31	https:// <i>ip.port</i> /rest/cmsapp/v1/calloutday/ querymanualindexesbycondition	Modified	The following response parameter is added: outCallAllCostMinute (total charging duration of each call, in minutes)

4 Interface Authentication Modes

[4.1 Authentication Mode Description](#)

[4.2 C1 System Configuration Interface Authentication](#)

[4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication](#)

[4.4 C3 OIAP Interface Authentication](#)

[4.5 C4 Agent Operation Interface Authentication](#)

[4.6 C5 Intelligent Auxiliary Interface Authentication](#)

4.1 Authentication Mode Description

There are five authentication modes for all interfaces provided by the AICC. [Table 4-1](#) describes the authentication modes.

Table 4-1 Authentication modes

Authentication Mode	Description	Reference
C1 system configuration interface authentication	The API Fabric AK/SK authentication used by call center configuration interfaces, agent bidirectional call interfaces, and web client access (online chat) interfaces uses the tokenByAkSk interface to obtain tokens.	4.2 C1 System Configuration Interface Authentication

Authentication Mode	Description	Reference
C2 monitoring, system outbound call, and CDR interface authentication	The authentication algorithm for the CC-CMS (system monitoring and statistics collection), CC-iSales (telemarketing outbound call), and CC-FS (CDR and recording download and others) uses AK/SK-based request signature authentication.	4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication
C3 intelligent chatbot interface authentication	The authentication algorithm for the OIAP (intelligent chatbot) uses the gettoken interface to obtain tokens.	4.4 C3 OIAP Interface Authentication
C4 agent operation interface authentication	The authentication algorithm for the CC-Gateway (agent voice gateway) uses static or dynamic authentication to obtain GUID information for agent authentication.	4.5 C4 Agent Operation Interface Authentication
C5 intelligent auxiliary interface authentication	The authentication algorithm for voice recognition result subscription interfaces uses the sign-in authentication interface of the CC-Gateway (agent voice gateway) to obtain GUID information for agent authentication.	4.6 C5 Intelligent Auxiliary Interface Authentication

4.2 C1 System Configuration Interface Authentication

Scenario

The API Fabric generates a token.

URL: `https://Domain address/apigovernance/api/oauth/tokenByAkSk`

NOTE

Replace *Domain address* with the actual address or domain name of the CEC.

For example, in the Huawei Cloud production environment, replace *Domain address* with **service.besclouds.com**. The invoking URL is **`https://service.besclouds.com/apigovernance/api/oauth/tokenByAkSk`**.

Request Header

```
{
  Content-Type: application/json
}
```

```
X-Token-Expire:600  
}
```

 NOTE

X-Token-Expire indicates the token expiration time, in seconds. In this example, the token expiration time is 600 seconds. The maximum value is **3600**.

Request Parameters

```
{  
  "app_key": "xxxxxxxxxxxxxxxxxx",  
  "app_secret": "yyyyyyyyyyyyyyyyyy"  
}
```

 NOTE

- **app_key** indicates the app ID. Contact operations personnel to obtain it.
- **app_secret** indicates the secret. Contact operations personnel to obtain it.

Response Parameters

```
{  
  "AccessToken": "zzzzzzzzzzzzzzzzzz",  
  "ApplyType": "Bearer",  
  "CreateTime": "1545650171",  
  "Expires": "600",  
  "Scope": "XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX",  
  "AppKey": "xxxxxxxxxxxxxxxxxx",  
  "UserID": "Anonymous"  
}
```

 NOTE

AccessToken indicates the token of the API.

4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication

Obtaining AK/SK

AK/SK Authentication

In AK/SK-based authentication, AK/SK is used to sign requests and the signature is then added to the requests for authentication.

- Access Key ID (AK): ID of the access key. It is a unique identifier that is associated with a secret access key. The AK and SK are used together to sign requests cryptographically.
- Secret Access Key (SK): secret access key that works with AK to obtain an encrypted signature for a request, identify the sender, and prevent the request from being modified.

In AK/SK-based authentication, you can use an AK/SK to sign requests based on the signature algorithm.

Obtaining the Private AK/SK

- Integrated environment: Contact operations personnel to obtain it.

NOTE

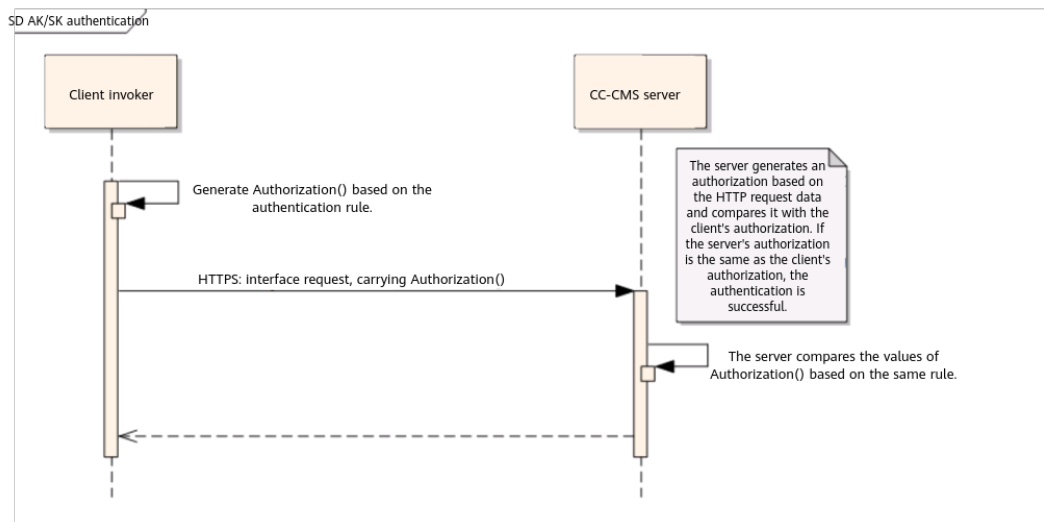
If the interface authentication is successful, the HTTPS response code 200 is returned. If the authentication fails, the HTTPS response code 401 is returned.

Authentication Algorithm

NOTICE

Assume that the CC-CMS interface is used as an example to describe the authentication algorithm. The authentication algorithms of the CC-iKBS, CC-FS, and CC-iSales are similar.

All interface servers authenticate the signature of the request data sent from the client. The authentication process is as follows.



The rule for the invoker to generate **Authorization** is as follows.

CanonicalRequest

```
$HttpMethod + "\n" +
$HttpURI + "\n" +
$HttpParameters + "\n" +
SignedHeaders($HttpHeaders) + "\n" +
CanonicalHeaders ($HttpHeaders) + "\n" +
Normalize($HttpBody)
```

SignedHeaders

Records are sorted by dictionary.

```
lowerCase($HeadName)+";"
lowerCase($HeadName)+";"
.....
lowerCase($HeadName)
```

CanonicalHeaders

Records are sorted by dictionary.

```
Normalize (lowerCase($HeadName))+":"*Normalize($HeadValue)+"\n"
Normalize (lowerCase($HeadName))+":"*Normalize($HeadValue)+"\n"
.....
Normalize (lowerCase($HeadName))+":"*Normalize($HeadValue)
```

Signature

```
SigningKey=Sha256Hex($SecreKey, "auth-v2/$AccessKey/$Timestamp/$SignedHeaders")
Signature=Sha256Hex($SigningKey, $CanonicalRequest)
```

Authorization:auth-v2/\$AccessKey/\$Timestamp/\$SignedHeaders/\$Signature

Algorithm and Rule of Each Content Segment

- **CmsParameters**

NOTE

This parameter class is a parameter summary in the CC-CMS secondary development demo. In the subsequent description and invocation, the parameters in this class are directly used. You only need to modify the parameter class in a unified manner to complete the authentication configuration.

The following is a basic parameter example in the demo. You can add parameters based on the site requirements to facilitate subsequent project management.

```
/**
 * Parameter class definition in CC-CMS interface requests
 */
public class CmsParameters
{
    //Replace the following information with the actual information.
    /**
     * Host access URL
     */
    public static final String host = "10.22.26.181:28080";
    public static final String url = "https://" + host;

    /**
     * Developer ID, that is, AK
     */
    public static final String accessKey= "globalaktest";
```

```
/**
 * Developer key (unencrypted), that is, SK
 */
public static final String secretKey = "1q*****20";
}
```

- **SignInfo**

 **NOTE**

This class contains some fixed **HEAD** definitions and some basic functions used to construct **CanonicalRequest** and **Signature**.

```
package com.huawei.client.rest.v2.demo.sign;

import java.io.UnsupportedEncodingException;
import java.security.InvalidKeyException;
import java.security.NoSuchAlgorithmException;
import java.text.SimpleDateFormat;
import java.util.Date;
import java.util.HashMap;
import java.util.Locale;
import java.util.Map;
import java.util.Map.Entry;
import java.util.Set;
import java.util.TimeZone;
import java.util.TreeSet;

@Setter
@Getter
public class SignInfo
{
    public static final String HEAD_AUTHORIZATION = "authorization";
    public static final String HEAD_HOST = "host";
    public static final String HEAD_CONTENT_LENGTH = "Content-Length";
    public static final String HEAD_CONTENT_TYPE = "Content-Type";
    public static final String TIMESTAMP_FORMAT = "yyyy-MM-dd'T'HH:mm:ss.SSS'Z'";

    //Retain the default setting.
    private String authVersion = "auth-v2";

    private String httpMethod;
    private String uri;

    //GET is not supported on the service side.
    private Map<String, String> queryParameters;

    private Map<String, String> signedHeaders;
    private String payload;
    private String accessKey;
    private String secretKey;
    private Date timestamp;

    public String authString() throws NoSuchAlgorithmException, InvalidKeyException,
    UnsupportedEncodingException
    {
        String authStringPrefix = this.authStringPrefix();
        String signingKey = SignerUtils.sha256Hex(this.getSecretKey(), authStringPrefix);
        String canonicalRequest = this.canonicalRequest();
        String signature = SignerUtils.sha256Hex(signingKey, canonicalRequest);
        String authString = authStringPrefix + '/' + signature;

        return authString;
    }

    public String authStringPrefix()
    {
        StringBuilder buffer = new StringBuilder();
    }
}
```



```
buffer.append(this.authVersion);
buffer.append('/').append(this.accessKey);
buffer.append('/').append(this.formatTimestamp());
buffer.append('/');
this.appendSignedHeaders(buffer);

return buffer.toString();
}

public String canonicalRequest()
{
    StringBuilder buffer = new StringBuilder();
    buffer.append(this.httpMethod).append('\n');
    buffer.append(this.uri).append('\n');

    if (this.isNotEmpty(this.queryParameters))
    {
        this.appendCanonicalQueryString(buffer);
        buffer.append('\n');
    }

    this.appendSignedHeaders(buffer);
    buffer.append('\n');

    this.appendCanonicalHeaders(buffer);
    buffer.append('\n');

    if (this.isNotEmpty(this.payload))
    {
        buffer.append(PathUtils.normalize(this.payload));
    }

    return buffer.toString();
}

private String appendSignedHeaders(StringBuilder buffer)
{
    int start = buffer.length();

    Set<String> headerNames = new TreeSet<>(this.signedHeaders.keySet());
    for (String name : headerNames)
    {
        buffer.append(name.toLowerCase(Locale.ENGLISH)).append(';');
    }
    buffer.deleteCharAt(buffer.length() - 1);

    int end = buffer.length();
    String signedHeadersStr = buffer.substring(start, end);
    return signedHeadersStr;
}

private String appendCanonicalHeaders(StringBuilder buffer)
{
    int start = buffer.length();

    Set<String> headers = new TreeSet<>();
    for (Map.Entry<String, String> entry : this.signedHeaders.entrySet())
    {
        String header = PathUtils.normalize(entry.getKey()) + ':'
            + PathUtils.normalize(entry.getValue());
        headers.add(header);
    }
    for (String header : headers)
    {
        buffer.append(header).append('\n');
    }
    buffer.deleteCharAt(buffer.length() - 1);

    int end = buffer.length();
```

```
String canonicalHeadersStr = buffer.substring(start, end);
return canonicalHeadersStr;
}

private void appendCanonicalQueryString(StringBuilder buffer)
{
    //Encode and sort the data.
    Set<String> sortedSet = new TreeSet<>();
    for (Map.Entry<String, String> e : this.queryParameters.entrySet())
    {
        String uriEncodeKey = PathUtils.normalize(e.getKey());
        String uriEncodeValue = this.isNotEmpty(e.getValue()) ? PathUtils.normalize(e.getValue()) : "";
        sortedSet.add(uriEncodeKey + "=" + uriEncodeValue);
    }

    for (String e : sortedSet)
    {
        buffer.append(e).append('&');
    }
    buffer.deleteCharAt(buffer.length() - 1);
}

private String formatTimestamp()
{
    SimpleDateFormat format = new SimpleDateFormat(SignInfo.TIMESTAMP_FORMAT);
    format.setTimeZone(TimeZone.getTimeZone("UTC"));
    return format.format(this.timestamp);
}

private boolean isEmpty(String str)
{
    if ((null == str) || str.isEmpty())
    {
        return false;
    }
    return true;
}

private <K, V> boolean isEmpty(Map<K, V> map)
{
    if ((null == map) || map.isEmpty())
    {
        return false;
    }
    return true;
}
}
```

The PathUtils tool class used by **SignInfo** is as follows:

```
package com.huawei.client.rest.v2.demo.utils;

import java.io.UnsupportedEncodingException;
import java.net.URI;
import java.net.URISyntaxException;
import java.net.URLDecoder;
import java.util.BitSet;

public class PathUtils {

    private static final String CHARSET = "UTF-8";

    private static BitSet URI_UNRESERVED_CHARACTERS = new BitSet();

    private static String[] PERCENT_ENCODED_STRINGS = new String[256];

    static {
        for (int i = 97; i <= 122; i++) {
            PathUtils.URI_UNRESERVED_CHARACTERS.set(i);
        }
    }
}
```

```
for (int i = 65; i <= 90; i++) {
    PathUtils.URI_UNRESERVED_CHARACTERS.set(i);
}
for (int i = 48; i <= 57; i++) {
    PathUtils.URI_UNRESERVED_CHARACTERS.set(i);
}
PathUtils.URI_UNRESERVED_CHARACTERS.set(45);
PathUtils.URI_UNRESERVED_CHARACTERS.set(46);
PathUtils.URI_UNRESERVED_CHARACTERS.set(95);
PathUtils.URI_UNRESERVED_CHARACTERS.set(126);

for (int i = 0; i < PathUtils.PERCENT_ENCODED_STRINGS.length; i++) {
    PathUtils.PERCENT_ENCODED_STRINGS[i] = String.format("%02X", new Object[]
{Integer.valueOf(i)});
}

}

public static String normalizePath(String path) {
    return PathUtils.normalize(path).replace("%2F", "/");
}

public static String normalize(String value) {
    try {
        StringBuilder builder = new StringBuilder();
        for (byte b : value.getBytes(PathUtils.CHARSET)) {
            if (PathUtils.URI_UNRESERVED_CHARACTERS.get(b & 0xFF)) {
                builder.append((char) b);
            } else {
                builder.append(PathUtils.PERCENT_ENCODED_STRINGS[(b & 0xFF)]);
            }
        }
        return builder.toString();
    } catch (UnsupportedEncodingException e) {
        throw new RuntimeException(e);
    }
}

}

/**
 * URL normalization
 *
 * @param url
 * @return
 */
public static String normalizeURL(String url) {
    try {
        return URLDecoder.decode(new URI(url).normalize().toString(), PathUtils.CHARSET);
    } catch (URISyntaxException | UnsupportedEncodingException e) {
        return url;
    }
}

}

public static void main(String[] args)
{
    System.out.println(PathUtils.normalize("123%456"));
}
}
```

- **SignedHeaders**

 **NOTE**

The invoker can selectively encode the header part in an HTTPS request. The only requirement is that the **Host** field must be encoded. However, the head whose **headname** is **Authorization** cannot be involved in the encoding calculation because **Authorization** is the final authentication head field.

Note: The value of **Host** is the value of *ip:port* in the HTTPS URL of the corresponding service.

In most cases, you are advised to encode the following headers:

```
Host="10.22.26.181:28080"  
Content-Length="22"  
Content-Type="application/json;charset=UTF-8"
```

– Content calculation rule

Traverse the header names in the **HttpHead** involved in encoding.

- i. Invoke the `lowerCase()` function to convert a header name to lowercase letters.
- ii. Add a semicolon (;) to the end of the characters converted from the header name to generate a record. Do not add a semicolon (;) to the last field.
- iii. Sort all the preceding records in alphabetical order, and then concatenate the records into a character string in sequence.

– Code implementation

- i. Construct the map of **signedHeaders**, fill in the required field information, and invoke the `lowerCaseSignedHeaders` function to process characters.

```
//Head field for signature authentication. The host field is mandatory.  
Map<String, String> signedHeaders = new HashMap<>();  
signedHeaders.put(SignInfo.HEAD_HOST, CmsParameters.host);  
signedHeaders.put(SignInfo.HEAD_CONTENT_LENGTH,  
String.valueOf(bodyJson.getBytes("UTF-8").length));  
signedHeaders.put(SignInfo.HEAD_CONTENT_TYPE, "application/json;charset=UTF-8");  
  
//Set the authentication data interface.  
SignInfo signInfo = new SignInfo();  
signInfo.setAccessKey(CmsParameters.accessKey);  
signInfo.setSecretKey(CmsParameters.secretKey);  
signInfo.setPayload(bodyJson);  
signInfo.setTimestamp(new Date());  
signInfo.setHttpMethod(HttpProxyHelper.HTTP_METHOD_POST);  
signInfo.setUri(httpPath);  
signInfo.setSignedHeaders(lowerCaseSignedHeaders(signedHeaders));
```

For details about the complete code of the preceding function, see [a](#).

- ii. Function: `lowerCaseSignedHeaders`

```
/**  
 * The signedHeaders involved in the calculation are converted.  
 * @param  
 * @return Map<String, String>  
 */  
private Map<String, String> lowerCaseSignedHeaders(Map<String, String> signedHeaders)  
{  
    if ((null == signedHeaders) || signedHeaders.isEmpty())  
    {  
        throw new IllegalArgumentException("signedHeaders can't be null.");  
    }  
    Map<String, String> headers = new HashMap<>();  
    for (Entry<String, String> e : signedHeaders.entrySet())  
    {  
        String name = e.getKey();  
        String value = e.getValue();  
        headers.put(name.toLowerCase(Locale.ENGLISH), value.trim());  
    }  
    if (!signedHeaders.containsKey(SignInfo.HEAD_HOST))  
    {  
        throw new IllegalArgumentException("signedHeaders must has host.");  
    }  
    return headers;  
}
```

- Example

The **HttpHead** involved in encoding is as follows:

```
Host="10.22.26.181:28080"
```

```
Content-Length="22"
```

```
Content-Type="application/json;charset=UTF-8"
```

After the processing based on the preceding rules, the result is as follows:

```
SignedHeaders=content-length;content-type;host
```

- **CanonicalHeaders**

- 📖 **NOTE**

The encoding rule is the same as that of **SignedHeaders**, but head value encoding is added.

- Content calculation rule

Traverse the header names in the **HttpHead** involved in encoding.

- Invoke the `lowerCase()` function to convert a header name to lowercase letters.
- Invoke the `NormalizePath` function to format the converted lowercase character string.
- Generate a record character string in the format of *Formatted character string:NormalizePath((Header value).trim())*.
- Sort the preceding records in alphabetical order.
- Traverse the sorted records and add the character string `\n` to connect them to a long character string.

Note that `\n` is not added to the last record.

The **HttpHead** involved in encoding is as follows:

```
Host="10.22.26.181:28080"
```

```
Content-Length="22"
```

```
Content-Type="application/json;charset=UTF-8"
```

After the processing based on the preceding rules, **CanonicalHeaders** is as follows:

```
content-length:22\n
```

```
content-type:application%2Fjson%3Bcharset%3DUTF-8\n
```

```
host:10.22.26.181%3A28080
```

- **CanonicalRequest**

- Content calculation rule

```
CanonicalRequest = $HttpMethod + "\n" + $HttpURI + "\n" + $HttpParameters + "\n" +  
SignedHeaders($HttpHeaders) + "\n" + CanonicalHeaders ($HttpHeaders) + "\n" +  
NormalizePath($HttpBody)
```

Parameter description:

- \$HttpMethod**: GET, PUT, and POST requests defined in the HTTPS protocol. The value must be all in uppercase. The involved HTTP methods include GET, POST, PUT, DELETE, and HEAD. However, the CC-CMS service supports only POST.
- \$HttpURI**: HTTPS URI of the interface request. For example, if the complete URL is `https://10.22.26.181:28080/rest/cmsapp/v1/ping`, the value is `/rest/cmsapp/v1/ping`. The value must start with a slash (/). If the value does not start with a slash (/), add it. If this parameter is left empty, the value is a slash (/).
- \$HttpParameters**: request parameter following the request URI. For example, if the request URI is `https://10.22.26.181:28080/rest/cmsapp/v1/ping?id=123&name=test`, the value of **\$HttpParameters** is `id=123&name=test`. Currently, this parameter does not exist in the CC-CMS interface.

- iv. **\$HttpBody**: character string submitted to the server through the HTTPS body. The character string is a standard JSON string. For details about the fields, see the definition of each interface.
- Code implementation
For details, see the canonicalRequest() function in **•SignInfo**.
- **Generating the Character String Authorization**
 - Content calculation rule
 - i. Generate **authStringPrefix** and **SigningKey**.

- 1) The rules for generating **authStringPrefix** and **SigningKey** are as follows:

```
authStringPrefix="auth-v2/{accessKey}/{timestamp}/{SignedHeaders}";  
SigningKey = sha256Hex(secretKey, authStringPrefix);
```

Note:

auth-v2: authentication version number. In the current version, the value is fixed to **auth-v2**.

accessKey: authentication ID of the invoker, that is, the AK.

secretKey: authentication key of the invoker, that is, the SK.

timestamp: UTC time generated by the invoker. The time is in *yyyy-MM-dd'T'HH:mm:ss.SSS'Z* format.

- 2) Code implementation: **authStringPrefix**

The function for generating **authStringPrefix** is implemented in the following functions of the **SignInfo** class:

```
authStringPrefix()  
appendSignedHeaders(StringBuilder buffer)
```

- 3) Code implementation: **SigningKey**

For details, see **authString()** in the **SignInfo** class.

```
String signingKey = SignerUtils.sha256Hex(this.getSecretKey(), authStringPrefix);
```

For details about the **sha256Hex()** encryption algorithm, see the following tool class:

```
package com.huawei.client.rest.v2.demo.utils;  
  
import java.io.UnsupportedEncodingException;  
import java.security.InvalidKeyException;  
import java.security.NoSuchAlgorithmException;  
  
import javax.crypto.Mac;  
import javax.crypto.spec.SecretKeySpec;  
  
/**  
 * Tool class for the authentication digest algorithm of RESTful interfaces  
 */  
public class SignerUtils {  
  
    private static final String CHARSET = "UTF-8";  
    private static final char[] DIGITS_LOWER = {'0', '1', '2', '3', '4', '5', '6', '7', '8', '9', 'a',  
    'b', 'c', 'd', 'e', 'f'};  
  
    /**  
     * Digest algorithm  
     * @param key  
     * @param toSigned  
     * @return String  
     * @throws NoSuchAlgorithmException  
     * @throws InvalidKeyException  
     * @throws UnsupportedEncodingException
```

```
*/
public static String sha256Hex(String key, String toSigned) throws
NoSuchAlgorithmException, InvalidKeyException, UnsupportedEncodingException {
    Mac mac = Mac.getInstance("HmacSHA256");
    mac.init(new SecretKeySpec(key.getBytes(SignerUtils.CHARSET),
"HmacSHA256"));

    String digit = new
String(SignerUtils.encodeHex(mac.doFinal(toSigned.getBytes(SignerUtils.CHARSET)))
);
    return digit;
}

private static char[] encodeHex(final byte[] data) {
    final int l = data.length;
    final char[] out = new char[l << 1];
    for (int i = 0, j = 0; i < l; i++) {
        out[j++] = SignerUtils.DIGITS_LOWER[(0xF0 & data[i]) >>> 4];
        out[j++] = SignerUtils.DIGITS_LOWER[0x0F & data[i]];
    }
    return out;
}
}
```

ii. Generate a signature.

1) Signature generation rule:

```
Signature = sha256Hex(SigningKey, CanonicalRequest)
```

2) Code implementation: The encryption function sha256Hex is included.

For details, see the implementation method of sha256Hex() in [Code implementation: SigningKey](#).

iii. Authentication character string

1) Rule for generating an authentication string:

```
Authorization:$authStringPrefix/$Signature
```

2) Code implementation: **signedHeaders** is the map constructed in the signedHeaders module.

```
//Generate a signature.
String signature = signInfo.authString();
Map<String, String> httpHeads = new HashMap<>(signedHeaders);
//Append to HTTPHEAD and send it to the server.
httpHeads.put(SignInfo.HEAD_AUTHORIZATION, signature);
```

NOTICE

The authentication character string is sent to the CC-CMS server using the **Authorization** field of **HttpHead**.

- Example
 - a. Commission the first interface.

 NOTE

Authentication is necessary for commissioning an interface.

In this project, the authentication entry is the `buildSignHttpHead()` function. This function constructs the map of signedHeaders and transfers the map to **SignInfo**.

The `authString()` function in the `SignInfo` class reveals the main process of constructing the authentication character string and generates the signature.

The key component of the authentication string is the signature. Other information concatenation functions are also included in the `SignInfo` class.

Define **BaseRequest**.

```
package com.huawei.client.rest.v2.demo.base;

@Setter
@Getter
public class BaseRequest
{
    private RequestHeader request;

    private Object msgBody;

    public BaseRequest(Object body)
    {
        this.request = new RequestHeader();
        this.msgBody = body;
    }

    public BaseRequest(RequestHeader head, Object body)
    {
        this.request = head;
        this.msgBody = body;
    }

    public RequestHeader getRequest()
    {
        return this.request;
    }

    public void setRequest(RequestHeader request)
    {
        this.request = request;
    }

    public Object getMsgBody()
    {
        return this.msgBody;
    }

    public void setMsgBody(Object msgBody)
    {
        this.msgBody = msgBody;
    }
}
```

RequestHeader is as follows:

```
package com.huawei.client.rest.v2.demo.base;

public class RequestHeader
{
    /**
     * Version
     */
    private String version = "2.0";

    public String getVersion()
    {
```



```
        return this.version;
    }

    public void setVersion(String version)
    {
        this.version = version;
    }
}
```

Define **BaseResponse**.

```
package com.huawei.client.rest.v2.demo.base;

@Setter
@Getter
public class BaseResponse
{
    final static int SUCCESS = 0;

    private ResponseHead resultHead;

    private Object resultData;

    public BaseResponse()
    {
    }

    public BaseResponse(String resultCode, String resultMsg, Object resultData)
    {
        this.resultHead = new ResponseHead(resultCode, resultMsg);
        this.resultData = resultData;
    }

    public BaseResponse(ResponseHead resultHead, Object resultData)
    {
        this.resultHead = resultHead;
        this.resultData = resultData;
    }
}
```

ResponseHead is as follows:

```
package com.huawei.client.rest.v2.demo.base;

public class ResponseHead
{
    private String resultCode;

    /**
     * Response result
     */
    private String resultMsg;

    public ResponseHead()
    {
    }

    public ResponseHead(String resultCode, String resultMsg)
    {
        this.resultCode = resultCode;
        this.resultMsg = resultMsg;
    }

    public String getResultCode()
    {
        return this.resultCode;
    }

    public void setResultCode(String resultCode)
```

```
{
    this.resultCode = resultCode;
}

public String getResultMsg()
{
    return this.resultMsg;
}

public void setResultMsg(String resultMsg)
{
    this.resultMsg = resultMsg;
}
}
```

For details about the implementation of the `buildSignHttpHead()` function, see **ToolUtils**.

```
package com.huawei.client.rest.v2.demo.utils;

import java.io.BufferedReader;
import java.io.File;
import java.io.FileOutputStream;
import java.io.FileReader;
import java.io.InputStream;
import java.io.UnsupportedEncodingException;
import java.security.InvalidKeyException;
import java.security.NoSuchAlgorithmException;
import java.text.SimpleDateFormat;
import java.util.ArrayList;
import java.util.Date;
import java.util.HashMap;
import java.util.List;
import java.util.Locale;
import java.util.Map;
import com.alibaba.fastjson.JSONObject;

import com.huawei.client.rest.v2.demo.HttpProxyHelper;
import com.huawei.client.rest.v2.demo.base.BaseRequest;
import com.huawei.client.rest.v2.demo.config.CmsParameters;
import com.huawei.client.rest.v2.demo.sign.SignInfo;

/**
 * Tool class for the authentication digest algorithm of RESTful interfaces
 */
public class ToolUtils {
    /**
     * Convert character strings to files.
     * @param in
     * @param filePath
     * @param fileName
     * @return
     */
    public static boolean saveToFileByStr(InputStream in, String filePath, String fileName){
        boolean flag = true;
        if(in != null){
            try {
                //Restore the character string fileStr in the generated file to a file.

                File file=new File(filePath,fileName);
                FileOutputStream fos=new FileOutputStream(file);
                try{
                    byte[] buffer = new byte[1024];
                    int reader = 0;
                    while ((reader = in.read(buffer)) != -1) {
                        fos.write(buffer, 0, reader);
                    }
                    fos.flush();
                }
            }
        }
    }
}
```

```
        finally {
            fos.close();
            in.close();
        }

    } catch (Exception e) {
        flag = false;
        e.printStackTrace();
    }
}
return flag;
}

/**
 * Enter the path of the .csv file.
 * Return the address of the original recording file that is read.
 * @param filePath
 * @return
 */
public static List<String> readFile(String filePath){
    List<String> originalFileList = new ArrayList<String>();
    try {
        BufferedReader reader = new BufferedReader(new FileReader(filePath));
        //The first line is the table header information.
        reader.readLine();

        String line = null;
        while((line=reader.readLine())!=null){
            String item[] = line.split(",");//The CSV file is a comma-separated file.
            originalFileList.add(item[item.length-4]);
        }
    } catch (Exception e) {
        e.printStackTrace();
    }

    return originalFileList;
}

/**
 * During actual client development, BaseRequest is directly converted into a JSON string
 based on the JSON framework.
 * @param request
 * @return String
 * @throws Exception
 */
public static String toJsonString(BaseRequest request) throws Exception
{
    JSONObject jsonObject = new JSONObject();
    StringBuilder buffer = new StringBuilder();
    buffer.append("{");
    buffer.append("\"request\":");
    buffer.append(jsonObject.toJSONString(request.getRequest()));
    buffer.append(",");
    buffer.append("\"msgBody\":");
    buffer.append(jsonObject.toJSONString(request.getMsgBody()));
    buffer.append("}");

    return buffer.toString();
}

/**
 * Construct authentication fields.
 * @param httpPath
 * @param bodyJson
 * @return
 * @throws InvalidKeyException
 * @throws NoSuchAlgorithmException
 * @throws UnsupportedEncodingException
 */
```

```
public Map<String, String> buildSignHttpHead(String httpPath, String bodyJson)
    throws InvalidKeyException, NoSuchAlgorithmException, UnsupportedEncodingException
{
    //Head field for signature authentication. The host field is mandatory.
    Map<String, String> signedHeaders = new HashMap<>();
    signedHeaders.put(SignInfo.HEAD_HOST, CmsParameters.host);
    signedHeaders.put(SignInfo.HEAD_CONTENT_LENGTH,
String.valueOf(bodyJson.getBytes("UTF-8").length));
    signedHeaders.put(SignInfo.HEAD_CONTENT_TYPE, "application/json;charset=UTF-8");

    //Set the authentication data interface.
    SignInfo signInfo = new SignInfo();
    signInfo.setAccessKey(CmsParameters.accessKey);
    signInfo.setSecretKey(CmsParameters.secretKey);
    signInfo.setPayload(bodyJson);
    signInfo.setTimestamp(new Date());
    signInfo.setHttpMethod(HttpProxyHelper.HTTP_METHOD_POST);
    signInfo.setUri(httpPath);
    signInfo.setSignedHeaders(this.lowerCaseSignedHeaders(signedHeaders));

    //Generate a signature.
    String signature = signInfo.authString();
    Map<String, String> httpHeads = new HashMap<>(signedHeaders);
    //Append to HTTPHEAD and send it to the server.
    httpHeads.put(SignInfo.HEAD_AUTHORIZATION, signature);

    return httpHeads;
}

/**
 * The signedHeaders involved in the calculation are converted.
 * @param
 * @return Map<String, String>
 */
private Map<String, String> lowerCaseSignedHeaders(Map<String, String> signedHeaders)
{
    if ((null == signedHeaders) || signedHeaders.isEmpty())
    {
        throw new IllegalArgumentException("signedHeaders can't be null.");
    }
    Map<String, String> headers = new HashMap<>();
    for (Entry<String, String> e : signedHeaders.entrySet())
    {
        String name = e.getKey();
        String value = e.getValue();
        headers.put(name.toLowerCase(Locale.ENGLISH), value.trim());
    }
    if (!signedHeaders.containsKey(SignInfo.HEAD_HOST))
    {
        throw new IllegalArgumentException("signedHeaders must has host.");
    }
    return headers;
}
}
```

b. Code implementation:

■ Main function for creating a project

```
public static void main(String[] args)
{
    HttpClientMain demo = new HttpClientMain();

    try
    {
        demo.cmsPingTest();
    }
    catch (Exception e)
    {
        e.printStackTrace();
    }
}
```

```
}  
}
```

- Main function for implementing the POST request of the interface (including authentication)

```
public void cmsPingTest() throws Exception  
{  
    HttpClientHelper httpProxy = new HttpClientHelper();  
    //URL of the request interface.  
    final String httpPath = "/rest/cmsapp/v1/ping";  
    final String postUrl = CmsParameters.url + httpPath;  
    //Construct bodyJson in the request interface.  
    JSONObject jsonObject = new JSONObject();  
    jsonObject.put("say", "Hello world!");  
    String jsonObjectStr = JSONObject.toJSONString(jsonObject);  
  
    //Construct authentication information.  
    Map<String, String> httpHeads = ToolUtils.buildSignHttpHead(httpPath, jsonObjectStr);  
    //Execute the HTTPS request and obtain the returned JSON character string.  
    String response = httpProxy.doPost(postUrl, httpHeads, jsonObjectStr);  
    //If the interface is successfully invoked, information containing responseId is  
    returned.  
    System.out.println(response);  
}
```

- Main function for implementing the GET request of the interface (including authentication) (compared with the POST request, other code of the get request remains unchanged)

```
public void cmsPingTest() throws Exception  
{  
    HttpClientHelper httpProxy = new HttpClientHelper();  
    //URL of the request interface.  
    final String httpPath = "/rest/cmsapp/v1/ping";  
    final String postUrl = CmsParameters.url + httpPath;  
    //GET request parameters.  
    Map<String, String> queryParameters = new HashMap<>();  
    //Authentication information constructed in a GET request.  
    Map<String, String> httpHeads = ToolUtils.buildSignHttpHead(httpPath, null,  
    queryParameters, HttpClientHelper.HTTP_METHOD_GET);  
    System.out.println("httpHeads:" + httpHeads);  
    //Execute the HTTPS request and obtain the returned JSON character string.  
    String response = httpProxy.doGet(postUrl, httpHeads, queryParameters);  
    //If the interface is successfully invoked, information containing responseId is  
    returned.  
    System.out.println(response);  
}
```

- For the implementation of the ToolUtils.toJsonString() function, the actual invoker needs to convert **BaseRequest** into a JSON string based on the JSON framework. The following is an example:

```
/**  
 * During actual client development, BaseRequest is directly converted into a JSON string  
 based on the JSON framework.  
 * @param request  
 * @return String  
 * @throws Exception  
 */  
public static String toJsonString(BaseRequest request) throws Exception  
{  
    JSONObject jsonObject = new JSONObject();  
    StringBuilder buffer = new StringBuilder();  
    buffer.append("{");  
    buffer.append("\"request\":");  
    buffer.append(jsonObject.toJSONString(request.getRequest()));  
    buffer.append(",");  
    buffer.append("\"msgBody\":");  
    buffer.append(jsonObject.toJSONString(request.getMsgBody()));  
    buffer.append("}");  
}
```

```
        return buffer.toString();  
    }  
}
```

- Implement the POST method of the HTTPS request. The actual invoker can also use the POST method of its own framework.

```
package com.huawei.client.rest.v2.demo;  
  
import java.io.BufferedInputStream;  
import java.io.ByteArrayOutputStream;  
import java.io.Closeable;  
import java.io.IOException;  
import java.io.InputStream;  
import java.io.OutputStream;  
import java.net.HttpURLConnection;  
import java.net.URL;  
import java.security.KeyManagementException;  
import java.security.NoSuchAlgorithmException;  
import java.security.cert.CertificateException;  
import java.security.cert.X509Certificate;  
import java.util.Map;  
import java.util.Map.Entry;  
  
import javax.net.ssl.HostnameVerifier;  
import javax.net.ssl.HttpURLConnection;  
import javax.net.ssl.SSLContext;  
import javax.net.ssl.SSLSession;  
import javax.net.ssl.TrustManager;  
import javax.net.ssl.X509TrustManager;  
  
public class HttpProxyHelper  
{  
    public static final String HTTP_METHOD_POST = "POST";  
  
    public String doPost(String urlAddress, Map<String, String> httpHeads, String  
bodyJson) throws IOException, NoSuchAlgorithmException, KeyManagementException  
    {  
        byte[] byteData = bodyJson.getBytes("UTF-8");  
        OutputStream out = null;  
        InputStream in = null;  
  
        //Set up a connection.  
        this.initHttpsURLConnection();  
        URL url = new URL(urlAddress);  
        HttpURLConnection httpConn = (HttpURLConnection) url.openConnection();  
  
        //Set parameters.  
        httpConn.setRequestMethod(HttpProxyHelper.HTTP_METHOD_POST);  
        httpConn.setRequestProperty("Charset", "UTF-8");  
        //httpConn.setRequestProperty("Content-Type", "application/json; charset=UTF-8");  
        httpConn.setRequestProperty("accept", "application/json");  
        //httpConn.setRequestProperty("Content-Length", String.valueOf(byteData.length));  
        httpConn.setDoOutput(true);  
        httpConn.setDoInput(true);  
        httpConn.setUseCaches(false);  
        httpConn.setConnectTimeout(20 * 1000);  
        httpConn.setReadTimeout(30 * 1000);  
        //Set the parameters carried by the business.  
        if ((null != httpHeads) && !httpHeads.isEmpty())  
        {  
            for (Entry<String, String> e : httpHeads.entrySet())  
            {  
                httpConn.setRequestProperty(e.getKey(), e.getValue());  
            }  
        }  
  
        try  
        {  
            //Send data.  

```

```
        out = httpConn.getOutputStream();
        out.write(byteData);
        out.flush();

        //Receive data.
        int responseCode = httpConn.getResponseCode();
        if (responseCode != HttpURLConnection.HTTP_OK)
        {
            throw new RuntimeException("Failed responseCode " + responseCode);
        }

        in = httpConn.getInputStream();
        String reponseJson = this.getStreamAsString(in, "UTF-8");
        return reponseJson;
    }
    finally
    {
        this.closeStream(out);
        this.closeStream(in);
    }
}

/**
 * Obtain a character string from a stream.
 * @param in
 * @param charset
 * @return String
 * @throws IOException
 */
private String getStreamAsString(InputStream in, String charset) throws IOException
{
    BufferedInputStream buffer = new BufferedInputStream(in);
    ByteArrayOutputStream out = new ByteArrayOutputStream();
    try
    {
        byte[] cache = new byte[512];
        int count = 0;
        while ((count = buffer.read(cache)) > 0)
        {
            out.write(cache, 0, count);
        }
    }
    finally
    {
        if (buffer != null)
        {
            buffer.close();
        }
    }

    return new String(out.toByteArray(), charset);
}

/**
 * Close a stream.
 * @param stream
 */
private void closeStream(Closeable stream)
{
    if (null != stream)
    {
        try
        {
            stream.close();
        }
        catch (Exception e)
        {
            e.printStackTrace();
        }
    }
}
```

```

    }
}

private void initHttpsURLConnection() throws NoSuchAlgorithmException,
KeyManagementException
{
    SSLContext sslcontext = SSLContext.getInstance("SSL");
    HostnameVerifier hnv = new HttpsHostnameVerifier();
    sslcontext.init(null, new TrustManager[] { new HttpsTrustAnyTrustManager() }, new
java.security.SecureRandom());

    HttpsURLConnection.setDefaultSSLSocketFactory(sslcontext.getSocketFactory());
    HttpsURLConnection.setDefaultHostnameVerifier(hnv);
}

private class HttpsTrustAnyTrustManager implements X509TrustManager
{
    @Override
    public void checkClientTrusted(X509Certificate[] chain, String authType) throws
CertificateException
    {
    }

    @Override
    public void checkServerTrusted(X509Certificate[] chain, String authType) throws
CertificateException
    {
    }

    @Override
    public X509Certificate[] getAcceptedIssuers()
    {
        return new X509Certificate[] {};
    }
}

private class HttpsHostnameVerifier implements HostnameVerifier
{
    @Override
    public boolean verify(String hostname, SSLSession session)
    {
        return true;
    }
}
}
}

```

c. Variables:

Variable	Value
HttpHead	Host="10.22.26.181:28080" Content-Length="22" Content-Type="application/json;charset=UTF-8"
accessKey	globalaktest
secretKey	1qaz*****20
HttpURI	/rest/cmsapp/v1/ping
HttpMethod	POST
timestamp	2018-10-17T11:48:24Z
HttpBody	{"say": "Hello world!"}

Variable	Value
SignedHeaders	content-length;content-type;host
CanonicalHeaders	content-length:22\ content-type:application%2Fjson%3Bcharset%3DUTF-8\ host:10.22.26.181%3A28080
CanonicalRequest	POST\ /rest/cmsapp/v1/ping\ content-length;content-type;host\ content-length:22\ content-type:application%2Fjson%3Bcharset%3DUTF-8\ host:10.22.26.181%3A28080\ %7B%22request%22%3A%7B%22version%22%3A%22.0%22%7D%2C%22msgBody%22%3A%7B%22accountId%22%3A%22%22%2C%22beginTime%22%3A%222018-06-29%2010%3A42%3A49%22%2C%22endTime%22%3A%222018-07-02%2010%3A42%3A49%22%2C%22agentId%22%3A%22%22%2C%22callId%22%3A%22%22%2C%22dataType%22%3A%22call_record%22%2C%22callBackURL%22%3A%22http%3A%2F%2F10.57.118.171%3A8080%22%7D%7D
SigningKey	b25b*****40
Signature	d5a8*****2f
Authorization	auth-v2/globalak/2018-10-17T11:48:24Z/content-length;content-type;host/ d5a8*****2f

4.4 C3 OIAP Interface Authentication

Description

When the OIAP provides interfaces for internal system or third-party access, the token obtaining interface needs to be invoked to obtain the token and the validity period of the token. The token is carried in the business interface invoked later. If the validity period of the token expires, the token obtaining interface needs to be invoked again.

Interface Method

POST

URL

https://IP:PORT/oifde/rest/api/gettoken

Request

Table 4-2 Parameter in the request header

No.	Parameter	Type	Mandatory	Description
1	Content-Type	String	Yes	The value is fixed at application/json; charset=UTF-8 .

Table 4-3 Parameters in the request body

Parameter	Type	Position	Mandatory	Description
appKey	String	Body	Yes	App key. The value is the tenant ID.
appSecret	String	Body	Yes	App secret, which must be agreed by both parties and can be dynamically changed.

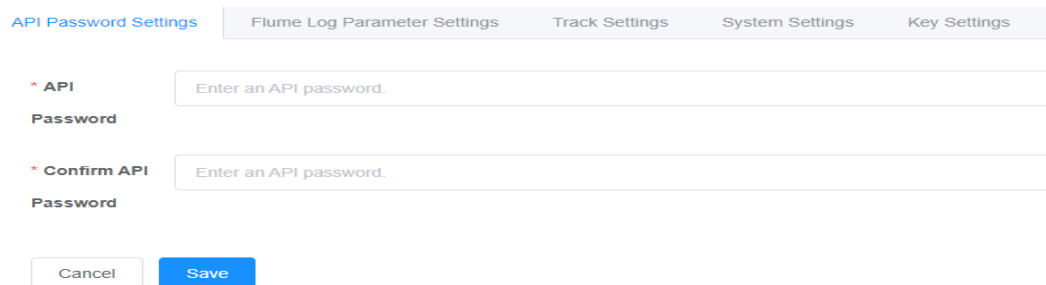
 NOTE

How do I obtain **appKey** and **appSecret**?

1. Check whether the OIAP needs to interconnect with a tenant (third-party system), a third-party system (such as iFLYTEK ASR), or an internal system (such as the AICC or CSP).
2. If a tenant (third-party system) needs to be interconnected, obtain a token using the tenant ID and invoke the interface within the token validity period. The obtained token must be passed for each interface invocation. The request body of the interface must contain **authToken**.
 - Set **appKey** to the tenant ID. After signing in to the tenant space, you can use the browser development tool to view cookies and obtain the value of **TenantId**.
 - Set **appSecret** to the value of **API Password** on the **API Password Settings** tab page on **System Management > System Configuration** page in the IVR.
3. If a third-party system needs to be interconnected, obtain a token using the default user specified for system interconnection and invoke the interface within the token validity period. In addition, the obtained token must be passed for each interface invocation. The request header of the interface must contain **appkey** (username) and **authToken** (token).

Currently, only the interface described in [10.22 Offline Conversion Callback Interface](#) can be invoked in this authentication mode.

- Set **appKey** to the machine-machine communication account provided by the ODFS functioning as the server for the third-party system. The account is configured during ODFS installation. Generally, the value is **ODFS_SYS_OPENAPI**.
 - Set **appSecret** to machine-machine communication password provided by the ODFS functioning as the server for the third-party system, which is configured during installation.
4. If an internal system (the AICC or CSP) needs to be interconnected, obtain a token using the default user specified for system interconnection and invoke the interface within the token validity period. In addition, the obtained token must be passed for each interface invocation. The request header of the interface must contain **appkey** (username) and **authToken** (token).
 - Set **appKey** to the username for accessing the machine-machine interface provided by the ODFS, which is configured during ODFS installation. Generally, the value is **ipcc**.
 - Set **appSecret** to the password provided by the ODFS for accessing the machine-machine interface server. The password is configured during installation.



Response

Parameter	Type	Position	Mandatory	Description
errorCode	Integer	Body	Yes	Error code. <ul style="list-style-type: none"> • 0: success • Other values: failure The status code 200 also indicates success.
errorMsg	String	Body	No	Error description.
authToken	String	Body	Yes	Authentication token.
expireTime	Integer	Body	No	Token validity period, in seconds. The default value is 3600 seconds. If the error code is not 0, no value is returned.

Example

- Request body

```
{
  "appKey": "tenant001",
  "appSecret": "XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
}
```

- Response body

```
{
  "errorCode" : 0, //Error code, which is an integer. If no error is reported, the value is 0.
  "errorMsg" : "", //Error message, which is a string. If no error is reported, this parameter is left empty.
  "authToken": "2*****",
  "expireTime" : 3600
}
```

4.5 C4 Agent Operation Interface Authentication

The interface authentication mode can be static or dynamic authentication. The dynamic authentication mode is used by default.

NOTICE

- The static authentication mode is used only at historical sites that are compatible with earlier versions. The new sites need to use the dynamic authentication mode.
- When the static authentication mode is used, GUIDs may be stolen by guessing and used for spoofing, which is insecure. Exercise caution when using this mode. At historical sites, upgrade the third-party system as soon as possible and use the dynamic authentication mode.

Static Authentication

- Modify the configuration in **agentgateway/WEB-INF/config/basic.properties**:
AUTHMODE = 1
- After invoking the sign-in interface to sign in successfully, the agent can obtain the **Set-GUID** header from the response header of the request, for example, **JSESSIONID=27 *****f5.AgentGateway0**. In the header, **27 *****f5.AgentGateway0** is the GUID, which is the authentication information of the agent. When invoking another interface, the agent needs to set the **guid** header in the HTTP request header to the obtained GUID. The CC-Gateway will obtain the GUID from the HTTP request header to compare with the value of the **Set-GUID** header delivered previously. If they are the same, the agent is authenticated. If they are different, the agent fails to be authenticated, and code 100-006 or 000-003 is returned.

Dynamic Authentication

Dynamic authentication is an enhancement of static authentication. The GUID updates periodically.

- Modify the configuration in **agentgateway/WEB-INF/config/basic.properties**:
AUTHMODE = 2
- When the GUID is changed, obtain the **Set-GUID** header from the response header of the HTTP request of the event obtaining interface, for example, **JSESSIONID=27 *****f5.AgentGateway0**. In the header, **27 *****f5.AgentGateway0** is the GUID, which is the authentication information of the agent.
- The **basic.properties** file for dynamic authentication has the following two configuration items, which are not included in the **basic.properties** file for static authentication:
GUIDINTERVAL = 60000 //GUID update interval
GUIDTIMEOUT = 120000 //GUID timeout interval

The units of both configuration items are millisecond. The value of **GUIDINTERVAL** must be less than the value of **GUIDTIMEOUT**.

4.6 C5 Intelligent Auxiliary Interface Authentication

Description

This interface is used to perform authentication upon sign-in. When this interface is invoked, the request must contain the system administrator ID or VDN administrator ID, and the corresponding password. The system administrator ID is used to modify system configurations and the VDN administrator ID is used to modify VDN configurations. Upon successful sign-in authentication, the response header contains **Guid=xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxxx.AgentGateway1**. When a configuration interface is invoked subsequently, the **Guid** header field must be carried.

Interface Method

This interface supports only the POST method.

URI

https://ip:port/agentgateway/resource/config/login

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Method Name in Logs

auth

Request Description

- Message header

Table 4-4 Parameter in the message header

No.	Parameter	Value Type	Mandatory	Description
1	Content-Type	String	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .

- Message body

Table 4-5 Parameters in the message body

No.	Parameter	Value Type	Mandatory	Description
1	agentId	Number	Yes	<p>1. Configure the agent ID for the administrator to log in.</p> <p>The value is an integer ranging from 1 to 59999.</p> <p>2. When a VDN account is used for login, the value is a number consisting of the <i>VDN ID</i> and 100000.</p>
2	password	String	Yes	<p>1. Configure the password corresponding to the employee ID for the administrator to log in.</p> <p>2. When a VDN account is used for login, the value is the password for connecting to the VDN.</p>

Response Description

Table 4-6 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	String	Response message.

No.	Parameter	Value Type	Description
2	retcode	String	Error code. The options are as follows: <ul style="list-style-type: none"> • 0: success • Others: failure. For details, see 6.5.2 Error Codes.
3	result	Object	Result content object. For details about the parameters of this object, see Table 4-7 .

Table 4-7 Parameter of result

No.	Parameter	Value Type	Description
3.1	guid	String	GUID, which is assigned to each configuration user upon sign-in.

Example

- Message header
Content-Type:application/json; charset=UTF-8
- Request parameter

```
{
  "agentId": 101,
  "password": "*****"
}
```
- Response parameter

```
{
  "result": {
    "guid": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1"
  },
  "message": "success",
  "retcode": "0"
}
```


5 Call Center Configuration Interface Reference

- [5.1 Agent Management](#)
- [5.2 Skill Queue Management](#)
- [5.3 Number Management](#)
- [5.4 IVR Flow Management](#)

5.1 Agent Management

5.1.1 Creating a Single Agent Account (agentAccount/create)

Scenario

Create a single agent account. The **skills** parameter is related to the skill queue. The skill queue information can be obtained by invoking the interface for querying skill queues.

Method

POST

URI

<https://Domain name/apiaccess/rest/cc-management/v1/agentAccount/create>. For example, the domain name is service.besclouds.com.

Request Description

Table 5-1 Request header parameters

No.	Name	Type	Mandatory or Not	Description
1	x-app-key	String	No	App key field, which is the user ID. Contact the operation personnel to obtain the app key.
2	Authorization	String	Yes	Authentication field. The format is Bearer {Value of AccessToken returned by the <i>tokenByAkSk</i> interface}. (A space is required after Bearer .)

Table 5-2 Request body parameters

No.	Name	Type	Mandatory or Not	Description
1	requestParam	Object	Yes	Request parameter object.
1.1	userAccount	String	Yes	Agent account. The value is a string of 6 to 50 characters and can contain only letters, digits, and special characters. Special characters include the following: @.-_
1.2	userName	String	Yes	Agent name. The value contains a maximum of 20 characters and does not contain the following special characters: "[]'&()=;<>,"

No.	Name	Type	Mandatory or Not	Description
1.3	password	String	Yes	<p>Password. The value is a string of eight characters (default password rule group). By default, four types of characters are required: uppercase letters, lowercase letters, digits, and special characters (~`!@#%\$%^*()-+ _= \ , / < > ? ; : " ' [] { } \ &).</p> <p>The password validity period is 90 days. Change the password within 90 days.</p>
1.4	email	String	Yes	<p>Email address (complying with RFC 2882).</p> <p>The value of localPart contains a maximum of 64 characters, and the value of domainPart contains a maximum of 255 characters. The first part of domainPart dot contains a maximum of 63 characters.</p>
1.5	agentType	Integer	Yes	<p>Agent type.</p> <p>4: audio agent 11: video agent 5: multimedia agent 99: versatile agent</p>
1.6	ccRoleId	Integer	Yes	<p>Agent role ID.</p> <p>2: agent 3: inspector 4: outbound call agent</p>

No.	Name	Type	Mandatory or Not	Description
1.7	skills	Array [Object]	No	Skill parameter group. The skill queue type must be the same as the value of agenttype .
1.7.1	skillId	Integer	No	Skill queue ID, which is obtained using the querySkills interface.
1.7.2	agentWeight	Integer	No	Agent weight. A larger weight indicates a higher priority. The minimum value is 1 .
1.7.3	skillWeight	Integer	No	Skill queue weight. The minimum value is 1 .
1.8	phone	String	No	Phone number, which is optional and can contain a maximum of 25 characters.

Response Description

- **Status code: 200**

Table 5-3 Response body parameters

No.	Name	Type	Mandatory or Not	Description
1	schema	Object	Yes	Successful request.
1.1	resultCode	String	Yes	Character string. The options are 0 (success) and 1 (failure).
1.2	resultMessage	String	Yes	Related message.
1.3	workNo	Integer	No	Agent ID.

- **Status code: 400**
Incorrect request. Check the request path and parameters.
- **Status code: 401**
Unauthorized operation.

1. Check whether you have purchased related services.
 2. Contact customer service to check the status of your account.
- **Status code: 404**
The requested content is not found. Check the request path.
 - **Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

- Scenario: Create an agent account.

URL: See the document.

x-app-key: XXXXXXXXXXXXXXXXXXXXXXXX

Content-Type: application/json

Authorization: Bearer XXXXXXXXXXXXXXXXXXXXXXXX

Request parameters:

```
{
  "userAccount": "test123456",
  "userName": "test111",
  "password": "Te***34",
  "email": "t**@***.com",

  "agentType": 11,
  "ccRoleId": 2,
  "skills": [{
    "skillId": 3,
    "agentWeight": 1,
    "skillWeight": 1
  },
  {
    "skillId": 2,
    "agentWeight": 1,
    "skillWeight": 2
  }
]}
```

Response parameters:

```
{
  "resultCode": "0",
  "resultMessage": "create agent account success",
  "workNo": 108
}
```

5.1.2 Deleting a Specified Agent Account (agentAccount/delete)

Scenario

Delete a specified agent account. Agents in any state can be deleted.

Method

POST

URI

<https://Domain name/apiaccess/rest/cc-management/v1/agentAccount/delete>. For example, the domain name is service.besclouds.com.

Request Description

Table 5-4 Request header parameters

No.	Parameter	Type	Mandatory or Not	Description
1	x-app-key	String	No	App key field, which is the user ID. Contact the operation personnel to obtain the app key.
2	Authorization	String	Yes	Authentication field. The format is Bearer <i>{Value of AccessToken returned by the tokenByAkSk interface}</i> . (A space is required after Bearer .)

Table 5-5 Request body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	requestParams	Object	Yes	Request parameter object.
1.1	userAccount	String	Yes	Agent account. The value contains 6 to 50 characters and cannot contain the following characters: [`~!@#\$%^&*()+={} :~\[\ \].< > / ? ~ @ # % & * — — + { }] \n \r \t. \s indicates any blank character, including spaces, tabs, and form feeds.

Response Description

- **Status code: 200**

Table 5-6 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	schema	Object	Yes	Successful request.
1.1	resultCode	String	Yes	The options are 0 (success) and 1 (failure).
1.2	resultMessage	String	Yes	Returned message.

- **Status code: 400**
Incorrect request. Check the request path and parameters.
- **Status code: 401**
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**
The requested content is not found. Check the request path.
- **Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Request header:

```
x-app-key: XXXXXXXXXXXXXXXXXXXXXXXX
Content-Type: application/json
Authorization: Bearer XXXXXXXXXXXXXXXXXXXXXXXX
```

Request parameters:

```
{
  "userAccount": "test123456"
}
```

Response parameters:

```
{
  "resultCode": "0",
  "resultMessage": "delete AgentAccount success"
}
```

5.1.3 Modifying Information About an Agent Account (agentAccount/update)

Scenario

Modify information about an agent account. The **skills** parameter is related to the skill queue. The skill queue information can be obtained by invoking the interface for querying skill queues.

Method

POST

URI

<https://Domain name/apiaccess/rest/cc-management/v1/agentAccount/update>.
For example, the domain name is service.besclouds.com.

Request Description

Table 5-7 Request header parameters

No.	Name	Type	Mandatory or Not	Description
1	x-app-key	String	No	App key field, which is the user ID. Contact the operation personnel to obtain the app key.
2	Authorization	String	Yes	Authentication field. The format is Bearer {Value of AccessToken returned by the <i>tokenByAkSk</i> interface}. (A space is required after Bearer .)

Table 5-8 Request body parameters

No.	Name	Type	Mandatory or Not	Description
1	requestParam	Object	No	Request parameter object.

No.	Name	Type	Mandatory or Not	Description
1.1	userAccount	String	Yes	Agent account, which is used to query agents and cannot be modified.
1.2	userName	String	No	Agent name. The value contains a maximum of 20 bytes and does not contain the following special characters: "[] = ; < >
1.3	email	String	No	Email address (complying with RFC 2882). The value of localPart contains a maximum of 64 characters, and the value of domainPart contains a maximum of 255 characters. The first part of domainPart dot contains a maximum of 63 characters.
1.4	phone	String	No	Phone number, which is optional and can contain a maximum of 25 characters.
1.5	agentType	Integer	No	Agent type. 4 : audio agent 11 : video agent 5 : multimedia agent 99 : versatile agent
1.6	ccRoleId	Integer	No	Agent role ID. 2 : agent 3 : inspector 4 : outbound call agent

No.	Name	Type	Mandatory or Not	Description
1.7	skills	Array [Object]	No	When this parameter exists, the skillId , agentWeight , and skillWeight parameters must be set. The skill queue type must be the same as the value of agenttype .
1.7.1	skillId	Integer	No	Skill queue ID, which is obtained using the querySkills interface.
1.7.2	agentWeight	Integer	No	Agent weight. A larger weight indicates a higher priority. The minimum value is 1 .
1.7.3	skillWeight	Integer	No	Skill queue weight. The minimum value is 1 .
1.8	oldPassWord	String	No	Current password of an agent. This parameter is mandatory when the agent password is changed. If the input current password is incorrect for three consecutive times, the account will be locked for 30 minutes, and you need to log in to the system as a tenant administrator to unlock the account. The password can be changed only once within 24 hours.

No.	Name	Type	Mandatory or Not	Description
1.9	newPassWord	String	No	<p>Password. The value is a string of eight characters (default password rule group). By default, four types of characters are required: uppercase letters, lowercase letters, digits, and special characters (~`!@#\$\$%^*()-+ _= \ , / < > ? ; : " ' [] { } \ &).</p> <p>The password validity period is 90 days. Change the password within 90 days.</p>

Response Description

- **Status code: 200**

Table 5-9 Response body parameters

No.	Name	Type	Mandatory or Not	Description
1	schema	Object	Yes	Successful request.
1.1	resultCode	String	Yes	The options are 0 (success) and 1 (failure).
1.2	resultMessage	String	Yes	Returned message.

- **Status code: 400**
Incorrect request. Check the request path and parameters.
- **Status code: 401**
Unauthorized operation.
 1. Check whether you have purchased related services.
 2. Contact customer service to check the status of your account.
- **Status code: 404**
The requested content is not found. Check the request path.
- **Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Request header:

```
x-app-key: XXXXXXXXXXXXXXXXXXXXXXXX  
Content-Type: application/json  
Authorization: Bearer XXXXXXXXXXXXXXXXXXXXXXXX
```

Request parameters:

```
{  
  "userAccount": "test123456",  
  "userName": "test123",  
  "email": "Test@***.com",  
  "phone": "184***5555",  
  "agentType": 5,  
  "ccRoleId": 2,  
  "skills": [{  
    "skillId": 1,  
    "agentWeight": 1,  
    "skillWeight": 1  
  }],  
  "oldPassWord": "xxxxx",  
  "newPassWord": "xxxxxxx"  
}
```

Response parameters:

```
{  
  "resultCode": "0",  
  "resultMessage": "edit success"  
}
```

5.1.4 Querying Agent Account Information (agentAccount/query)

Scenario

Query agent account information. When the agent account condition is entered, the specified agent account is queried. If the **pageNum** and **pageSize** parameters are set but the agent account parameter is not set, batch query is performed.

Method

POST

URI

<https://Domain name/apiaccess/rest/cc-management/v1/agentAccount/query>. For example, the domain name is service.besclouds.com.

Request Description

Table 5-10 Request header parameters

No.	Name	Type	Mandatory or Not	Description
1	x-app-key	String	No	App key field, which is the user ID. Contact the operation personnel to obtain the app key.
2	Authorization	String	Yes	Authentication field. The format is Bearer <i>{Value of AccessToken returned by the <code>tokenByAkSk</code> interface}</i> . (A space is required after Bearer .)

Table 5-11 Request body parameters

No.	Name	Type	Mandatory or Not	Description
1	requestParams	Object	Yes	Request parameter object.
1.1	userAccount	String	No	Agent account. This parameter is mandatory when pageNum and pageSize are not contained. When userAccount is transferred, other input parameters are invalid.
1.2	pageNum	Integer	No	Page number. This parameter is valid when userAccount is not set. The value starts from 0 .
1.3	pageSize	Integer	No	Size of each page. This parameter is valid when userAccount is not set.

No.	Name	Type	Mandatory or Not	Description
1.4	agentType	Array	No	Agent type. 4 : audio agent 11 : video agent 5 : multimedia agent 99 : versatile agent
1.5	transparentDisplayFlag	Boolean	No	Agent anonymization flag.

Response Description

- **Status code: 200**

Table 5-12 Response body parameters

No.	Name	Type	Mandatory or Not	Description
1	schema	Object	Yes	Successful request.
1.1	resultCode	String	Yes	The options are 0 (success) and 1 (failure).
1.2	resultMessage	String	Yes	Returned message.
1.3	data	Array [Object]	No	Returned result object.
1.3.1	userAccount	String	No	Account.
1.3.2	userName	String	No	Username.
1.3.3	phone	String	No	Phone number.
1.3.4	email	String	No	Email.
1.3.5	agentType	Integer	No	Agent type. 4 : audio agent 11 : video agent 5 : multimedia agent 99 : versatile agent 255 : idle agent

No.	Name	Type	Mandatory or Not	Description
1.3.6	ccRoleId	Integer	No	Agent role ID. 2: agent 3: inspector 4: outbound call agent 255: idle role
1.3.7	sipAccount	String	No	Default SIP phone number of an agent.
1.3.8	skills	Array [Object]	No	Skill parameter array.
1.3.8.1	skillId	Integer	No	Skill queue ID.
1.3.8.2	agentWeight	Integer	No	Agent weight.
1.3.8.3	skillWeight	Integer	No	Skill queue weight.
1.3.9	workNo	Integer	No	Agent ID.
1.3.10	transparentDisplayFlag	Boolean	No	Agent anonymization flag.
1.4	total	Integer	No	Total number.

- **Status code: 400**
Incorrect request. Check the request path and parameters.
- **Status code: 401**
Unauthorized operation.
1. Check whether you have purchased related services.
2. Contact customer service to check the status of your account.
- **Status code: 404**
The requested content is not found. Check the request path.
- **Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

- Scenario: Query an agent account.

Request header:

```
x-app-key: XXXXXXXXXXXXXXXXXXXXXXXX  
Content-Type: application/json  
Authorization: Bearer XXXXXXXXXXXXXXXXXXXXXXXX
```

Request parameters:

```
{  
  "userAccount": "test123456"  
}
```

Response parameters:

```
{ "data": [  
  { "skills": [ { "skillId": 2, "agentWeight": 1, "skillWeight": 2 } ],  
    "agentType": 11,  
    "phone": "",  
    "userAccount": "test123456",  
    "ccRoleId": 2,  
    "userName": "test111",  
    "sipAccount": "88880551",  
    "email": "tst@****.com"  
  }  
],  
  "resultCode": "0",  
  "resultMessage": "get agent account info success"  
}
```

- Scenario: Query agents in pagination mode.

Request header:

```
x-app-key: XXXXXXXXXXXXXXXXXXXXXXXX  
Content-Type: application/json  
Authorization: Bearer XXXXXXXXXXXXXXXXXXXXXXXX
```

Request parameters:

```
{  
  "pageNum": 0,  
  "pageSize": 1  
}
```

Response parameters:

```
{  
  "data": [ { "skills": [ { "skillId": 3, "agentWeight": 1, "skillWeight": 1 } ],  
    "agentType": 4, "phone": "", "userAccount": "chenchuang0513",  
    "ccRoleId": 2, "sipAccount": "88880550", "userName": "chenchuang0513",  
    "email": "che@****.com"  
  }, ... ],  
  "resultCode": "0",  
  "resultMessage": "get agent account info success"  
}
```

5.1.5 Binding an Agent to a Skill Queue (addSkillsToAgent)

Scenario

Bind an agent to a skill queue based on the skill queue ID and agent account.

Method

POST

URI

<https://Domain name/apiaccess/rest/cc-management/v1/agentAccount/addSkillsToAgent>. For example, the domain name is service.besclouds.com.

Request Description

Table 5-13 Request header parameters

No.	Name	Type	Mandatory or Not	Description
1	x-app-key	String	No	App key field, which is the user ID. Contact the operation personnel to obtain the app key.
2	Authorization	String	Yes	Authentication field. The format is Bearer <i>{Value of AccessToken returned by the tokenByAkSk interface}</i> . (A space is required after Bearer .)

Table 5-14 Request body parameters

No.	Name	Type	Mandatory or Not	Description
1.1	userAccounts	Array	Yes	Agent account array, which is a string of a maximum of 50 characters.
1.2	skillId	Integer	Yes	Skill queue ID.
1.3	agentWeight	Integer	Yes	Agent weight. A larger weight indicates a higher priority. The minimum value is 1 .
1.4	skillWeight	Integer	Yes	Skill queue weight. The minimum value is 1 .

Response Description

- **Status code: 200**

Table 5-15 Response body parameters

No.	Name	Type	Mandatory or Not	Description
1.1	resultCode	String	No	If the modification is successful, 0 is returned. If the modification fails, 1 is returned, and resultMessage carries the failure cause.
1.2	resultMessage	String	No	Request return information.

- **Status code: 400**
Incorrect request. Check the request path and parameters.
- **Status code: 401**
Unauthorized operation.
 1. Check whether you have purchased related services.
 2. Contact customer service to check the status of your account.
- **Status code: 404**
The requested content is not found. Check the request path.
- **Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Request header:

```
x-app-key: 68b*****6ec8e4
Content-Type: application/json
Authorization: Bearer xxx
```

Request parameters:

```
{
  "userAccounts":["x1","x2"],
  "skillId":4,
  "agentWeight":1,
  "skillWeight":1
}
```

Response parameters:

```
{
  "resultCode": "0",
  "resultMessage": "success"
}
```

5.1.6 Unbinding an Agent from a Skill Queue (releaseAgentBySkillId)

Scenario

Unbind an agent from a skill queue based on the skill queue ID and agent account.

Method

POST

URI

<https://Domain name/apiaccess/rest/cc-management/v1/agentAccount/releaseAgentBySkillId>. For example, the domain name is service.besclouds.com.

Request Description

Table 5-16 Request header parameters

No.	Parameter	Type	Mandatory or Not	Description
1	x-app-key	String	No	App key field, which is the user ID. Contact the operation personnel to obtain the app key.
2	Authorization	String	Yes	Authentication field. The format is Bearer {Value of AccessToken returned by the <i>tokenByAkSk</i> interface}. (A space is required after Bearer .)

Table 5-17 Request body parameters

No.	Parameter	Type	Mandatory or Not	Description
1.1	skillId	Integer	Yes	Skill queue ID.

No.	Parameter	Type	Mandatory or Not	Description
1.2	userAccounts	Array	Yes	Agent account array. The value is a character string. An empty array can be transferred, indicating that all agents bound to the skill queue are unbound from the skill queue.

Response Description

- **Status code: 200**

Table 5-18 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1.1	resultCode	String	Yes	If the request is successful, 0 is returned. If the request fails, 1 is returned.
1.2	resultMessage	String	Yes	Carried failure cause if the request fails.

- **Status code: 400**
Incorrect request. Check the request path and parameters.
- **Status code: 401**
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**
The requested content is not found. Check the request path.
- **Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Scenario description: Unbind agents from skill queue 3.

Request parameters:

```
{
  "skillId":3,
  "userAccounts":[]
}
```

Response parameters:

```
{
  "resultCode": "0",
  "resultMessage": "success"
}
```

5.1.7 Querying Agent Information by Skill Queue ID (queryAgentInfoBySkillId)

Scenario

Query agent information in a skill queue based on the skill queue ID.

Method

POST

URI

<https://Domain name/apiaccess/rest/cc-management/v1/agentAccount/queryAgentInfoBySkillId>. For example, the domain name is service.besclouds.com.

Request Description

Table 5-19 Request header parameters

No.	Parameter	Type	Mandatory or Not	Description
1	x-app-key	String	No	App key field, which is the user ID. Contact the operation personnel to obtain the app key.
2	Authorization	String	Yes	Authentication field. The format is Bearer <i>{Value of AccessToken returned by the tokenByAkSk interface}</i> . (A space is required after Bearer .)

Table 5-20 Request body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	requestParam	Object	Yes	Request parameter.
1.1	skillId	Integer	Yes	Skill queue ID.
1.2	pageSize	Integer	Yes	Page size. The maximum value is 100 .
1.3	pageNum	Integer	Yes	Page number, starting from 0 .

Response Description

- **Status code: 200**

Table 5-21 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	schema	Object	Yes	Successful request.
1.1	data	Array (object)	No	Returned data.
1.1.1	workNo	Number	No	Employee ID.
1.1.2	agentType	Number	No	Agent type. 4 : audio agent 11 : video agent 5 : multimedia agent 99 : versatile agent
1.1.3	agentWeight	Number	No	Agent weight. A larger weight indicates a higher priority. The minimum value is 1 .
1.1.4	accountName	String	No	User name.
1.1.5	sipAccount	String	No	Softphone number.
1.1.6	skillWeight	Number	No	Skill queue weight. The minimum value is 1 .

No.	Parameter	Type	Mandatory or Not	Description
1.1.7	userAccount	String	No	Agent account, which is the same as the agent account for creating an agent.
1.2	count	Integer	No	Number of agents whose information is queried.
1.3	resultCode	String	No	If the request is successful, 0 is returned. If the request fails, 1 is returned, and resultMessage carries the error cause.

- Status code: 400**
 Incorrect request. Check the request path and parameters.
- Status code: 401**
 Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- Status code: 404**
 The requested content is not found. Check the request path.
- Status code: 500**
 Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Scenario description: Query agent information by skill queue ID.

Request parameters:

```
{
  "skillId":3,
  "pageSize":10,
  "pageNum":0
}
```

Response parameters:

```
{"data": [
  {
    "workNo": 107,
```

```

"accountCode": "xxxxx",
"agentType": 4,
"agentWeight": 1,
"accountName": "xxxxx",
"sipAccount": "88880006",
"skillWeight": 1
}
],
"count": 1,
"resultCode": "0"
}

```

5.1.8 Changing the SIP Phone Number Login Password of an Agent (updateSipPhonePassword)

Scenario

Change the login password of the SIP phone number of an agent. SIP phone numbers are OpenEye numbers used by agents or WebRTC registration numbers.

Method

POST

URI

https://Domain_name/apiaccess/rest/cc-management/v1/sipPhone/updateSipPhonePassword. For example, the domain name is service.besclouds.com.

Request Description

Table 5-22 Request header parameters

No.	Parameter	Type	Mandatory or Not	Description
1	x-app-key	String	No	App key field, which is the user ID. Contact the operation personnel to obtain the app key.
2	Authorization	String	Yes	Authentication field. The format is Bearer {Value of AccessToken returned by the <i>tokenByAkSk</i> interface}. (A space is required after Bearer .)

Table 5-23 Request body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	requestParam	Object	Yes	Request parameter.
1.1	accountPwd	String	Yes	Current password of an agent. When the SIP phone password is changed, the current password of the agent needs to be input for verification. If the verification fails for three consecutive times, the account will be locked and will be unlocked 30 minutes later. You can also log in to the system as a tenant administrator to manually unlock the account.
1.2	newPhonePwd	String	Yes	New SIP phone password. The value is a string of 8 to 16 characters (default password rule group). By default, any combination of the following three types is required: uppercase letters, lowercase letters, digits, and the following special characters: ~@^*_{+}?
1.3	userAccount	String	Yes	Agent account.

Response Description

- **Status code: 200**

Table 5-24 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	schema	Object	Yes	Successful request.

No.	Parameter	Type	Mandatory or Not	Description
1.1	resultCode	String	Yes	If the request is successful, the value is 0 . If the request fails, the value is 1 .
1.2	resultMessage	String	No	When the request fails and the value of resultCode is 1, the specific cause is carried.

- **Status code: 400**
Incorrect request. Check the request path and parameters.
- **Status code: 401**
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**
The requested content is not found. Check the request path.
- **Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Scenario description: The SIP phone password is changed successfully.

Request parameters:

```
{
  "userAccount": "xxxxx",
  "accountPwd": "xxxxx",
  "newPhonePwd": "xxxxx"
}
```

Response parameters:

```
{
  "resultCode": "0",
  "resultMessage": "success"
}
```

5.1.9 Querying Softphone Information of All Agents, Excluding Business Accounts (querySysInfo)

Scenario

Query system information such as the agent sign-in service address.

Method

GET

URI

<https://Domain name/apiaccess/CC-Management/v1/querySysInfo>. For example, the domain name is service.besclouds.com.

Request Description

Table 5-25 Request header parameters

No.	Name	Type	Mandatory or Not	Description
1	X-APP-Key	String	No	App key.
2	Authorization	String	Yes	Authentication field. The format is Bearer {Value of AccessToken returned by the <i>tokenByAkSk</i> interface}. (A space is required after Bearer .)

Response Description

- Status code: 200

Table 5-26 Response body parameters

No.	Name	Type	Mandatory or Not	Description
1.1	servicelp	String	No	Agent sign-in service instance address, which is the address of the Nginx or SLB. Length limit: string (50)

No.	Name	Type	Mandatory or Not	Description
1.2	sipServicePort	String	No	Softphone registration port. The value ranges from 1 to 65535. Length limit: string (5)
1.3	sipServiceIp	String	No	Softphone registration address. Length limit: string (50)
1.4	servicePort	String	No	Agent sign-in service port. Length limit: string (5)
1.5	agents	Array [Object]	No	Agent set.
1.5.1	workNo	Integer	Yes	Agent ID, ranging from 101 to 59999.
1.5.2	sipAccount	String	No	SIP softphone number. Length limit: string (24)
1.5.3	sipPwd	String	No	SIP softphone password before encryption. Length limit: string (24)
1.5.4	password	String	No	Password for an agent to sign in to the platform before encryption. Length limit: string (8)

- **Status code: 400**

Table 5-27 Response body parameters

No.	Name	Type	Mandatory or Not	Description
1	schema	String	Yes	Incorrect request. Check the request path and parameters.

- **Status code: 401**

Table 5-28 Response body parameters

No.	Name	Type	Mandatory or Not	Description
1	schema	String	Yes	Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.

- **Status code: 404**

Table 5-29 Response body parameters

No.	Name	Type	Mandatory or Not	Description
1	schema	String	Yes	The requested content is not found. Check the request path.

- **Status code: 500**

Table 5-30 Response body parameters

No.	Name	Type	Mandatory or Not	Description
1	schema	String	Yes	Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Request header:

```
{
  "x-app-key": "f*****f",
  "Authorization": "Bearer 0*****8"
}
```

Response parameters:

```
{
  "servicePort": 448,
  "serviceIp": "127.0.0.0",
  "sipServiceIp": "127.0.0.0",
  "sipServicePort": 5060,
  "agents": [{
    "workNo": 1522,
    "password": "7****t",
    "sipAccount": "88881619",
    "sipPwd": "1****t"
  }, {
    "workNo": 1523,
    "password": "f****xL",
    "sipAccount": "88881620",
    "sipPwd": "1****xL"
  }]
}
```

5.1.10 Querying Softphone Information of All Agents, Including Business Accounts (queryAgentInfo)

Scenario

Query agent information.

Method

GET

URI

<https://Domain name/apiaccess/CC-Management/v1/queryAgentInfo> (For example, the domain name is service.besclouds.com.)

Request Description

Table 5-31 Request header parameters

No.	Parameter	Type	Mandatory or Not	Description
1	X-APP-Key	String	No	App key.

No.	Parameter	Type	Mandatory or Not	Description
2	Authorization	String	Yes	Authentication field. The format is Bearer <i>{Value of AccessToken returned by the <code>tokenByAkSk</code> interface}</i> . (A space is required after Bearer .)

Response Description

- Status code: 200

Table 5-32 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1.1	sipServicePort	String	No	Softphone registration port. The value ranges from 1 to 65535. Length limit: string (5)
1.2	sipServiceIp	String	No	Softphone registration address, in IPv4 format. Length limit: string (50)
1.3	agents	Array [Object]	No	Agent set.
1.3.1	workNo	Integer	Yes	Agent ID, ranging from 101 to 59999.
1.3.2	sipAccount	String	No	SIP softphone number. Length limit: string (24)
1.3.3	sipPwd	String	No	SIP softphone password before encryption. Length limit: string (24)

No.	Parameter	Type	Mandatory or Not	Description
1.3.4	accountCode	String	No	Associated sign-in account of the Service Cloud. Length limit: string (100)

- **Status code: 400**
Incorrect request. Check the request path and parameters.
- **Status code: 401**
Unauthorized operation.
 1. Check whether you have purchased related services.
 2. Contact customer service to check the status of your account.
- **Status code: 404**
The requested content is not found. Check the request path.
- **Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Request header:

```
{
  "x-app-key": "f*****f",
  "Authorization": "Bearer 0*****8"
}
{
  "connection": "keep-alive",
  "content-type": "application/json;charset=UTF-8"
}
```

Response header:

Response parameters:

```
{
  "sipServiceIp": "10.10.96.98",
  "sipServicePort": 5060,
  "agents": [
    {
      "workNo": 1522,
      "accountCode": "aaaa",
      "sipAccount": "88881619",
      "sipPwd": "****"
    },
    {
      "workNo": 1523,
      "sipAccount": "88881620",
      "sipPwd": "****"
    }
  ]
}
```



```
}  
  ]  
}
```

5.1.11 Querying the Account Sign-in Result (queryAgentLoginParams)

Description

Query the unified account of the mobile app and PC business system.

Method

POST

URI

<https://Domain name/apiaccess/CC-Management/v1/queryAgentLoginParams> (For example, the domain name is service.besclouds.com.)

Request Description

Table 5-33 Request header parameters

No.	Parameter	Type	Mandatory or Not	Description
1	X-APP-Key	String	No	App key.
2	Authorization	String	Yes	Authentication field. The format is Bearer {Value of AccessToken returned by the <i>tokenByAkSk</i> interface}. (A space is required after Bearer .)

Table 5-34 Request body parameters

No.	Parameter	Type	Mandatory or Not	Description
1.1	password	String (100)	Yes	Sign-in password.
1.2	account	String (100)	Yes	Sign-in account.

Response Description

- **Status code: 200**

Table 5-35 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1.1	message	String (1024)	No	Account verification information.
1.2	returnCode	String (10)	No	Account verification return code. 0 : success 1 : failure
1.3	results	Object	No	Query result.

Table 5-36 Results parameter structure

No.	Parameter	Type	Mandatory or Not	Description
1.1	workNo	String (5)	No	Agent ID.
1.2	password	String (100)	No	Password for an agent to sign in to the platform before encryption.
1.3	sipAccount	String (24)	No	SIP softphone number.
1.4	sipPwd	String (100)	No	SIP softphone password before encryption.
1.5	sipServerInfo	Array [SIPServerInfo]	No	SIP service information.

Table 5-37 SIPServerInfo parameter structure

No.	Parameter	Type	Mandatory or Not	Description
1.1	sipServiceIp	String (50)	No	Softphone registration address.
1.2	sipServicePort	String (5)	No	Agent sign-in service port.
1.3	node	String (10)	No	SIP service node.

No.	Parameter	Type	Mandatory or Not	Description
1.4	type	String (10)	No	SIP service type. The default type is SIP. 0: SIP 1: WebRTC

- **Status code: 400**
Incorrect request. Check the request path and parameters.
- **Status code: 401**
Unauthorized operation.
 1. Check whether you have purchased related services.
 2. Contact customer service to check the status of your account.
- **Status code: 404**
The requested content is not found. Check the request path.
- **Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Request header:

```
"x-app-key": "e*****a",
"Authorization": "Bearer e*****8"
"Content-Type": "application/json;charset=UTF-8",
"Connection": "keep-alive"
```

Request parameters:

```
{
  "account": "1s120201",
  "password": "S****x"
}
```

Response parameters:

```
{
  "returnCode": "0",
  "results": {
    "sipServerInfo": [{
      "sipServiceIp": "10.10.10.11",
      "sipServicePort": "33",
      "type": "0"
    }],
    "password": "11****8Q",
    "sipAccount": "88887818",
    "workNo": "1516"
  },
  "message": "verify Account or password success."
}
```

5.1.12 Querying Agent Information by Sign-in Account (queryAgentInfoByAccount)

Scenario

Query agent information by the sign-in account.

Method

POST

URI

https://*Domain name*/apiaccess/rest/CC-Management/v1/
queryAgentInfoByAccount (For example, the domain name is
service.besclouds.com.)

Request Description

Table 5-38 Request header parameters

No.	Name	Type	Mandatory or Not	Description
1	X-APP-Key	String	No	App key, which is the user ID.
2	Authorization	String	No	Authentication field. The format is Bearer <i>{Value of AccessToken returned by the tokenByAkSk interface}</i> . (A space is required after Bearer .)

Table 5-39 Request body parameters

No.	Name	Type	Mandatory or Not	Description
1.1	accountCode	String (64)	Yes	Sign-in account, which can contain a maximum of 64 strings.
1.2	password	String (64)	No	Password of the authentication user, which can contain a maximum of 64 strings.

No.	Name	Type	Mandatory or Not	Description
1.3	username	String (64)	No	Authentication user name, which can contain a maximum of 64 strings.

Response Description

- **Status code: 200**

Table 5-40 Response body parameters

No.	Name	Type	Mandatory or Not	Description
1.1	returnCode	String	Yes	Return code. The value 0 indicates success. The value 1 indicates failure.
1.2	description	String	Yes	Description.
1.3	data	Object	No	Returned data. When data fails to be returned, an empty string is returned for the workNo parameter.
1.3.1	workNo	Integer	No	Agent ID.
1.3.2	agentType	Integer	No	Agent type.
1.3.3	agentStatus	String	No	Agent status. The default value is 0 .

- **Status code: 400**
Incorrect request. Check the request path and parameters.
- **Status code: 401**
Unauthorized operation.
 1. Check whether you have purchased related services.
 2. Contact customer service to check the status of your account.
- **Status code: 403**
Authentication fails.
- **Status code: 404**
The requested content is not found. Check the request path.

- **Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

- **Request header:**
x-app-Key:f*****e
Authorization:Bearer a*****2
- Request parameters:**

```
{
  "accountCode": "Agents"
}
```
- Response parameters:**

```
{
  "returnCode": "0",
  "data": {
    "workNo": 7094,
    "agentType": 5,
    "agentStatus": "0"
  },
  "description": "query success"
}
```
- **Scenario: A user signs in using the user name and password.**
Request header:
Content-Type:application/json
- Request parameters:**

```
{
  "accountCode": "Agents",
  "username": "itau_group",
  "password": "*****"
}
```
- Response parameters:**

```
{
  "returnCode": "0",
  "data": {
    "workNo": 7094,
    "agentType": 5,
    "agentStatus": "0"
  },
  "description": "query success"
}
```

5.1.13 Deleting Data by Customer Number (cleancustpersonaldata)

Scenario

Delete data by customer number.

Method

POST

URI

<https://Domain name/apiaccess/CC-Management/v1/clearUserInfo/cleancustpersonaldata>. For example, the domain name is service.besclouds.com.

Request Description

Table 5-41 Request header parameters

No.	Name	Type	Mandatory or Not	Description
1	X-APP-Key	String	No	App key, which is the user ID.
2	Authorization	String	Yes	Authentication field. The format is Bearer {Value of AccessToken returned by the <i>tokenByAkSk</i> interface}. (A space is required after Bearer .)
3	Content-Type	String	No	Content type. Set this parameter to application/json .

Table 5-42 Request body parameters

No.	Name	Type	Mandatory or Not	Description
1.1	customNos	Array	Yes	List of customer numbers (a maximum of 1000 numbers, which can be calling numbers or called numbers).

Response Description

- **Status code: 200**

Table 5-43 Response body parameters

No.	Name	Type	Mandatory or Not	Description
1.1	retMsg	String	Yes	Failure cause.

No.	Name	Type	Mandatory or Not	Description
1.2	retCode	String	Yes	Return code. The value 0 indicates success. Other values indicate failure.

- Status code: 400**
 Incorrect request. Check the request path and parameters.
- Status code: 401**
 Unauthorized operation.
 1. Check whether you have purchased related services.
 2. Contact customer service to check the status of your account.
- Status code: 404**
 The requested content is not found. Check the request path.
- Status code: 500**
 Business failure. Check the values of parameters in the request.

Error Codes

None

Example

- Request header:
 Content-Type: application/json
 X-APP-Key: *****
 Authorization: Bearer *****

Request parameters:

```
{
  "customNos": ["135****1111", "wen11", "kehu@****.com"]
}
```

Response parameters:

```
{
  "retCode": "0",
  "retMsg": "VerifyParams success"
}
```

5.2 Skill Queue Management

5.2.1 Creating a Skill Queue (createSkill)

Scenario

Create a single skill queue.

Method

POST

URI

https://*Domain name*/apiaccess/rest/cc-management/v1/skill/createSkill. For example, the domain name is service.besclouds.com.

Request Description

Table 5-44 Request header parameters

No.	Name	Type	Mandatory or Not	Description
1	X-APP-KEY	String	No	App key field, which is the user ID. Contact the operation personnel to obtain the app key.
2	Authorization	String	Yes	Authentication field. The format is Bearer {Value of AccessToken returned by the <i>tokenByAkSk</i> interface}. (A space is required after Bearer .)

Table 5-45 Request body parameters

No.	Name	Type	Mandatory or Not	Description
1.1	mediaTypeId	Number	Yes	Media type. The options are as follows: 5 : voice 53 : multimedia 19 : video 2 : voice click-to-dial 18 : video click-to-dial
1.2	description	String	Yes	Skill short name or description. The value can contain a maximum of 50 characters, including Chinese characters, letters, and digits.

No.	Name	Type	Mandatory or Not	Description
1.3	name	String	Yes	Name of a skill queue. The value contains a maximum of 20 characters. The following special characters are not allowed: [`~!#\$%^&*()+= {}';<>/?~#%.....&*+ {}]\n\r\t
1.4	maxWaitTime	Number	Yes	Maximum queuing duration, in seconds. The maximum value is 60000 .
1.5	maxWaitNum	Number	Yes	Maximum number of users waiting in a queue. The maximum value is 10000 .
1.6	maxAgentWrapup Time	Number	Yes	Duration of the wrap-up state, in seconds. The maximum value is 3600 .
1.7	skillParam	Object	Yes	Skill queue parameter information. When mediaTypeid is 53, 2, or 18 , only noAgents, busy, and timeOut are available. When mediaTypeid is 53 , deviceType must be set to 1 . When mediaTypeid is 5 or 19 , noAgents, busy, timeOut, answerFunction, and waitVoice are mandatory.
1.7.1	noAgents	Object	Yes	Configuration when no agent is on-duty.
1.7.1.1	deviceType	String	No	Device type. 3 : IVR 1 : skill queue

No.	Name	Type	Mandatory or Not	Description
1.7.1.2	transferType	String	Yes	Processing policy. Release: If this value is used, leave other parameters at the same level empty. Transfer: If this value is used, other parameters at the same level are mandatory.
1.7.1.3	value	Number	No	For a skill queue, the value is the skill queue ID (skillId). For an IVR flow, the value is the IVR flow ID.
1.7.2	busy	Object	Yes	Configuration when the queue is busy or overflows.
1.7.2.1	deviceType	String	No	Device type. 3: IVR 1: skill queue
1.7.2.2	transferType	String	Yes	Processing policy. Release: If this value is used, leave other parameters at the same level empty. Transfer: If this value is used, other parameters at the same level are mandatory.
1.7.2.3	value	Number	No	For a skill queue, the value is the skill queue ID (skillId). For an IVR flow, the value is the IVR flow ID.
1.7.3	answerFunction	String	No	Agent answering mode. The options are 0 (reporting the agent ID) and 2 (reporting no voice).
1.7.4	timeOut	Object	Yes	Queuing timeout configuration.

No.	Name	Type	Mandatory or Not	Description
1.7.4.1	deviceType	String	No	Device type. 3: IVR 1: skill queue
1.7.4.2	transferType	String	Yes	Processing policy. Release: If this value is used, leave other parameters at the same level empty. Transfer: If this value is used, other parameters at the same level are mandatory.
1.7.4.3	value	Number	No	For a skill queue, the value is the skill queue ID (skillId). For an IVR flow, the value is the IVR flow ID.
1.7.5	waitVoice	Object	No	Queuing configuration.
1.7.5.1	parameterType	String	Yes	Parameter type. <ul style="list-style-type: none"> • Voice: default waiting tone. If this value is used, leave other parameters at the same level empty. • IVR: If this value is used, other parameters at the same level are mandatory.
1.7.5.2	id	String	No	For an IVR flow, the value is the IVR flow ID.

Response Description

- **Status code: 200**

Table 5-46 Response body parameters

No.	Name	Type	Mandatory or Not	Description
1.1	returnCode	String	Yes	Operation result. The value 0 indicates success, and other values indicates failure.
1.2	description	String	No	Description.
1.3	skillId	String	No	Skill queue ID.

- **Status code: 401**
Authentication fails.
- **Status code: 404**
The requested resource does not exist.
- **Status code: 500**
An exception occurs on the server.

Error Codes

None

Example

Request header:

```
Content-Type:application/json
X-APP-KEY:XXXXXXXXXXXXXXXXXXXXXXXXXXXX
Authorization:Bearer XXXXXXXXXXXXXXXXXXXXXXX
```

Request parameters:

```
{
  "mediaTypeId": 5,
  "description": "ccfdc",
  "name": "dddpodfst",
  "maxWaitTime": 30,
  "maxWaitNum": 100,
  "maxAgentWrapupTime": 5,
  "skillParam": {
    "noAgents": {
      "deviceType": "1",
      "transferType": "Transfer",
      "value": 2
    },
    "busy": {
      "deviceType": "1",
      "transferType": "Transfer",
      "value": 1
    },
    "answerFunction": "0",
    "timeOut": {
      "deviceType": "1",
      "transferType": "Transfer",
      "value": 1
    }
  }
}
```

```
    },
    "waitVoice": {
      "parameterType": "Voice"
    }
  }
}
```

Response parameters:

```
{
  "returnCode": "0",
  "skillId": "5",
  "description": "Create Skill successfully"
}
```

5.2.2 Deleting a Skill Queue (deleteSkill)

Scenario

Delete a skill queue.

Method

POST

URI

[https://Domain name/apiaccess/rest/cc-management/v1/skill/deleteSkill](https://Domain%20name/apiaccess/rest/cc-management/v1/skill/deleteSkill). For example, the domain name is service.besclouds.com.

Request Description

Table 5-47 Request header parameters

No.	Parameter	Type	Mandatory or Not	Description
1	X-APP-KEY	String	No	App key field, which is the user ID. Contact the operation personnel to obtain the app key.
2	Authorization	String	Yes	Authentication information. The format is <i>Bearer +AccessToken returned by the tokenByAKSK interface</i> . (A space is required next to Bearer .)

Table 5-48 Request body parameters

No.	Parameter	Type	Mandatory or Not	Description
1.1	skillIds	String	Yes	Skill queue ID. Multiple IDs are separated by commas (,), semicolons (;), or hyphens (-). A maximum of 10 skill queue IDs are supported.

Response Description

- **Status code: 200**

Table 5-49 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1.1	returnCode	String	No	Operation result. The options are as follows: 0 : success; other values: failure.
1.2	description	String	No	Description.

- **Status code: 401**
Authentication fails.
- **Status code: 404**
The requested resource does not exist.
- **Status code: 500**
An exception occurs on the server.

Error Codes

None

Example

Request header:

```
Content-Type:application/json
X-APP-KEY:XXXXXXXXXXXXXXXXXXXXXXXXXX
Authorization:Bearer XXXXXXXXXXXXXXXXXXXXXXXXX
```

Request parameters:

```
{"skillIds":"3,4"}
```

Response parameters:

```
{  
  "returnCode": "0",  
  "description": "Success"  
}
```

5.2.3 Modifying a Skill Queue (modifySkill)

Scenario

Modify a skill queue.

Method

POST

URI

<https://Domain name/apiaccess/rest/cc-management/v1/skill/modifySkill>. For example, the domain name is service.besclouds.com.

Request Description

Table 5-50 Request header parameters

No.	Parameter	Type	Mandatory or Not	Description
1	X-APP-KEY	String	No	App key field, which is the user ID. Contact the operation personnel to obtain the app key.
2	Authorization	String	Yes	Authentication information. The format is <i>Bearer +AccessToken</i> returned by the <i>tokenByAKSK</i> interface. (A space is required next to Bearer .)

Table 5-51 Request body parameters

No.	Parameter	Type	Mandatory or Not	Description
1.1	description	String	No	Skill short name or description. The value can contain a maximum of 50 characters, including Chinese characters, letters, and digits.
1.2	maxWaitTime	Number	No	Maximum queuing duration, in seconds. The maximum value is 60000 .
1.3	maxWaitNum	Number	No	Maximum number of users waiting in a queue. The maximum value is 10000 .
1.4	maxAgentWrapup Time	Number	No	Duration of the wrap-up state, in seconds. The maximum value is 3600 .
1.5	skillParam	Object	No	Skill queue parameter information. When the media type is 53 , 2 , or 18 , only noAgents , busy , and timeOut are available. When the media type is 53 , deviceType must be set to 1 . When the media type is 5 or 19 , the noAgents , busy , timeOut , answerFunction , and waitVoice parameters are mandatory.
1.5.1	noAgents	Object	Yes	Absence of on-duty agents.
1.5.1.1	deviceType	String	No	Device type. 3 : IVR 1 : skill queue

No.	Parameter	Type	Mandatory or Not	Description
1.5.1.2	transferType	String	Yes	Handling policy. Release: If the parameter is set to this value, other parameters at the same level are left blank. Transfer: If the parameter is set to this value, other parameters at the same level are mandatory.
1.5.1.3	value	Number	No	For a skill queue, the value of this parameter is the skill queue ID. For an IVR flow, the value of this parameter is the IVR flow ID.
1.5.2	busy	Object	Yes	A queue is busy or overflows.
1.5.2.1	deviceType	String	No	Device type. 3: IVR 1: skill queue
1.5.2.2	transferType	String	Yes	Handling policy. Release: If the parameter is set to this value, other parameters at the same level are left blank. Transfer: If the parameter is set to this value, other parameters at the same level are mandatory.

No.	Parameter	Type	Mandatory or Not	Description
1.5.2.3	value	Number	No	For a skill queue, the value of this parameter is the skill queue ID. For an IVR flow, the value of this parameter is the IVR flow ID.
1.5.3	answerFunction	String	No	Agent answer mode. The options are 0 (report the agent ID) and 2 (reporting no voice).
1.5.4	timeOut	Object	Yes	Queuing timeout configuration.
1.5.4.1	deviceType	String	No	Device type. 3 : IVR 1 : skill queue
1.5.4.2	transferType	String	Yes	Handling policy. Release : If the parameter is set to this value, other parameters at the same level are left blank. Transfer : If the parameter is set to this value, other parameters at the same level are mandatory.
1.5.4.3	value	Number	No	For a skill queue, the value of this parameter is the skill queue ID. For an IVR flow, the value of this parameter is the IVR flow ID.
1.5.5	waitVoice	Object	No	Queuing and waiting configuration.

No.	Parameter	Type	Mandatory or Not	Description
1.5.5.1	parameterType	String	Yes	Voice: If the parameter is set to this value, other parameters at the same level are left blank. IVR: If the parameter is set to this value, other parameters at the same level are mandatory.
1.5.5.2	id	String	No	For an IVR flow, the value of this parameter is the IVR flow ID.
1.6	skillId	Integer	Yes	Skill queue ID.

Response Description

- **Status code: 200**

Table 5-52 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1.1	returnCode	String	No	Operation result. The options are as follows: 0 : success; other values: failure.
1.2	description	String	No	Description.

- **Status code: 401**
Authentication fails.
- **Status code: 404**
The requested resource does not exist.
- **Status code: 500**
An exception occurs on the server.

Error Codes

None

Example

Request header:

```
Content-Type:application/json
X-APP-KEY:XXXXXXXXXXXXXXXXXXXXXXXXX
Authorization:Bearer XXXXXXXXXXXXXXXXXXXXXXX
```

Request parameters:

```
{"skillId":3,"description":"2021ok","maxWaitTime":60}
```

Response parameters:

```
{
  "returnCode": "0",
  "description": "Update Skill successfully"
}
```

5.2.4 Querying Skill Queues (querySkills)

Scenario

Query skill queues.

Method

POST

URI

<https://Domain name/apiaccess/rest/cc-management/v1/skill/querySkills>. For example, the domain name is service.besclouds.com.

Request Description

Table 5-53 Request header parameters

No.	Name	Type	Mandatory or Not	Description
1	X-APP-KEY	String	No	App key field, which is the user ID. Contact the operation personnel to obtain the app key.
2	Authorization	String	Yes	Authentication field. The format is Bearer <i>{Value of AccessToken returned by the tokenByAkSk interface}</i> . (A space is required after Bearer .)

Table 5-54 Request body parameters

No.	Name	Type	Mandatory or Not	Description
1.1	name	String	No	Name of a skill queue. The value contains a maximum of 20 characters. The following special characters are not allowed: [`~!#\$%^&*()+= {}';',<>/?~#%.....&*+ {}]\n\r\t
1.2	mediaTypeld	String	No	Media type. The options are as follows: 5 : voice 53 : multimedia 19 : video 2 : voice click-to-dial 18 : video click-to-dial
1.3	limit	String	No	Number of records on each page. The value is a positive integer and the maximum value is 100 .
1.4	offset	String	No	Parameter for determining the start page of the query. The value range of offset is as follows: Value of offset = Value of limit x (Page - 1). "Page" indicates the start page for query.
1.5	skilllds	Array	No	Parameter for querying skill queues. Multiple values can be transferred. The value is an array of the string type. An empty array can be transferred. A maximum of 100 values can be returned when all the skill queues are queried.

Response Description

- Status code: 200

Table 5-55 Response body parameters

No.	Name	Type	Mandatory or Not	Description
1.1	returnCode	String	No	Operation result. The value 0 indicates success, and other values indicates failure.
1.2	description	String	No	Description.
1.3	total	Number	No	Total number of data records.
1.4	data	Array [Object]	No	Data information.
1.4.1	skillId	Number	No	Skill queue ID.
1.4.2	name	String	No	Name of a skill queue. The value contains a maximum of 20 characters. The following special characters are not allowed: [`~!#\$%^&*()+={}'";<>/? ~#%.....&*+{}]\n\r\t
1.4.3	description	String	No	Skill short name or description. The value can contain a maximum of 50 characters, including Chinese characters, letters, and digits.
1.4.4	mediaType	Number	No	Media type. The options are as follows: 5 : voice 53 : multimedia 19 : video 2 : voice click-to-dial 18 : video click-to-dial

No.	Name	Type	Mandatory or Not	Description
1.4.5	maxWaitTime	Number	No	Maximum queuing duration, in seconds. The maximum value is 60000 .
1.4.6	maxWaitNum	Number	No	Maximum number of users waiting in a queue. The maximum value is 10000 .
1.4.7	maxAgentWrapupTime	Number	No	Duration of the wrap-up state, in seconds. The maximum value is 3600 .
1.4.8	skillParam	Object	No	Skill queue parameter information. When the media type is 53 , 2 , or 18 , only the noAgents , busy , and timeOut parameters need to be set. When the media type is 53 , the value of deviceType must be 1 .
1.4.8.1	noAgents	Object	No	Configuration when no agent is on-duty.
1.4.8.1.1	deviceType	String	No	Device type. The options are 3 (IVR) and 1 (skill queue).
1.4.8.1.2	transferType	String	No	Processing policy. The options are Release and Transfer .
1.4.8.1.3	value	Number	No	For a skill queue, the value is the skill queue ID (skillId). For an IVR flow, the value is the IVR flow ID.

No.	Name	Type	Mandatory or Not	Description
1.4.8.2	busy	Object	No	Configuration when the queue is busy or overflows.
1.4.8.2.1	deviceType	String	No	Device type. The options are 3 (IVR) and 1 (skill queue).
1.4.8.2.2	transferType	String	No	Processing policy. The options are Release and Transfer .
1.4.8.2.3	value	Number	No	For a skill queue, the value is the skill queue ID (skillId). For an IVR flow, the value is the IVR flow ID.
1.4.8.3	answerFunction	String	No	Agent answering mode. 0 : reporting the agent ID 2 : reporting no voice
1.4.8.4	timeOut	Object	No	Queuing timeout configuration.
1.4.8.4.1	deviceType	String	No	Device type. The options are 3 (IVR) and 1 (skill queue).
1.4.8.4.2	transferType	String	No	Processing policy. The options are Release and Transfer .
1.4.8.4.3	value	Number	No	For a skill queue, the value is the skill queue ID (skillId). For an IVR flow, the value is the IVR flow ID.
1.4.8.5	waitVoice	Object	No	Queuing configuration.

No.	Name	Type	Mandatory or Not	Description
1.4.8.5.1	parameterType	String	No	Parameter type. <ul style="list-style-type: none"> • Voice: default waiting tone. If this value is used, leave other parameters at the same level empty. • IVR: If this value is used, other parameters at the same level are mandatory.
1.4.8.5.2	value	String	No	For an IVR flow, the value is the same as that of accessCode .
1.4.8.5.3	id	String	No	For an IVR flow, the value is the IVR flow ID.

- **Status code: 401**
Authentication fails.
- **Status code: 404**
The requested resource does not exist.
- **Status code: 500**
An exception occurs on the server.

Error Codes

None

Example

Request header:

```
Content-Type:application/json
X-APP-KEY:XXXXXXXXXXXXXXXXXXXXXXXXX
Authorization:Bearer XXXXXXXXXXXXXXXXXXXXXXX
```

Request parameters:

```
{
  "limit": "10",
  "offset": 0
}
```

Response parameters:

```
{
  "returnCode": "0",
```

```
"total": 1,
"data": [
  {
    "skillId": 1,
    "maxAgentWrapupTime": 5,
    "maxWaitTime": 60,
    "name": "defaultVideoSkill",
    "mediaTypeId": 19,
    "description": "2021ok",
    "maxWaitNum": 100,
    "skillParam": {
      "noAgents": {
        "transferType": "Release"
      },
      "busy": {
        "transferType": "Release"
      },
      "answerFunction": "0",
      "timeOut": {
        "transferType": "Release"
      },
      "waitVoice": {
        "parameterType": "Voice"
      }
    }
  }
],
"description": "success"
}
```

5.2.5 Obtaining the Total Number of Users in a Configured Skill Queue

Prerequisites

- The agent has signed in.

Description

This interface is used to query the number of users in a skill queue configured for the current agent that has signed in.

Interface Method

The request method must be set to GET. This interface supports only the GET method.

URI

<https://ip:port/agentgateway/resource/queuedevice/{agentid}/waitnum>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 5-56 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

queryQueueLengthOnAgent

Request Description

- Message header

Table 5-57 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 5-58 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.

No.	Parameter	Value Type	Description
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	int	Indicates the number of users in a skill queue returned after a successful query. No result is returned if the query fails.

Triggered Event

- None

Error Code

- 100-006

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{
  "result": {},
  "message": "success",
  "retcode": "0"
}
```

5.2.6 Obtaining the Number of Users in a Skill Queue to Which an Agent Has Signed In

Prerequisites

- The agent has signed in.

Description

This interface is used to query the number of users in a skill queue to which the current agent has signed in.

Interface Method

The request method must be set to GET. This interface supports only the GET method.

URI

https://ip:port/agentgateway/resource/queuedevice/{agentid}/waitnumbyagent

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 5-59 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

queryQueueLengthOnAgentSkills

Request Description

- Message header

Table 5-60 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 5-61 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	int	Indicates the number of users in a skill queue returned after a successful query. No result is returned if the query fails.

Triggered Event

- None

Error Code

- 100-006
- 100-007

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{
  "result": {},
  "message": "success",
  "retcode": "0"
}
```

5.2.7 Obtaining the Skill Queue Information of the Home VDN of an Agent

Prerequisites

- The agent has signed in.

Description

The interface is used to obtain the skill queue information of the home VDN of an agent that has signed in.

Interface Method

The request method must be set to GET. This interface supports only the GET method.

URI

https://ip:port/agentgateway/resource/queuedevice/{agentid}/agentvdsnskill

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 5-62 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

querySkillQueueOnAgentVDN

Request Description

- Message header

Table 5-63 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 5-64 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	array	Indicates the return result of a successful query, that is, skill queue information. For details about the parameters of this object, see Table 5-65 .

Table 5-65 Parameter description of result

No.	Parameter	Value Type	Description
3.1	name	string	Skill name.
3.2	id	int	Skill ID.

No.	Parameter	Value Type	Description
3.3	mediatype	int	Media type. The options are as follows: <ul style="list-style-type: none"> • 1: text chat • 2: click-to-dial call • 4: callback request • 5: common voice or video call • 15: predicted outbound call • 16: previewed outbound call • 17: message call • 19: common video call • 51: multimedia web chat • 53: social chat
3.4	serviceType	int	Indicates the ID of a service type.
3.5	realFlag	int	1 : real queue. 0 : virtual queue.

Triggered Event

- None

Error Code

- 100-006
- 100-007
- 600-005

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1

- Request parameter

None

- Response parameter

```
{
  "message": "",
  "retcode": "0",
  "result": [
    {
      "name": "voice",
      "id": 1,
      "mediatype": 5,
      "serviceType": 1,
      "realFlag": 1
    },
    {
      "name": "callback",
      "id": 2,
      "mediatype": 4,

```

```

    "serviceType": 1,
    "realFlag": 1
  },
  {
    "name": "webchat",
    "id": 3,
    "mediatype": 1,
    "serviceType": 1,
    "realFlag": 1
  },
  {
    "name": "email",
    "id": 4,
    "mediatype": 6,
    "serviceType": 3,
    "realFlag": 1
  }
]
}

```

5.2.8 Obtaining the Total Number of Users in a Specified Skill Queue

Prerequisites

- The agent has signed in.

Description

This interface is used to query the number of users in a specified skill queue of the current agent that has signed in.

Interface Method

The request method must be set to GET. This interface supports only the GET method.

URI

<https://ip:port/agentgateway/resource/queuedevice/{agentid}/skillwaitnum/{skillid}>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 5-66 Parameters in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.
2	skillid	int	Yes	Skill queue ID.

Method Name in Logs

queryQueueLengthBySkillId

Request Description

- Message header

Table 5-67 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 5-68 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	int	Indicates the number of users in a skill queue returned after a successful query. No result is returned if the query fails.

Triggered Event

- None

Error Code

- 100-006

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{
  "result": {},
  "message": "success",
  "retcode": "0"
}
```

5.2.9 Querying the Statistics About a Set of Skill Queues

Prerequisites

- The agent has signed in.

Description

This interface is used to query the statistics about a set of skill queues after an agent has signed in.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

<https://ip:port/agentgateway/resource/queuedevice/{agentid}/queryacdstat>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 5-69 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

queryStatInfoOfAcid

Request Description

- Message header

Table 5-70 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body

Table 5-71 Parameters in the message body

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	skills	List	Yes	Indicates a list of skill queue IDs. The maximum array size is 100.

Response Description

Table 5-72 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.

No.	Parameter	Value Type	Description
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	array	Indicates the return result of a successful query, that is, skill queue statistics. For details about the parameters of this object, see Table 5-73 .

Table 5-73 Parameter description of result

No.	Parameter	Value Type	Description
4.1	pilotNbr	string	The pilot number of ACD group (It means accesscode .)
4.2	deviceNo	int	Skill queue ID.
4.3	queueSize	int	The number of calls in waiting queue
4.4	queueTime	long	The maximum duration of call in waiting queue (second)
4.5	loadFactor	int	It is not used.
4.6	estWaitTime	long	It is not used.
4.7	loggedOnAgents	int	Number of agents signing in to this ACD group.
4.8	availAgents	int	The number of available agents in this ACD group
4.9	transferFlg	int	Transfer flag (0 : release; 2 : transfer)
4.1 0	transferDeviceType	int	Device type. For details, see 6.5.5 Device Type .
4.1 1	transferDeviceNo	int	Device number
4.1 2	skillDescrip	string	Skill description.
4.1 3	resourceIdleRate	int	It is not used.
4.1 4	serviceLevel	int	It is not used.

No.	Parameter	Value Type	Description
4.1 5	oldCallIdEx	object	The call ID information object of waiting maximum duration. For details about the parameters of this object, see Table 5-74 .
4.1 6	maxQueueSize	int	The max number of calls in the queue

Table 5-74 Parameter description of oldCallIdEx

No.	Parameter	Value Type	Description
4.1 5.1	dateTime	Date	The time of call entering
4.1 5.2	dsn	int	The task number of call entering
4.1 5.3	server	int	Unique server identifier.
4.1 5.4	handle	int	The number of times that a call enters a task.

 **NOTE**

The method of converting oldCallIdEx to callId:

```

StringBuffer buffer = new StringBuffer(24);
buffer.append(dateTime);
buffer.append('-');
long identify = ((long) server << 24) + ((long) handle << 16) + dsn;
buffer.append(identify);

```

Triggered Event

- None

Error Code

- 000-002
- 100-006
- 100-007

Example

- Message header

```

Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1

```


- Request parameter

```
{
  "skills": [
    1,
    10
  ]
}
```

- Response parameter

```
{
  "message": "",
  "retcode": "0",
  "result": [
    {
      "pilotNbr": "",
      "deviceNo": 1,
      "queueSize": 0,
      "queueTime": 0,
      "loadFactor": 65535,
      "estWaitTime": 0,
      "loggedOnAgents": 1,
      "availAgents": 1,
      "transferFlg": 0,
      "transferDeviceType": 255,
      "transferDeviceNo": 65535,
      "skillDescrip": "chat_madeqiang",
      "resourceIdleRate": 100,
      "serviceLevel": 100,
      "oldCallIdEx": {
        "dateTime": 4294967295000,
        "dsn": 65535,
        "server": 255,
        "handle": 255
      },
      "maxQueueSize": 100
    },
    {
      "pilotNbr": "1009",
      "deviceNo": 10,
      "queueSize": 0,
      "queueTime": 0,
      "loadFactor": 65535,
      "estWaitTime": 0,
      "loggedOnAgents": 2,
      "availAgents": 2,
      "transferFlg": 0,
      "transferDeviceType": 255,
      "transferDeviceNo": 65535,
      "skillDescrip": "chat_jinsitao",
      "resourceIdleRate": 100,
      "serviceLevel": 100,
      "oldCallIdEx": {
        "dateTime": 4294967295000,
        "dsn": 65535,
        "server": 255,
        "handle": 255
      },
      "maxQueueSize": 100
    }
  ]
}
```

5.2.10 Querying the IVR Information of the VDN to Which an Agent Belongs

Prerequisites

- The agent has signed in.

Description

This interface is used for an agent to query the IVR information of the VDN to which the agent belongs.

Interface Method

The request method must be set to GET. This interface supports only the GET method.

URI

https://ip:port/agentgateway/resource/queuedevice/{agentid}/ivrinfo

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 5-75 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

queryIVRInfoOnVdn

Request Description

- Message header

Table 5-76 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 5-77 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	int	Indicates the number of users in a skill queue returned after a successful query. No result is returned if the query fails. For details about the parameters of this object, see Table 5-78 .

Table 5-78 Parameter description of **result**

No.	Parameter	Value Type	Description
3.1	access	string	Indicates the access code of the IVR flow.
3.2	id	int	Indicates the ID of the IVR flow.
3.3	description	string	Indicates the description of the IVR flow.
3.4	serviceNo	int	Indicates the service ID.

Triggered Event

None

Error Code

- 600-004
- 100-007
- 100-006

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{
  "result": [
    {
      "access": "1321",
      "id": 1,
      "description": "252",
      "serviceNo": 1
    }
  ],
  "message": "success",
  "retcode": "0"
}
```

5.2.11 Querying Information About Agents That Have Signed In to a Skill Queue

Prerequisites

- The agent has signed in.
- The agent has the permission to answer inbound calls.

Description

This interface is used by an agent that has logged in to query the detailed information about agents that have signed in to a skill queue by skill queue ID.

NOTE

If the agent has the permission to reject inbound calls, the query result does not contain the agent.

Interface Method

The request method must be set to GET. This interface supports only the GET method.

URI

`https://ip:port/agentgateway/resource/agentgroup/{agentid}/agentbyskill/{skillid}`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 5-79 Parameters in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.
2	skillid	int	Yes	ID of the skill queue to be queried.

Method Name in Logs

queryAgentInfoBySkillId

Request Description

- Message header

Table 5-80 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 5-81 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	list	Indicates the return result of a successful query, that is, a list of agents. For details about the parameters of this object, see Table 5-82 .

Table 5-82 Parameter description of **result**

No.	Parameter	Value Type	Description
3.1	workno	string	Agent ID.
3.2	name	string	Agent name.

No.	Parameter	Value Type	Description
3.3	status	int	Status of an agent. For details, see Table 6-452 .
3.4	ctiStatus	int	Platform status of an agent. For details, see Table 6-453 .
3.5	groupid	int	Agent group ID.
3.6	groupname	string	It is not used.
3.7	skilliconfig	list	It is not used.
3.8	callids	list	It is not used.
3.9	mediatype	string	Indicates whether the agent successfully signs in to the media server. The parameter value consists of three characters. In the parameter value, T indicates success and F indicates failure. The three characters indicate CTI Server, WebM, and MailM respectively. The voice and video call business can be processed only after the agent successfully signs in to the CTI Server. The text chat business can be processed only after the agent successfully signs in to the WebM. Currently, the agent cannot sign in to the MailM.
3.10	vdnid	int	ID of the VDN to which a call belongs.
3.11	phonenum	string	Agent phone number.
3.12	currentstatetime	long	Duration of the current state, in seconds.
3.13	logindate	long	Sign-in time. The value is a timestamp, in milliseconds.
3.14	inMultimediaConf	int	It is not used.
3.15	currentStateReason	int	Reason code of the current status.

Triggered Event

- None

Error Code

- 100-006
- 100-007
- 300-002

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1

- Request parameter
None

- Response parameter

```
{
  "message": "",
  "retcode": "0",
  "result": [
    {
      "workno": "20011",
      "name": "20011",
      "status": "4",
      "ctiStatus": "1",
      "groupid": 1,
      "groupname": null,
      "skilllist": [],
      "mediatype": "TTT",
      "vdnid": 6,
      "phonenumber": "70942",
      "currentstatetime": 1376,
      "logindate": 1501125758000,
      "callids": [],
      "inMultimediaConf": 0,
      "currentStateReason": 0
    }
  ]
}
```

5.2.12 Querying the Details About a Specified Agent

Prerequisites

- The agent has signed in.

Description

This interface is used to query the details about a specified agent by agent ID after the agent has signed in.

Interface Method

The request method must be set to GET. This interface supports only the GET method.

URI

https://ip:port/agentgateway/resource/agentgroup/{agentid}/agentbyworkno/{workno}

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

Table 5-83 Parameters in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.
2	workno	string	Yes	ID of the agent to be queried. The value ranges from 101 to 59999. The agent ID must belong to the same VDN as the value of agentid .

Method Name in Logs

queryAgentInfoByWorkNo

Request Description

- Message header

Table 5-84 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 5-85 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Indicates the return result of a successful query, that is, a list of agents. For details about the parameters of this object, see Table 5-86 .

Table 5-86 Parameter description of result

No.	Parameter	Value Type	Description
3.1	workno	string	Agent ID.
3.2	name	string	Agent name.
3.3	status	int	Status of an agent. For details, see Table 6-452 .
3.4	ctiStatus	int	Platform status of an agent. For details, see Table 6-453 .
3.5	groupid	int	Agent group ID.
3.6	groupname	string	It is not used.
3.7	skilllist	list	Indicates an agent skill object list. For details about the parameters of this object, see Table 5-87 .
3.8	callids	list	It is not used.

No.	Parameter	Value Type	Description
3.9	mediatype	string	Indicates whether the agent successfully signs in to the media server. The parameter value consists of three characters. In the parameter value, T indicates success and F indicates failure. The three characters indicate CTI Server, WebM, and MailM respectively. The voice and video call business can be processed only after the agent successfully signs in to the CTI Server. The text chat business can be processed only after the agent successfully signs in to the WebM. Currently, the agent cannot sign in to the MailM.
3.1 0	vdnid	int	ID of the VDN to which a call belongs.
3.1 1	phonenummer	string	Agent phone number.
3.1 2	currentstatetime	long	Duration of the current state, in seconds.
3.1 3	logindate	long	Sign-in time, in milliseconds. The value is a timestamp.
3.1 4	inMultimediaConf	int	Indicates whether n agent is in a multimedia conference. The options are as follows: 0 : no 1 : yes
3.1 5	currentStateReason	int	Reason code of the current status.

Table 5-87 Parameter description of skilllist

No.	Parameter	Value Type	Description
3.7. 1	name	string	Skill name.
3.7. 2	id	int	Skill ID.

No.	Parameter	Value Type	Description
3.7.3	mediatype	int	Media type. The options are as follows: <ul style="list-style-type: none"> • 1: text chat • 2: click-to-dial call • 4: callback request • 5: common voice or video call • 15: predicted outbound call • 16: previewed outbound call • 17: message call • 19: common video call • 51: multimedia web chat • 53: social chat

Triggered Event

- None

Error Code

- 100-006
- 100-007

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1

- Request parameter

None

- Response parameter

```
{
  "message": "",
  "retcode": "0",
  "result": {
    "workno": "20011",
    "name": "20011",
    "status": "4",
    "ctiStatus": "1",
    "groupid": 1,
    "groupname": "jst",
    "skilllist": [
      {
        "name": "clicktodial_jst",
        "id": 10,
        "mediatype": 2
      },
      {
        "name": "callback",
        "id": 2,
        "mediatype": 4
      }
    ]
  }
}
```

```
{
  "name": "webchat",
  "id": 3,
  "mediatype": 1
},
{
  "name": "email",
  "id": 4,
  "mediatype": 6
},
{
  "name": "voice_hym",
  "id": 5,
  "mediatype": 5
},
{
  "name": "voice",
  "id": 6,
  "mediatype": 5
},
{
  "name": "webchat_jst",
  "id": 9,
  "mediatype": 1
}
],
"mediatype": "TTT",
"vdnid": 6,
"phonenumber": "70942",
"currentstatetime": 1210,
"logindate": 1501125758000,
"calls": [],
"inMultimediaConf": 0,
"currentStateReason": 0
}
```

5.2.13 Querying the Details About All Online Agents That Have Signed In to a Skill Queue

Prerequisites

- The agent has signed in.

Description

This interface is used to query the details about all online agents that have signed in to a skill queue.

Interface Method

The request method must be set to GET. This interface supports only the GET method.

URI

<https://ip:port/agentgateway/resource/agentgroup/{agentid}/allonlineagents>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 5-88 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

queryAllOnlineAgents

Request Description

- Message header

Table 5-89 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 5-90 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.

No.	Parameter	Value Type	Description
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	list	Returned result after a successful query. For details about the parameters of this object, see Table 5-91 .

Table 5-91 Parameter description of result

No.	Parameter	Value Type	Description
3.1	skillMediaType	int	Media type of a skill queue. The options are as follows: <ul style="list-style-type: none"> • 1: text chat • 2: click-to-dial call • 4: callback request • 5: common voice or video call • 15: predicted outbound call • 16: previewed outbound call • 17: message call • 19: common video call • 51: multimedia web chat • 53: social chat
3.2	skillId	int	ID of a skill queue.
3.3	agent	list	Agent details. For details about the parameters of this object, see Table 5-92 .

Table 5-92 Parameter description of agent

No.	Parameter	Value Type	Description
3.3.1	workno	string	Agent ID.
3.3.2	name	string	Agent name.

No.	Parameter	Value Type	Description
3.3.3	status	int	Status of an agent. For details, see Table 6-452 .
3.3.4	ctiStatus	int	Platform status of an agent. For details, see Table 6-453 .
3.3.5	groupid	int	Agent group ID.
3.3.6	groupname	string	It is not used.
3.3.7	skilllist	list	It is not used.
3.3.8	callids	list	It is not used.
3.3.9	mediatype	string	Whether the agent successfully signs in to the media server of a specific type. T indicates success and F indicates failure. The three characters indicate CTI Server, WebM, and MailM, respectively. The voice and video call business can be processed only after the agent successfully signs in to the CTI Server. The text chat business can be processed only after the agent successfully signs in to the WebM. Currently, the agent cannot sign in to the MailM.
3.3.10	vdnid	int	ID of the VDN to which a call belongs.
3.3.11	phonenummer	string	Agent phone number.
3.3.12	currentstatetime	long	Duration of the current state, in seconds.
3.3.13	logindate	long	Sign-in time, in milliseconds. The value is a timestamp.
3.3.14	inMultimediaConf	int	It is not used.
3.3.15	currentStateReason	int	Reason code of the current status.

Triggered Event

- None

Error Code

- 100-006
- 100-007
- 600-005

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxxx.AgentGateway1

- Request parameter

None

- Response parameter

```
{
  "result": [
    {
      "skillId": 1,
      "agent": [
        {
          "workno": "2005",
          "name": "liukai011",
          "status": "4",
          "ctiStatus": "1",
          "groupid": 0,
          "groupname": null,
          "skilllist": [],
          "mediatype": "TFF",
          "vdnid": 214,
          "phonenumber": "88880026",
          "currentstatetime": 527,
          "logindate": 1616510142000,
          "callids": [],
          "inMultimediaConf": 0,
          "currentStateReason": 0
        },
        {
          "workno": "2007",
          "name": "",
          "status": "4",
          "ctiStatus": "1",
          "groupid": 0,
          "groupname": null,
          "skilllist": [],
          "mediatype": "TTF",
          "vdnid": 214,
          "phonenumber": "88880027",
          "currentstatetime": 28,
          "logindate": 1616510634000,
          "callids": [],
          "inMultimediaConf": 0,
          "currentStateReason": 0
        }
      ]
    },
    {
      "skillId": 2,
      "agent": [

```

```

        "workno": "2007",
        "name": "",
        "status": "4",
        "ctiStatus": "1",
        "groupid": 0,
        "groupname": null,
        "skilllist": [],
        "mediatype": "TTF",
        "vdnid": 214,
        "phonenumber": "88880027",
        "currentstatetime": 28,
        "logindate": 1616510634000,
        "callids": [],
        "inMultimediaConf": 0,
        "currentStateReason": 0
    }
],
"skillMediaType": 53
}
],
"message": "success",
"retcode": "0"
}

```

5.3 Number Management

5.3.1 Querying Access Codes (queryAccessCodeList)

Scenario

Query the access codes, that is, customer service hotlines you provide for customers, of a specified tenant space.

Method

POST

URI

<https://Domain name/apiaccess/rest/cc-management/v1/accessCodeInfo/queryAccessCodeList> (For example, the domain name is service.besclouds.com.)

Request Description

Table 5-93 Request header parameters

No.	Parameter	Type	Mandato ry or Not	Description
1	X-APP-Key	String	No	App key field, which is the user ID. Contact the operation personnel to obtain the app key.

No.	Parameter	Type	Mandatory or Not	Description
2	Authorization	String	Yes	Authentication field. The format is Bearer {Value of AccessToken returned by the <i>tokenByAKSk</i> interface}. (A space is required after Bearer .)

Table 5-94 Request body parameters

No.	Parameter	Type	Mandatory or Not	Description
1.1	accessCode	String	No	Access code. Fuzzy query is supported.
1.2	mediatypeld	Integer	No	Media type. 2 : click-to-dial 5 : audio and video 53 : multimedia
1.3	description	String	No	Access code description. Fuzzy query is supported.
1.4	limit	Integer	No	Number of records on each page. The value ranges from 0 to 100. The default value is 100 . If the value exceeds 100, 100 records are displayed on each page by default.
1.5	offset	Integer	No	Parameter for determining the start page of the query. The value range of offset is as follows: Value of offset = Value of limit x (Page - 1). "Page" indicates the start page for query. The default value of offset is 0 , and the maximum value is 100 .

Response Description

- **Status code: 200**

Table 5-95 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1.1	data	Object	No	-
1.1.1	total	Number	No	Total number of access codes.
1.1.2	calledRouteList	Array [Object]	No	Access code information list.
1.1.2.1	id	String	No	Access code ID.
1.1.2.2	accessCode	String	No	Access code.
1.1.2.3	mediatypeId	Integer	No	Media type. 2: click-to-dial 5: audio and video 18: video click-to-dial 19: video 53: multimedia
1.1.2.4	n400Number	String	No	Service number configured on the access code page, which is generally the 400 number mapped by the core network.
1.1.2.5	description	String	No	Access code description.
1.1.2.6	numCallAttr	Number	No	Number attribute (3: inbound call and outbound call; 2: outbound call; 1: inbound call)
1.2	returnCode	String	No	Return code. The options are as follows: 0: success; other values: failure.
1.3	description	String	No	Description.

- **Status code: 400**
Incorrect request. Check the request path and parameters.
- **Status code: 401**
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 403**
Authentication fails.
- **Status code: 404**
The requested content is not found. Check the request path.
- **Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Request header:

```
Content-Type:application/json
Authorization:Bearer XXXXXXXXXXXXXXXXXXXXXXXX
X-APP-Key:XXXXXXXXXXXXXXXXXXXX
```

Request parameters:

```
{
  "accessCode": "9911411",
  "mediatypeId": 5,
  "description": "access code",
  "limit": 10,
  "offset": 0
}
```

Response parameters:

```
{
  "returnCode": "0",
  "data": {
    "total": 1,
    "calledRouteList": [
      {
        "id": "1124167935465633793",
        "accessCode": "9911411",
        "mediatypeId": 5,
        "n400Number": null,
        "description": null,
        "numCallAttr": 3
      }
    ]
  },
  "description": "success"
}
```

5.3.2 Creating a Binding Relationship Between an Access Code, Skill Queue, and IVR (createCalledRoute)

Scenario

Create a binding relationship between an access code, skill queue, and IVR.

Method

POST

URI

`https://Domain name/apiaccess/rest/cc-management/v1/calledRoute/createCalledRoute`. For example, the domain name is `service.besclouds.com`.

Request Description

Table 5-96 Request header parameters

No.	Parameter	Type	Mandatory or Not	Description
1	X-APP-Key	String	No	App key field, which is the user ID. Contact the operation personnel to obtain the app key.
2	Authorization	String	Yes	Authentication field. The format is Bearer {Value of AccessToken returned by the <i>tokenByAkSk</i> interface}. (A space is required after Bearer .)

Table 5-97 Request body parameters

No.	Parameter	Type	Mandatory or Not	Description
1.1	accessCode	String	Yes	Access code. The value contains a maximum of 32 characters.

No.	Parameter	Type	Mandatory or Not	Description
1.2	extCode	String	No	<p>Extended code. The value contains a maximum of 12 characters. To set an access code for multiple destination devices, you can configure extension codes. For example, if the access code is 12345, you can add extension code 1 for routing calls to skill queue A, and the extension code 2 to skill queue B. In this way, a customer can dial 123451 to directly access skill queue A.</p>

No.	Parameter	Type	Mandatory or Not	Description
1.3	mediaTypeId	Integer	No	<p>Media type. The default value is 5.</p> <p>The options are as follows: 2: voice click-to-dial; 5: voice and video; 18: video click-to-dial; 19: video; 53: multimedia.</p> <p>Note:</p> <ol style="list-style-type: none"> When a skill queue (devicetype is 1) is transferred, the value of mediaTypeId is the same as that of mediaTypeId bound to the skill queue. If no skill queue is bound, the default value 5 is used. The mapping between the media type (mediaTypeId returned by the access code query interface) to which the access code belongs and the input parameter mediaTypeId is as follows: 5 corresponds to 5 and 19. 53 corresponds to 53. 2 corresponds to 2 and 18.
1.4	devicetype	Integer	Yes	<p>Device type.</p> <p>1: skill queue 3: IVR</p> <p>Note: The IVR flow cannot be selected for the multimedia channel.</p>

No.	Parameter	Type	Mandatory or Not	Description
1.5	deviceid	Integer	Yes	Target device ID (skill queue ID or IVR ID). Note: When the skill queue (devicetype is 1) is transferred, the media type corresponding to deviceid must be the same as the input parameter mediaTypeid .

Response Description

- **Status code: 200**

Table 5-98 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1.1	returnCode	String	No	Return code. The options are as follows: 0 : success; other values: failure.
1.2	description	String	No	Description.

- **Status code: 400**
Incorrect request. Check the request path and parameters.
- **Status code: 401**
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 403**
Authentication fails.
- **Status code: 404**
The requested content is not found. Check the request path.
- **Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Request header:

```
Content-Type:application/json
Authorization:Bearer XXXXXXXXXXXXXXXXXXXXXXXX
X-APP-Key:XXXXXXXXXXXXXXXXXXXX
```

Request parameters:

```
{
  "accessCode": "9911411",
  "extCode": "11",
  "devicetype": 1,
  "deviceId": 1,
  "mediaTypeId": 19
}
```

Response parameters:

```
{
  "returnCode": "0",
  "description": "data create success"
}
```

5.3.3 Deleting the Binding Relationships Between Access Codes, Skill Queues, and IVR Flows (deleteCalledRoute)

Scenario

Delete the binding relationships between access codes, skill queues, and IVR flows.

Method

POST

URI

<https://Domain name/apiaccess/rest/cc-management/v1/calledRoute/deleteCalledRoute>. For example, the domain name is service.besclouds.com.

Request Description

Table 5-99 Request header parameters

No.	Parameter	Type	Mandatory or Not	Description
1	X-APP-Key	String	No	App key field, which is the user ID. Contact the operation personnel to obtain the app key.

No.	Parameter	Type	Mandatory or Not	Description
2	Authorization	String	Yes	Authentication field. The format is Bearer {Value of AccessToken returned by the <i>tokenByAkSk</i> interface}. (A space is required after Bearer .)

Table 5-100 Request body parameters

No.	Parameter	Type	Mandatory or Not	Description
1.1	dnids	String	Yes	Configuration ID (dnid returned when the Called Route is queried). Use commas (,) to separate multiple IDs. A maximum of 1000 IDs can be deleted.

Response Description

- **Status code: 200**

Table 5-101 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1.1	returnCode	String	No	Return code. The options are as follows: 0 : success; other values: failure.
1.2	description	String	No	Description.
1.3	data	Object	No	Deletion result.
1.3.1	id	String	No	ID of the deleted binding data record.
1.3.2	name	String	No	Deleted binding data, which is in the <i>accessCode+extCode</i> format.

No.	Parameter	Type	Mandatory or Not	Description
1.3.3	content	String	No	Deleted access code. 1. If all records are deleted successfully or fail to be deleted, the value of this parameter is the same as that of name . 2. If the deletion is partially successful, the character string is as follows: Success: + <i>Value of name</i> +,Failed: + <i>Value of name</i>

- **Status code: 400**
Incorrect request. Check the request path and parameters.
- **Status code: 401**
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 403**
Authentication fails.
- **Status code: 404**
The requested content is not found. Check the request path.
- **Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Request header:

```
Content-Type:application/json
Authorization:Bearer XXXXXXXXXXXXXXXXXXXXXXXX
X-APP-Key:XXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

Request parameters:

```
{
  "dnids": "1,2"
}
```

Response parameters:

```
{
  "returnCode": "0",
  "data": {
    "name": "9911411,99114111",
    "id": "1127983948544239618,1127986019188238339",
    "content": "9911411,99114111"
  },
  "description": "data delete success"
}
```

5.3.4 Modifying a Binding Relationship Between an Access Code, Skill Queue, and IVR (modifyCalledRoute)

Scenario

Modify a binding relationship between an access code, skill queue, and IVR.

Method

POST

URI

<https://Domain name/apiaccess/rest/cc-management/v1/calledRoute/modifyCalledRoute>. For example, the domain name is service.besclouds.com.

Request Description

Table 5-102 Request header parameters

No.	Parameter	Type	Mandatory or Not	Description
1	X-APP-Key	String	No	App key field, which is the user ID. Contact the operation personnel to obtain the app key.
2	Authorization	String	Yes	Authentication field. The format is Bearer {Value of AccessToken returned by the tokenByAkSk interface}. (A space is required after Bearer .)

Table 5-103 Request body parameters

No.	Parameter	Type	Mandatory or Not	Description
1.1	id	String	Yes	ID of a called party.
1.2	devicetype	Integer	Yes	Device type. The options are as follows: 1 : skill queue; 3 : IVR.
1.3	deviceid	Integer	Yes	Current device ID (skill queue ID or IVR ID).

Response Description

- **Status code: 200**

Table 5-104 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1.1	returnCode	String	No	Return code. The options are as follows: 0 : success; other values: failure.
1.2	description	String	No	Description.

- **Status code: 400**
Incorrect request. Check the request path and parameters.
- **Status code: 401**
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 403**
Authentication fails.
- **Status code: 404**
The requested content is not found. Check the request path.
- **Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Request header:

```
Content-Type:application/json
Authorization:Bearer XXXXXXXXXXXXXXXXXXXXXXXXXX
X-APP-Key:XXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

Request parameters:

```
{
  "id": "1125397061153369092",
  "devicetype": 1,
  "deviceId": 1
}
```

Response parameters:

```
{
  "returnCode": "0",
  "description": "data update success"
}
```

5.3.5 Querying the Binding Relationships Between Access Codes, Skill Queues, and IVR Flows (queryCalledRoute)

Scenario

Query the binding relationships between access codes, skill queues, and IVR flows.

Method

POST

URI

<https://Domain name/apiaccess/rest/cc-management/v1/calledRoute/queryCalledRoute>. For example, the domain name is service.besclouds.com.

Request Description

Table 5-105 Request header parameters

No.	Parameter	Type	Mandatory or Not	Description
1	X-APP-Key	String	No	App key field, which is the user ID. Contact the operation personnel to obtain the app key.

No.	Parameter	Type	Mandatory or Not	Description
2	Authorization	String	Yes	Authentication field. The format is Bearer {Value of AccessToken returned by the <i>tokenByAkSk</i> interface}. (A space is required after Bearer .)

Table 5-106 Request body parameters

No.	Parameter	Type	Mandatory or Not	Description
1.1	accessCode	String	No	Access code.
1.2	extCode	String	No	Extension code.
1.3	devicetype	Integer	No	Device type. 1 : skill queue 3 : IVR
1.4	deviceDesc	String	No	Device name (skill queue or IVR name). Fuzzy match is supported.
1.5	mediaTypeeld	Integer	No	Media type. 2 : click-to-dial 5 : audio and video 18 : video click-to-dial 19 : video 53 : multimedia
1.6	limit	Integer	No	Number of records on each page. The value ranges from 0 to 100. The default value is 100 . If the value exceeds 100, 100 records are displayed on each page by default.

No.	Parameter	Type	Mandatory or Not	Description
1.7	offset	Integer	No	Parameter for determining the start page of the query. The value range of offset is as follows: Value of offset = Value of limit x (Page - 1). "Page" indicates the start page for query. The default value of offset is 0 . If a negative value is entered, 0 is used.

Response Description

- Status code: 200

Table 5-107 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1.1	returnCode	String	No	Result code. 0 : success Other values: failure
1.2	description	String	No	Description.
1.3	data	Object	No	-
1.3.1	total	Integer	No	Total number.
1.3.2	calledRouteList	Array (object)	No	Called party list.
1.3.2.1	extCode	String	No	Extension code.
1.3.2.2	editable	String	No	0 or null : editable and deletable 1 : cannot be edited but can be deleted 2 : cannot be deleted 3 : cannot be edited or deleted

No.	Parameter	Type	Mandatory or Not	Description
1.3.2.3	accessCode	String	No	Access code.
1.3.2.4	dnid	Number	No	Configuration ID.
1.3.2.5	id	String	No	Called party ID (primary key ID of the table).
1.3.2.6	deviceid	Number	No	Current device ID.
1.3.2.7	devicetype	Number	No	Device type. 1: skill queue 3: IVR
1.3.2.8	deviceDesc	String	No	Destination device description.
1.3.2.9	mediatypeid	Number	No	Media type. 2: click-to-dial 5: audio and video 18: video click-to-dial 19: video 53: multimedia

- **Status code: 400**
Incorrect request. Check the request path and parameters.
- **Status code: 401**
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 403**
Authentication fails.
- **Status code: 404**
The requested content is not found. Check the request path.
- **Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Request header:

```
Content-Type:application/json
Authorization:Bearer XXXXXXXXXXXXXXXXXXXXXXXX
X-APP-Key:XXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

Request parameters:

```
{
  "accessCode": "9911411",
  "extCode": "11",
  "devicetype": 1,
  "deviceDesc": "defaultVideoSkill",
  "mediatypeld": 19,
  "limit":10,
  "offset":0
}
```

Response parameters:

```
{
  "returnCode": "0",
  "data": {
    "total": 3,
    "calledRouteList": [
      {
        "id": "1125397061153369092",
        "dnid": 3,
        "accessCode": "9911411",
        "mediatypeld": 19,
        "extCode": "11",
        "devicetype": 1,
        "deviceid": 1,
        "deviceDesc": "defaultVideoSkill",
        "editable": "0"
      },
      {
        "id": "1127983948544239618",
        "dnid": 1,
        "accessCode": "9911411",
        "mediatypeld": null,
        "extCode": "",
        "devicetype": 1,
        "deviceid": 1,
        "deviceDesc": "defaultVideoSkill",
        "editable": "0"
      },
      {
        "id": "1127986019188238339",
        "dnid": 2,
        "accessCode": "9911411",
        "mediatypeld": 19,
        "extCode": "1",
        "devicetype": 1,
        "deviceid": 1,
        "deviceDesc": "defaultVideoSkill",
        "editable": "0"
      }
    ]
  },
  "description": "success"
}
```

5.3.6 Querying the Home Area of a Number (getPhoneNoRegionInfo)

Scenario

Query the home area of a number. Mobile numbers and fixed-line phones are supported.

Method

POST

URI

`https://Domain name/apiaccess/rest/cc-management/v1/phonearea/getPhoneNoRegionInfo`. For example, the domain name is `service.besclouds.com`.

Request Description

Table 5-108 Request header parameters

No.	Parameter	Type	Mandatory or Not	Description
1	X-APP-KEY	String	No	App key field, which is the user ID. Contact the operation personnel to obtain the app key.
2	Authorization	String	Yes	Authentication field. The format is Bearer <i>{Value of AccessToken returned by the <code>tokenByAkSk</code> interface}</i> . (A space is required after Bearer .)

Table 5-109 Request body parameters

No.	Parameter	Type	Mandatory or Not	Description
1.1	phoneNo	String	Yes	11-digit mobile number or fixed-line phone number with an area code.

Response Description

- Status code: 200

Table 5-110 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1.1	returnCode	String	No	Return code. The value 0 indicates success. Other values indicate failure.
1.2	description	String	No	Return result description.
1.3	data	Object	No	Mobile number home area information.
1.3.1	areaCode	String	No	Area code.
1.3.2	province	String	No	Province.
1.3.3	city	String	No	City.
1.3.4	cityCode	String	No	City code. Multiple city codes are separated by slashes (/). If a fixed-line phone number is queried, the city code may be empty.
1.3.5	isp	String	No	Carrier: China Telecom, China Mobile, or China Unicom. For fixed-line phone query, a result indicating the carrier is unknown is returned.
1.3.6	postCode	String	No	Postal code. Multiple city codes are separated by slashes (/). If a fixed-line phone number is queried, the postal code may be empty.

No.	Parameter	Type	Mandatory or Not	Description
1.3.7	phoneNo	String	No	First seven digits of a mobile number or area code of a fixed-line phone

- Status code: 401**
 Authorization failed: 1. Whether the parameter is correct and valid. 2. Check whether you have purchased related services. 3. Contact customer service to check the status of your account.
- Status code: 404**
 The request path may be incorrect.
- Status code: 500**
 The service fails or an internal exception occurs on the server due to incorrect parameters.

Error Codes

None

Example

Request header:

```
Content-Type: application/json
X-APP-KEY: *****
Authorization: Bearer *****
```

Request parameters:

```
{"phoneNo":"13020017****"}
```

Response parameters:

```
{
  "returnCode": "0",
  "data": {
    "areaCode": "110100",
    "province": "Beijing",
    "city": "Beijing",
    "cityCode": "010",
    "isp": "China Unicom",
    "postCode": "100000",
    "phoneNo": "1302001"
  },
  "description": "success"
}
```

5.4 IVR Flow Management

5.4.1 Querying All IVR Flows of a Specified Tenant Space (queryIVRFlowList)

Scenario

Query all IVR flows of a specified tenant space.

Method

POST

URI

<https://Domain name/apiaccess/rest/cc-management/v1/ivrFlow/queryIVRFlowList>.
For example, the domain name is service.besclouds.com.

Request Description

Table 5-111 Request header parameters

No.	Parameter	Type	Mandatory or Not	Description
1	X-APP-Key	String	No	App key field, which is the user ID. Contact the operation personnel to obtain the app key.
2	Authorization	String	Yes	Authentication field. The format is Bearer {Value of AccessToken returned by the <i>tokenByAkSk</i> interface}. (A space is required after Bearer .)

Response Description

- Status code: 200

Table 5-112 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	schema	Object	Yes	-

No.	Parameter	Type	Mandatory or Not	Description
1.1	result	Array (object)	No	IVR information.
1.1.1	isLoad	Number	No	Whether to load a flow. The options are as follows: 0 : no; 1 : yes.
1.1.2	accessCode	String	No	Flow access code.
1.1.3	maxCallNum	Integer	No	Maximum number of concurrent calls in a flow.
1.1.4	description	String	No	Flow description.
1.1.5	id	Number	No	Flow ID.
1.1.6	flowFileName	String	No	Flow file name.
1.1.7	flowType	Number	No	Flow type. 0 : unspecified service type 1 : GSL service file type 2 : VoiceXML service file type 3 : service type of the third-party IVR 4 : VXML flow supported by the CCIVR 5 : CCXML flow 6 : WaitScript flow
1.2	retCode	String	No	Return code. The options are as follows: 0 : success; other values: failure.
1.3	message	String	No	Return information.

- **Status code: 400**
Incorrect request. Check the request path and parameters.
- **Status code: 401**
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.

- **Status code: 403**
Authentication fails.
- **Status code: 404**
The requested content is not found. Check the request path.
- **Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Request header:

```
Content-Type:application/json
Authorization:Bearer XXXXXXXXXXXXXXXXXXXXXXXX
X-APP-Key:XXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

Response parameters:

```
{
  "result": [
    {
      "isLoad": 1,
      "accessCode": "90500",
      "maxCallNum": null,
      "description": "Exception handling",
      "id": 1,
      "flowFileName": "defaultIVR.GSL",
      "flowType": 1
    },
    {
      "isLoad": 1,
      "accessCode": "90501",
      "maxCallNum": null,
      "description": "1015",
      "id": 2,
      "flowFileName": "defaultIVR.GSL",
      "flowType": 1
    }
  ],
  "retCode": "0",
  "message": "success"
}
```

5.4.2 Querying Satisfaction Survey Information (querySatisfactionConfig)

Scenario

Query satisfaction surveys.

Method

POST

URI

https://Domain_name/apiaccess/rest/cc-management/v1/satisfactionconfig/querySatisfactionConfig. For example, the domain name is service.besclouds.com.

Request Description

Table 5-113 Request header parameters

No.	Parameter	Type	Mandatory or Not	Description
1	X-APP-KEY	String	No	App key field, which is the user ID. Contact the operation personnel to obtain the app key.
2	Authorization	String	Yes	Authentication field. The format is Bearer {Value of AccessToken returned by the <i>tokenByAkSk</i> interface}. (A space is required after Bearer .)

Response Description

- Status code: 200

Table 5-114 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	schema	Object	Yes	-
1.1	returnCode	String	Yes	Return code. The value 0 indicates success. Other values indicate failure.
1.2	description	String	No	Return result description.

No.	Parameter	Type	Mandatory or Not	Description
1.3	enabled	Boolean	Yes	Whether to enable the satisfaction survey. true : enabled; false : disabled. If this function is disabled, data is empty.
1.4	data	Array (object)	No	Currently, only one value is returned.
1.4.1	ivrId	String	No	IVR flow ID.
1.4.2	feedbackType	String	No	IVR : IVR flow. Currently, there is only one value.
1.4.3	channelType	String	No	audio : audio media : multimedia Currently, the value can only be audio .
1.4.4	accessCode	String	No	Flow access code.

- Status code: 401**
 Authorization failed: 1. Whether the parameter is correct and valid. 2. Check whether you have purchased related services. 3. Contact customer service to check the status of your account.
- Status code: 404**
 The request path may be incorrect.
- Status code: 500**
 The service fails or an internal exception occurs on the server due to incorrect parameters.

Error Codes

None

Example

Request header:

```
X-APP-KEY: *****
Authorization: Bearer *****
```

Response parameters:

```
{
  "returnCode": "0",
  "data": [
```

```

    {
      "accessCode": "6001",
      "channelType": "audio",
      "feedbackType": "IVR",
      "ivrId": "1239554736420597767"
    }
  ],
  "description": "success",
  "enabled": true
}

```

5.4.3 Querying Satisfaction Survey Results (satisfaction / query)

Scenario

Query the satisfaction survey result based on the call ID and evaluation time.

Before using this interface, understand how to configure a satisfaction survey flow. For details, see [Configuring a Satisfaction Survey](#).

Method

POST

URI

<https://Domain name/apiaccess/rest/cc-management/v1/satisfaction/query>. For example, the domain name is service.besclouds.com.

Request Description

Table 5-115 Request header parameters

No.	Parameter	Type	Mandatory or Not	Description
1	X-APP-Key	String	No	App key field, which is the user ID. Contact the operation personnel to obtain the app key.
2	Authorization	String	Yes	Authentication field. The format is Bearer <i>{Value of AccessToken returned by the <code>tokenByAkSk</code> interface}</i> . (A space is required after Bearer .)

Table 5-116 Request body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	requestBody	Object	Yes	Input parameters.
1.1	callId	String	Yes	Call ID.
1.2	beginTime	Number	Yes	Evaluation start time, in milliseconds. The value is a timestamp.
1.3	endTime	Number	Yes	Evaluation end time, in milliseconds. The value is a timestamp.

Response Description

- **Status code: 200**

Table 5-117 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	schema	Object	Yes	-
1.1	returnCode	String	Yes	Result code. The value 0 indicates that the query is successful, -1 indicates that the query fails, and description indicates the failure cause.
1.2	description	String	Yes	Result description.
1.3	satisfactionEvaluations	Object	Yes	Satisfaction evaluation.

No.	Parameter	Type	Mandatory or Not	Description
1.3.1	evaluationValue	String	No	<p>Satisfaction degree, which is the dictionary key value configured for the satisfaction level.</p> <p>1: very dissatisfied 2: dissatisfied 3: minor 4: satisfied 5: very satisfied</p> <p>The value -1 indicates that the user does not reply within the specified period after receiving the satisfaction evaluation.</p> <p>The value -2 indicates that the satisfaction degree replied by the user is not included in the configured key values.</p>
1.3.2	channel	String	No	<p>Channel.</p> <p>audio indicates the audio channel, MSG indicates the SMS channel, and WEB indicates the web page text chat channel.</p>
1.3.3	evaluationTime	Number	No	<p>Evaluation time, in milliseconds. The value is a timestamp.</p>

- **Status code: 400**
 Incorrect request. Check the request path and parameters.
- **Status code: 401**
 Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**
 The requested content is not found. Check the request path.

- **Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Request header:

```
Content-Type:application/json
Authorization:Bearer XXXXXXXXXXXXXXXXXXXXXXXX
X-APP-Key:XXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

Request parameters:

```
{
  "callId": "1647265024-xxxx",
  "beginTime": 1647265028000,
  "endTime": 1647265029000
}
```

Response parameters:

```
{
  "returnCode": "0",
  "satisfactionEvaluations": {
    "channel": "audio",
    "evaluationValue": "5",
    "evaluationTime": 1647265028000
  },
  "description": " query Success"
}
```

5.4.4 Uploading IVR Voice Files (importVoiceFile/upload)

Scenario

Upload IVR voice files.

This interface has a performance limit. After 10 requests are sent per second, traffic control is performed. If the number of requests exceeds the limit, the requests fail.

Method

POST

URI

<https://Domain name/apiaccess/rest/cc-management/v1/importVoiceFile/upload>.
For example, the domain name is service.besclouds.com.

Request Description

Table 5-118 Request header parameters

No.	Parameter	Type	Mandatory or Not	Description
1	Authorization	String	Yes	Authentication field. The format is Bearer <i>{Value of AccessToken returned by the <code>tokenByAkSk</code> interface}</i> . (A space is required after Bearer .)
2	X-APP-Key	String	No	App key field, which is the user ID. Contact the operation personnel to obtain the app key.

Table 5-119 Request body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	body	Object	No	-
1.1	fileInfo	String	Yes	Base64-encoded recording file information. The maximum size is 8 MB. The size of the uploaded file increases the upload time.
1.2	locale	String	Yes	Language of the recording file. The value can be zh_CN (Chinese), en_US (English), pt_BR (Portuguese), or th_TH (Thai).
1.3	voiceType	String	Yes	Voice type. 0 indicates IVR, 1 indicates prompt tone, 2 indicates fault tone, and 3 indicates voice notification.

No.	Parameter	Type	Mandatory or Not	Description
1.4	fileType	String	Yes	<p>File type. WAV and MP3 files are supported.</p> <p>The FFmpeg tool is used to transcode the WAV and MP3 formats to the audio file formats supported by the platform (A-law compression algorithm, mono, sampling bit: 8 bits, sampling frequency: 8000 Hz). After the conversion, the audio quality may be affected and audio file data may be lost. You are advised to use an audio file format that is supported by the platform.</p>
1.5	callbackUrl	String	No	<p>Callback URL. The system returns the review result to this URL.</p> <p>The callback URL indicates the API defined by the customer for receiving the system review result. For details about the request and response parameters, see Table 5-120.</p>
1.6	voiceFileName	String	No	<p>IVR voice name. The value can contain a maximum of 50 characters, including only Chinese characters, uppercase letters, lowercase letters, and digits.</p>

Table 5-120 Callback URL parameters

No.	Parameter	Type	Mandatory or Not	Description
Request parameters				
1.5.1	fileUrl	String	Yes	Address of the file to be reviewed. The value is a full file address, including the file name extension.
1.5.2	fileId	String	Yes	ID of the file to be reviewed. For details about how to set this parameter, see the description of the fileId parameter in Table 5-121 .
1.5.3	status	String	Yes	<ul style="list-style-type: none"> File review status. The options are as follows: <ul style="list-style-type: none"> 2: approved 3: rejected
1.5.4	comment	String	No	Review status remarks.
Response parameters				
1.5.5	returnCode	String	Yes	<p>Response code. The options are as follows:</p> <ul style="list-style-type: none"> 0: The review result is received successfully. Others: The review result fails to be received. <p>NOTE If the review result fails to be received, the callback API is repeatedly invoked to return the file review result. After six times, the file review result is no longer returned.</p>

Response Description

- **Status code: 200**

Table 5-121 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	schema	Object	Yes	-


```
//Request parameters
{
  "fileUrl": "Y:/IVR/147/voice/0/nPqV9vU3_1666706957559.wav",
  "fileId": "1323606152730207249",
  "status": "2",
  "comment": "Approved"
}
//Response parameters
{
  "returnCode": "0"
}
```

5.4.5 Uploading a TTS Template for Voice Notifications (createVoiceTemplate)

Scenario

Upload a TTS template for voice notifications.

Method

POST

URI

<https://Domain name/apiaccess/rest/cc-management/v1/createVoiceTemplate> (For example, the domain name is service.besclouds.com.)

Request Description

Table 5-122 Request header parameters

No.	Parameter	Type	Mandatory or Not	Description
1	Authorization	String	Yes	Authentication field. The format is Bearer {Value of AccessToken returned by the <i>tokenByAkSk</i> interface}. (A space is required after Bearer .)
2	X-APP-Key	String	No	App key field, which is the user ID. Contact the operation personnel to obtain the app key.

Table 5-123 Request body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	requestBody	Object	No	-
1.1	name	String	Yes	Name of the TTS template file. The value can contain Chinese characters, digits, and uppercase and lowercase letters. The value contains a maximum of 50 characters.
1.2	scene	String	No	Application scenario. The option is 3 , indicating voice notification.
1.3	speed	Number	No	Speed of the converted voice. The value ranges from – 200 to 500. If this parameter is left blank, the default value 0 is used.
1.4	volume	Number	No	Volume of the converted voice. The value ranges from 0 to 100. If this parameter is left blank, the default value 50 is used.

No.	Parameter	Type	Mandatory or Not	Description
1.5	voicename	String	No	<p>Timbre of the converted voice. The options are as follows:</p> <ul style="list-style-type: none"> ● cn_kefuman_common: graceful ● cn_chengshuxing_common: mature ● cn_roumeiqian_common: soft ● cn_ziranzhen_common: natural ● cn_tianmeiru_common: sweet <p>If this parameter is left blank, the default value cn_kefuman_common is used.</p>
1.6	voicecontent	Object	Yes	Text content to be converted to voice.

No.	Parameter	Type	Mandatory or Not	Description
1.6.1	textcontent	String	Yes	<p>Text content. The value contains a maximum of 500 bytes.</p> <p>The template content consists of fixed texts and variables. The template uses the UTF-8 encoding format. A Chinese character or symbol occupies three bytes. A letter, digit, or English symbol occupies one byte.</p> <ul style="list-style-type: none"> • The template content cannot start with a variable. • The template content can contain a maximum of 500 bytes. • A variable can contain a maximum of 32 bytes. (If a variable contains more than 32 bytes, you are advised to split it into multiple variables.) <p>The following variable formats are supported:</p> <ul style="list-style-type: none"> - <code>#{TXT_Digit}</code>: String. <i>Digit</i> indicates the maximum length of the string. For example, <code>#{TXT_9}</code> indicates a string of a

No.	Parameter	Type	Mandatory or Not	Description
				<p>maximum of nine characters.</p> <ul style="list-style-type: none"> - `\${NUM_Digit}`: Number. <i>Digit</i> indicates the maximum number of digits in the number. For example, `\${NUM_6}` indicates a number of a maximum of six digits. - `\${DATE}`: Date, in the format of <i>YYYY/MM/DD</i>. <i>YYYY</i> indicates the year, <i>MM</i> indicates the month, and <i>DD</i> indicates the day. An example is 2022/07/16. - `\${TIME}`: Time, in the format of <i>HH:MM</i> or <i>HH:MM:SS</i>. <i>HH</i> indicates the hour, <i>MM</i> indicates the minute, and <i>SS</i> indicates the second. Examples are 14:30 and 14:30:30. <p>Template examples:</p> <ul style="list-style-type: none"> • Example 1: Dear `\${TXT_8}`, your initial password is `\${NUM_6}`. • Example 2: Please pick up your express delivery before `\${TIME}` on `\${DATE}`.

No.	Parameter	Type	Mandatory or Not	Description
				NOTE \${TIME} and \${DATE} must be separated by " on ".
1.6.2	language	String	Yes	Language. <ul style="list-style-type: none"> • zh_CN: Chinese • en_US: English • pt_BR: Portuguese • th_TH: Thai
1.7	callbackUrl	String	No	<p>Callback URL. The system returns the review result to this URL.</p> <p>The callback URL indicates the API defined by the customer for receiving the system review result. For details about the request and response parameters, see Table 5-124.</p> <p>The callback URL must have been added to the IVR voice upload callback URL trustlist by the system administrator.</p>

Table 5-124 Callback URL parameters

No.	Parameter	Type	Mandatory or Not	Description
Request parameters				
1.7.1	fileUrl	String	Yes	Address of the file to be reviewed. The value is a full file address, including the file name extension.
1.7.2	fileId	String	Yes	ID of the file to be reviewed. For details about how to set this parameter, see the description of the templateId parameter in Table 5-125 .

No.	Parameter	Type	Mandatory or Not	Description
1.7.3	status	String	Yes	<ul style="list-style-type: none"> File review status. The options are as follows: <ul style="list-style-type: none"> 2: approved 3: rejected
1.7.4	comment	String	No	Review status remarks.
Response parameter				
1.7.5	return Code	String	Yes	<p>Response code. The options are as follows:</p> <ul style="list-style-type: none"> 0: The review result is received successfully. Others: The review result fails to be received. <p>NOTE If the review result fails to be received, the callback API is repeatedly invoked to return the file review result. After six times, the file review result is no longer returned.</p>

Response Description

- Response code: 200

Table 5-125 Response parameters

No.	Parameter	Type	Mandatory or Not	Description
1	schema	Object	Yes	-
1.1	returnCode	String	Yes	Result code. 0: success; other values: failure.
1.2	description	String	Yes	Description.
1.3	templateId	String	No	Template ID.

- Status code: 404**
The requested content is not found. Check the request path.
- Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Request header:

```
Content-Type:application/json
Authorization:Bearer XXXXXXXXXXXXXXXXXXXXXXXXXXXX
X-APP-Key:XXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

Request parameters:

```
{
  "name":"ctest1",
  "scene":"3",
  "volume":0,
  "speed":50,
  "voicename":"cn_kefuman_cn",
  "callBackUrl" : "http://10.134.227.74:18133/upload",
  "voicecontent":{
    "language":"en_US",
    "textcontent":"test"
  }
}
```

Response parameters:

```
{
  "returnCode": "0",
  "description": "The file is uploaded successfully.",
  "templateId": "1249756280719641601"
}
```

Callback URL parameters:

```
//Request parameters
{
  "fileUrl": "Y:/IVR/147/voice/0/nPqV9vU3_1666706957559.wav",
  "fileId": "1323606152730207249",
  "status": "2",
  "comment": "approved"
}
//Response parameters
{
  "returnCode": "0"
}
```

6 Agent Workbench Interface Reference

[6.1 Agent Control](#)

[6.2 Agent Bidirectional Calls](#)

[6.3 Voice Recognition Result Subscription Interfaces](#)

[6.4 App Personal Settings](#)

[6.5 Appendix](#)

6.1 Agent Control

6.1.1 Agent Operation Interfaces: onlineagent

6.1.1.1 Signing In

Prerequisites

None

Description

This interface is used by an agent to sign in.

After an agent signs in, the poll interface is invoked immediately to poll events. If no event occurs within 2 minutes, the agent is signed out.

NOTE

For an agent:

- If the sign-out interface does not respond, the sign-in interface cannot be invoked.
- If the sign-in interface does not respond, the sign-out interface cannot be invoked.

Interface Method

The request method must be set to PUT. This interface supports only the PUT method.

URI

https://ip:port/agentgateway/resource/onlineagent/{agentid}

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-1 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	String	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

login

Request Description

- Message header

Table 6-2 Parameter in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	String	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .

- Message body

Table 6-3 Parameters in the message body

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	password	String	Yes	Password of an employee ID on the CTI platform. The value can contain a maximum of 32 characters.
2	phonenum	String	Yes	Softphone number. The value can contain a maximum of 24 characters.
3	autoanswer	Boolean	No	Whether to enable automatic answering. The default value is true .
4	autoenteridle	Boolean	No	Whether to automatically enter the idle state after a call ends. The default value is true .
5	releasephone	Boolean	No	Whether an agent enters the non-always-off-hook state (the phone is hung up after the call ends) after the agent hangs up. The default value is true .
6	agenttype	Integer	No	Type of the agent who signs in. The default value is 4 . <ul style="list-style-type: none"> ● 4: PC+phone agent ● 11: PC+phone video agent
7	status	Integer	No	Status after an agent signs in. The default value is 4 . <ul style="list-style-type: none"> ● 3: busy ● 4: idle ● 5: wrap-up
8	ip	String	No	Agent IP address. The default value is 127.0.0.1 and can contain a maximum of 15 characters. IPv6 addresses are not supported.
9	entryip	String	No	IP address of the gateway to which the agent client application connects.

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
10	phonelinkage	Boolean	No	Whether to enable phone linkage, including connection and hard phone linkage control. Currently, only eSpace 7910 phones on the CC network are supported. The default value is false .
11	checkInWebm	Boolean	No	Whether to sign in to the WebM media server. The default value is true .
12	checkInMailm	Boolean	No	Whether to sign in to the MailM server. The default value is false .
13	vcPhoneNumber	String	No	VC number. The value contains a maximum of 24 characters.
14	listenStatus	Boolean	No	Whether an inspector listens to the sign-in and sign-out operations of an agent. The default value is false .
15	callbackUri	String	No	Event callback address. For details about the interface definition, see 6.1.4.2 Calling Back Pushed Events .
16	serviceToken	String	No	Authentication code. The value contains a maximum of 50 characters and cannot contain special characters.
17	serviceworkid	String	No	Business employee ID. The value can contain a maximum of 30 characters.

 **NOTE**

If both **callbackUri** and **serviceToken** are transferred, the event push mode is used. Otherwise, the event polling mode is used.

Response Description

Table 6-4 Response header parameters

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	String	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	String	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).
3	Set-GUID	String	Yes	An example value is JSESSIONID=279fe2*****0f5.AgentGateway0 . In the value, 279fe2*****0f5.AgentGateway0 is the GUID.

Table 6-5 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	String	Description.
2	retcode	String	Error code. The options are as follows: 0 : success Other values: failure
3	result	Map	Object in the returned result after a successful query. For details about the parameters of this object, see Table 6-6 .

Table 6-6 Parameter description of result

No.	Parameter	Value Type	Description
3.1	vdnid	String	VDN ID.

No.	Parameter	Value Type	Description
3.2	workno	String	Agent ID.
3.3	mediatype	String	<p>Whether the agent successfully signs in to the media server of a specific type. T indicates success and F indicates failure. The three characters indicate CTI Server, WebM, and MailM, respectively. For example, TTF indicates that the agent successfully signs in to the CTI Server and WebM but fails to sign in to the MailM.</p> <p>The voice business can be processed only after the agent successfully signs in to the CTI Server. The text chat business can be processed only after the agent successfully signs in to the WebM. Currently, the agent cannot sign in to the MailM.</p>
3.4	loginTime	String	Sign-in time. The value is a timestamp.
3.5	isForceChange	String	<p>Whether to forcibly change the password. If the parameter is set to true, the agent must change the password after sign-in. To change the password, invoke the interface described in 6.1.1.16 Changing the Password (Extended).</p> <p>NOTE If the value is true but the agent does not change the password, the agent cannot make calls.</p>
3.6	serverName	String	Cluster name of the CC-Gateway to which an agent signs in.
3.7	timeRemaining	String	<p>Remaining password validity period.</p> <p>An empty string indicates that the agent password never expires. The value ranges from 0 to 180 days.</p>

Triggered Event

If the **status** parameter is set to **3** (busy) during sign-in, the following events are triggered:

- AgentOther_InService
- AgentState_Ready

- AgentState_SetNotReady_Success

If the **status** parameter is set to **4** (idle) during sign-in, the following events are triggered:

- AgentOther_InService
- AgentState_Ready

If the **status** parameter is set to **5** (wrap-up) during sign-in, the following events are triggered:

- AgentOther_InService
- AgentState_Ready
- AgentState_Work

If phone linkage is enabled during sign-in, the following event is triggered:

- AgentEvent_linkageCapability

Error Code

- 100-001
- 100-002
- 100-003
- 100-004
- 100-007
- 100-012
- 100-015
- 100-016
- 110-016
- 999-001

Example

- Message header
Content-Type:application/json; charset=UTF-8

- Request parameter

```
{
  "password": "",
  "phonenum": "40038",
  "status": "4",
  "releasephone": "false",
  "agenttype": "4"
}
```

- Response parameter

```
{
  "message": "",
  "retcode": "0",
  "result": {
    "vdnid": 1,
    "workno": "291",
    "mediatype": "TTF",
    "loginTime": "1471585949806",
    "isForceChange": "false",
    "serverName": "AgentGateway",
    "timeRemaining": "9"
  }
}
```

```
}  
}
```

6.1.1.2 Forcibly Signing In

Prerequisites

None

Description

This interface is used by a signed-in agent to sign in again.

NOTE

For an agent:

- If the sign-out interface does not respond, the sign-in interface cannot be invoked.
- If the sign-in interface does not respond, the sign-out interface cannot be invoked.

Interface Method

The request method must be set to PUT. This interface supports only the PUT method.

URI

`https://ip:port/agentgateway/resource/onlineagent/{agentid}/forcelogin`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-7 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	String	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

forceLogin

Request Description

- Message header

Table 6-8 Parameter in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	String	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .

- Message body

Table 6-9 Parameters in the message body

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	password	String	Yes	Password of an employee ID on the CTI platform. The value can contain a maximum of 32 characters.
2	phonenum	String	Yes	Softphone number. The value can contain a maximum of 24 characters.
3	autoanswer	Boolean	No	Whether to enable automatic answering. The default value is true .
4	autoenteridle	Boolean	No	Whether to enter the idle state automatically. The default value is true .
5	releasephone	Boolean	No	Whether an agent enters the non-always-off-hook state (the phone is hung up after the call ends) after the agent hangs up. The default value is false .
6	agenttype	Integer	No	Type of the agent who signs in. The default value is 4 . The options are 4 (PC+phone agent) and 11 (PC+phone video agent).
7	status	Integer	No	Status after an agent signs in. The default value is 4 . The options are 3 (busy), 4 (idle), and 5 (wrap-up).

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
8	ip	String	No	Agent IP address. The default value is 127.0.0.1 and can contain a maximum of 15 characters. IPv6 addresses are not supported.
9	entryIp	String	No	IP address of the gateway to which the agent client application connects.
10	phoneLinkage	Boolean	No	Whether to enable phone linkage (connection and hardphone linkage control). The default value is false .
11	checkInWebm	Boolean	No	Whether to sign in to the WebM media server. The default value is true .
12	checkInMailm	Boolean	No	Whether to sign in to the MailM server. The default value is false .
13	vcPhoneNumber	String	No	VC number. The value contains a maximum of 24 characters.
14	listenStatus	Boolean	No	Whether an inspector listens to the sign-in and sign-out operations of an agent. The default value is false .
15	callbackUri	String	No	Event callback address. The value contains a maximum of 200 characters. For details about the interface definition, see 6.1.4.2 Calling Back Pushed Events .
16	serviceToken	String	No	Authentication code. The value contains a maximum of 50 characters and cannot contain special characters.

 NOTE

If both **callbackUri** and **serviceToken** are transferred, the event push mode is used. Otherwise, the event polling mode is used.

Response Description

Table 6-10 Response header parameters

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	String	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	String	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).
3	Set-GUID	String	Yes	An example value is JSESSIONID=279fe2*****0f5.AgentGateway0 . In the value, 279fe2*****0f5.AgentGateway0 is the GUID.

Table 6-11 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	String	Description.
2	retcode	String	Error code. The options are as follows: 0 : success Other values: failure
3	result	Map	Object in the returned result after a successful query. For details about the parameters of this object, see Table 6-12 .

Table 6-12 Parameter description of result

No.	Parameter	Value Type	Description
3.1	vdnid	String	VDN ID.

No.	Parameter	Value Type	Description
3.2	workno	String	Agent ID.
3.3	mediatype	String	<p>Whether the agent successfully signs in to the media server of a specific type. T indicates success and F indicates failure. The three characters indicate CTI Server, WebM, and MailM, respectively. For example, TTF indicates that the agent successfully signs in to the CTI Server and WebM but fails to sign in to the MailM.</p> <p>The voice business can be processed only after the agent successfully signs in to the CTI Server. The text chat business can be processed only after the agent successfully signs in to the WebM. Currently, the agent cannot sign in to the MailM.</p>
3.4	loginTime	String	Sign-in time. The value is a timestamp.
3.5	isForceChange	String	<p>Whether to forcibly change the password. If the parameter is set to true, the agent must change the password after sign-in. To change the password, invoke the interface described in 6.1.1.16 Changing the Password (Extended).</p> <p>NOTE If the value is true but the agent does not change the password, the agent cannot make calls.</p>
3.6	serverName	String	Cluster name of the CC-Gateway to which an agent signs in.
3.7	timeRemaining	String	<p>Remaining password validity period. An empty string indicates that the agent password never expires. The value ranges from 0 to 180 days.</p>

Triggered Event

If the **status** parameter is set to **3** (busy) during sign-in, the following events are triggered:

- AgentOther_InService
- AgentState_Ready

- AgentState_SetNotReady_Success

If the **status** parameter is set to **4** (idle) during sign-in, the following events are triggered:

- AgentOther_InService
- AgentState_Ready

If the **status** parameter is set to **5** (wrap-up) during sign-in, the following events are triggered:

- AgentOther_InService
- AgentState_Ready
- AgentState_Work

If phone linkage is enabled during sign-in, the following event is triggered:

- AgentEvent_linkageCapability

Error Code

- 100-001
- 100-002
- 100-003
- 100-004
- 100-007
- 100-012
- 100-015
- 100-016
- 110-016
- 999-001

Example

- Message header
Content-Type:application/json; charset=UTF-8

- Request parameter

```
{
  "password": "",
  "phonenum": "40038",
  "status": "4",
  "releasephone": "false",
  "agenttype": "4"
}
```

- Response parameter

```
{
  "result": {
    "workno": "49191",
    "loginTime": "1639623440728",
    "vdnid": 41,
    "serverName": "AgentGateway1",
    "timeRemaining": "89",
    "isForceChange": "false",
    "mediatype": "TTF"
  },
  "message": "success",
}
```



```
"retcode": "0"  
}
```

6.1.1.3 Maintaining the Heartbeat by an Agent

Prerequisites

The agent has signed in.

Description

When the event push mode is used after an agent signs in, the third-party system needs to periodically invoke the heartbeat interface to maintain the session. The recommended invoking interval is 30 seconds. If no heartbeat message is received within 2 minutes, the agent signs out.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

`https://ip:port/agentgateway/resource/onlineagent/{agentid}/handshake`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-13 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

handShake

Request Description

- Message header

Table 6-14 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).
3	service_token	string	No	User-defined. The value contains a maximum of 50 characters and cannot contain special characters. Otherwise, 100-001 is returned. It is recommended that the page be dynamically refreshed every minute.

- Message body
None

Response Description

Table 6-15 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: <ul style="list-style-type: none"> • 0: success • Other values: failure For details, see 6.5.2 Error Codes .

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
service_token:*****
- Request parameter
None
- Response parameter
{
 "message": "success",
 "retcode": "0"
}

6.1.1.4 Sending Notes

Prerequisites

- The agent has signed in.

Description

This interface is used to send notes between agents.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

https://ip:port/agentgateway/resource/onlineagent/{agentid}/sendnoteletex

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-16 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

sendNoteletEx

Request Description

- Message header

Table 6-17 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body

Table 6-18 Parameters in the message body

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	agentIds	int	Yes	ID of the agent who receives the note. A maximum of 100 agent IDs can be transferred.
2	content	string	Yes	Indicates the note content. The value contains 0 to 1023 bytes and supports Chinese characters.

Response Description

Table 6-19 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	Map	Object in the returned result after a successful query.

Triggered Event

If the agent who receives the note signs in, the following event is triggered:

- AgentOther_Note

Error Code

- 100-001
- 100-006
- 100-007

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter

```
{
  "agentIds": [
    31002,
    31003
  ],
  "content": "hello"
}
```
- Response parameter

```
{
  "result": null,
  "message": "success",
  "retcode": "0"
}
```

6.1.1.5 Querying Configured Skill Queues

Prerequisites

The agent has signed in.

Description

This interface is used by an agent that has signed in to query configured skill queue information.

Interface Method

The request method must be set to GET. This interface supports only the GET method.

URI

https://ip:port/agentgateway/resource/onlineagent/{agentid}/agentskills

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-20 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

queryAgentSkills

Request Description

- Message header

Table 6-21 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-22 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: <ul style="list-style-type: none"> • 0: success • Other values: failure
3	result	array	Object in the returned result after a successful query. For details about the parameters of this object, see Table 6-23 .

Table 6-23 Parameter description of result

No.	Parameter	Value Type	Description
3.1	name	string	Skill name.
3.2	id	int	Indicates the ID of a skill.

No.	Parameter	Value Type	Description
3.3	mediatype	int	Media type. The options are as follows: <ul style="list-style-type: none"> • 1: text chat • 2: click-to-dial call • 4: callback request • 5: common voice or video call • 15: predicted outbound call • 16: previewed outbound call • 17: message call • 19: common video call • 51: multimedia web chat • 53: social chat

Triggered Event

None

Error Code

- 100-006
- 100-007

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```

{
  "result": [
    {
      "name": "defaultMediaSkill",
      "id": 1,
      "mediatype": 53
    }
  ],
  "message": "success",
  "retcode": "0"
}

```

6.1.1.6 Querying Configured Skill Queues of Specified Agents

Prerequisites

The agent has signed in.

Description

This interface is used by an agent that has signed in to query configured skill queue information of specified agents.

Interface Method

The request method must be set to GET. This interface supports only the GET method.

URI

https://ip:port/agentgateway/resource/onlineagent/{agentid}/agentskillsbyworkno/{workno}

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-24 Parameters in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.
2	workno	string	Yes	ID of the agent to be queried. The value ranges from 101 to 59999. The agent ID must belong to the same VDN as the value of agentid .

Method Name in Logs

queryAgentSkillsByWorkNo

Request Description

- Message header

Table 6-25 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-26 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: <ul style="list-style-type: none"> • 0: success • Other values: failure
3	result	array	Object in the returned result after a successful query. For details about the parameters of this object, see Table 6-27 .

Table 6-27 Parameter description of result

No.	Parameter	Value Type	Description
3.1	name	string	Skill name.
3.2	id	int	Indicates the ID of a skill.

No.	Parameter	Value Type	Description
3.3	mediatype	int	Media type. The options are as follows: <ul style="list-style-type: none"> • 1: text chat • 2: click-to-dial call • 4: callback request • 5: common voice or video call • 15: predicted outbound call • 16: previewed outbound call • 17: message call • 19: common video call • 51: multimedia web chat • 53: social chat

Triggered Event

None

Error Code

- 100-006
- 100-007

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```

{
  "result": [
    {
      "name": "defaultMediaSkill",
      "id": 1,
      "mediatype": 53
    },
    {
      "name": "defaultAudioSkill",
      "id": 3,
      "mediatype": 5
    }
  ],
  "message": "success",
  "retcode": "0"
}

```

6.1.1.7 Setting Automatic Answering

Prerequisites

- The agent has signed in.

Description

This interface is used to set whether agent automatic answering is enabled.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

`https://ip:port/agentgateway/resource/onlineagent/{agentid}/autoanswer/{isautoanswer}`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-28 Parameters in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.
2	isautoanswer	string	Yes	Whether to automatically answer a call. The options are as follows: <ul style="list-style-type: none">• true: automatic answer• Value other than true: manual answer. The value contains a maximum of five characters.

Method Name in Logs

setAgentAutoAnswer

Request Description

- Message header

Table 6-29 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-30 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Reserved field.

Triggered Event

- None

Error Code

- 000-002
- 100-006

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{
  "result": {},
  "message": "success",
  "retcode": "0"
}
```

6.1.1.8 Resetting Skill Queues

Prerequisites

- The agent has signed in.

Description

This interface is used to reset skill queues.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

`https://ip:port/agentgateway/resource/onlineagent/{agentid}/resetskill/{autoflag}?skillid={skillid}&phonelinkage={phonelinkage}`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-31 Parameters in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
2	autoflag	boolean	Yes	<p>Whether to sign in to all skill queues. The options are as follows:</p> <ul style="list-style-type: none">• true: Automatically sign in to the skill configured for the agent.• false: Sign in to a specified skill queue. <p>Values other than true are processed as false.</p>
3	skillid	string	No	<p>Skill queue ID.</p> <p>When autoflag is set to false and skillid is left empty, the agent does not sign in to any skill queue. The value of skillid is a skill queue ID string group (for example, 1;2;3) and can contain a maximum of 4000 characters. The skill queue to which the agent logs in is the intersection of the skill queue specified by skillid and the configured skill queue.</p>

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
4	phonelinkage	int	No	Whether to enable phone linkage (connection and hardphone linkage control). The options are as follows: <ul style="list-style-type: none"> • 1: yes • 0: no Currently, only eSpace 7910 phones on the CC network are supported.

Method Name in Logs

resetSkill

Request Description

- Message header

Table 6-32 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-33 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Reserved field.

Triggered Event

- None

Error Code

- 000-002
- 100-006
- 100-007

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{
  "result": {},
  "message": "success",
  "retcode": "0"
}
```

6.1.1.9 Setting Idle

Prerequisites

- The agent has signed in.

Description

This interface is used to set the agent state to idle.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

https://ip:port/agentgateway/resource/onlineagent/{agentid}/sayfree

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-34 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

sayFree

Request Description

- Message header

Table 6-35 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-36 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Reserved field.

Triggered Event

- When the busy indicating state is changed to the idle state.
AgentState_CancelNotReady_Success
- When the adjust state is changed to idle state.
AgentState_CancelWork_Success

Error Code

- 100-006
- 100-007
- 100-009

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{
  "result": {},
  "message": "success",
  "retcode": "0"
}
```

6.1.1.10 Setting Busy

Prerequisites

The agent has signed in.

Description

This interface is used to set the agent state to busy.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

`https://ip:port/agentgateway/resource/onlineagent/{agentid}/saybusy?reason={reason}&prolong={false}`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-37 Parameters in the URI

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.
2	reason	int	No	Indicates the busy reason code. If this parameter is left empty or set to 0 , no busy reason code is available. The value is an integer ranging from 200 to 250. This parameter is mandatory when an agent in busy state shows busy again.

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
3	prolong	boolean	No	Indicates whether to reset the busy reason when the agent is busy. The options are true and false . The default value is false . This parameter is mandatory when an agent in busy state shows busy again.

Method Name in Logs

sayBusy

Request Description

- Message header

Table 6-38 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-39 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: <ul style="list-style-type: none"> ● 0: success ● Other values: failure
3	result	object	Reserved field.

Triggered Event

AgentState_SetNotReady_Success

Error Code

- 000-002
- 100-006
- 100-007
- 100-009

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{
  "result": {},
  "message": "success",
  "retcode": "0"
}
```

6.1.1.11 Canceling the Busy State

Prerequisites

- The agent has signed in.
- The agent is in busy state.

Description

This interface is used to cancel the busy state of an agent.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

https://ip:port/agentgateway/resource/onlineagent/{agentid}/cancelbusy

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-40 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

cancelBusy

Request Description

- Message header

Table 6-41 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-42 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Reserved field.

Triggered Event

- AgentState_CancelNotReady_Success

Error Code

- 100-006
- 100-007
- 100-009

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{
  "result": {},
  "message": "success",
  "retcode": "0"
}
```

6.1.1.12 Applying for Rest

Prerequisites

- The agent has signed in.

Description

The agent requests for rest.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

`https://ip:port/agentgateway/resource/onlineagent/{agentid}/rest/{time}/{restcause}?prolong={false}`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-43 Parameters in the URI

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.
2	time	long	Yes	Rest duration. The unit is second. The value ranges from 1 to 86399.
3	restcause	int	Yes	Rest cause code. Rest cause code configured on the platform. The value ranges from 0 to 255. The value 0 indicates no rest cause code.
4	prolong	boolean	No	Whether to reset the rest reason when the agent is in rest state. The options are true and false . The default value is false . This parameter is mandatory when an agent in rest state sets the state to rest again.

Method Name in Logs

rest

Request Description

- Message header

Table 6-44 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-45 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Reserved field.

Triggered Event

- AgentState_SetRest_Success

- AgentState_Rest_Timeout

Error Code

- 100-006
- 100-007
- 100-009

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{  
  "result": {},  
  "message": "success",  
  "retcode": "0"  
}
```

6.1.1.13 Canceling Rest

Prerequisites

- The agent has signed in.
- The agent is in rest state.

Description

This interface is used by an agent to cancel rest.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

`https://ip:port/agentgateway/resource/onlineagent/{agentid}/cancelrest`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-46 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

cancelRest

Request Description

- Message header

Table 6-47 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-48 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.

No.	Parameter	Value Type	Description
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Reserved field.

Triggered Event

- AgentState_CancelRest_Success

Error Code

- 100-006
- 100-007
- 100-009

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{
  "result": {},
  "message": "success",
  "retcode": "0"
}
```

6.1.1.14 Entering the Work State

Prerequisites

- The agent has signed in.

Description

This interface is used by an agent to enter the work state.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

<https://ip:port/agentgateway/resource/onlineagent/{agentid}/work>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-49 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

sayWork

Request Description

- Message header

Table 6-50 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-51 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Reserved field.

Triggered Event

- AgentState_SetWork_Success

Error Code

- 100-006
- 100-007
- 100-009

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{
  "result": {},
  "message": "success",
  "retcode": "0"
}
```

6.1.1.15 Quitting the Work State

Prerequisites

- The agent has signed in.
- The agent is in working state.

Description

This interface is used by an agent to quit the work state.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

https://ip:port/agentgateway/resource/onlineagent/{agentid}/cancelwork

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-52 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

cancelWork

Request Description

- Message header

Table 6-53 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-54 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Reserved field.

Triggered Event

- AgentState_CancelWork_Success

Error Code

- 100-006
- 100-007
- 100-009

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{
  "result": {},
  "message": "success",
  "retcode": "0"
}
```

6.1.1.16 Changing the Password (Extended)

Prerequisites

- The agent has signed in.

Description

This interface is used by an agent to change the password.

 **NOTE**

1. The new password can contain 8 to 32 characters.
2. The new password cannot contain two or more consecutive identical characters.
3. The new password cannot contain three or more consecutive characters in **workno**.
4. The new password must contain three or more types of the following characters: uppercase letters, lowercase letters, digits, and special characters.
5. The new password must be different from the last five (the quantity is configurable on the WAS) passwords.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

https://ip:port/agentgateway/resource/onlineagent/{agentid}/modifyaccountpwdex

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-55 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

modifyAccountPwdEx

Request Description

- Message header

Table 6-56 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body

Table 6-57 Parameters in the message body

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	oldPassword	string	Yes	Old password. The value is a string of 8 to 32 characters.
2	newPassword	string	Yes	New password. The value is a string of 8 to 32 characters.

Response Description

Table 6-58 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Reserved field.

Triggered Event

- None

Error Code

- 000-002
- 100-006
- 100-007

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter

```
{
  "oldPassword": "*****",
  "newPassword": "#####"}

```
- Response parameter

```
{
  "result": {},
  "message": "success",
  "retcode": "0"}

```

6.1.1.17 Setting Whether to Enter the Idle State

Prerequisites

- The agent has signed in.

Description

This interface is used to set whether an agent enters the idle state after releasing a call.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

<https://ip:port/agentgateway/resource/onlineagent/{agentid}/autoenteridle/{flag}>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-59 Parameters in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
2	flag	string	Yes	<p>Whether to enter the idle state. The options are as follows:</p> <ul style="list-style-type: none"> • true: Automatically enter the idle state. • Value other than true: Enter the wrap-up state. Only a string of 1 to 5 characters can be entered. <p>NOTE In non-always-off-hook mode, the system must automatically enter the wrap-up state.</p>

Method Name in Logs

setAgentAutoEnterIdle

Request Description

- Message header

Table 6-60 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-61 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Reserved field.

Triggered Event

- None

Error Code

- 100-006
- 100-007

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter
{
 "result": {},

```
"message": "success",
"retcode": "0"
}
```

6.1.1.18 Signing Out

Prerequisites

- The agent has signed in.

Description

This interface is used to sign out an agent.

NOTE

- When an agent is in talking or answering state, the agent will not be signed out if this interface is invoked.
- For an agent:
 - If the sign-out interface does not respond, the sign-in interface cannot be invoked.
 - If the sign-in interface does not respond, the sign-out interface cannot be invoked.

Interface Method

The request method must be set to DELETE. This interface supports only the DELETE method.

URI

<https://ip:port/agentgateway/resource/onlineagent/{agentid}/logout>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-62 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

logout

Request Description

- Message header

Table 6-63 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-64 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Reserved field.

Triggered Event

- AgentOther_ShutdownService

 **NOTE**

If the agent signs out, the event will not always be received. If the event is received, the agent has been signed out.

Error Code

- 100-005

- 100-006
- 100-007
- 100-008

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{  
  "result": {},  
  "message": "success",  
  "retcode": "0"  
}
```

6.1.1.19 Forcibly Signing Out

Prerequisites

The agent has signed in.

Description

This interface is invoked by an inspector to forcibly sign out an agent.

NOTE

For an agent:

- If the sign-out interface does not respond, the sign-in interface cannot be invoked.
- If the sign-in interface does not respond, the sign-out interface cannot be invoked.

Interface Method

The request method must be set to DELETE. This interface supports only the DELETE method.

URI

`https://ip:port/agentgateway/resource/onlineagent/{agentid}/forcelogout`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-65 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

forceLogout

Request Description

- Message header

Table 6-66 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-67 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.

No.	Parameter	Value Type	Description
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure

Triggered Event

- AgentOther_ShutdownService

NOTE

If the agent signs out, the event will not always be received. If the event is received, the agent has been signed out.

Error Code

- None

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{
  "message": "success",
  "retcode": "0"
}
```

6.1.1.20 Forcibly Signing Out with a Cause Code

Prerequisites

- The agent has signed in.

Description

This interface is used to forcibly sign out an agent with a cause code.

Interface Method

The request method must be set to DELETE. This interface supports only the DELETE method.

URI

`https://ip:port/agentgateway/resource/onlineagent/{agentid}/forcelogoutwithreason/{reason}`

In the URL, **ip** indicates the IP address of the CC-Gateway, **port** indicates the HTTPS port number of the CC-Gateway, **{agentid}** indicates the employee ID of the agent that has logged in, and **{reason}** indicates the cause code of agent sign-out (ranging from 1 to 255).

Table 6-68 Parameters in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.
2	reason	int	Yes	Agent sign-out reason code. The value ranges from 1 to 255.

Method Name in Logs

forceLogoutWithReason

Request Description

- Message header

Table 6-69 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-70 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure

Triggered Event

- AgentOther_ShutdownService

 **NOTE**

If the agent signs out, the event will not always be received. If the event is received, the agent has been signed out.

Error Code

100-005

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{
  "message": "success",
  "retcode": "0"
}
```

6.1.1.21 Getting Agent Status

Prerequisites

- The agent has signed in.

Description

This interface is used to get the current status of the agent.

Interface Method

The request method must be set to GET. This interface supports only the GET method.

URI

https://ip:port/agentgateway/resource/onlineagent/{agentid}/agentstatus

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-71 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

getAgentStatus

Request Description

- Message header

Table 6-72 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-73 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	array	For details, see Table 6-74 .

Table 6-74 Agent Status Information

No.	Parameter	Value Type	Description
3.1	agentState	int	Agent status. For details, see Table 6-452 .
3.2	isWorking	boolean	false : The agent is not talking. true : The agent is talking.

Triggered Event

- None

Error Code

- 000-002

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter


```
{
  "message": "",
  "retcode": "0",
  "result": {
    "agentState": 4,
    "isWorking": false
  }
}
```

6.1.1.22 Setting Whether to Answer Inbound Calls

Prerequisites

- The agent has signed in.

Description

This interface is used to set whether an agent answers inbound calls.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

`https://ip:port/agentgateway/resource/onlineagent/{agentid}/settalkright?flag={flag}`

In the URL, *ip* indicates the IP address of the agent gateway, *port* indicates the HTTPS port number of the agent gateway, *{agentid}* indicates the agent ID, and *{flag}* indicates whether to answer inbound calls (**1**: yes; **0**: no).

Table 6-75 Parameters in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.
2	flag	int	Yes	Whether to answer an inbound call. The options are as follows: <ul style="list-style-type: none"> 1: Answer an inbound call. 0: Do not answer an inbound call.

Method Name in Logs

setTalkRight

Request Description

- Message header

Table 6-76 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-77 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Reserved field.

Triggered Event

- None

Error Code

- 000-002
- 100-007

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{
  "result": {},
  "message": "success",
  "retcode": "0"
}
```

6.1.1.23 Signing In to the Platform by an Agent

NOTE

The agent only signs in to the CCS and does not sign in to the media server. Therefore, no license is occupied.

Prerequisites

None

Function

This interface is used by an agent to sign in to the platform. The agent only signs in to the CCS (the voice call function is enabled) and does not sign in to the media server. Therefore, no license is occupied.

Interface Method

The request method must be set to PUT. This interface supports only the PUT method.

URI

<https://ip:port/agentgateway/resource/onlineagent/{agentid}/loginex>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-78 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

loginEx

Request Description

- Message header

Table 6-79 Parameter in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .

- Message body

Table 6-80 Parameters in the message body

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	password	string	Yes	Agent password. The value can contain a maximum of 32 characters and can be empty.
2	phonenum	string	No	Agent phone number. The value can contain a maximum of 24 characters.
3	autoanswer	boolean	No	Whether to enable automatic answering. The default value is true .
4	autoenteridle	boolean	No	Whether to enter the idle state automatically. The default value is true .
5	releasephone	boolean	No	Whether an agent enters the non-always-off-hook state (the phone is hung up after the call ends) after the agent hangs up. The default value is true .

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
6	agenttype	int	No	Type of the agent who signs in. The default value is 4 . The options are 4 (PC+phone agent) and 11 (PC+phone video agent).
7	status	int	No	Status after an agent signs in. The default value is 4 . 3 : busy 4 : idle 5 : wrap-up
8	ip	string	No	Agent IP address. The default value is 127.0.0.1 and can contain a maximum of 15 characters. IPv6 addresses are not supported.
9	entrylp	string	No	IP address of the gateway to which the agent client application connects.
10	phonelinkage	boolean	No	Whether to enable phone linkage (connection and hardphone linkage control). The default value is false .
11	checkInWebm	boolean	No	Whether to sign in to the WebM media server. The default value is true .
12	checkInMailm	boolean	No	Whether to sign in to the MailM server. The default value is false .
13	vcPhoneNumber	string	No	VC number. The value contains a maximum of 24 characters.
14	listenStatus	boolean	No	Whether an inspector listens to the sign-in and sign-out operations of an agent. The default value is false .

Response Description

Table 6-81 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: <ul style="list-style-type: none"> ● 0: success ● Other values: failure
3	result	Map	Object in the returned result after a successful query. For details about the parameters of this object, see Table 6-82 .

Table 6-82 Parameter description of result

No.	Parameter	Value Type	Description
3.1	vdnid	string	VDN ID.
3.2	workno	string	Agent ID.
3.3	mediatype	string	Whether the agent successfully signs in to the media server of a specific type. T indicates success and F indicates failure. The three characters indicate CTI Server, WebM, and MailM, respectively. The voice business can be processed only after the agent successfully signs in to the CTI Server. The text chat business can be processed only after the agent successfully signs in to the WebM. Currently, the agent cannot sign in to the MailM.
3.4	loginTime	string	Sign-in time.
3.5	isForceChange	string	Whether to forcibly change the password. If the parameter is set to true , the agent must change the password after sign-in. NOTE The value false may cause security risks. Exercise caution when using this value. The value true is recommended, indicating that the password must be changed upon the next login.

No.	Parameter	Value Type	Description
3.6	serverName	string	Cluster name of the CC-Gateway to which an agent signs in.
3.7	timeRemaining	string	Remaining password validity period. An empty string indicates that the agent password never expires. The value ranges from 0 to 180 days. NOTE An empty string may cause security risks. Exercise caution when using an empty string. A value within the value range is recommended to ensure that the password is changed periodically.

Triggered Event

If the **status** parameter is set to **3** (busy) during sign-in, the following events are triggered:

- AgentOther_InService
- AgentState_Ready
- AgentState_SetNotReady_Success

If the **status** parameter is set to **4** (idle) during sign-in, the following events are triggered:

- AgentOther_InService
- AgentState_Ready

If the **status** parameter is set to **5** (wrap-up) during sign-in, the following events are triggered:

- AgentOther_InService
- AgentState_Ready
- AgentState_Work

Error Code

- 100-001
- 100-002
- 100-003
- 100-004
- 100-007
- 100-012
- 100-015
- 100-016
- 110-016

- 999-001

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter

```
{
  "password": "",
  "phonenum": "40038",
  "status": "4",
  "releasephone": "false",
  "agenttype": "4"
}
```
- Response parameter

```
{
  "message": "",
  "retcode": "0",
  "result": {
    "vdnid": 1,
    "workno": "291",
    "mediatype": "TTF",
    "loginTime": "1471585949806",
    "isForceChange": "false",
    "serverName": "AgentGateway",
    "timeRemaining": "9"
  }
}
```

6.1.1.24 Actively Requesting to Update the GUID When the Agent Page Is Refreshed

Prerequisites

- The agent has signed in.

Description

This interface is used for an agent to actively request to update the GUID when the agent page is refreshed.

Interface Method

The request method must be set to PUT. This interface supports only the PUT method.

URI

<https://ip:port/agentgateway/resource/onlineagent/{agentid}/updateGuid>

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

Table 6-83 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

updateGuid

Request Description

- Message header

Table 6-84 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-85 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.

No.	Parameter	Value Type	Description
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Object in the returned result after a successful query. For details about the parameters of this object, see Table 6-86 .

Table 6-86 Parameter description of **result**

No.	Parameter	Value Type	Description
3.1	guid	string	Indicates the unique GUID after each configured user signs in.

Triggered Event

None

Error Code

- 100-006

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{
  "result": {
    "guid": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1"
  },
  "message": "success",
  "retcode": "0"
}
```

6.1.1.25 Synchronizing the Agent Status and Call Information When the Agent Page Is Refreshed

CAUTION

This interface is used only for status synchronization after the browser is refreshed. Invoking this interface will clear the event queue.

Prerequisites

- The agent has signed in.

Description

This interface is used to synchronize the agent status and call information when the agent page is refreshed.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

https://ip:port/agentgateway/resource/onlineagent/{agentid}/syncagentinfo

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

Table 6-87 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

syncagentinfo

Request Description

- Message header

Table 6-88 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-89 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Object in the returned result after a successful query. For details about the parameters of this object, see Table 6-90 .

Table 6-90 Parameter description of **result**

No.	Parameter	Value Type	Description
3.1	callinfo	string	Indicates the call information.

No.	Parameter	Value Type	Description
3.2	agentStateInfo	object	Agent status information. Table 6-91 describes the parameters of this object.

Table 6-91 Parameter description of agentStateInfo

No.	Parameter	Value Type	Description
3.2.1	callFeature	int	Indicates the original call type. Feature ID. For details, see Table 6-92 .
3.2.2	callData	string	Indicates the call-related information
3.2.3	lastState	int	Indicates the last status of an agent.
3.2.4	preBusy	boolean	Indicates whether to show busy.
3.2.5	firsttalkingFlag	boolean	Indicates whether the call is the first call.
3.2.6	workNo	string	Agent ID.
3.2.7	qcWorkNo	string	Indicates the ID of an inspector.
3.2.8	callerNo	string	Calling number.
3.2.9	beginHoldTime	string	Start hold time. The value is a timestamp, in milliseconds.
3.2.10	state	int	Agent status. For details about the status code and its meaning, see Table 6-454 .
3.2.11	talkingCallfeature	int	Original call type. For details, see Table 6-92 .
3.2.12	releaseFlag	int	Indicates whether a session is released. This parameter is reserved.
3.2.13	calledNo	string	Called number.
3.2.14	mainCallId	string	Indicates the callid of the first call.

No.	Parameter	Value Type	Description
3.2.15	secondTalkingTime	string	Second call duration. The value is a timestamp, in milliseconds.
3.2.16	preRest	boolean	Indicates whether to take a rest.
3.2.17	recordID	string	Indicates the serial number of the recording.
3.2.18	currentTime	string	Current time. The value is a timestamp, in milliseconds.
3.2.19	beginTalkingTime	string	Start call duration. The value is a timestamp, in milliseconds.
3.2.20	partner	string	Indicates the partner.
3.2.21	holdCallId	string	Indicates the callid of the holding call.
3.2.22	agentStateBegin-Time	string	Start time of the agent state. The value is a timestamp, in milliseconds.
3.2.23	curCommand	int	Current command. For details, see Table 6-93 .
3.2.24	curCallId	string	Indicates the callid of the current call.
3.2.25	cmdBeginTime	string	Command start time. The value is a timestamp, in milliseconds.

Table 6-92 Call type information

State Value	Description
-1	Others.
0	Common inbound call.
6	Internal call.
7	Common call.
41	HPS preempted outbound call.
44	HPS predicted outbound call.
45	HPS reserved callback.
51	Internal two-party consultation.
52	Internal three-party consultation.

State Value	Description
53	Multi-party call.

Table 6-93 Operation command information

State Value	Description
0	None.
1	The agent hooks on a call.
2	The agent is disconnected.
3	The called party hangs up.
4	First outbound call.
5	Outbound call.
6	Hold state.
7	Unhold state.
8	Mute state.
9	Unmute state.
10	Blind transfer.
11	Release-after-transfer.
12	Talk forwarding.
13	Release-after-three-way-talk forwarding.
14	Hang-up transfer.
15	Special transfer.
16	Two-party help.
17	Three-party help.
18	Three-party call.
19	Playback state.
20	Insertion.
21	Listen.
22	Switch.
23	Intercept.
24	Whisper.

State Value	Description
30	Show busy.
31	Rest.

Triggered Event

None

Error Code

- 100-007
- 100-011

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1

- Request parameter

None

- Response parameter

```
{
  "result": {
    "callinfo": null,
    "agentStateInfo": {
      "callFeature": 0,
      "callData": "",
      "lastState": 255,
      "preBusy": false,
      "firsttalkingFlag": false,
      "workNo": "41001",
      "qcWorkNo": "",
      "callerNo": "",
      "beginHoldTime": null,
      "state": 1,
      "talkingCallfeature": 0,
      "releaseFlag": 0,
      "calledNo": "",
      "mainCallId": "",
      "secondTalkingTime": null,
      "preRest": false,
      "recordID": "",
      "currentTime": "1566636307992",
      "beginTalkingTime": null,
      "partner": "",
      "holdCallId": "",
      "agentStateBeginTime": 1566636286408,
      "curCommand": 0,
      "curCallId": "",
      "cmdBeginTime": ""
    }
  },
  "message": "success",
  "retcode": "0"
}
```

6.1.1.26 Obtaining Token Information

Prerequisites

- The agent has signed in.

Description

After an agent signs in, a temporary token needs to be obtained as the password for softphone number registration in the multi-account unified authentication scenario.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

https://ip:port/agentgateway/resource/onlineagent/{agentid}/logininfo

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-94 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	String	True	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

loginInfo

Request Description

- Message header

Table 6-95 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	String	True	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	String	True	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-96 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	String	Description.
2	retcode	String	Error code. The options are as follows: <ul style="list-style-type: none"> • 0: success • Other values: failure For details, see 6.5.2 Error Codes .
3	result	object	Object in the returned result after a successful query. For details about the parameters of this object, see Table 6-97 .

Table 6-97 Parameter description of result

No.	Parameter	Value Type	Description
3.1	phonetoken	String	Temporary token.
3.2	phonenum	String	Softphone number used by an agent to sign in.

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{
  "result": {
    "phonenum": "88880001",
    "phonetoken": "XXX"
  },
  "message": "success",
  "retcode": "0"
}
```

6.1.1.27 Customizing Status by an Agent

Prerequisites

The agent has signed in.

Description

This interface is used by an agent to customize status.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

`https://ip:port/agentgateway/resource/onlineagent/{agentid}/setcustomstate?customstate={customstate}`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-98 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.
2	customstate	integer	Yes	Customized agent status. The value ranges from 0 to 65534. NOTE The meaning is defined by the business side.

Method Name in Logs

setCustomState

Request Description

- Message header

Table 6-99 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-100 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Result returned after a successful query.

Triggered Event

None

Error Code

- 000-002
- 000-003
- 100-006
- 100-009

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{  
  "message": "success",  
  "retcode": "0",  
  "result": {}  
}
```

6.1.1.28 Querying Customized Status by an Agent

Prerequisites

The agent has signed in.

Description

This interface is used by an agent to query customized status.

Interface Method

The request method must be set to GET. This interface supports only the GET method.

URI

https://ip:port/agentgateway/resource/onlineagent/{agentid}/querycustomstate

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-101 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	True	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

queryCustomState

Request Description

- Message header

Table 6-102 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	True	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	True	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-103 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Customized agent status.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Result returned after a successful query.

Triggered Event

None

Error Code

- 000-003
- 100-006
- 100-007

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{  
  "result": {  
    "agentcustomstate": "65535"  
  },  
  "message": "success",  
  "retcode": "0"  
}
```

6.1.1.29 Canceling Status Customization by an Agent

Prerequisites

- The agent has signed in.

- The agent has customized the status.

Description

This interface is used by an agent to cancel status customization.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

`https://ip:port/agentgateway/resource/onlineagent/{agentid}/cancelsetcustomstate`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-104 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

cancelSetCustomState

Request Description

- Message header

Table 6-105 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-106 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Result returned after a successful query.

Triggered Event

None

Error Code

- 000-003
- 100-006
- 100-009

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None

- Response parameter

```
{
  "message": "success",
  "retcode": "0",
  "result": {}
}
```

6.1.2 Call Control Interfaces: voicecall

6.1.2.1 Making a Common Outbound Call

Prerequisites

- The agent has signed in.
- The agent is not answering any call (except a held call).

Description

This interface is used by an agent that has signed in to make an outbound call.

Interface Method

The request method must be set to PUT. This interface supports only the PUT method.

URI

`https://ip:port/agentgateway/resource/voicecall/{agentid}/callout`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-107 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

callout

Request Description

- Message header

Table 6-108 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body

Table 6-109 Parameters in the message body

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	caller	string	No	Calling number. The value can be empty. If the value is empty, the default calling number of the platform is used. The value contains a maximum of 24 digits.
2	called	string	Yes	Called number. It cannot be left empty and must be a 1- to 24-digit number or * or #.
3	skillid	int	No	Skill ID. It is in numeral format and can be empty. If the value is empty, the default skill queue ID preconfigured by the platform is used.
4	callappdata	string	No	Call-associated data. It can be left empty. The maximum value is 16 KB.

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
5	mediaability	int	No	<p>Media capability. The default value is 0. The options are as follows: 0: audio; 1: video; 2: A default outbound call is made based on the negotiation between the host and the terminal.</p> <p>NOTE When a video call is switched to a voice call, the call will be directly disconnected after being answered because media negotiation fails. You are advised to set mediaability to 2 (call with the maximum capability) for video outbound calls.</p>

Response Description

Table 6-110 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	<p>Error code. The options are as follows:</p> <p>0: success</p> <p>Other values: failure</p>
3	result	string	<p>After a call is successful, the unique call ID is returned.</p> <p>This parameter is not returned when a call fails.</p>

Triggered Event

- AgentOther_PhoneAlerting
- AgentOther_PhoneOffhook
- AgentState_Busy
- AgentEvent_Customer_Alerting
- AgentEvent_Talking
- AgentEvent_Call_Out_Fail

- OUTBOUND_DETECT_EVENT

Error Code

- 000-002
- 100-006
- 100-007
- 200-001

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter

```
{  
  "caller": "40038",  
  "called": "40040",  
  "skillid": 25,  
  "callappdata": "",  
  "mediaability": 1  
}
```
- Response parameter

```
{  
  "message": "",  
  "retcode": "0",  
  "result": "1455885056-1095"  
}
```

6.1.2.2 Making a Previewed Outbound Call

Prerequisites

- The agent has signed in.
- The agent is not answering any call (except a held call).
- The agent has received a previewed outbound call event.

Description

After receiving a previewed outbound call event, the agent calls a subscriber using the previewed outbound call interface.

Interface Method

The request method must be set to PUT. This interface supports only the PUT method.

URI

`https://ip:port/agentgateway/resource/voicercall/{agentid}/previewCallout`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-111 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

previewCallout

Request Description

- Message header

Table 6-112 Parameter in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body

Table 6-113 Parameters in the message body

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	called	string	Yes	Called number. The parameter must be contained in the dialeddigits field of a preview event. If the parameter is not contained in the dialeddigits field, a call cannot be made.
2	callcontrolid	long	Yes	Control block ID of a previewed outbound call. The value is the same as that of controlid in the previewed outbound call event.

Response Description

Table 6-114 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	string	After a call is successful, the unique call ID is returned. This parameter is not returned when a call fails.

Triggered Event

- AgentOther_PhoneAlerting
- AgentOther_PhoneOffhook
- AgentEvent_Talking
- AgentEvent_Call_Out_Fail

Error Code

- 000-002
- 100-006

- 100-007
- 200-001
- 200-036

Example

- **Message header**
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- **Request parameter**
{
 "called": "88889039",
 "callcontrolid": "11776"
}
- **Response parameter**
{
 "message": "",
 "retcode": "0",
 "result": "1455885056-1095"
}

6.1.2.3 Answering a Call

Prerequisites

- The agent has signed in.
- The agent has received the AgentEvent_Ringing event.

Description

This interface is used by an agent to answer a voice call.

Interface Method

The request method must be set to PUT. This interface supports only the PUT method.

URI

<https://ip:port/agentgateway/resource/voicecall/{agentid}/answer?{callid=XXXX}>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-115 Parameters in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
2	callid	string	No	Call ID. During a multimedia call, multiple call IDs exist. The call ID must be carried in the call response.

Method Name in Logs

answer

Request Description

- Message header

Table 6-116 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-117 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.

No.	Parameter	Value Type	Description
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Reserved field.

Triggered Event

- AgentEvent_Talking

Error Code

- 100-006
- 100-007
- 200-002

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{
  "result": {},
  "message": "success",
  "retcode": "0"
}
```

6.1.2.4 Making an Internal Call

Prerequisites

- The agent has signed in.
- The agent is not answering any call (except a held call).

Description

This interface is used by an agent that has signed in to make an internal call.

Interface Method

The request method must be set to PUT. This interface supports only the PUT method.

URI

<https://ip:port/agentgateway/resource/voicecall/{agentid}/callinner>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-118 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

callInner

Request Description

- Message header

Table 6-119 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body

Table 6-120 Parameters in the message body

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	called	string	Yes	Employee ID of the called agent. It cannot be left empty and must be a 1- to 24-digit number or * or #.
2	caller	string	No	Calling number. It can be left empty. The default value is the calling number pre-configured by the platform. It must be a 0- to 24-digit number.
3	skillid	int	No	Indicates the ID of a skill. The value is a number and can be left empty. When the parameter is left empty, the default skill ID configured on the platform is used.
4	callappdata	string	No	Indicates call-associated data. It can be left empty. The maximum value is 16 KB.
5	mediaability	int	No	This parameter is invalid for internal calls. An internal call is initiated based on the intersection of the media type to which the agent signs in and the media capability of the default skill queue of the VDN. If an agent signs in to a video media and the default skill queue of the VDN supports the video service, the internal call is a video call. In other cases, internal calls are voice calls.

Response Description

Table 6-121 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.

No.	Parameter	Value Type	Description
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	string	After a call is successful, the unique call ID is returned. This parameter is not returned when a call fails.

Triggered Event

- AgentOther_PhoneAlerting
- AgentOther_PhoneOffhook
- AgentState_Busy
- AgentEvent_Customer_Alerting
- AgentEvent_Talking
- AgentEvent_Inside_Call_Fail
- AgentEvent_Call_Out_Fail
- AgentEvent_Connect_Fail

Error Code

- 000-002
- 100-006
- 100-007
- 200-018

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
{
 "called": "40040"
}
- Response parameter
{
 "result": {},
 "message": "success",
 "retcode": "0"
}

6.1.2.5 Asking for Internal Help

Prerequisites

- The agent has signed in.

Description

This interface is used by an agent that has signed in to ask for internal help.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

https://ip:port/agentgateway/resource/voicerecall/{agentid}/innerhelp

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-122 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

innerHelp

Request Description

- Message header

Table 6-123 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body

Table 6-124 Parameters in the message body

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	dstaddress	string	Yes	Indicates the help object. It can be the employee ID of an agent or skill queue ID.
2	devicetype	int	No	Indicates the help device type. The value 1 indicates the skill queue and the value 2 indicates the employee ID of the agent. The default value is 2 .
3	mode	int	No	Indicates the help mode. The value 1 indicates asking for help during two-party conversation and the value 2 indicates asking for help during three-party conversation.
4	callappdata	string	No	Indicates the call-associated data. It can be left empty. The maximum value is 16 KB.
5	holdflag	boolean	No	Whether to hold a call during release-after-three-way-talk forwarding. The options are false (no) and true (yes). The default value is true .

Response Description

Table 6-125 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	string	Unique call ID returned upon successful helping. It is not returned if the help fails.

Triggered Event

- Asking for help during two-party
 - AgentEvent_Hold
 - AgentEvent_Customer_Alerting
 - AgentEvent_Talking
- Asking for help during third-party conversion
 - AgentEvent_Customer_Alerting
 - AgentEvent_Conference
- Internal help failure
 - AgentEvent_Consult_Fail

Error Code

- 100-006
- 100-007
- 200-018

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter

```
{
  "dstaddress": 49997,
  "devicetype": 2,
  "mode": 1,
  "callappdata": "",
  "holdflag": "true"
}
```
- Response parameter

```
{
  "message": "",

```

```
"retcode": "0",
"result": "1455885056-1095"
}
```

6.1.2.6 Muting a Call

Prerequisites

- The agent has signed in.
- The agent is making a call.

Description

This interface is used by an agent to mute an ongoing call.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

`https://ip:port/agentgateway/resource/voicecall/{agentid}/beginmute`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-126 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

beginMute

Request Description

- Message header

Table 6-127 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-128 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Reserved field.

Triggered Event

- None

Error Code

- 100-006
- 100-007
- 200-003
- 200-004

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{
  "result": {},
  "message": "success",
  "retcode": "0"
}
```

6.1.2.7 Unmuting a Muted Call

Prerequisites

- The agent has signed in.
- The agent has muted an ongoing voice call.

Description

This interface is used by an agent to unmute a muted call.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

<https://ip:port/agentgateway/resource/voicecall/{agentid}/endmute>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-129 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

endMute

Request Description

- Message header

Table 6-130 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-131 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Reserved field.

Triggered Event

- None

Error Code

- 100-006
- 100-007

- 200-007
- 200-008

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{
  "result": {},
  "message": "success",
  "retcode": "0"
}
```

6.1.2.8 Holding a Call

Prerequisites

- The agent has signed in.
- The agent has an ongoing call.

Description

This interface is used by an agent to hold an ongoing call.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

<https://ip:port/agentgateway/resource/voicecall/{agentid}/hold>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-132 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

hold

Request Description

- Message header

Table 6-133 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-134 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Reserved field.

Triggered Event

- AgentEvent_Hold

Error Code

- 100-006
- 100-007
- 200-013
- 200-014

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{  
  "result": {},  
  "message": "success",  
  "retcode": "0"  
}
```

6.1.2.9 Holding a Call

Prerequisites

- The agent has signed in.
- The agent has established a call.
- The agent is holding a call.

Description

This interface is used by an agent to keep an ongoing call or a held call.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

`https://ip:port/agentgateway/resource/voicecall/{agentid}/connecthold/{callid}`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-135 Parameters in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.
2	callid	string	Yes	Unique ID of a call.

Method Name in Logs

connectHold

Request Description

- Message header

Table 6-136 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-137 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Reserved field.

Triggered Event

- AgentEvent_Call_Release
- AgentEvent_Customer_Release
- AgentOther_PhoneRelease
- AgentMediaEvent_StopRecordDone

Error Code

- 100-006
- 100-007
- 200-013
- 200-014

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{
  "result": {},
  "message": "success",
  "retcode": "0"
}
```

6.1.2.10 Unholding a Call

Prerequisites

- The agent has signed in.
- The agent is holding a call.

Description

This interface is used by an agent to unhold a call.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

`https://ip:port/agentgateway/resource/voicecall/{agentid}/gethold?callid={callid}`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-138 Parameters in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.
2	callid	string	No	Unique ID of a call.

Method Name in Logs

getHold

Request Description

- Message header

Table 6-139 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-140 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Reserved field.

Triggered Event

- AgentEvent_Talking

Error Code

- 100-006
- 100-007
- 200-015
- 200-016

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None

- Response parameter

```
{
  "result": {},
  "message": "success",
  "retcode": "0"
}
```

6.1.2.11 Transferring a Call

Prerequisites

- The agent has signed in.
- The agent is making a call.
- Blind transfer is not supported when an outbound call is transferred to an outbound number (**devicetype** is set to 5).
- When the agent transfers the inbound call in blind transfer mode, the transfer may fail because the call is transferred to the original calling number that may be restricted from making outbound calls by the carrier.

Description

This interface is used by an agent to transfer an established call.

NOTE

Video calls do not support the following scenario:
The call is transferred to an external number in blind transfer mode.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

<https://ip:port/agentgateway/resource/voicercall/{agentid}/transfer>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-141 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	String	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

transfer

Request Description

- Message header

Table 6-142 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	String	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	String	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body

Table 6-143 Parameters in the message body

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	devicetype	Integer	Yes	Type of the device to which a call is transferred. The options are as follows: 1 : skill queue; 2 : agent; 3 : IVR; 4 : system access code; 5 : outbound number.

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
2	address	String	Yes	<p>Address to which a call is transferred. The value can contain a maximum of 24 characters. The options are as follows:</p> <ul style="list-style-type: none">• When devicetype is set to 1, set this parameter to the skill queue ID.• When devicetype is set to 2, set this parameter to the ID of the agent to whom the call is transferred.• When devicetype is set to 3, set this parameter to the IVR flow access code.• When devicetype is set to 4, set this parameter to the system access code.• When devicetype is set to 5, set this parameter to the outbound number.

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
3	mode	Integer	Yes	<p>Indicates the transfer mode.</p> <p>When devicetype is set to 1, the options are as follows:</p> <ul style="list-style-type: none"> 0: blind transfer 2: release-after-transfer <p>When devicetype is set to 2, the options are as follows:</p> <ul style="list-style-type: none"> 0: blind transfer 2: release-after-transfer <p>When devicetype is set to 3, the options are as follows:</p> <ul style="list-style-type: none"> 0: blind transfer 1: hang-up transfer <p>NOTE During hang-up transfer, a call can be transferred to a voice or video IVR flow but cannot be transferred to an agent.</p> <p>When devicetype is set to 4, the options are as follows:</p> <ul style="list-style-type: none"> 0: blind transfer 2: release-after-transfer <p>When devicetype is set to 5, the options are as follows:</p> <ul style="list-style-type: none"> 1: blind transfer (An outbound call cannot be transferred to a specified number in blind transfer mode.) 2: release-after-transfer 3: talk forwarding 4: three-party transfer
4	callappdata	String	No	<p>Call-associated data to be configured. It can be left empty. The maximum value is 16 KB.</p>

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
5	caller	String	No	Calling number. (The value can be empty. If the value is empty, the default calling number configured on the platform is used. The value is a string of 0 to 24 digits.) This parameter is valid when a call is forwarded to an external number. When the transfer mode is blind transfer, this parameter is invalid, that is, the specified calling number cannot be carried.
6	mediaability	Integer	No	Indicates the media capability. The default value is 0 . The options are 0 (voice), 1 (video), and 2 (call with the maximum capability, which is negotiated by the host with the terminal). This parameter is valid when a call is transferred to an external number. In other transfer modes, whether the media capability is carried is determined based on the agent type.
7	holdflag	Boolean	No	Whether to hold a call during three-party transfer. The options are false (no) and true (yes). The default value is true .
8	skillId	Integer	No	Skill ID. This parameter is valid only when devicetype is set to 2 .

Response Description

Table 6-144 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	String	Description.

No.	Parameter	Value Type	Description
2	retcode	String	Error code. The options are as follows: 0 : success Other values: failure
3	result	Object	Reserved field.

Triggered Event

- AgentEvent_Talking
- AgentEvent_Connect_Fail
- AgentEvent_Call_Release
- When the transfer mode is release-after-transfer, the following events are triggered:
AgentEvent_SuccTransResult
AgentMediaEvent_StopRecordDone
- When the transfer mode is three-party transfer, the following event is triggered:
AgentEvent_Conference
- When the transfer mode is hang-up transfer, the following event is triggered:
AgentEvent_ReturnFromIvr

Error Code

- 000-002
- 100-006
- 100-007
- 200-012

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter

```
{
  "devicetype": 2,
  "mode": 3,
  "address": "49998",
  "callappdata": "",
  "caller": "40040",
  "mediaability": 0,
  "holdflag": "true"
}
```
- Response parameter

```
{
  "result": {},
  "message": "success",
}
```



```
"retcode": "0"  
}
```

6.1.2.12 Canceling Transfer

Prerequisites

- The agent has signed in.
- The agent has a transferred call (the transfer mode is three-party transfer or talk forwarding, and the transfer device is an external number).

Description

This interface is used by the agent to retrieve the transferred call.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

`https://ip:port/agentgateway/resource/voicecall/{agentid}/canceltransfer`

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

Table 6-145 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

cancelTransfer

Request Description

- Message header

Table 6-146 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-147 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Reserved field.

Triggered Event

- AgentEvent_Talking
- AgentEvent_Customer_Release

Error Code

- 100-006
- 100-007
- 200-012

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{
  "result": {},
  "message": "success",
  "retcode": "0"
}
```

6.1.2.13 Performing Two-Stage Dialing (Extended)

Prerequisites

- The agent has signed in.
- The agent has established a call.

Description

This interface is invoked by an agent to perform two-stage dialing (digit collection using the dial plate) on an ongoing call. Number signs (#) can be entered.

NOTE

Currently, video calls are not supported.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

`https://ip:port/agentgateway/resource/voicecall/{agentid}/seconddialex?number={number}`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-148 Parameters in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
2	number	string	Yes	Two-stage dialing number. The value is a string of 1 to 24 digits, asterisks (*), or number signs (#).

Method Name in Logs

secondDialEx

Request Description

- Message header

Table 6-149 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body
None

Response Description

Table 6-150 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.

No.	Parameter	Value Type	Description
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Reserved field.

Triggered Event

- None

Error Code

- 000-002
- 100-006
- 100-007

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
None
- Response parameter

```
{  
  "result": {},  
  "message": "success",  
  "retcode": "0"  
}
```

6.1.2.14 Making a Three-Party Call

Prerequisites

- The agent has signed in.
- The agent has established a call.
- The agent is holding a call.

Description

This interface is used by an agent to make a three-party call based on an ongoing call or a held call.

Interface Method

The request method must be set to POST. This interface supports only the POST method.

URI

https://ip:port/agentgateway/resource/voicecall/{agentid}/confjoin

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

Table 6-151 Parameter in the URI

No.	Parameter	Data Type	Mandatory (Yes/No)	Description
1	agentid	string	Yes	Agent ID. The value ranges from 101 to 59999.

Method Name in Logs

confJoin

Request Description

- Message header

Table 6-152 Parameters in the request message header

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	Content-Type	string	Yes	Coding mode of the message body. The default value is application/json; charset=UTF-8 .
2	Guid	string	Yes	GUID returned by the sign-in interface during static authentication (AUTHMODE is set to 1) or GUID returned by the polling event query interface during dynamic authentication (AUTHMODE is set to 2).

- Message body

Table 6-153 Parameters in the message body

No.	Parameter	Value Type	Mandatory (Yes/No)	Description
1	callid	string	Yes	Indicates the ID of the call that the agent is holding. It cannot be blank.
2	callappdata	string	No	Call-associated data to be configured. It can be left empty. The maximum value is 16 KB.

Response Description

Table 6-154 Parameters in the message body

No.	Parameter	Value Type	Description
1	message	string	Description.
2	retcode	string	Error code. The options are as follows: 0 : success Other values: failure
3	result	object	Reserved field.

Triggered Event

- AgentEvent_Conference
- AgentEvent_Customer_Release

Error Code

- 100-006
- 100-007
- 200-010
- 200-011

Example

- Message header
Content-Type:application/json; charset=UTF-8
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
{
 "callid": "1455885056-1095",

- ```
"callappdata": ""
}
```
- Response parameter
 

```
{
"result": {},
"message": "success",
"retcode": "0"
}
```

### 6.1.2.15 Disconnecting a Call of a Specified ID

#### Prerequisites

- The agent has signed in.
- The agent is in a call.

#### Description

This interface is used by an agent to disconnect (hang up) the call with a specified call ID.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### URI

https://ip:port/agentgateway/resource/voicerecall/{agentid}/dropcall/{callid}

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 6-155** Parameters in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |
| 2   | callid    | string    | Yes                | ID of the call to be disconnected.            |

#### Method Name in Logs

dropCall

#### Request Description

- Message header



**Table 6-156** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 6-157** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- AgentEvent\_Call\_Release
- AgentEvent\_Customer\_Release
- AgentOther\_PhoneRelease

## Error Code

- 100-006
- 100-007
- 200-025

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 6.1.2.16 Dropping a Call

#### Prerequisites

- The agent has signed in.
- The agent has an ongoing call.

#### Description

This interface is invoked by an agent to hang up an ongoing call. Only the current call can be hung up. The call ID needs to be specified. For details, see [6.1.2.15 Disconnecting a Call of a Specified ID](#).

#### Interface Method

The request method must be set to DELETE. This interface supports only the DELETE method.

#### URI

- 1.https://ip:port/agentgateway/resource/voicecall/{agentid}/release
- 2.https://ip:port/agentgateway/resource/voicecall/{agentid}

#### NOTE

The second interface is provided to be compatible with earlier versions and is not recommended.

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 6-158** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

1. Name of the method for the URL `https://ip:port/agentgateway/resource/voicecall/{agentid}/release`: release
2. Name of the method for the URL `https://ip:port/agentgateway/resource/voicecall/{agentid}`: releaseEx

## Request Description

- Message header

**Table 6-159** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 6-160** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- AgentEvent\_Call\_Release
- AgentEvent\_Customer\_Release

## Error Code

- 100-006
- 100-007
- 200-017

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 6.1.2.17 Releasing a Connection of a Specified Number

#### Prerequisites

- The agent has signed in.
- The agent has an ongoing call.

#### Description

This interface is used by an agent to release the connection of a specified phone number. Generally, this interface is used in internal help calls and three-party calls.

#### NOTE

You can release only the connections of numbers in the last call. For example, when you make a two-party help call and the user is on hold, if you release the user on hold, an error (200-204) will be reported (currently, this processing mode is followed) because the user is not in the last call. However, when you make an outbound call and place the user on hold, you can normally release the user on hold because the user is in the last call.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

## URI

https://ip:port/agentgateway/resource/voicerecall/{agentid}/disconnect/{number}

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 6-161** Parameters in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----|-----------|-----------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999.                                                                                                                                                                                                                                                                                                                                                                               |
| 2   | number    | string    | Yes                | Phone number whose connection needs to be released. The value is a number of 1 to 24 digits.<br>During an internal help call, the current agent can release the requested agent (the value is the employee ID of the requested agent) or the current agent (the value is the softphone number of the current agent). The requested agent can release only the requested agent but cannot release the current agent or user. |

## Method Name in Logs

disconnect

## Request Description

- Message header

**Table 6-162** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 6-163** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- AgentEvent\_Call\_Release
- AgentEvent\_Customer\_Release

## Error Code

- 100-006

- 100-007
- 200-023
- 200-024

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

## 6.1.2.18 Switching Between Voice and Video Calls

### Prerequisites

- The agent has signed in.
- The agent has an ongoing voice call.  
Currently, the voice and video switchover is supported in the following scenarios:
  - An agent makes an audio call or a subscriber dials the called number to connect to the agent.
  - A call is held, unheld, muted, or unmuted.
  - A call is transferred to an agent or a skill queue.

### Description

A video agent can switch a voice call to a video call.

### Interface Method

The request method must be set to POST. This interface supports only the POST method.

### URI

`https://ip:port/agentgateway/resource/voicercall/{agentid}/mediaswitch?mediaType=3`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 6-164** Parameters in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                                                                                                 |
|-----|-----------|-----------|--------------------|-----------------------------------------------------------------------------------------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999.                                                                               |
| 2   | mediaType | int       | No                 | Target media type. The options are as follows: <ul style="list-style-type: none"> <li>1: audio</li> <li>3: video</li> </ul> |

## Method Name in Logs

mediaSwitch

## Request Description

- Message header

**Table 6-165** Parameter in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                    |
|-----|--------------|------------|--------------------|------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> . |

- Message body  
None

## Response Description

**Table 6-166** Parameters in the message body

| No. | Parameter | Value Type | Description  |
|-----|-----------|------------|--------------|
| 1   | message   | string     | Description. |



| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- AgentEvent\_MediaSwitth
- AgentMediaEvent\_StopRecordDone
- AgentEvent\_Call\_Release

## Error Code

- 200-027
- 200-028
- 200-029
- 200-030

## Example

- Message header  
Content-Type:application/json; charset=UTF-8
- Request parameter  
None
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 6.1.2.19 Controlling the Image Display Mode of a Three-Party Video Call

#### Prerequisites

- The agent has signed in.
  - The agent has an ongoing video call.
- The interface supports the following scenarios:
- Setting up three-party video calls
  - Initiating an internal help (a three-party video call)
  - Transferring a call to an external number by setting a three-party video call

## Description

A video agent changes the three-party video display mode.

## Interface Method

The request method must be set to POST. This interface supports only the POST method.

## URI

https://ip:port/agentgateway/resource/voicerecall/{agentid}/adjustvideomode

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 6-167** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

adjustVideoMode

## Request Description

- Request header

**Table 6-168** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                    |
|-----|--------------|------------|--------------------|------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> . |

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|-----------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Guid      | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body

**Table 6-169** Parameters in the message body

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                                                                                                                              |
|-----|-----------|------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | mode      | Integer    | Yes                | Display mode. The value ranges from 0 to 3. The value <b>0</b> indicates that images are the same size for all three parties. The value <b>1</b> indicates that the user's image is maximized. The value <b>2</b> indicates that the agent's image is maximized. The value <b>3</b> indicates that the third-party's image is maximized. |

## Response Description

**Table 6-170** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Error Code

- 200-031
- 200-032
- 200-033
- 200-034
- 200-035

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  

```
{
 "mode": "0"
}
```
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 6.1.2.20 Requesting a Specified Call

#### Prerequisites

- The agent has signed in.

#### NOTE

- This interface cannot be invoked when an agent has no call but is performing self-recording.
- This interface cannot be invoked in the call holding scenario.

#### Description

An agent can invoke this interface to apply for a new call. After the application is successful, the call that meets the application conditions is allocated to the agent.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### URI

`https://ip:port/agentgateway/resource/voicecall/{agentid}/requestcall/{callid}/{skilltype}?skillId={skillId}`

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

**Table 6-171** Parameters in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                                            |
|-----|-----------|-----------|--------------------|------------------------------------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999.                          |
| 2   | callid    | string    | Yes                | ID of a queuing call.                                                  |
| 3   | skilltype | int       | Yes                | Skill queue type. Only the value <b>0</b> (public queue) is supported. |
| 4   | skillid   | int       | Yes                | Skill queue ID. This parameter is valid only for public queues.        |

## Method Name in Logs

requestAppointedCall

## Request Description

- Request header

**Table 6-172** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 6-173** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- AgentOther\_PhoneAlerting
- AgentOther\_PhoneOffhook
- AgentEvent\_Talking

## Error Code

- 100-006
- 100-007

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 6.1.2.21 Picking Up a Call for Other Agents

#### Prerequisites

- The agent has signed in.
- The called agent is ringing.
- The pickup call cannot be an internal call.

- The current agent and the called agent must be in the same group.
- The current agent must have the group pickup permission.
- The current agent must be in idle state.

## Description

This interface is used by an agent to pick up the voice call of another agent.

## Interface Method

The request method must be set to PUT. This interface supports only the PUT method and does not support the DELETE, POST, or GET method.

## URI

`https://ip:port/agentgateway/resource/voicercall/{agentid}/snatchpickup?destWorkNo={destWorkNo}`

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTP or HTTPS port number of the agent gateway server.

**Table 6-174** Parameters in the URI

| No. | Parameter  | Data Type | Mandatory (Yes/No) | Description                                                                                  |
|-----|------------|-----------|--------------------|----------------------------------------------------------------------------------------------|
| 1   | agentid    | string    | Yes                | Agent ID. The value ranges from 101 to 59999.                                                |
| 2   | destWorkNo | int       | Yes                | ID of the agent who picks up the call.<br>The value is an integer ranging from 101 to 59999. |

## Request Description

- Message header

**Table 6-175** Parameter in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                    |
|-----|--------------|------------|--------------------|------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> . |

- Message body  
None

## Response Description

**Table 6-176** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

After successful pickup, the agent receives the AgentOther\_PhoneAlerting event. After answering the call, the agent receives the AgentOther\_PhoneOffhook, AgentEvent\_Talking, AgentEvent\_Incoming\_CallInfo, AgentMediaEvent\_Record, and AgentOther\_PhoneRelease events.

## Error Code

- 000-002
- 100-006
- 100-007

## Example

- Message header  
Content-Type:application/json; charset=UTF-8
- Request parameter  
None



- Response parameter

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

## 6.1.2.22 Rejecting an Inbound Call

### Prerequisites

- The agent has signed in.
- The agent has received the AgentEvent\_Ringing event.

### Description

This interface is used by an agent to reject a call request.

### Interface Method

The request method must be set to POST. This interface supports only the POST method.

### URI

`https://ip:port/agentgateway/resource/voicercall/{agentid}/reject`

In the URL, *ip* indicates the IP address of the CC-Gateway, *port* indicates the HTTPS port number of the CC-Gateway, and *{agentid}* indicates the ID of an agent.

**Table 6-177** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

### Method Name in Logs

reject

### Request Description

- Message header

**Table 6-178** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body

**Table 6-179** Parameters in the message body

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----|-----------|------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | callid    | string     | No                 | Call ID.                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 2   | mode      | int        | Yes                | Call rejection mode. The options are as follows: <b>1</b> : The call is returned to the original queue and the agent is busy; <b>2</b> : The call is released and the agent is idle.<br><br>The call rejection mode applies to common scenarios (for example, an agent rejects an inbound call from a user). In complex scenarios, for example, internal help and call transfer, the call rejection effect needs to be determined based on the specific scenario. |

## Response Description

**Table 6-180** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

### Triggered Event

- AgentEvent\_No\_Answer
- AgentEvent\_SetNotReady\_Success (triggered only when **mode** is set to **1**)
- AgentOther\_PhoneRelease
- AgentState\_Ready (triggered only when **mode** is set to **2**)

### Error Code

- 100-006
- 100-007
- 200-002
- 200-037
- 200-038
- 200-039

### Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  

```
{
 "callid": "1455885056-1095",
 "mode": "1"
}
```
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 6.1.2.23 Taking the Phone Off the Hook

#### Prerequisites

- The agent has signed in.
- An agent has enabled the phone linkage.
- An agent has received the AgentOther\_PhoneAlerting event.
- Currently, only eSpace 7910 IP phones are supported.

#### Description

After receiving the AgentOther\_PhoneAlerting event in phone linkage state, an agent can invoke this interface to take the phone off the hook.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### URI

https://ip:port/agentgateway/resource/voicell/{agentid}/phonepickup

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 6-181** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

#### Method Name in Logs

phonepickup

#### Request Description

- Message header

**Table 6-182** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 6-183** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- AgentOther\_PhoneOffhook
- AgentEvent\_Talking

## Error Code

- 100-006
- 100-007

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 6.1.2.24 Rejecting a Call

#### Prerequisites

- The agent has signed in.
- An agent has enabled the phone linkage.
- An agent has received the AgentOther\_PhoneAlerting event.
- Currently, only eSpace 7910 IP phones are supported.

#### Description

After receiving the phone ringing event (AgentOther\_PhoneAlerting) in phone linkage state, an agent can invoke this interface to reject the call.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### URI

<https://ip:port/agentgateway/resource/voicecall/{agentid}/phonehangup>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 6-184** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

phonehanguap

## Request Description

- Message header

**Table 6-185** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 6-186** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- AgentOther\_PhoneRelease

- AgentEvent\_No\_Answer

## Error Code

- 100-006
- 100-007

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 6.1.2.25 Passing Numbers in a Conference

#### Prerequisites

- The agent has signed in.
- The agent is in a three-party call with a customer and a third-party IVR.

#### Description

In a three-party call among an agent, a customer, and a third-party IVR, both the agent and customer can dial numbers for the third-party IVR to complete voice playback and digit collection. The customer's key presses need to be passed to the third-party IVR, and the number voices cannot be recorded on the agent side.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### URI

`https://ip:port/agentgateway/resource/voicecall/{agentid}/thirdPartyConfTransmitNum`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.



**Table 6-187** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | String    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

thirdPartyConfTransmitNum

## Request Description

- Message header

**Table 6-188** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | String     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | String     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 6-189** Parameters in the message body

| Parameter | Value Type | Description  |
|-----------|------------|--------------|
| message   | String     | Description. |

| Parameter | Value Type | Description                                                                            |
|-----------|------------|----------------------------------------------------------------------------------------|
| retcode   | String     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| result    | Object     | Reserved field.                                                                        |

## Triggered Event

None

## Error Code

10001

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "message": "",
 "retcode": "0",
 "result": {}
}
```

### 6.1.2.26 Answering Calls on a Mobile Phone (login)

#### Scenario

The function of answering calls on a mobile If an agent cannot answer customers' calls on the agent workbench on the PC, the agent can click **Shift Mobile** to bind a mobile phone to answer calls on the mobile phone. Real and available numbers are supported, such as a mobile number or fixed-line phone number.

#### Method

POST

#### URI

<https://Domain name/apiaccess/rest/cc-management/v1/offline/agent/login>

## Request Description

**Table 6-190** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                       |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | X-APP-KEY     | String | No               | App key, which is the user ID. Contact operations personnel to obtain the app key.                                                                                                |
| 2   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <b>tokenByAkSk</b> interface}</i> . (A space is required after <b>Bearer</b> .) |

**Table 6-191** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                      |
|-----|-----------|--------|------------------|------------------------------------------------------------------------------------------------------------------|
| 1.1 | phone     | String | Yes              | Number used for answering calls (real and available number, such as a mobile number or fixed-line phone number). |
| 1.2 | workNo    | Number | Yes              | Employee ID of an agent.                                                                                         |

## Response Description

- **Status code: 200**

**Table 6-192** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                 |
|-----|------------|--------|------------------|---------------------------------------------------------------------------------------------|
| 1.1 | returnCode | String | Yes              | Operation result. The value <b>0</b> indicates success, and other values indicates failure. |

| No.    | Parameter             | Type           | Mandatory or Not | Description                                                                                                                                                   |
|--------|-----------------------|----------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.2    | description           | String         | No               | Prompt message.                                                                                                                                               |
| 1.3    | restTime              | String         | No               | Rest duration, in seconds.                                                                                                                                    |
| 1.4    | agentType             | String         | No               | Agent type. The options are <b>4</b> (voice agent), <b>5</b> (multimedia agent), <b>11</b> (video agent), and <b>99</b> (versatile agent).                    |
| 1.5    | forceLogin            | Boolean        | No               | Whether to enable forcible sign-in. The options are <b>true</b> (yes) and <b>false</b> (no).                                                                  |
| 1.6    | isAutoAnswer          | Boolean        | No               | Whether to enable automatic call answering. The options are <b>true</b> (yes) and <b>false</b> (no).                                                          |
| 1.7    | videoMode             | Number         | No               | Video application mode. The options are <b>0</b> (SFU video), <b>1</b> (MCU video), and <b>2</b> (SFU+MCU video).                                             |
| 1.8    | workNo                | Number         | No               | Employee ID of an agent.                                                                                                                                      |
| 1.9    | isMultiChannelsupport | Boolean        | No               | Whether to enable multi-channel sign-in. The options are <b>true</b> (yes) and <b>false</b> (no).                                                             |
| 1.10   | skills                | Array [Object] | No               | Skill queue list.                                                                                                                                             |
| 1.10.1 | skillId               | Number         | No               | Skill queue ID.                                                                                                                                               |
| 1.10.2 | mediaTypeId           | String         | No               | Media type. The options are <b>5</b> (voice), <b>53</b> (multimedia), <b>19</b> (video), <b>2</b> (voice click-to-dial), and <b>18</b> (video click-to-dial). |

- **Status code: 401**  
Authentication failed.
- **Status code: 404**  
The requested resource does not exist.
- **Status code: 500**  
Internal server error.

## Error Codes

None

## Example

Request header:

```
Content-Type:application/json
X-APP-KEY:*****
Authorization:Bearer *****
```

Request parameters:

```
{"phone":"13800000000","workNo":107}
```

Response parameters:

```
{
 "restTime": "",
 "agentType": "4",
 "forceLogin": true,
 "isAutoAnswer": "true",
 "description": "success",
 "videoMode": 0,
 "workNo": 107,
 "skills": [
 {
 "skillId": 4,
 "mediaTypeId": "5"
 }
],
 "returnCode": "0",
 "isMultiChannelSupport": false
}
```

### 6.1.2.27 Exiting the Function of Answering Calls on a Mobile Phone (logout)

#### Scenario

This interface is invoked to sign out of an offline agent when the **Shift Mobile** function is used.

#### Method

POST

#### URI

<https://Domain name/apiaccess/rest/cc-management/v1/offline/agent/logout>

## Request Description

**Table 6-193** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                             |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | X-APP-KEY     | String | No               | App key, which is the user ID. Contact operations personnel to obtain the app key.                                                                                                      |
| 2   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <code>tokenByAkSk</code> interface}</i> . (A space is required after <b>Bearer</b> .) |

**Table 6-194** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description              |
|-----|-----------|--------|------------------|--------------------------|
| 1.1 | workNo    | Number | Yes              | Employee ID of an agent. |

## Response Description

- **Status code: 200**

**Table 6-195** Response body parameters

| No. | Parameter   | Type   | Mandatory or Not | Description                                                                                 |
|-----|-------------|--------|------------------|---------------------------------------------------------------------------------------------|
| 1.1 | returnCode  | String | Yes              | Operation result. The value <b>0</b> indicates success, and other values indicates failure. |
| 1.2 | description | String | No               | Prompt message.                                                                             |

- **Status code: 401**  
Authentication failed.
- **Status code: 404**  
The requested resource does not exist.

- **Status code: 500**  
Internal server error.

## Error Codes

None

## Example

Request header:

```
Content-Type:application/json
X-APP-KEY:*****
Authorization:Bearer *****
```

Request parameters:

```
{"workNo":107}
```

Response parameters:

```
{
 "returnCode": "0",
 "description": "success"
}
```

### 6.1.2.28 Querying Whether a Specified Agent Answers Calls on a Mobile Phone (isOfflineAgent)

#### Scenario

This interface is invoked to query whether a specified agent answers calls on a mobile phone.

#### Method

POST

#### URI

<https://Domain name/apiaccess/rest/cc-management/v1/offline/agent/isOfflineAgent>

#### Request Description

**Table 6-196** Request header parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                        |
|-----|-----------|--------|------------------|------------------------------------------------------------------------------------|
| 1   | X-APP-KEY | String | No               | App key, which is the user ID. Contact operations personnel to obtain the app key. |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |

**Table 6-197** Parameters in the request body

| No. | Parameter | Type   | Mandatory or Not | Description              |
|-----|-----------|--------|------------------|--------------------------|
| 1.1 | workNo    | Number | Yes              | Employee ID of an agent. |

## Response Description

- **Status code: 200**

**Table 6-198** Parameters in the response body

| No. | Parameter   | Type    | Mandatory or Not | Description                                                                                                |
|-----|-------------|---------|------------------|------------------------------------------------------------------------------------------------------------|
| 1.1 | returnCode  | String  | Yes              | Operation result. The value <b>0</b> indicates success, and other values indicates failure.                |
| 1.2 | description | String  | No               | Prompt message.                                                                                            |
| 1.3 | data        | Boolean | No               | Whether an agent answers calls on a mobile phone. The options are <b>true</b> (yes) and <b>false</b> (no). |

- **Status code: 401**  
Authentication failed.
- **Status code: 404**  
The requested resource does not exist.
- **Status code: 500**  
Internal server error.



## Error Codes

None

## Example

Request header:

```
Content-Type:application/json
X-APP-KEY:*****
Authorization:Bearer *****
```

Request parameters:

```
{"workNo":107}
```

Response parameters:

```
{
 "returnCode": "0",
 "data": false,
 "description": "success"
}
```

## 6.1.3 Call Data (calldata)

### NOTE

The application scenarios of the interfaces listed in this section are as follows:

The interfaces are used to query the information about agents and queues and the current call processing statistics of agents during agent transfer and help seeking.

To ensure system stability, overload control is performed at the system level and agent level of the interfaces of this type.

- The maximum number of query requests allowed by the system is 15,000 every 2 seconds by default.
- The maximum number of query requests allowed by an agent is 5 every 2 seconds by default.

Therefore, considering the overload control mechanism for using this type of interfaces, do not frequently invoke the interfaces in a short time. Otherwise, the system may break down.

### 6.1.3.1 Querying Call Information

#### Prerequisites

- The agent has signed in.

#### Description

This interface is used by a signed-in agent to query call information.

#### Interface Method

The request method must be set to GET. This interface supports only the GET method.

## URI

https://ip:port/agentgateway/resource/calldata/{agentid}/callinfo?  
isNoContainLastCall={isNoContainLastCall}

In the URL, **ip** indicates the IP address of the agent gateway, **port** indicates the HTTPS port number of the agent gateway, and **{agentid}** indicates the ID of an agent. *{isNoContainLastCall}* indicates whether to query the last call when the current agent has no call. The value is of the boolean type.

**Table 6-199** Parameters in the URI

| No. | Parameter           | Data Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                           |
|-----|---------------------|-----------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | agentid             | string    | Yes                | Agent ID. The value ranges from 101 to 59999.                                                                                                                                                                         |
| 2   | isNoContainLastCall | boolean   | No                 | Whether to query the information about the last call when the current agent has no call. The options are as follows: <ul style="list-style-type: none"> <li>• <b>true:</b> yes</li> <li>• <b>false:</b> no</li> </ul> |

## Method Name in Logs

queryCallInfo

## Request Description

- Message header

**Table 6-200** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                    |
|-----|--------------|------------|--------------------|------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> . |

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|-----------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Guid      | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 6-201** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                                                                               |
|-----|-----------|------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                                                                              |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure                                                    |
| 3   | result    | object     | Call information returned after a successful query.<br>For details about the parameters of this object, see <a href="#">Table 6-202</a> . |

**Table 6-202** Parameter description of result

| No. | Parameter   | Value Type | Description                                                   |
|-----|-------------|------------|---------------------------------------------------------------|
| 3.1 | callfeature | int        | Call type. For details, see <a href="#">6.5.4 Call Type</a> . |
| 3.2 | callid      | string     | Call ID.                                                      |
| 3.3 | caller      | int        | Calling number.                                               |
| 3.4 | called      | int        | Called number.                                                |

| No.  | Parameter    | Value Type | Description                                                                                                                                                                                                                                                                                                                                                                                                     |
|------|--------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.5  | callskill    | string     | Call skill description.                                                                                                                                                                                                                                                                                                                                                                                         |
| 3.6  | callskillid  | int        | Call skill ID.                                                                                                                                                                                                                                                                                                                                                                                                  |
| 3.7  | orgcallednum | string     | Original called number.                                                                                                                                                                                                                                                                                                                                                                                         |
| 3.8  | calldata     | string     | Call-associated data.                                                                                                                                                                                                                                                                                                                                                                                           |
| 3.9  | begintime    | long       | Response start time, in milliseconds. The value is a timestamp.                                                                                                                                                                                                                                                                                                                                                 |
| 3.10 | endtime      | long       | Call end time, in milliseconds. The value is a timestamp.                                                                                                                                                                                                                                                                                                                                                       |
| 3.11 | userPriority | int        | Customer level.                                                                                                                                                                                                                                                                                                                                                                                                 |
| 3.12 | trunkNo      | int        | Trunk number.                                                                                                                                                                                                                                                                                                                                                                                                   |
| 3.13 | logontimes   | int        | Total login duration, in seconds.                                                                                                                                                                                                                                                                                                                                                                               |
| 3.14 | mediaType    | int        | Media type. The options are as follows: <ul style="list-style-type: none"><li>• 1: text chat</li><li>• 2: click-to-dial call</li><li>• 4: callback request</li><li>• 5: common voice or video call</li><li>• 15: predicted outbound call</li><li>• 16: previewed outbound call</li><li>• 17: message call</li><li>• 19: common video call</li><li>• 51: multimedia web chat</li><li>• 53: social chat</li></ul> |
| 3.15 | mediaAbility | int        | Media capability. The options are as follows: <ul style="list-style-type: none"><li>• 1: voice</li><li>• 2: video</li><li>• 3: voice and video</li></ul>                                                                                                                                                                                                                                                        |

| No.      | Parameter | Value Type          | Description                                                                          |
|----------|-----------|---------------------|--------------------------------------------------------------------------------------|
| 3.1<br>6 | waitTime  | long                | Response waiting time, in seconds. The value is a timestamp.                         |
| 3.1<br>7 | trace     | HWCallDeviceTraceEx | Extended attribute of the call track. For details, see <a href="#">Table 6-203</a> . |

**Table 6-203** Parameter description of the trace object

| No.        | Parameter       | Value Type | Description                                                                                                                      |
|------------|-----------------|------------|----------------------------------------------------------------------------------------------------------------------------------|
| 3.1<br>7.1 | waitBeginTime   | long       | Waiting start time, in milliseconds. The value is a timestamp.                                                                   |
| 3.1<br>7.2 | waitEndTime     | long       | Waiting end time, in milliseconds. The value is in the timestamp format. Information about the last call cannot be queried.      |
| 3.1<br>7.3 | answerBeginTime | long       | Response start time, in milliseconds. The value is a timestamp.                                                                  |
| 3.1<br>7.4 | answerEndTime   | long       | Answer end time, in milliseconds. The value is in the timestamp format. Information about the last call cannot be queried.       |
| 3.1<br>7.5 | talkBeginTime   | long       | Conversation start time, in milliseconds. The value is a timestamp.                                                              |
| 3.1<br>7.6 | talkEndTime     | long       | Conversation end time, in milliseconds. The value is in the timestamp format. Information about the last call cannot be queried. |
| 3.1<br>7.7 | deviceNo        | int        | Device ID.                                                                                                                       |

| No.             | Parameter       | Value Type | Description                                                                                                                                                                                                                                                                                                                                                           |
|-----------------|-----------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.1<br>7.8      | deviceType      | int        | Device type. The options are as follows: <ul style="list-style-type: none"> <li>• 1: call queue</li> <li>• 2: agent</li> <li>• 3: automatic flow</li> <li>• 4: conference resource</li> <li>• 5: paired call</li> <li>• 6: agent queue</li> <li>• 7: common call</li> </ul>                                                                                           |
| 3.1<br>7.9      | callDirectMode  | string     | Processing mode of the device, that is, reason for leaving the device. The options are as follows: <ul style="list-style-type: none"> <li>• <b>NORMAL_DIRECT</b>: The device leaves normally.</li> <li>• <b>KEEP_DIRECT</b>: The call is held.</li> <li>• <b>WAIT_DIRECT</b>: The call is waiting.</li> <li>• <b>RELEASE_DIRECT</b>: The call is released.</li> </ul> |
| 3.1<br>7.1<br>0 | enterReason     | int        | Reason for accessing the device. For details, see <a href="#">Table 6-204</a> .                                                                                                                                                                                                                                                                                       |
| 3.1<br>7.1<br>1 | enterReasonDesc | string     | Description of the reason for accessing the device.                                                                                                                                                                                                                                                                                                                   |
| 3.1<br>7.1<br>2 | leaveReason     | int        | Reason for leaving the device. For details, see <a href="#">Table 6-204</a> . The call information of the previous call cannot be queried.                                                                                                                                                                                                                            |
| 3.1<br>7.1<br>3 | leaveReasonDesc | string     | Description of the reason for leaving the device. The call information of the previous call cannot be queried.                                                                                                                                                                                                                                                        |

| No.             | Parameter | Value Type | Description |
|-----------------|-----------|------------|-------------|
| 3.1<br>7.1<br>4 | vdnId     | int        | VDN ID      |

**Table 6-204** Reason codes

| Reason Code | Description                                                            |
|-------------|------------------------------------------------------------------------|
| 0           | Common access or transfer.                                             |
| 1           | The call is transferred due to overflow.                               |
| 2           | The call is transferred due to timeout.                                |
| 3           | The call is transferred when no one is on duty.                        |
| 4           | The call is transferred when queuing is cancelled.                     |
| 5           | The call is transferred when an agent does not answer for a long time. |
| 6           | The suspended call is resumed.                                         |
| 7           | The held call is connected.                                            |
| 8           | Three-party help is initiated.                                         |
| 9           | The call is unheld.                                                    |
| 10          | The three-party call is initiated.                                     |
| 11          | The call is released by the party who sends the internal help request. |
| 12          | The call is intercepted.                                               |
| 13          | The call is picked up.                                                 |
| 14          | Called number analysis is not configured for a call.                   |
| 15          | The user releases the call.                                            |
| 16          | The agent releases the call.                                           |
| 17          | The call is transferred out.                                           |
| 18          | The call is held.                                                      |
| 19          | Internal processing error.                                             |
| 20          | The called party is busy.                                              |
| 21          | The line is busy.                                                      |
| 22          | The phone is powered off.                                              |

| Reason Code | Description                                                                                                           |
|-------------|-----------------------------------------------------------------------------------------------------------------------|
| 23          | The phone is out of service.                                                                                          |
| 24          | The number is invalid.                                                                                                |
| 25          | No resource is available on the ACD.                                                                                  |
| 26          | The user does not answer the call.                                                                                    |
| 27          | The called party rejects the call.                                                                                    |
| 28          | The connected call is transferred to a queue.                                                                         |
| 29          | The three-party call is transferred to a queue.                                                                       |
| 30          | The connected call times out when being transferred to a queue.                                                       |
| 31          | The three-party call times out when being transferred to a queue.                                                     |
| 34          | The failed network call queues due to timeout, overflow, or busy.                                                     |
| 35          | The network call queues at the original call center.                                                                  |
| 36          | The queuing call is rerouted.                                                                                         |
| 37          | The call enters the CDN through the inbound route.                                                                    |
| 38          | The call enters the CDN from agent consultation.                                                                      |
| 39          | The CDN returns the routing result.                                                                                   |
| 40          | CDN routing times out.                                                                                                |
| 41          | The agent cancels the call during consultation.                                                                       |
| 42          | The call enters the PGR from a timeout CDN route.                                                                     |
| 43          | The call enters the PGR from a normal CDN route.                                                                      |
| 44          | The call enters the PGR through the inbound route.                                                                    |
| 45          | The call enters the PGR from agent consultation.                                                                      |
| 46          | The CDN reroutes the call because the agent is unreachable.                                                           |
| 47          | The call queues in multiple queues.                                                                                   |
| 48          | The call in the master queue is answered from the slave queue.                                                        |
| 50          | The agent rejects the call.                                                                                           |
| 51          | A user call joins a conference.                                                                                       |
| 52          | The conference chairperson proactively releases the conference, or the conference is released due to a CSS exception. |
| 53          | The participant is removed from the conference.                                                                       |



| Reason Code | Description                                                                        |
|-------------|------------------------------------------------------------------------------------|
| 54          | The call is transferred when the call completion rate is lower than the threshold. |
| 88          | The user hangs up after the agent answers the call.                                |
| 89          | The user hooks on after the agent answers the call.                                |

### Triggered Event

- None

### Error Code

- 100-006

### Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1

- Request parameter

None

- Response parameter

```
{
 "message": "",
 "retcode": "0",
 "result": {
 "callfeature": 0,
 "callid": "1476838963-224",
 "caller": "70004",
 "called": "60015",
 "callskill": "voice",
 "callskillid": 20011,
 "orgcallednum": "",
 "calldata": "",
 "begintime": 1476838963000,
 "endtime": null,
 "userPriority": 0,
 "trunkNo": 65535,
 "logontimes": 0,
 "mediaType": 5,
 "mediaAbility": 1,
 "waitTime": 0,
 "trace": {
 "waitBeginTime": 1626179227000,
 "waitEndTime": 1626179227000,
 "answerBeginTime": 1626179227000,
 "answerEndTime": 1626179227000,
 "talkBeginTime": 1626179227000,
 "talkEndTime": 1626179227000,
 "deviceNo": 2005,
 "deviceType": 2,
 "callDirectMode": "NORMAL_DIRECT",
 "enterReason": 0,
 "enterReasonDesc": "Normal reason",
 "leaveReason": 0,
 "leaveReasonDesc": "Normal reason",
 }
 }
}
```

```

 "vdnId": 214
 }
}

```

### 6.1.3.2 Querying Call-Associated Data

#### Prerequisites

- The agent has signed in.
- The agent is in a call.

#### Description

This interface is used by an agent that has signed in to query the call-associated data.

#### Interface Method

The request method must be set to GET. This interface supports only the GET method.

#### URI

`https://ip:port/agentgateway/resource/calldata/{agentid}/appdata?  
isEncodeResult={isEncodeResult}&callId={callId}`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 6-205** Parameters in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

| No. | Parameter      | Data Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----|----------------|-----------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | isEncodeResult | boolean   | No                 | <p>Whether the queried call data is encoded using Base64. The options are as follows:</p> <ul style="list-style-type: none"><li>• <b>true</b>: The found call data is encoded using Base64.</li><li>• <b>false</b>: The queried call data is not encoded using Base64.</li></ul> <p>Values other than <b>true</b> are processed as <b>false</b>.</p> <p><b>NOTE</b><br/>Base64 is an encoding mode, but not an encryption algorithm. It cannot be used to encrypt any sensitive information.</p> |
| 3   | callid         | string    | No                 | <p>ID of the call to be queried. This parameter is mandatory for multimedia sessions.</p>                                                                                                                                                                                                                                                                                                                                                                                                        |

## Method Name in Logs

queryCallAppData

## Request Description

- Message header

**Table 6-206** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Message

**Table 6-207** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                                                        |
|-----|-----------|------------|--------------------------------------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                                                       |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure                             |
| 3   | result    | string     | Indicates the call-associated data returned after a successful query.<br>No result is returned if the query fails. |

## Triggered Event

- None

## Error Code

- 100-006
- 100-007

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "message": "",
 "retcode": "0",
 "result": "1234"
}
```

### 6.1.3.3 Configuring Call-Associated Data (Extended)

#### Prerequisites

- The agent has signed in.
- The agent is in a call.

#### Description

This interface is used by an agent that is in a conversation after signing in to configure call-associated data.

#### Interface Method

The request method must be set to PUT. This interface supports only the PUT method.

#### URI

<https://ip:port/agentgateway/resource/calldata/{agentid}/setcalldataex>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 6-208** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

#### Method Name in Logs

setCallAppDataEx

## Request Description

- Message header

**Table 6-209** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body

**Table 6-210** Parameters in the message body

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                 |
|-----|-----------|------------|--------------------|-----------------------------|
| 1   | callid    | string     | No                 | Indicates the ID of a call. |

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                                                                                                                                  |
|-----|-----------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | calldata  | string     | No                 | <p>Indicates call-associated data. The maximum value of the original content is 16 KB.</p> <p><b>NOTE</b><br/>The information is encrypted using AES128-CBC and transmitted through the TLS1.2 encryption channel. This field contains sensitive data. In logs, only <b>calldatalength</b> is used to indicate the length of this field.</p> |

| No. | Parameter     | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----|---------------|------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | isDataEncoded | boolean    | No                 | <p>Whether call data is encoded using Base64. The options are as follows:</p> <ul style="list-style-type: none"><li>• <b>true</b>: Call data must be encoded using Base64.</li><li>• <b>false</b>: Call data is not encoded using Base64.</li></ul> <p>The default value is <b>false</b>.</p> <p><b>NOTE</b><br/>Base64 is an encoding mode, but not an encryption algorithm. It cannot be used to encrypt any sensitive information.</p> |

## Response Description

**Table 6-211** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- None



## Error Code

- 000-002
- 100-006
- 100-007
- 400-001

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  

```
{
 "callid": "1456229294-1191",
 "calldata": "1233",
 "isDataEncoded": "true"
}
```
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 6.1.3.4 Querying the List of Held Calls

#### Prerequisites

- The agent has signed in and the answering mode is non-automatic answering.
- The agent is in a call and holds the call.

#### Description

This interface is used by an agent that has signed in to query the list of held calls.

#### Interface Method

The request method must be set to GET. This interface supports only the GET method.

#### URI

`https://ip:port/agentgateway/resource/calldata/{agentid}/holdlist`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 6-212** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

queryHoldListInfo

## Request Description

- Message header

**Table 6-213** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 6-214** Parameters in the message body

| No. | Parameter | Value Type | Description  |
|-----|-----------|------------|--------------|
| 1   | message   | string     | Description. |

| No. | Parameter | Value Type | Description                                                                                                                                 |
|-----|-----------|------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure                                                      |
| 3   | result    | object     | List of held calls returned after a successful query.<br>For details about the parameters of this object, see <a href="#">Table 6-215</a> . |

**Table 6-215** Parameter description of **result**

| No.  | Parameter     | Value Type | Description                                               |
|------|---------------|------------|-----------------------------------------------------------|
| 3.1  | callfeature   | int        | Call type. For details, see <a href="#">Table 6-455</a> . |
| 3.2  | callid        | string     | Call ID.                                                  |
| 3.3  | caller        | int        | Calling number.                                           |
| 3.4  | called        | int        | Called number.                                            |
| 3.5  | callskill     | string     | Call skill description.                                   |
| 3.6  | callskillid   | int        | It is not used.                                           |
| 3.7  | orgicallednum | string     | It is not used.                                           |
| 3.8  | calldata      | string     | It is not used.                                           |
| 3.9  | begintime     | long       | It is not used.                                           |
| 3.10 | endtime       | long       | It is not used.                                           |

## Triggered Event

- None

## Error Code

- 100-006
- 300-001
- 400-003

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1

- Request parameter  
None
- Response parameter

```
{
 "message": "",
 "retcode": "0",
 "result": [
 {
 "callfeature": 7,
 "callid": "1501127996-2",
 "caller": "10086",
 "called": "70943",
 "callskill": "voice",
 "callskillid": 0,
 "orgcallednum": "",
 "calldata": null,
 "begintime": null,
 "endtime": null
 },
 {
 "callfeature": 7,
 "callid": "1501127920-0",
 "caller": "10086",
 "called": "70941",
 "callskill": "",
 "callskillid": 0,
 "orgcallednum": "",
 "calldata": null,
 "begintime": null,
 "endtime": null
 }
]
}
```

### 6.1.3.5 Querying Call Information Before Answering a Call

#### Prerequisites

- The agent has signed in.
- The agent is in a call.

#### Description

This interface is used by an agent that has signed in to query the call information before answering a call.

#### Interface Method

The request method must be set to GET. This interface supports only the GET method.

#### URI

<https://ip:port/agentgateway/resource/calldata/{agentid}/callinbeforeanswer>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 6-216** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

queryCallInfoBeforeAnswer

## Request Description

- Message header

**Table 6-217** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 6-218** Parameters in the message body

| No. | Parameter | Value Type | Description  |
|-----|-----------|------------|--------------|
| 1   | message   | string     | Description. |

| No. | Parameter | Value Type | Description                                                                                                                               |
|-----|-----------|------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure                                                    |
| 3   | result    | list       | Call information returned after a successful query.<br>For details about the parameters of this object, see <a href="#">Table 6-219</a> . |

**Table 6-219** Parameter description of **result**

| No.  | Parameter     | Value Type | Description                                                     |
|------|---------------|------------|-----------------------------------------------------------------|
| 3.1  | callfeature   | int        | Call type. For details, see <a href="#">Table 6-455</a> .       |
| 3.2  | callid        | string     | Call ID.                                                        |
| 3.3  | caller        | int        | Calling number.                                                 |
| 3.4  | called        | int        | Called number.                                                  |
| 3.5  | callskill     | string     | Call skill description.                                         |
| 3.6  | callskillid   | int        | Call skill ID.                                                  |
| 3.7  | orgicallednum | string     | It is not used.                                                 |
| 3.8  | calldata      | string     | Call-associated data.                                           |
| 3.9  | begintime     | long       | Response start time, in milliseconds. The value is a timestamp. |
| 3.10 | endtime       | long       | It is not used.                                                 |
| 3.11 | userPriority  | int        | Customer priority.                                              |
| 3.12 | trunkNo       | int        | Trunk number.                                                   |
| 3.13 | logontimes    | int        | Total login duration, in seconds.                               |

| No.      | Parameter    | Value Type          | Description                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------|--------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.1<br>4 | mediaType    | int                 | Media type. The options are as follows: <ul style="list-style-type: none"> <li>• 1: text chat</li> <li>• 2: click-to-dial call</li> <li>• 4: callback request</li> <li>• 5: common voice or video call</li> <li>• 15: predicted outbound call</li> <li>• 16: previewed outbound call</li> <li>• 17: message call</li> <li>• 19: common video call</li> <li>• 51: multimedia web chat</li> <li>• 53: social chat</li> </ul> |
| 3.1<br>5 | mediaAbility | int                 | Media capability. The options are as follows: <ul style="list-style-type: none"> <li>• 1: voice</li> <li>• 2: video</li> <li>• 3: voice and video</li> </ul>                                                                                                                                                                                                                                                               |
| 3.1<br>6 | waitTime     | long                | Response waiting time, in seconds. The value is a timestamp.                                                                                                                                                                                                                                                                                                                                                               |
| 3.1<br>7 | trace        | HWCallDeviceTraceEx | Extended attribute of the call track. This field is reserved and is left empty by default.                                                                                                                                                                                                                                                                                                                                 |

### Triggered Event

- None

### Error Code

- 100-006

### Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "message": "",
 "retcode": "0",
 "result": {
 "callfeature": 0,
 "callid": "1476070409-38",
```

```
"caller": "70001",
"called": "10086",
"callskill": "voice_jst",
"callskillid": 3,
"orgcallednum": "12345678",
"calldata": "",
"begintime": 1476070413000,
"endtime": null,
"userPriority": 0,
"trunkNo": 65535,
"logontimes": 0,
"mediaType": 5,
"mediaAbility": 1,
"waitTime": 0,
"trace": null
}
```

### 6.1.3.6 Querying Call Information by Call ID

#### Prerequisites

- The agent has signed in.
- The agent is in a call.

#### Description

This interface is used by an agent that has signed in to query call information by call ID.

#### Interface Method

The request method must be set to GET. This interface supports only the GET method.

#### URI

<https://ip:port/agentgateway/resource/calldata/{agentid}/callinfobycallid/{callid}>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 6-220** Parameters in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |
| 2   | callid    | string    | Yes                | ID of the call to be queried.                 |



## Method Name in Logs

queryCallInfoByCallId

## Request Description

- Message header

**Table 6-221** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 6-222** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                                                                               |
|-----|-----------|------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                                                                              |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure                                                    |
| 3   | result    | list       | Call information returned after a successful query.<br>For details about the parameters of this object, see <a href="#">Table 6-223</a> . |

**Table 6-223** Parameter description of **result**

| No.  | Parameter     | Value Type | Description                                                                                                                                                                                                                                                                                                                                                                                                                |
|------|---------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.1  | callfeature   | int        | Call type. For details, see <a href="#">Table 6-455</a> .                                                                                                                                                                                                                                                                                                                                                                  |
| 3.2  | callid        | string     | Call ID.                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 3.3  | caller        | int        | Calling number.                                                                                                                                                                                                                                                                                                                                                                                                            |
| 3.4  | called        | int        | Called number.                                                                                                                                                                                                                                                                                                                                                                                                             |
| 3.5  | callskill     | string     | Call skill description.                                                                                                                                                                                                                                                                                                                                                                                                    |
| 3.6  | callskillid   | int        | Call skill ID.                                                                                                                                                                                                                                                                                                                                                                                                             |
| 3.7  | orgicallednum | string     | It is not used.                                                                                                                                                                                                                                                                                                                                                                                                            |
| 3.8  | calldata      | string     | Call-associated data.                                                                                                                                                                                                                                                                                                                                                                                                      |
| 3.9  | begintime     | long       | Response start time.                                                                                                                                                                                                                                                                                                                                                                                                       |
| 3.10 | endtime       | long       | It is not used.                                                                                                                                                                                                                                                                                                                                                                                                            |
| 3.11 | userPriority  | int        | Customer priority.                                                                                                                                                                                                                                                                                                                                                                                                         |
| 3.12 | trunkNo       | int        | Trunk number.                                                                                                                                                                                                                                                                                                                                                                                                              |
| 3.13 | logontimes    | int        | Total login duration.                                                                                                                                                                                                                                                                                                                                                                                                      |
| 3.14 | mediaType     | int        | Media type. The options are as follows: <ul style="list-style-type: none"> <li>• 1: text chat</li> <li>• 2: click-to-dial call</li> <li>• 4: callback request</li> <li>• 5: common voice or video call</li> <li>• 15: predicted outbound call</li> <li>• 16: previewed outbound call</li> <li>• 17: message call</li> <li>• 19: common video call</li> <li>• 51: multimedia web chat</li> <li>• 53: social chat</li> </ul> |
| 3.15 | mediaAbility  | int        | Media capability. The options are as follows: <ul style="list-style-type: none"> <li>• 1: voice</li> <li>• 2: video</li> <li>• 3: voice and video</li> </ul>                                                                                                                                                                                                                                                               |

| No.      | Parameter | Value Type          | Description                                                                                |
|----------|-----------|---------------------|--------------------------------------------------------------------------------------------|
| 3.1<br>6 | waitTime  | long                | Response waiting time, in seconds. The value is a timestamp.                               |
| 3.1<br>7 | trace     | HWCallDeviceTraceEx | Extended attribute of the call track. This field is reserved and is left empty by default. |

## Triggered Event

- None

## Error Code

- 100-006
- 100-007

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1

- Request parameter  
None

- Response parameter
 

```
{
 "message": "",
 "retcode": "0",
 "result": {
 "callfeature": 0,
 "callid": "1476070409-38",
 "caller": "70001",
 "called": "10086",
 "callskill": "voice_jst",
 "callskillid": 3,
 "orgicallednum": "12345678",
 "calldata": "",
 "begintime": 1476070413000,
 "endtime": null,
 "userPriority": 0,
 "trunkNo": 65535,
 "logontimes": 0,
 "mediaType": 5,
 "mediaAbility": 1,
 "waitTime": 0,
 "trace": null
 }
}
```

### 6.1.3.7 Querying Call IDs of a Specified Agent

#### Prerequisites

- The agent has signed in.
- The agent is in a call.

## Description

This interface is used by an agent that has signed in to query call IDs of a specified agent.

## Interface Method

The request method must be set to GET. This interface supports only the GET method.

## URI

https://ip:port/agentgateway/resource/calldata/{agentid}/allcallinfoEx/{workno}

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 6-224** Parameters in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                                                                                                                     |
|-----|-----------|-----------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999.                                                                                                   |
| 2   | workno    | string    | Yes                | ID of the agent to be queried. The value ranges from 101 to 59999.<br>The agent ID must belong to the same VDN as the value of <b>agentid</b> . |

## Method Name in Logs

queryAllCallInfoByAgentWorkNoEx

## Request Description

- Message header

**Table 6-225** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 6-226** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                                                                                       |
|-----|-----------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                                                                                      |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure                                                            |
| 3   | result    | list       | Indicates the return result of a successful query, that is, a list of call IDs of a specified agent.<br>No result is returned if the query fails. |

## Triggered Event

- None

## Error Code

- 100-006

- 100-007
- 100-011
- 900-002

### Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "message": "",
 "retcode": "0",
 "result": [
 "1456297722-1253",
 "1456297463-1249"
]
}
```

### 6.1.3.8 Querying the Number of Current Calls of an Agent

#### Prerequisites

- The agent has signed in.

#### Description

This interface is used by an agent that has signed in to query the number of current calls.

#### Interface Method

The request method must be set to GET. This interface supports only the GET method.

#### URI

https://ip:port/agentgateway/resource/calldata/{agentid}/callnums

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 6-227** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

queryCallNumsOnAgent

## Request Description

- Message header

**Table 6-228** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 6-229** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                                                                                       |
|-----|-----------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                                                                                      |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure                                                            |
| 3   | result    | string     | Indicates the return result of a successful query, that is, the number of current calls of an agent.<br>No result is returned if the query fails. |

## Triggered Event

- None

## Error Code

- 100-006

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "message": "",
 "retcode": "0",
 "result": 1
}
```

### 6.1.3.9 Querying Current Call Statistics Information About an Agent

#### Prerequisites

- The agent has signed in.
- The agent is in a call.

#### Description

This interface is used by an agent that has signed in to query the current call statistics information about an agent.

Frequent invoking of this interface deteriorates performance.

#### Interface Method

The request method must be set to GET. This interface supports only the GET method.

#### URI

`https://ip:port/agentgateway/resource/calldata/{agentid}/statistics`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.



**Table 6-230** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

queryCallStatisticsInfo

## Request Description

- Message header

**Table 6-231** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 6-232** Parameters in the message body

| No. | Parameter | Value Type | Description  |
|-----|-----------|------------|--------------|
| 1   | message   | string     | Description. |

| No. | Parameter | Value Type | Description                                                                                                                                                                           |
|-----|-----------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure                                                                                                |
| 3   | result    | object     | Current call statistics information about an agent, which is returned after a successful query.<br>For details about the parameters of this object, see <a href="#">Table 6-233</a> . |

**Table 6-233** Parameter description of result

| No.      | Parameter       | Value Type | Description                                                   |
|----------|-----------------|------------|---------------------------------------------------------------|
| 3.1      | talktime        | long       | Total talking duration after sign-in, in seconds.             |
| 3.2      | answernums      | int        | Number of answered calls after sign-in.                       |
| 3.3      | noanswernums    | int        | Number of calls not answered for a long period after sign-in. |
| 3.4      | calloutnums     | int        | Number of outbound calls after sign-in.                       |
| 3.5      | intercallnums   | int        | Number of internal calls after sign-in.                       |
| 3.6      | interhelpnums   | int        | Number of internal help requests after sign-in.               |
| 3.7      | transfernums    | int        | Number of transferred-in calls after sign-in.                 |
| 3.8      | transferoutnums | int        | Number of transferred-out calls after sign-in.                |
| 3.9      | transferivrnums | int        | Number of calls transferred to IVR after sign-in.             |
| 3.1<br>0 | redirectnums    | int        | Number of redirected calls.                                   |
| 3.1<br>1 | keepnums        | int        | Number of held calls.                                         |
| 3.1<br>2 | busynums        | int        | Number of times an agent enters the busy state.               |

| No.      | Parameter    | Value Type | Description                                    |
|----------|--------------|------------|------------------------------------------------|
| 3.1<br>3 | restnums     | int        | Number of times an agent requests for a leave. |
| 3.1<br>4 | restoutnums  | int        | Number of times an agent overstays a leave.    |
| 3.1<br>5 | resttime     | long       | Leave duration, in seconds.                    |
| 3.1<br>6 | restouttime  | long       | Duration that exceeds the leave, in seconds.   |
| 3.1<br>7 | agentrelease | int        | Number of calls released by an agent.          |
| 3.1<br>8 | busytime     | long       | Busy duration, in seconds.                     |

### Triggered Event

- None

### Error Code

- 100-006
- 100-007

### Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxxx.AgentGateway1

- Request parameter

None

- Response parameter

```
{
 "message": "",
 "retcode": "0",
 "result": {
 "talktime": 4328,
 "answernums": 5,
 "noanswernums": 0,
 "calloutnums": 0,
 "intercallnums": 5,
 "interhelpnums": 0,
 "transferrnums": 0,
 "transferoutnums": 0,
 "transferivrnnums": 0,
 "redirectnums": 0,
 "keepnums": 0,
 "busynums": 0,
 "restnums": 0,
 "restoutnums": 0,
 "resttime": 0,
 "restouttime": 0,
 "agentrelease": 1,
 }
}
```

```

 "busytime": 0
 }
}

```

### 6.1.3.10 Querying the Current Call Statistics of an Agent (Extended)

#### Prerequisites

- The agent has signed in.
- The agent is in a call.

#### Description

This interface is used by an agent that has signed in to query the current call statistics information about an agent.

The performance of this interface is better than that of the interface for querying the current call statistics of an agent.

#### Interface Method

The request method must be set to GET. This interface supports only the GET method.

#### URI

`https://ip:port/agentgateway/resource/calldata/{agentid}/statisticsEx`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 6-234** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

#### Method Name in Logs

queryCallStatisticsInfoEx

#### Request Description

- Message header

**Table 6-235** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 6-236** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                                                                                                                           |
|-----|-----------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                                                                                                                          |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure                                                                                                |
| 3   | result    | object     | Current call statistics information about an agent, which is returned after a successful query.<br>For details about the parameters of this object, see <a href="#">Table 6-233</a> . |

**Table 6-237** Parameter description of result

| No. | Parameter | Value Type | Description                                       |
|-----|-----------|------------|---------------------------------------------------|
| 3.1 | talktime  | long       | Total talking duration after sign-in, in seconds. |

| No. | Parameter   | Value Type | Description                             |
|-----|-------------|------------|-----------------------------------------|
| 3.2 | answernums  | int        | Number of answered calls after sign-in. |
| 3.3 | calloutnums | int        | Number of outbound calls after sign-in. |

### Triggered Event

- None

### Error Code

- 100-006
- 100-007

### Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "message": "",
 "retcode": "0",
 "result": {
 "talktime": 4328,
 "answernums": 5,
 "calloutnums": 0
 }
}
```

## 6.1.3.11 Querying Information About Calls Waiting in a Specified Skill Queue

Querying Information About Calls Waiting in a Specified Skill Queue

### Prerequisites

- The agent has signed in.
- The agent is not idle, and the user who dials the access code is queuing.

### Description

This interface is used by an agent to query information about all calls waiting in a specified public skill queue after the agent signs in.

### Interface Method

The request method must be set to GET. This interface supports only the GET method.

## URI

https://ip:port/agentgateway/resource/calldata/{agentid}/waitcallinfo/{skillid}

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

**Table 6-238** Parameters in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |
| 2   | skillid   | int       | Yes                | ID of the skill queue to be queried.          |

## Method Name in Logs

queryWaitCallInfoBySkillId

## Request Description

- Message header

**Table 6-239** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 6-240** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                                                                                                                                                            |
|-----|-----------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                                                                                                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows: <ul style="list-style-type: none"> <li>● 0: success</li> <li>● Other values: failure</li> </ul>                                                                                |
| 3   | result    | list       | Indicates the query result. After the query is successful, the system returns the list of call information objects in the queue.<br>For details about the parameters of this object, see <a href="#">Table 6-241</a> . |

**Table 6-241** Parameter description of result

| No.  | Parameter     | Value Type | Description                                                     |
|------|---------------|------------|-----------------------------------------------------------------|
| 3.1  | callfeature   | int        | Call type. For details, see <a href="#">6.5.4 Call Type</a> .   |
| 3.2  | callid        | string     | Call ID.                                                        |
| 3.3  | caller        | int        | Calling number.                                                 |
| 3.4  | called        | int        | Called number.                                                  |
| 3.5  | callskill     | string     | Call skill description.                                         |
| 3.6  | callskillid   | int        | Call skill ID.                                                  |
| 3.7  | orgicallednum | string     | It is not used.                                                 |
| 3.8  | calldata      | string     | Call-associated data.                                           |
| 3.9  | begintime     | long       | Response start time, in milliseconds. The value is a timestamp. |
| 3.10 | endtime       | long       | It is not used.                                                 |
| 3.11 | userPriority  | int        | Customer level.                                                 |
| 3.12 | trunkNo       | int        | Trunk number.                                                   |



| No.      | Parameter    | Value Type              | Description                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------|--------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.1<br>3 | logontimes   | int                     | Total login duration, in seconds.                                                                                                                                                                                                                                                                                                                                                                                          |
| 3.1<br>4 | mediaType    | int                     | Media type. The options are as follows: <ul style="list-style-type: none"> <li>• 1: text chat</li> <li>• 2: click-to-dial call</li> <li>• 4: callback request</li> <li>• 5: common voice or video call</li> <li>• 15: predicted outbound call</li> <li>• 16: previewed outbound call</li> <li>• 17: message call</li> <li>• 19: common video call</li> <li>• 51: multimedia web chat</li> <li>• 53: social chat</li> </ul> |
| 3.1<br>5 | mediaAbility | int                     | Media capability. The options are as follows: <ul style="list-style-type: none"> <li>• 1: voice</li> <li>• 2: video</li> <li>• 3: voice and video</li> </ul>                                                                                                                                                                                                                                                               |
| 3.1<br>6 | waitTime     | long                    | Response waiting time, in seconds. The value is a timestamp.                                                                                                                                                                                                                                                                                                                                                               |
| 3.1<br>7 | trace        | HWCallDev<br>iceTraceEx | Extended attribute of the call track. This field is reserved and is left empty by default.                                                                                                                                                                                                                                                                                                                                 |

## Triggered Event

None

## Error Code

- 100-006
- 100-007

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None

- Response parameter

```
{
 "message": "",
 "retcode": "0",
 "result": [
 {
 "callfeature": 0,
 "callid": "1476707884-279",
 "caller": "70004",
 "called": "60015",
 "callskill": "voice",
 "callskillid": 1,
 "orgcallednum": "",
 "calldata": "",
 "begintime": 1476707884000,
 "endtime": null,
 "userPriority": 0,
 "mediaType": 5,
 "mediaAbility": 1,
 "waitTime": 0,
 "trace": null
 },
 {
 "callfeature": 0,
 "callid": "1476707885-280",
 "caller": "70003",
 "called": "60015",
 "callskill": "voice",
 "callskillid": 1,
 "orgcallednum": "",
 "calldata": "",
 "begintime": 1476707885000,
 "endtime": null,
 "userPriority": 0,
 "trunkNo": 65535,
 "logontimes": 0,
 "mediaType": 5,
 "mediaAbility": 1,
 "waitTime": 0,
 "trace": null
 }
]
}
```

### 6.1.3.12 Querying All Calls Placed on Hold by a Specified Agent

#### Prerequisites

- The inspector and specified agent have signed in.
- The specified agent is in a call and holds the call.

#### Description

This interface is used by an inspector who has signed in to query the calls placed on hold by a specified agent in the same VDN.

#### Interface Method

The request method must be set to GET. This interface supports only the GET method.

## URI

`https://ip:port/agentgateway/resource/calldata/{agentid}/holdlistex/{workno}`

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

**Table 6-242** Parameters in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                                                                                                                     |
|-----|-----------|-----------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999.                                                                                                   |
| 2   | workno    | string    | Yes                | ID of the agent to be queried. The value ranges from 101 to 59999.<br>The agent ID must belong to the same VDN as the value of <b>agentid</b> . |

## Method Name in Logs

queryHoldListInfoEx

## Request Description

- Message header

**Table 6-243** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                    |
|-----|--------------|------------|--------------------|------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> . |

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|-----------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Guid      | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 6-244** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                                                                                                                                                            |
|-----|-----------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                                                                                                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure                                                                                                                                 |
| 3   | result    | list       | Indicates the query result. After the query is successful, the system returns the list of call information objects in the queue.<br>For details about the parameters of this object, see <a href="#">Table 6-245</a> . |

**Table 6-245** Parameter description of result

| No. | Parameter   | Value Type | Description                                                   |
|-----|-------------|------------|---------------------------------------------------------------|
| 3.1 | callfeature | int        | Call type. For details, see <a href="#">6.5.4 Call Type</a> . |
| 3.2 | callid      | string     | Call ID.                                                      |
| 3.3 | caller      | int        | Calling number.                                               |
| 3.4 | called      | int        | Called number.                                                |

| No. | Parameter | Value Type | Description             |
|-----|-----------|------------|-------------------------|
| 3.5 | callskill | string     | Call skill description. |

## Triggered Event

- None

## Error Code

- 100-006
- 100-007
- 300-001
- 400-003

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1

- Request parameter  
None

- Response parameter
 

```
{
 "message": "",
 "retcode": "0",
 "result": [
 {
 "callfeature": 7,
 "callid": "1501127996-2",
 "caller": "10086",
 "called": "70943",
 "callskill": "voice"
 },
 {
 "callfeature": 7,
 "callid": "1501127920-0",
 "caller": "10086",
 "called": "70941",
 "callskill": ""
 }
]
}
```

## 6.1.4 Agent Event: agentevent

### 6.1.4.1 Obtaining Events of One Agent in Polling Mode

#### Prerequisites

- The agent has signed in successfully. If the agent has signed out, the interface invocation is stopped.

- This interface is designed for obtaining associated events of all agents that have signed in to a specific CC-gateway. Use HTTPS to obtain data in long polling mode.
- This mode allows users to obtain short-connection events of a single agent.
- The **serviceToken** or **callbackUri** parameter is not carried during agent sign-in.

## Description

This interface is used to obtain events of a single agent in polling mode.

### NOTE

If an agent has no event, the interface will return the response after 10 seconds. If the agent has events, the interface will return the response immediately. Modify configurations in the **agentgateway/WEB-INF/config/basic.properties** file as follows:

AGENT\_POLL\_WAIT\_FLAG = ON //Whether an event is a waiting event. The value **ON** indicates that the server returns a response after 10 seconds if the agent has no event.

AGENT\_POLL\_WAIT\_TIMES = 100 //Maximum number of waiting times when no event exists

AGENT\_POLL\_WAIT\_INTERVAL = 100 //Waiting duration each time when no event exists (unit: millisecond)

Note: After waiting for the response to the request, the service invokes the interface again to obtain the event after 200 ms to 500 ms.

## Interface Method

The request method must be set to GET. This interface supports only the GET method.

## URI

https://ip:port/agentgateway/resource/agentevent/{agentid}?calldata=XXX

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                           |
|-----|-----------|------------|--------------------|-----------------------------------------------------------------------|
| 1   | agentid   | string     | Yes                | ID of the agent who signs in.                                         |
| 2   | calldata  | string     | No                 | Call data. This parameter is used when the connection bar is updated. |

## Method Name in Logs

getAgentEvent

## Request Description

- Message Header

**Table 6-246** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 6-247** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                                                                                    |
|-----|-----------|------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                                                                                   |
| 2   | retcode   | string     | Error code. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> |
| 3   | event     | object     | Indicates an agent event.<br>For details about the parameters of this object, see <a href="#">Table 6-248</a> .                                |

**Table 6-248** Parameter description of event

| No. | Parameter | Value Type | Description                                                               |
|-----|-----------|------------|---------------------------------------------------------------------------|
| 3.1 | eventType | string     | Indicates the event type. For details, see <a href="#">6.5.1 Events</a> . |
| 3.2 | workNo    | string     | Agent ID.                                                                 |
| 3.3 | content   | object     | Indicates the content of an event. The definition varies with the event.  |

## Triggered Event

None

## Error Code

- 000-001
- 000-003
- 100-006

### NOTE

If any of the preceding error codes is displayed, you need to sign out the agent (or set the agent to the sign-out state) and stop obtaining the polling event. Wait until the agent signs in again.

In addition, in the HTTPS response description, if non-200 OK error code is displayed in status codes, the polling interval must be greater than 1 second to prevent the infinite loop that affects the intermediate network device or causes interception.

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1

- Request parameter  
None

- Response parameter  

```
{
 "message": "",
 "retcode": "0",
 "event": {
 "eventType": "AgentOther_InService",
 "workNo": "291",
 "content": null
 }
}
```

### 6.1.4.2 Calling Back Pushed Events

#### Prerequisites

The agent has signed in.



## Description

When the event push mode is used after an agent signs in, the third-party system needs to develop an interface to receive pushed event messages.

## Interface Method

The request method must be set to POST. This interface supports only the POST method.

## URI

The following is a reference URL:

<https://ip:port/service-cloud/rest/cc-ai/v1/agentevent/pushresult>

In the URL, **ip** indicates the IP address of the third-party server, and **port** indicates the HTTPS port number of the third-party server.

## Method Name in Logs

None

## Request Description

- Message header

**Table 6-249** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

| No. | Parameter     | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                      |
|-----|---------------|------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | service_token | string     | No                 | User-defined. The value contains a maximum of 50 characters and cannot contain special characters. Otherwise, <b>100-001</b> is returned. It is recommended that the page be dynamically refreshed every minute. |

- Message body

**Table 6-250** Parameters in the message body

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                |
|-----|-----------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | workNo    | string     | Yes                | Agent ID.                                                                                                                                                                                                                  |
| 2   | eventList | array      | Yes                | Event list.<br>For details about the parameters of this object, see <a href="#">Table 6-251</a> .<br><b>NOTE</b><br>Events are listed from left to right by generation time. The latest events are displayed on the right. |

**Table 6-251** Parameter description of eventList

| No. | Parameter | Value Type | Description    |
|-----|-----------|------------|----------------|
| 2.1 | eventType | string     | Event type.    |
| 2.2 | workNo    | string     | Agent ID.      |
| 2.3 | content   | object     | Event content. |

## Response Description

**Table 6-252** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                                                                             |
|-----|-----------|------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                                                                            |
| 2   | retcode   | string     | Error code. The options are as follows: <ul style="list-style-type: none"> <li>• 0: success</li> <li>• Other values: failure</li> </ul> |

### Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1  
service\_token:\*\*\*\*\*
- Request parameter

```
{
 "workNo": "",
 "eventList": [
 {
 "eventType": "",
 "workNo": "",
 "content": ""
 },
 {
 "eventType": "",
 "workNo": "",
 "content": ""
 }
]
}
```
- Response parameter

```
{
 "message": "success",
 "retcode": "0"
}
```

## 6.1.5 Multimedia: mediaCall

### 6.1.5.1 Sending Messages: sendmessage

#### Description

The agent system can invoke this interface to send the message content entered by an agent to the channel application system. The channel application system then sends the message content to Internet users. Applications on the user side need to obtain the message content sent by the agent in polling mode.

## Interface Method

The request method must be set to POST. This interface supports only the POST method.

## URI

https://ip:port/agentgateway/resource/mediacall/{agentid}/sendmessage

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|------------|--------------------|-----------------------------------------------|
| 1   | agentid   | string     | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

sendMessage

## Request Description

- Message header

**Table 6-253** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body

**Table 6-254** Parameters in the message body

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----|-----------|------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | callid    | string     | Yes                | Call ID.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 2   | userid    | string     | No                 | User number.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 3   | data      | Object     | Yes                | <p>If the value is a string, it indicates the text content of the message to be sent.</p> <p>When platform encryption is selected during CC-Gateway installation (that is, the <b>MULTIMEDIA_SECM ODE</b> parameter in / <b>home/elpis/tomcat/webapps/agentgateway/WEB-INF/config/basic.properties</b> is set to <b>1</b>), the maximum size of the message content is 1.9 KB.</p> <p>When business-side encryption is selected during CC-Gateway installation (that is, the <b>MULTIMEDIA_SECM ODE</b> parameter in / <b>home/elpis/tomcat/webapps/agentgateway/WEB-INF/config/basic.properties</b> is set to <b>0</b>), the maximum size of the message content is 3.8 KB.</p> <p>In the public cloud scenario, the value is a string in JSON format. <a href="#">Table 6-255</a> describes the JSON format.</p> |

**Table 6-255** JSON format in data

| No. | Parameter   | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                                                                                                                                                                      |
|-----|-------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | from        | string     | Yes                | Channel ID, which is the value of <b>Configuration ID</b> of the channel added by the enterprise on the <b>Configuration Center &gt; Access Configuration &gt; Channel Configuration</b> page of the tenant space.                                                                                                                                                               |
| 2   | to          | string     | Yes                | User number. The value is specified by the enterprise and is generally the recipient ID.                                                                                                                                                                                                                                                                                         |
| 3   | channel     | string     | Yes                | Message channel. The options are as follows: <ul style="list-style-type: none"><li>• <b>WEB</b></li><li>• <b>WECHAT</b></li><li>• <b>TWITTER</b></li><li>• <b>FACEBOOK</b></li><li>• <b>5G</b></li><li>• <b>EMAIL</b></li><li>• <b>VOICE</b></li><li>• <b>LINE</b></li><li>• <b>WHATSAPP</b></li><li>• <b>SMS</b></li><li>• <b>INSTAGRAM</b></li><li>• <b>TELEGRAM</b></li></ul> |
| 4   | controlType | string     | Yes                | Control type. The value is fixed to <b>CHAT</b> .                                                                                                                                                                                                                                                                                                                                |

| No. | Parameter      | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----|----------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5   | mediaType      | string     | Yes                | <p>Media type.</p> <p>The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>TEXT</b>: text</li> <li>• <b>IMAGE</b>: image</li> <li>• <b>AUDIO</b>: audio</li> <li>• <b>VIDEO</b>: video</li> <li>• <b>LOCATE</b>: location</li> <li>• <b>EMOTICONS</b>: emoji</li> <li>• <b>CARD</b>: card</li> <li>• <b>MULTICARD</b>: carousel card</li> <li>• <b>EMAIL</b>: email</li> <li>• <b>WHATSAPPTEMPLATE</b>: WhatsApp template</li> <li>• <b>RICHTEXT</b>: rich text</li> <li>• <b>WEBCARD</b>: web card message</li> <li>• <b>SMSTEMPLATE</b>: SMS template message</li> <li>• <b>LOCATION</b>: location (Telegram)</li> <li>• <b>DOCUMENT</b>: document</li> <li>• <b>COBROWSESITE</b>: co-browsing URL</li> </ul> |
| 6   | messageCode    | string     | Yes                | <p>Unique code of a message, for example, the UUID.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 7   | mediaFileType  | string     | No                 | <p>Media file type.</p> <ul style="list-style-type: none"> <li>• If <b>mediaType</b> is <b>IMAGE</b>, the options are <b>jpg</b>, <b>png</b>, and <b>jpeg</b>.</li> <li>• If <b>mediaType</b> is <b>AUDIO</b>, the options are <b>mp3</b>, <b>aac</b>, <b>m4a</b>, and <b>mp4</b>.</li> <li>• If <b>mediaType</b> is <b>EMOTICONS</b>, the option is <b>gif</b>.</li> <li>• If <b>mediaType</b> is <b>DOCUMENT</b>, the options are <b>doc</b>, <b>docx</b>, <b>pdf</b>, <b>zip</b>, and <b>RTF</b>.</li> </ul>                                                                                                                                                                                                                        |
| 8   | senderNickname | string     | Yes                | <p>Agent nickname.</p> <p>The value is specified by the enterprise.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 9   | senderAvatar   | string     | Yes                | <p>Agent avatar. The value is specified by the enterprise.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| No. | Parameter   | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----|-------------|------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10  | sendTime    | string     | Yes                | Sending timestamp.                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 11  | content     | string     | Yes                | Message content. Directly enter the content of the message to be sent, or enter a message format that can be parsed by the third-party system.                                                                                                                                                                                                                                                                                                                                            |
| 12  | contentType | string     | No                 | <p>Message type.</p> <ul style="list-style-type: none"> <li>If this parameter is set to <b>1</b>, the file to be sent is a local file selected by the agent.</li> <li>If this parameter is not passed or is set to <b>0</b>, the file to be sent is a multimedia library file instead of a local file.<br/>In this case, the file must be uploaded in <b>Configuration Center &gt; Resource Management &gt; Online Chat Multimedia Library</b> of the tenant space in advance.</li> </ul> |
| 13  | userId      | string     | Yes                | User ID. The value is defined by the enterprise and can be the same as that of <b>to</b> .                                                                                                                                                                                                                                                                                                                                                                                                |

## Response Description

**Table 6-256** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                                                                       |
|-----|-----------|------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 1   | retcode   | string     | <p>Message sending result.</p> <ul style="list-style-type: none"> <li><b>0</b>: success</li> <li>Other values: failure</li> </ul> |
| 2   | message   | string     | Description.                                                                                                                      |

## Triggered Event

None

## Error Code

- 106-001
- 106-002



- 106-007
- 106-011
- 106-013
- 106-014

## Example

- **Message header**  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- **Request parameter**  
Public cloud scenario:

```
{
 "callid": "1552524689-16797284",
 "userid": "88880043",
 "data": "{\\"from\\":\\"202301032048582419\\",\\"to\\":\\"1672709693442874044\\",\\"channel\\":\\"WEB\\",\\"controlType\\":\\"CHAT\\",\\"mediaType\\":\\"TEXT\\",\\"messageCode\\":\\"b72d414f-97ca-4897-bc9f-a727ad92ff12\\",\\"content\\":\\"<p>Message sent by the agent</p>\\",\\"senderNickname\\":\\"Agent\\",\\"senderAvatar\\":\\"DefaultAvatar\\",\\"sendTime\\":1678109503317,\\"userId\\":\\"1672709693442874044\\"}",
 "content": "Message sent by the agent"
}
```
- **Response parameter**

```
{
 "message": "success",
 "retcode": "0"
}
```

### 6.1.5.2 Agent Session Quantity Configuration: setcallnums

#### Description

The agent system can invoke this interface to adjust the maximum number of sessions of an agent.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### URI

<https://ip:port/agentgateway/resource/mediacall/{agentid}/setcallnums>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 6-257** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

setCallNums

## Request Description

- Message header

**Table 6-258** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body

**Table 6-259** Parameters in the message body

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----|-----------|------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | mediaType | string     | Yes                | <p>Media type. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>1:</b> text chat</li> <li>• <b>2:</b> click-to-dial call</li> <li>• <b>4:</b> callback request</li> <li>• <b>5:</b> common voice or video call</li> <li>• <b>15:</b> predicted outbound call</li> <li>• <b>16:</b> previewed outbound call</li> <li>• <b>17:</b> message call</li> <li>• <b>19:</b> common video call</li> <li>• <b>51:</b> multimedia web chat</li> <li>• <b>53:</b> social chat</li> </ul> |
| 2   | callnums  | string     | Yes                | <p>Maximum number of agent sessions. The maximum value is 60, and the minimum value is 1.</p>                                                                                                                                                                                                                                                                                                                                                                                                           |

## Response Description

**Table 6-260** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                                                                 |
|-----|-----------|------------|-----------------------------------------------------------------------------------------------------------------------------|
| 1   | retcode   | string     | Message sending result. <ul style="list-style-type: none"><li>• <b>0</b>: success</li><li>• Other values: failure</li></ul> |
| 2   | message   | string     | Description.                                                                                                                |

## Triggered Event

- None

## Error Code

- 106-003
- 106-008
- 106-012

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
{  
  "mediaType": "53",  
  "callnums": "1"  
}
- Response parameter  
{  
  "message": "success",  
  "retcode": "0"  
}

### 6.1.5.3 Session Transfer: transfer

## Description

The agent system can invoke this interface to transfer multimedia sessions of a specified call ID to other agents.

## Interface Method

The request method must be set to POST. This interface supports only the POST method.

## URI

<https://ip:port/agentgateway/resource/mediacall/{agentid}/transfer>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 6-261** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | String    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

transfer

## Request Description

- Message header

**Table 6-262** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | String     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | String     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body

**Table 6-263** Parameters in the message body

| No. | Parameter  | Value Type | Man datory (Yes/ No) | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----|------------|------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | callid     | String     | Yes                  | Call ID.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 2   | caller     | String     | No                   | Calling number.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 3   | devicetype | Integer    | Yes                  | Type of a transfer-out device.<br><b>1:</b> skill queue<br><b>2:</b> agent<br><b>4:</b> system access code                                                                                                                                                                                                                                                                                                                                                                                         |
| 4   | mode       | Integer    | Yes                  | Transfer-out mode. For details, see <a href="#">Table 6-459</a> .<br>When <b>devicetype</b> is set to <b>1</b> , the options are as follows:<br><b>0:</b> blind transfer<br><b>2:</b> release-after-transfer<br>When <b>devicetype</b> is set to <b>2</b> , the options are as follows:<br><b>0:</b> blind transfer<br><b>2:</b> release-after-transfer<br>When <b>devicetype</b> is set to <b>4</b> , the options are as follows:<br><b>0:</b> blind transfer<br><b>2:</b> release-after-transfer |
| 5   | address    | String     | Yes                  | Address to which the call is transferred, that is, the device ID corresponding to the target device type. The value contains a maximum of 24 characters.<br>When <b>devicetype</b> is set to <b>1</b> , the value of this parameter is a skill queue ID. When <b>devicetype</b> is set to <b>2</b> , the value of this parameter is an agent ID. When <b>devicetype</b> is set to <b>4</b> , the value of this parameter is a system access code.                                                  |
| 6   | calldata   | String     | No                   | Data transferred to the target agent. The value can contain a maximum of 2048 bytes.                                                                                                                                                                                                                                                                                                                                                                                                               |
| 7   | skillId    | Integer    | No                   | Skill ID. This parameter is valid only when <b>devicetype</b> is set to <b>2</b> .                                                                                                                                                                                                                                                                                                                                                                                                                 |

## Response Description

**Table 6-264** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                                                            |
|-----|-----------|------------|------------------------------------------------------------------------------------------------------------------------|
| 1   | retcode   | String     | Message sending result.<br><ul style="list-style-type: none"> <li>0: success</li> <li>Other values: failure</li> </ul> |
| 2   | message   | String     | Description.                                                                                                           |

## Triggered Event

- AgentEvent\_Connect\_Fail
- AgentEvent\_Talking
- AgentEvent\_Call\_Release

When the transfer mode is release-after-transfer, the following event is triggered:

- AgentEvent\_SuccTransResult

## Error Code

- 106-004
- 106-005
- 106-006
- 106-009
- 106-010
- 106-012

## Example

- Message header  
 Content-Type:application/json; charset=UTF-8  
 Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  

```
{
 "callid": "1552524689-16797284",
 "caller": "88880021",
 "devicetype": 2,
 "mode": 2,
 "address": "205",
 "calldata": "help"
}
```
- Response parameter  

```
{
 "message": "success",
 "retcode": "0"
}
```

### 6.1.5.4 Obtaining Connection Information: getconnectinfo

#### Description

In the H5 video call scenario, an agent is disconnected unexpectedly. To join a video conference again, the agent needs to obtain the connection information.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### URI

https://ip:port/agentgateway/resource/mediacall/{agentid}/getconnectinfo

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 6-265** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | String    | True               | Agent ID. The value ranges from 101 to 59999. |

#### Method Name in Logs

getConnectInfo

#### Request Description

- Message header

**Table 6-266** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                    |
|-----|--------------|------------|--------------------|------------------------------------------------------------------------------------------------|
| 1   | Content-Type | String     | True               | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> . |



| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|-----------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Guid      | String     | True               | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body

**Table 6-267** Parameters in the message body

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                                  |
|-----|-----------|------------|--------------------|------------------------------------------------------------------------------|
| 1   | userType  | String     | True               | Subscriber type.<br>The default value is <b>agent</b> , indicating an agent. |
| 2   | callid    | String     | True               | Call ID.                                                                     |

## Response Description

**Table 6-268** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                                                                                      |
|-----|-----------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | retcode   | String     | Message sending result. <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul>                   |
| 2   | message   | String     | Description.                                                                                                                                     |
| 3   | result    | object     | Connection information displayed after a successful query.<br>For details about the parameters of this object, see <a href="#">Table 6-269</a> . |

**Table 6-269** Parameter description of result

| No. | Parameter          | Value Type | Description                                                                     |
|-----|--------------------|------------|---------------------------------------------------------------------------------|
| 1   | userId             | String     | Agent ID.                                                                       |
| 2   | ctime              | String     | Expiration time.                                                                |
| 3   | channelId          | String     | Channel ID (room ID).                                                           |
| 4   | role               | String     | Role.                                                                           |
| 5   | ip                 | String     | IP address of the media server access point.                                    |
| 6   | port               | String     | Media server access point port.                                                 |
| 7   | signalingDomainIn  | String     | Internal-side signaling domain.<br>Format: https://{Domain name}:{Port number}. |
| 8   | signalingDomainOut | String     | External signaling domain.<br>Format: https://{Domain name}:{Port number}.      |
| 9   | locationId         | String     | Node                                                                            |
| 10  | signature          | String     | Signature.                                                                      |
| 11  | apId               | String     | User ID.                                                                        |

## Triggered Event

None

## Error Code

- 106-011
- 106-015
- 100-007

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
{  
"callid":"1552524689-16797284",

```

"userType": "agent"
}

```

- Response parameter

```

{
 "message": "success",
 "retcode": "0",
 "result":
 {
 "userId": "Agent ID",
 "ctime": "Expiration time",
 "channelId": "15945185-345",
 "appld": "8345234631",
 "ip": "xxx.xxx.xxx.xxx",
 "port": "6500",
 "role": "0",
 "signalingDomainIn": "https://in.isdpdomain.com",
 "signalingDomainOut": "https://out.isdpdomain.com",
 "locationId": "65535",
 "signature": "xxx",
 "appld": "sdcP0BPcVGymItWppGX6XqrZGTCYa13d"
 }
}

```

### 6.1.5.5 Screenshot: imagecapture

#### Description

In the H5 video call scenario, this interface is invoked for agents to take a screenshot of users.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### URI

<https://ip:port/agentgateway/resource/mediacall/{agentid}/imagecapture>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 6-270** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | String    | True               | Agent ID. The value ranges from 101 to 59999. |

#### Method Name in Logs

imageCapture

## Request Description

- Message header

**Table 6-271** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | String     | True               | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | String     | True               | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body

**Table 6-272** Parameters in the message body

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                            |
|-----|-----------|------------|--------------------|------------------------------------------------------------------------|
| 1   | userType  | String     | True               | Subscriber type. The default value is <b>user</b> , indicating a user. |
| 2   | callid    | String     | True               | Call ID.                                                               |

## Response Description

**Table 6-273** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                                                                    |
|-----|-----------|------------|--------------------------------------------------------------------------------------------------------------------------------|
| 1   | retcode   | String     | Message sending result. <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> |

| No. | Parameter | Value Type | Description  |
|-----|-----------|------------|--------------|
| 2   | message   | String     | Description. |

### Triggered Event

- Screenshot event (AgentEvent\_ImageCapture)

### Error Code

- 106-011
- 106-015
- 100-007

### Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
{  
  "callid":"1552524689-16797284",  
  "userType":"user"  
}
- Response parameter  
{  
  "message": "success",  
  "retcode": "0"  
}

## 6.1.6 Agent Conference: agentconf

### NOTICE

Agent conferences support only audio conferences.

### 6.1.6.1 Applying for an Agent Conference

#### Prerequisites

- The agent has signed in.

#### Description

This interface is used by an agent to apply for an agent conference. If the interface is successfully invoked, the agent needs to wait for the subsequent asynchronous event. After the application is successful, the agent who applies for the conference becomes the chairperson. The agent who applies for a conference receives the AgentConf\_SelfJoinResult event, indicating that the agent has joined the conference. The agent can perform chairperson operations only after the AgentConf\_RequestSuccess event is received. Before receiving the

AgentConf\_RequestSuccess event, the platform directly returns a failure message when the agent invokes conference-related interfaces.

#### NOTICE

- The current agent is in idle or talking state. If the agent is in a call, the call must be in stable state. Otherwise, the agent fails to apply for a conference. For example, if the agent performs operations such as voice playing, muting, call holding, or hang-up transfer during a call, the conference application fails.
- If there are two agents in a three-party conversation, the called agent cannot initiate an agent conference.
- The participant type can only be agent ID or phone number.
- The number of parties in a conference call must be less than or equal to the maximum number of concurrent voice calls set in the VDN.

## Interface Method

The request method must be set to POST. This interface supports only the POST method.

## URI

`https://ip:port/agentgateway/resource/agentconf/{agentid}/requestagentconf`

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

**Table 6-274** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

requestAgentConf

## Request Description

- Message header

**Table 6-275** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body

**Table 6-276** Parameters in the message body

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                                                                                                                                              |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | memberNum    | int        | Yes                | Maximum number of participants in a conference. The value ranges from 1 to 120.                                                                                                                                                                                                                                                                          |
| 2   | confCallerNo | String     | No                 | Calling number displayed when a user is called to join a conference. The maximum length is 24 bytes. If this parameter is not set, the platform uses the system calling number in the basic information about the VDN configuration console by default. If there are restrictions on numbers in the VDN, the value must be within the restriction range. |
| 3   | time         | int        | No                 | Applied conference duration. The unit is minute. The value ranges from 4 to 1440. The default value is <b>60</b> .                                                                                                                                                                                                                                       |

| No. | Parameter  | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                                                                                                                                                                                |
|-----|------------|------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | promptTime | int        | No                 | Duration after which a conference ends.<br>This parameter is optional.<br>The unit is minute.<br>The value ranges from 3 to 1440.<br>The default value is <b>3</b> .<br>If the value is greater than or equal to the applied conference duration, the value is the applied conference duration minus 1.                                                                                    |
| 5   | beepTone   | boolean    | No                 | Whether to play an announcement when a user joins or leaves a conference.<br>The default value is <b>false</b> .                                                                                                                                                                                                                                                                           |
| 6   | playMode   | int        | No                 | <b>2</b> : Playing a specified voice file.<br>The default value is <b>2</b> .                                                                                                                                                                                                                                                                                                              |
| 7   | voicePath  | String     | No                 | Absolute file path. The value is in the format of <i>Drive letter/conf/VDN ID/Announcement file name</i> , for example, <b>y:/conf/120/1136287.V3</b> .<br>When <b>BeepTone</b> is set to <b>true</b> , this parameter must be set and <b>playMode</b> must be set to <b>2</b> .<br>When <b>BeepTone</b> is set to <b>false</b> , this parameter is invalid.<br>The maximum length is 127. |

## Response Description

Table 6-277 Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |



| No. | Parameter | Value Type | Description     |
|-----|-----------|------------|-----------------|
| 3   | result    | object     | Reserved field. |

## Triggered Event

- AgentState\_Busy
- AgentOther\_PhoneAlerting
- AgentOther\_PhoneOffhook
- AgentConf\_SelfJoinResult
- AgentConf\_RequestSuccess
- AgentConf\_RequestFailed
- AgentConf\_Timeout

## Error Code

- 000-002
- 100-006
- 100-007

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  

```
{
 "memberNum": 4,
 "confCallerNo": "10000",
 "time": 50,
 "promptTime": 5,
 "beepTone": true,
 "playMode": 2,
 "voicePath": "y:/conf/120/1136287.V3"
}
```
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 6.1.6.2 Answering an Agent Conference Call

#### Prerequisites

- The agent has signed in.
- The agent has received the AgentConf\_Ringing event.

#### Description

This interface is used by an agent to answer the conference call after the agent receives the AgentConf\_Ringing event.

## Interface Method

The request method must be set to POST. This interface supports only the POST method.

## URI

https://ip:port/agentgateway/resource/agentconf/{agentid}/answeragentconf

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

**Table 6-278** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

answerAgentConf

## Request Description

- Message header

**Table 6-279** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 6-280** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- AgentConf\_SelfJoinResult
- AgentMediaEvent\_Record

 **NOTE**

AgentConf\_ParticipantChanged

## Error Code

- 000-002
- 100-006
- 100-007
- 101-001

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 6.1.6.3 Rejecting an Agent Conference Call

#### Prerequisites

- The agent has signed in.
- The agent has received the AgentConf\_Ringing event.

#### Description

This interface is used by an agent to reject a conference call after the agent receives the AgentConf\_Ringing event.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### URI

`https://ip:port/agentgateway/resource/agentconf/{agentid}/rejectagentconf`

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

**Table 6-281** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

#### Method Name in Logs

rejectAgentConf

#### Request Description

- Message header

**Table 6-282** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 6-283** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- AgentOther\_PhoneRelease
- AgentState\_Ready

 **NOTE**

AgentConf\_ParticipantChanged

## Error Code

- 000-002

- 100-006
- 100-007
- 101-001

### Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 6.1.6.4 Leaving an Agent Conference

#### Prerequisites

- The agent has signed in.
- The agent has joined the conference.
- The current agent is not the chairperson. (The chairperson invokes the conference release interface to leave the conference.)

#### Description

This interface is used by an agent to leave a conference.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### URI

<https://ip:port/agentgateway/resource/agentconf/{agentid}/requestleaveagentconf>

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

**Table 6-284** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

requestLeaveAgentConf

## Request Description

- Message header

**Table 6-285** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 6-286** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- AgentMediaEvent\_StopRecordDone

- AgentOther\_PhoneRelease
- AgentConf\_SelfLeaveResult

 **NOTE**

AgentConf\_ParticipantChanged

## Error Code

- 000-002
- 100-006
- 100-007
- 101-001
- 101-007

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 6.1.6.5 Releasing an Agent Conference

#### Prerequisites

- The agent has signed in.
- The current agent is the conference chairperson.
- The conference has been successfully applied for.

#### Description

This interface is used by a chairperson to release the conference. After the conference is released, the chairperson and all participants are deleted. Only chairpersons have the permission to release a conference.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### URI

`https://ip:port/agentgateway/resource/agentconf/{agentid}/releaseagentconf`

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.



**Table 6-287** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

releaseAgentConf

## Request Description

- Message header

**Table 6-288** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 6-289** Parameters in the message body

| No. | Parameter | Value Type | Description  |
|-----|-----------|------------|--------------|
| 1   | message   | string     | Description. |

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- AgentMediaEvent\_StopRecordDone
- AgentOther\_PhoneRelease
- AgentConf\_SelfLeaveResult
- AgentState\_Ready

## Error Code

- 000-002
- 100-006
- 100-007
- 101-001
- 101-002

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 6.1.6.6 Holding a Participant in a Conference

#### Prerequisites

- The agent has signed in.
- The current agent is the conference chairperson.

#### Description

This interface is used by a chairperson to hold a participant in a conference. Only chairpersons have the permission to hold a participant.

## Interface Method

The request method must be set to POST. This interface supports only the POST method.

## URI

https://ip:port/agentgateway/resource/agentconf/{agentid}/holdparticipant

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

**Table 6-290** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

holdParticipant

## Request Description

- Message header

**Table 6-291** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body

**Table 6-292** Parameters in the message body

| No. | Parameter   | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                   |
|-----|-------------|------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | addressType | String     | Yes                | Address type.<br><b>6</b> : phone number<br><b>9</b> : agent ID                                                                                                                                               |
| 2   | address     | String     | Yes                | Address ID.<br>The maximum length is 24 bytes.                                                                                                                                                                |
| 3   | playMode    | int        | No                 | Mode for playing an announcement.<br>The value <b>2</b> indicates that a specified announcement file is played.<br>The default value is <b>2</b> .                                                            |
| 4   | voicePath   | String     | Yes                | Absolute file path. The value is in the format of <i>Drive letter/conf/VDN ID/Announcement file name</i> , for example, <b>y:/conf/120/1136287.V3</b> .<br>The value can contain a maximum of 127 characters. |

## Response Description

**Table 6-293** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- AgentConf\_ParticipantChanged

## Error Code

- 000-002
- 100-006
- 100-007
- 101-001
- 101-002

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  

```
{
 "address": "88887946",
 "addressType": "6",
 "playMode": 2,
 "voicePath": "y:/conf/120/1136287.V3"
}
```
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 6.1.6.7 Unholding a Participant in a Conference

#### Prerequisites

- The agent has signed in.
- The current agent is the conference chairperson.

#### Description

This interface is used by a chairperson to unhold a participant in a conference. Only chairpersons have the permission to unhold a participant.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### URI

`https://ip:port/agentgateway/resource/agentconf/{agentid}/unholdparticipant`

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

**Table 6-294** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

unholdParticipant

## Request Description

- Message header

**Table 6-295** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body

**Table 6-296** Parameters in the message body

| No. | Parameter   | Value Type | Mandatory (Yes/No) | Description                                                     |
|-----|-------------|------------|--------------------|-----------------------------------------------------------------|
| 1   | addressType | String     | Yes                | Address type.<br><b>6</b> : phone number<br><b>9</b> : agent ID |

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                                       |
|-----|-----------|------------|--------------------|-----------------------------------------------------------------------------------|
| 2   | address   | String     | Yes                | Address ID, that is, phone number or agent ID.<br>The maximum length is 24 bytes. |

## Response Description

**Table 6-297** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- AgentConf\_ParticipantChanged

## Error Code

- 000-002
- 100-006
- 100-007
- 101-001
- 101-002

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  

```
{
 "address": "2002",
 "addressType": "9"
}
```
- Response parameter  

```
{
 "result": {},
 "message": "success",
}
```

```
"retcode": "0"
}
```

### 6.1.6.8 Applying for Extending a Conference

#### Prerequisites

- The agent has signed in.
- The current agent is the conference chairperson.

#### Description

This interface is used by a chairperson to extend a conference. The total conference duration cannot exceed 1440 minutes.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### URI

`https://ip.port/agentgateway/resource/agentconf/{agentid}/prolongtime`

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

**Table 6-298** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | String    | Yes                | Agent ID. The value ranges from 101 to 59999. |

#### Method Name in Logs

prolongTime

#### Request Description

- Message header



**Table 6-299** Parameters in the message body

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | String     | True               | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | String     | True               | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body

**Table 6-300** Parameters in the message body

| No. | Parameter   | Value Type | Mandatory (Yes/No) | Description                                                                                            |
|-----|-------------|------------|--------------------|--------------------------------------------------------------------------------------------------------|
| 1   | prolongTime | Integer    | Yes                | Duration by which a conference is extended.<br>The unit is minute.<br>The value ranges from 1 to 1440. |

## Response Description

**Table 6-301** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | String     | Description.                                                                           |
| 2   | retcode   | String     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | Map        | For details, see <a href="#">Table 6-302</a> .                                         |

**Table 6-302** Actual extended duration

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                    |
|-----|-------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.1 | appliedTime | Integer    | Actual extended duration.<br>The unit is minute.<br>The value ranges from 1 to 1440.<br>The value of <b>appliedTime</b> may be shorter than the value of <b>{prolongTime}</b> , because the sum of the value of <b>{prolongTime}</b> and the used conference time is longer than 1440 minutes. |

### Triggered Event

- None

### Error Code

- 000-002
- 100-006
- 100-007
- 101-001
- 101-002

### Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  

```
{
 "prolongTime": 100
}
```
- Response parameter  

```
{
 "result": {
 "appliedTime": 50
 },
 "message": "success",
 "retcode": "0"
}
```

## 6.1.6.9 Transferring the Chairperson Permission

### Prerequisites

- The agent has signed in.
- The current agent is the conference chairperson.
- The target agent has joined the conference.

## Description

This interface is used by a chairperson to transfer the chairperson permission to another agent.

## Interface Method

The request method must be set to POST. This interface supports only the POST method.

## URI

https://ip:port/agentgateway/resource/agentconf/{agentid}/applytoshiftpresident

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

**Table 6-303** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

applyToShiftPresident

## Request Message

- Message header

**Table 6-304** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                    |
|-----|--------------|------------|--------------------|------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> . |

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|-----------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Guid      | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body

**Table 6-305** Parameters in the message body

| No. | Parameter   | Value Type | Mandatory (Yes/No) | Description                                                              |
|-----|-------------|------------|--------------------|--------------------------------------------------------------------------|
| 1   | destAgentNo | int        | Yes                | ID of the agent to whom the chairperson permission is to be transferred. |

## Response Description

**Table 6-306** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- AgentConf\_ParticipantChanged

 **NOTE**

AgentConf\_PresidentChanged

## Error Code

- 000-002
- 100-006
- 100-007
- 101-001
- 101-002
- 101-005

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  

```
{
 "destAgentNo": 2001
}
```
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 6.1.6.10 Inviting Participants in Batches

#### Prerequisites

- The agent has signed in.
- The current agent is the conference chairperson.

#### Description

This interface is used by a chairperson to invite multiple participants to join a conference.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### URI

<https://ip:port/agentgateway/resource/agentconf/{agentid}/batchaddparticipant>

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

**Table 6-307** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

batchAddParticipant

## Request Description

- Message header

**Table 6-308** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body

**Table 6-309** Parameters in the message body

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----|-----------|------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | addresses | array      | Yes                | Information about participants to be invited to join a conference in batches.<br>The maximum length of the array is 120.<br>For details about the parameters of this object, see <a href="#">Table 6-310</a> .                                                                                                                                                                                                      |
| 2   | beepTone  | boolean    | No                 | Whether to play a welcome announcement to a user when the user joins a conference.<br>The default value is <b>false</b> .                                                                                                                                                                                                                                                                                           |
| 3   | playMode  | int        | No                 | Mode for playing an announcement.<br>The value <b>2</b> indicates that a specified announcement file is played.<br>The default value is <b>2</b> .                                                                                                                                                                                                                                                                  |
| 4   | voicePath | String     | No                 | Absolute file path. The value is in the format of <i>Drive letter/conf/ VDN ID/Announcement file name</i> , for example, <b>y:/conf/120/1136287.V3</b> .<br>When <b>BeepTone</b> is set to <b>true</b> , this parameter must be set and <b>playMode</b> must be set to <b>2</b> .<br>When <b>BeepTone</b> is set to <b>false</b> , this parameter is invalid.<br>The value can contain a maximum of 127 characters. |
| 5   | caller    | String     | No                 | Calling number. If there are restrictions on numbers in the VDN, the value must be within the restriction range.<br>The value can contain a maximum of 24 characters.                                                                                                                                                                                                                                               |

**Table 6-310** Parameters of the participant object

| No. | Parameter      | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                             |
|-----|----------------|------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | addressType    | String     | Yes                | Address type.<br><b>6</b> : phone number<br><b>9</b> : agent ID                                                                                                                                         |
| 1.2 | address        | String     | Yes                | Address ID.<br>The value can contain a maximum of 24 characters.                                                                                                                                        |
| 1.3 | deviceCallType | int        | No                 | User-defined device call type. For details, see <a href="#">Table 6-458</a> .<br>If this parameter is left empty or set to null, the default value <b>0</b> is used.<br>The value ranges from 0 to 255. |
| 1.4 | deviceType     | int        | No                 | User-defined device type. For details, see <a href="#">Table 6-457</a> .<br>If this parameter is left empty or set to null, the default value <b>0</b> is used.<br>The value ranges from 0 to 255.      |

## Response Description

**Table 6-311** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- AgentConf\_ParticipantChanged



## Error Code

- 000-002
- 100-006
- 100-007
- 101-001
- 101-002

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter

```
{
 "addresses": [
 {
 "address": "2002",
 "addressType": "9",
 "deviceCallType": 1,
 "deviceType": 66
 }
],
 "beepTone": false,
 "playMode": 2,
 "voicePath": "y:/conf/120/1136287.V3",
 "caller": "1111"
}
```
- Response parameter

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 6.1.6.11 Deleting Participants in Batches

#### Prerequisites

- The agent has signed in.
- The current agent is the conference chairperson.

#### Description

This interface is used by a chairperson to delete participants from a conference in batches.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### URI

<https://ip:port/agentgateway/resource/agentconf/{agentid}/batchremoveparticipant>

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

**Table 6-312** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

batchRemoveParticipant

## Request Description

- Message header

**Table 6-313** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body

**Table 6-314** Parameters in the message body

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                              |
|-----|-----------|------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | addresses | array      | Yes                | Information about participants to be deleted in batches.<br>The maximum length of the array is 30.<br>For details about the parameters of this object, see <a href="#">Table 6-315</a> . |

**Table 6-315** AgentConfAddressExParam object

| No. | Parameter   | Value Type | Mandatory (Yes/No) | Description                                                      |
|-----|-------------|------------|--------------------|------------------------------------------------------------------|
| 1.1 | addressType | String     | Yes                | Address type.<br><b>6</b> : phone number<br><b>9</b> : agent ID  |
| 1.2 | address     | String     | Yes                | Address ID.<br>The value can contain a maximum of 24 characters. |

## Response Description

**Table 6-316** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | map        | For details, see <a href="#">Table 6-317</a> .                                         |

**Table 6-317** Parameters in the list of participants that do not exist

| No. | Parameter           | Value Type | Description                                    |
|-----|---------------------|------------|------------------------------------------------|
| 3.1 | noExistParticipants | array      | For details, see <a href="#">Table 6-318</a> . |

**Table 6-318** Participant parameters

| No.   | Parameter   | Value Type | Description   |
|-------|-------------|------------|---------------|
| 3.1.1 | addressType | string     | Address type. |
| 3.1.2 | address     | string     | Address ID.   |

## Triggered Event

- AgentConf\_ParticipantChanged
- AgentConf\_SelfLeaveResult

## Error Code

- 000-002
- 100-006
- 100-007
- 101-001
- 101-002

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter
 

```
{
 "addresses": [
 {
 "address": "2002",
 "addressType": "9"
 },
 {
 "address": "2001",
 "addressType": "9"
 }
]
}
```
- Response parameter
 

```
{
 "message": "",
 "retcode": "0",
 "result": {
 "noExistParticipants": []
 }
}
```

```
}
}
```

### 6.1.6.12 Modifying Participant Attributes

#### Prerequisites

- The agent has signed in.
- The current agent is the conference chairperson.

#### Description

This interface is used by a chairperson to modify participant channel attributes. Only chairpersons have the permission to modify such attributes.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### URI

`https://ip:port/agentgateway/resource/agentconf/{agentid}/changeparticipantmode`

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

**Table 6-319** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

#### Method Name in Logs

`changeParticipantMode`

#### Request Description

- Message header

**Table 6-320** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body

**Table 6-321** Parameters in the message body

| No. | Parameter   | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                                                                              |
|-----|-------------|------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | attribute   | int        | Yes                | Participant attribute. The options are as follows:<br><b>1:</b> The participant can only listen but cannot speak.<br><b>2:</b> The participant can only speak but cannot listen.<br><b>3:</b> The participant can listen and speak.<br><b>4:</b> The participant cannot listen or speak. |
| 2   | addressType | String     | Yes                | Address type.<br><b>6:</b> phone number<br><b>9:</b> agent ID                                                                                                                                                                                                                            |
| 3   | address     | String     | Yes                | Address ID, that is, phone number or agent ID.<br>The maximum length is 24 bytes.                                                                                                                                                                                                        |

## Response Description

**Table 6-322** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

If the participant attribute value is set to **1** or **3**, the following event is received:

- AgentConf\_ParticipantChanged

If the participant attribute value is set to **2** or **4**, no event is received.

## Error Code

- 000-002
- 100-006
- 100-007
- 101-001
- 101-002

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  

```
{
 "attribute": 3,
 "address": "88887744",
 "addressType": "6"
}
```
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 6.1.6.13 Playing an Announcement in an Agent Conference

#### Prerequisites

- The agent has signed in.
- The current agent is the conference chairperson.

#### Description

This interface is used by a chairperson to play an announcement in a conference. Only chairpersons have the permission to play an announcement in a conference.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### URI

`https://ip:port/agentgateway/resource/agentconf/{agentid}/playvoicetoconf`

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

**Table 6-323** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

#### Method Name in Logs

`playVoiceToConf`

#### Request Description

- Message header



**Table 6-324** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body

**Table 6-325** Parameters in the message body

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                               |
|-----|-----------|------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | playType  | int        | No                 | Announcement playing type. The options are as follows:<br><b>0</b> : The conference foreground announcement is played.<br><b>1</b> : The conference background announcement is played.<br>The default value is <b>0</b> . |
| 2   | playMode  | int        | No                 | Mode for playing an announcement.<br>The value <b>2</b> indicates that a specified announcement file is played.<br>The default value is <b>2</b> .                                                                        |
| 3   | voicePath | String     | Yes                | Absolute file path. The value is in the format of <i>Drive letter/conf/VDN ID/Announcement file name</i> , for example, <b>y:/conf/120/1136287.V3</b> .<br>The value can contain a maximum of 127 characters.             |

## Response Description

**Table 6-326** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | map        | Reserved field.                                                                        |

## Triggered Event

AgentConf\_StopVoice

## Error Code

- 000-002
- 100-006
- 100-007
- 101-001
- 101-002

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  

```
{
 "playType": 0,
 "playMode": 2,
 "voicePath": "y:/conf/120/1136287.V3"
}
```
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 6.1.6.14 Stopping Conference Announcement Playing

#### Prerequisites

- The agent has signed in.

- The current agent is the conference chairperson.

## Description

This interface is used by a chairperson to stop conference announcement playing. Only chairpersons have the permission to stop conference announcement playing.

## Interface Method

The request method must be set to POST. This interface supports only the POST method.

## URI

`https://ip:port/agentgateway/resource/agentconf/{agentid}/stopvoicetoconf`

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

**Table 6-327** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

stopVoiceToConf

## Request Description

- Message header

**Table 6-328** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                    |
|-----|--------------|------------|--------------------|------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> . |

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|-----------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Guid      | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 6-329** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                                              |
|-----|-----------|------------|----------------------------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                                             |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure                   |
| 3   | result    | map        | This parameter is returned only when the operation fails. For details, see <a href="#">Table 6-330</a> . |

**Table 6-330** Cause of failure to stop playing announcements

| No. | Parameter   | Value Type | Description                                                                                                                               |
|-----|-------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 3.1 | errorReason | int        | When announcement playing fails to be stopped, the failure cause code returned by the auto call distributor is transparently transmitted. |

## Triggered Event

None

## Error Code

- 000-002
- 100-006
- 100-007
- 101-001
- 101-002

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 6.1.6.15 Playing an Announcement in an Agent Conference Channel

#### Prerequisites

- The agent has signed in.
- The current agent is the conference chairperson.

#### Description

This interface is used to play voices in a conference call (that is, play voices to specified users). Only the chairperson has the permission to play voices in a conference call.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### URI

`https://ip:port/agentgateway/resource/agentconf/{agentid}/playvoicetoparticipant`

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

**Table 6-331** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

playVoiceToParticipant

## Request Description

- Message header

**Table 6-332** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body

**Table 6-333** Parameters in the message body

| No. | Parameter   | Value Type | Mandatory (Yes/No) | Description                                                     |
|-----|-------------|------------|--------------------|-----------------------------------------------------------------|
| 1   | addressType | String     | Yes                | Address type.<br><b>6</b> : phone number<br><b>9</b> : agent ID |

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                   |
|-----|-----------|------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | address   | String     | Yes                | Address ID.<br>The maximum length is 24 bytes.                                                                                                                                                                |
| 3   | playMode  | int        | No                 | Mode for playing an announcement.<br>The value <b>2</b> indicates that a specified announcement file is played.<br>The default value is <b>2</b> .                                                            |
| 4   | voicePath | voicePath  | Yes                | Absolute file path. The value is in the format of <i>Drive letter/conf/VDN ID/Announcement file name</i> , for example, <b>y:/conf/120/1136287.V3</b> .<br>The value can contain a maximum of 127 characters. |

## Response Description

**Table 6-334** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                                              |
|-----|-----------|------------|----------------------------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                                             |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure                   |
| 3   | result    | map        | This parameter is returned only when the operation fails. For details, see <a href="#">Table 6-335</a> . |

**Table 6-335** Announcement playing failure cause

| No. | Parameter   | Value Type | Description                                                                                                                         |
|-----|-------------|------------|-------------------------------------------------------------------------------------------------------------------------------------|
| 3.1 | errorReason | int        | When an announcement fails to be played, the failure cause code returned by the auto call distributor is transparently transmitted. |

## Triggered Event

- AgentConf\_StopParticipantVoice

## Error Code

- 000-002
- 100-006
- 100-007
- 101-001
- 101-002

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  

```
{
 "address": "2002",
 "addressType": "9",
 "playMode": 2,
 "voicePath": "y:/conf/120/1136287.V3"
}
```
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 6.1.6.16 Stopping Announcement Playing in an Agent Conference Channel

#### Prerequisites

- The agent has signed in.
- The current agent is the conference chairperson.

#### Description

This interface is used by a chairperson to stop playing an announcement in a conference channel. Only chairpersons have the permission to stop playing an announcement in a conference channel.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### URI

<https://ip:port/agentgateway/resource/agentconf/{agentid}/stopvoicetoparticipant>

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.



**Table 6-336** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

stopVoiceToParticipant

## Request Description

- Message header

**Table 6-337** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body

**Table 6-338** Parameters in the message body

| No. | Parameter   | Value Type | Mandatory (Yes/No) | Description                                                     |
|-----|-------------|------------|--------------------|-----------------------------------------------------------------|
| 1   | addressType | String     | Yes                | Address type.<br><b>6</b> : phone number<br><b>9</b> : agent ID |

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                    |
|-----|-----------|------------|--------------------|------------------------------------------------|
| 2   | address   | String     | Yes                | Address ID.<br>The maximum length is 24 bytes. |

## Response Description

**Table 6-339** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                                              |
|-----|-----------|------------|----------------------------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                                             |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure                   |
| 3   | result    | map        | This parameter is returned only when the operation fails. For details, see <a href="#">Table 6-340</a> . |

**Table 6-340** Cause of failure to stop playing announcements

| No. | Parameter   | Value Type | Description                                                                                                                               |
|-----|-------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 3.1 | errorReason | int        | When announcement playing fails to be stopped, the failure cause code returned by the auto call distributor is transparently transmitted. |

## Triggered Event

None

## Error Code

- 000-002
- 100-006
- 100-007
- 101-001
- 101-002

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  

```
{
 "addressType": "9",
 "address": "2002"
}
```
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 6.1.6.17 Changing the Number of Conference Participants

#### Prerequisites

- The agent has signed in.
- The agent is the conference chairperson.

#### Description

This interface is used to change the number of conference participants.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### URI

<https://ip:port/agentgateway/resource/agentconf/{agentid}/modifyconfresource>

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

**Table 6-341** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

#### Method Name in Logs

modifyConfResource

## Request Description

- Message header

**Table 6-342** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body

**Table 6-343** Parameters in the message body

| No. | Parameter  | Value Type | Mandatory (Yes/No) | Description                                                             |
|-----|------------|------------|--------------------|-------------------------------------------------------------------------|
| 1   | modifyType | int        | Yes                | Type of a change request.<br><b>0</b> : increase<br><b>1</b> : decrease |
| 2   | modifyNum  | int        | Yes                | Number to be changed.<br>The value ranges from 2 to 118.                |

## Response Description

**Table 6-344** Parameters in the message body

| No. | Parameter | Value Type | Description  |
|-----|-----------|------------|--------------|
| 1   | message   | string     | Description. |

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

None

## Error Code

- 000-002
- 100-006
- 100-007
- 101-001
- 101-002

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  

```
{
 "modifyType": 0,
 "modifyNum": 3
}
```
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 6.1.6.18 Querying Conference Information in Batches

#### Prerequisites

- The agent has signed in.

#### Description

This interface is used to query conference information in batches.

**NOTICE**

- An inspector can query information about all conferences in the VDN to which the inspector belongs in batches.
- A common agent can query only the information about the conference to which the common agent belongs.

## Interface Method

The request method must be set to POST. This interface supports only the POST method.

## URI

https://ip:port/agentgateway/resource/agentconf/{agentid}/queryconfinfos

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

**Table 6-345** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

queryConfInfos

## Request Description

- Message header

**Table 6-346** Parameters in the message body

| No. | Parameter  | Value Type | Mandatory (Yes/No) | Description                                                           |
|-----|------------|------------|--------------------|-----------------------------------------------------------------------|
| 1   | modifyType | int        | Yes                | Type of a change request.<br><b>0:</b> increase<br><b>1:</b> decrease |

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                              |
|-----|-----------|------------|--------------------|----------------------------------------------------------|
| 2   | modifyNum | int        | Yes                | Number to be changed.<br>The value ranges from 2 to 118. |

- Message body

**Table 6-347** Parameters in the message body

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                    |
|-----|-----------|------------|--------------------|----------------------------------------------------------------|
| 1   | conflds   | array      | Yes                | Conference ID array.<br>The maximum length of the array is 20. |

## Response Description

**Table 6-348** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | array      | For details, see <a href="#">Table 6-349</a> .                                         |

**Table 6-349** Conference information

| No. | Parameter | Value Type | Description                                                                                                                       |
|-----|-----------|------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 3.1 | confld    | long       | Conference ID.                                                                                                                    |
| 3.2 | confState | int        | Conference status. The options are as follows:<br><b>0</b> : normal conference call<br><b>1</b> : conference announcement playing |

| No. | Parameter        | Value Type | Description                                                       |
|-----|------------------|------------|-------------------------------------------------------------------|
| 3.3 | startTime        | long       | Conference start time. The value is a timestamp, in milliseconds. |
| 3.4 | applyConfTime    | int        | Applied conference duration, in minutes.                          |
| 3.5 | confHaveBeenTime | int        | Time elapsed since a conference starts, in minutes.               |
| 3.6 | addresses        | array      | Participant list. For details, see <a href="#">Table 6-350</a> .  |

**Table 6-350** Participant information

| No.   | Parameter      | Value Type | Description                                                                                                                                                                                |
|-------|----------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.6.1 | addressType    | String     | <b>3:</b> address type.<br><b>6:</b> phone number<br><b>9:</b> agent ID                                                                                                                    |
| 3.6.2 | address        | String     | Address ID.                                                                                                                                                                                |
| 3.6.3 | deviceCallType | int        | User-defined device call type. For details, see <a href="#">Table 6-458</a> .                                                                                                              |
| 3.6.4 | deviceType     | int        | User-defined device type. For details, see <a href="#">Table 6-457</a> .                                                                                                                   |
| 3.6.5 | channelAttrib  | int        | Conference attribute.<br><b>1:</b> listening only<br><b>2:</b> speaking only<br><b>3:</b> listening and speaking                                                                           |
| 3.6.6 | channelState   | int        | Conference channel status. The options are as follows:<br><b>0:</b> The conference call is in progress.<br><b>1:</b> The conference call is held.<br><b>2:</b> The announcement is played. |
| 3.6.7 | role           | int        | Conference role. The options are as follows:<br><b>0:</b> participant<br><b>1:</b> chairperson                                                                                             |
| 3.6.8 | enterTime      | long       | Time when a user joins a conference. The value is a timestamp, in milliseconds.                                                                                                            |



## Triggered Event

None

## Error Code

- 000-002
- 100-006
- 100-007

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1

- Request parameter

```
{
 "conflds": [
 1029888,
 1029889
]
}
```

- Response parameter

```
{
 "message": "",
 "retcode": "0",
 "result": {
 "confs": [
 {
 "confId": 1029888,
 "confState": 0,
 "startTime": 1475745454000,
 "applyConfTime": 60,
 "confHaveBeenTime": 29,
 "addresses": [
 {
 "addressType": "6",
 "address": "70005",
 "deviceCallType": 0,
 "deviceType": 0,
 "channelAttrib": 3,
 "channelState": 0,
 "role": 0,
 "enterTime": 1475745464000
 },
 {
 "addressType": "9",
 "address": "153",
 "deviceCallType": 0,
 "deviceType": 6,
 "channelAttrib": 3,
 "channelState": 0,
 "role": 1,
 "enterTime": 1475745454000
 }
]
 }
]
 }
}
```

### 6.1.6.19 Querying an Ongoing Conference ID in the VDN

#### Prerequisites

- The agent has signed in.
- The agent is an inspector.

#### Description

This interface is used to query the ID of an ongoing conference in the VDN.

#### Interface Method

The request method must be set to GET. This interface supports only the GET method.

#### URI

https://ip:port/agentgateway/resource/agentconf/{agentid}/queryvdnconfid

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

**Table 6-351** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

#### Method Name in Logs

queryAllConfIds

#### Request Description

- Message header

**Table 6-352** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 6-353** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | map        | For details, see <a href="#">Table 6-354</a> .                                         |

**Table 6-354** Conference ID array

| No. | Parameter | Value Type | Description          |
|-----|-----------|------------|----------------------|
| 3.1 | conflds   | array      | Conference ID array. |

## Triggered Event

None

## Error Code

- 000-002
- 100-006
- 100-007

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "result": {
 "conflds": [
 355840
]
 },
 "message": "success",
 "retcode": "0"
}
```

## 6.2 Agent Bidirectional Calls

### 6.2.1 Creating a Bidirectional Call (V1.0.0) (createCall)

#### Scenario

This interface is invoked to create a bidirectional call.

The bidirectional call interface supports bidirectional calls of the AICC and ITA. A tenant administrator can sign in to the AICC and choose **Configuration Center > Expansion Management > Bidirectional Call** to select a bidirectional call type.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CC-Management/v1/mobileAgent/createCall> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 6-355** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | X-APP-Key     | String | No               | App key, which is the user ID.                                                                                                                                            |
| 2   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |

**Table 6-356** Request body parameters

| No. | Parameter   | Type    | Mandatory or Not | Description                                                                                                                   |
|-----|-------------|---------|------------------|-------------------------------------------------------------------------------------------------------------------------------|
| 1   | caller      | String  | Yes              | Calling number, that is, the mobile number or softphone number of the customer manager.<br>Length limit: string (32)          |
| 2   | called      | String  | Yes              | Called number.<br>Length limit: string (32)                                                                                   |
| 3   | agentWorkNo | Decimal | No               | ID of the agent who initiates a bidirectional call.<br>Length limit: decimal (5)                                              |
| 4   | callData    | String  | No               | Call data.<br>Length limit: string (1024)<br><b>NOTE</b><br>ITA bidirectional calls do not support the <b>callData</b> field. |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5   | callerPresent | String | No               | <p>Calling number displayed on the user side. If this parameter is not carried, the access code of the tenant space is used by default. If this parameter is carried, an access code must be transferred. If a non-access code number needs to be transferred, contact O&amp;M personnel to enable the calling number anonymization feature. After this feature is enabled, the number verification rule is as follows: The number must be an access code or a number of 11 to 14 digits.</p> <p><b>NOTE</b><br/>ITA bidirectional calls do not support the <b>callerPresent</b> field.</p> |

| No. | Parameter    | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----|--------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6   | agentPresent | String | No               | <p>Calling number displayed to the customer manager on the agent side. If this parameter is not carried, the access code of the tenant space is used by default. If this parameter is carried, an access code must be transferred. If a non-access code number needs to be transferred, contact O&amp;M personnel to enable the calling number anonymization feature. After this feature is enabled, the number verification rule is as follows: The number must be an access code or a number of 11 to 14 digits.</p> <p><b>NOTE</b><br/>ITA bidirectional calls do not support the <b>agentPresent</b> field.</p> |

| No. | Parameter   | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----|-------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7   | callbackUrl | String | No               | <p>Encode the value using Base64.</p> <p>This field is used to configure the release callback URL for reporting the customer receiving status.</p> <p>The CEC platform pushes the call status information during service triggering to the server, and the client server determines the user status based on the call status information.</p> <p>The URL can be set to <b>https://IP address.Port number</b> or a domain name. The domain name is recommended. HTTP and HTTPS are supported. HTTP is an insecure protocol. Exercise caution when using it. The domain name can correspond to multiple servers to ensure that notifications can be received when a single point of failure occurs.</p> <p>The URL can contain only letters, digits, and the following special characters:<br/>-./_#?&amp;</p> <p>The IP address and port number, or domain name of the callback URL must have been added to the mobile agent callback URL trustlist</p> |



| No. | Parameter | Type | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                   |
|-----|-----------|------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |           |      |                  | by the system administrator.<br><b>NOTICE</b><br>If the input parameter <b>callBackUrl</b> does not take effect, the interface in your AICC environment may not be upgraded properly. Contact the O&M administrator to check whether the name of the published API is <b>createCall_kugui</b> . If no, the input parameter <b>callBackUrl</b> cannot be used. |

### Response Description

- Status code: 200

**Table 6-357** Response body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----|-----------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | retCode   | String | Yes              | <p>Return code. The value <b>0</b> indicates success, and other values indicates failure.</p> <p><b>1:</b> Failed to add the outbound call task. The same outbound call task may exist in the outbound call database.</p> <p><b>2:</b> Call data information.</p> <p><b>3:</b> The call SN field is not queried.</p> <p><b>5:</b> The format of the calling number, called number, or CLIP number is incorrect.</p> <p><b>6:</b> The VDN is unavailable.</p> <p><b>8:</b> The calling number is not in the softphone number range used by the mobile agent assigned by the tenant.</p> <p><b>9:</b> The value of <b>callbackUrl</b> does not meet the requirements.</p> <p><b>16:</b> The agent-side number of the trial tenant is not in the trustlist.</p> <p><b>21:</b> The number of one-click bidirectional calls of the trial tenant exceeds the upper limit 10 per day.</p> <p>For details about the return codes for ITA</p> |

| No.   | Parameter    | Type   | Mandatory or Not | Description                                            |
|-------|--------------|--------|------------------|--------------------------------------------------------|
|       |              |        |                  | bidirectional calls, see <a href="#">Table 6-358</a> . |
| 1.2   | retMsg       | String | Yes              | Failure cause.                                         |
| 1.3   | result       | Object | No               | Result content.                                        |
| 1.3.1 | callSerialNo | Number | No               | Call SN.                                               |

**Table 6-358** Return codes for ITA bidirectional calls

| retcode  | retMsg                              | Description                                                                             |
|----------|-------------------------------------|-----------------------------------------------------------------------------------------|
| 90100100 | Invalid Input Parameter             | The request message is incorrect. For example, a parameter is missing or not supported. |
| 90100200 | Auth Failed                         | The request source or signature does not pass the verification.                         |
| 90100300 | Bad Request                         | The request is incorrect.                                                               |
| 90100400 | Not found                           | The requested resource does not exist.                                                  |
| 90100600 | Internal Server Error               | Internal system error.                                                                  |
| 90102001 | Insufficient Balance                | Insufficient balance.                                                                   |
| 90102002 | Request Restriction                 | Request restriction.                                                                    |
| 90104001 | Insufficient Permission             | Insufficient permission.                                                                |
| 90104003 | Request Forbidden                   | Request forbidden.                                                                      |
| 90104004 | Service Unavailable                 | The business function is not supported or implemented.                                  |
| 90104008 | Service Process Failure             | The business processing times out or fails.                                             |
| 90104029 | Too Many Requests                   | Too many requests.                                                                      |
| 90106001 | Binding relationship already exists | The number binding relationship exists.                                                 |
| 90106002 | Binding relationship not exists     | The number binding relationship does not exist.                                         |
| 90106003 | Insufficient Number resources       | The number resource pool is insufficient.                                               |

| retcode  | retMsg                        | Description                                  |
|----------|-------------------------------|----------------------------------------------|
| 90106004 | No corresponding number found | No available number is found.                |
| 90106005 | Inconsistent binding data     | The number binding data is inconsistent.     |
| 90106006 | Other Error                   | An error occurs due to other number reasons. |
| 90106010 | Policy Forbid                 | Forbidden by policies.                       |
| 90106011 | Caller Forbid                 | The calling number is restricted.            |
| 90106012 | Callee forbid                 | The called number is restricted.             |

- Status code: 400**  
 Incorrect request. Check the request path and parameters.
- Status code: 401**  
 Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- Status code: 404**  
 The requested content is not found. Check the request path.
- Status code: 500**  
 Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Create an outbound call.

Request header:

```
x-app-key:9*****3
Authorization:Bearer e*****e
Content-Type:application/json
```

Request parameters:

```
{
 "caller": "88889050",
 "called": "88889060",
 "agentWorkNo": "",
 "callerPresent": "640003",
 "agentPresent": "640060",
 "callData": "333333"
}
```

Response header:

```
{
 "connection": "keep-alive",
 "content-type": "application/json;charset=UTF-8"
}
```

Response parameters:

```
{
 "retMsg": "Add CallOutInfo in DB successfully",
 "retCode": "0"
}
```

## 6.2.2 Creating a Bidirectional Call (V3.0.0) (createCall)

### Scenario

This interface is invoked to create a bidirectional call.

The bidirectional call interface supports bidirectional calls of the AICC and ITA. A tenant administrator can sign in to the AICC and choose **Configuration Center > Expansion Management > Bidirectional Call** to select a bidirectional call type.

### Method

POST

### URI

<https://Domain name/apiaccess/CC-Management/v3/mobileAgent/createCall> (For example, the domain name is service.besclouds.com.)

### Request Description

Table 6-359 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | X-APP-Key     | String | No               | App key, which is the user ID.                                                                                                                                            |
| 2   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |

**Table 6-360** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                   |
|-----|-----------|--------|------------------|-------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | caller    | String | No               | Calling number, that is, the mobile number or softphone number of the customer manager.<br>Length limit: string (32)          |
| 1.2 | softPhone | String | Yes              | Softphone number (corresponding to the agent).<br>Length limit: string (32)                                                   |
| 1.3 | called    | String | Yes              | Called number.<br>Length limit: string (32)                                                                                   |
| 1.4 | callData  | String | No               | Call data.<br>Length limit: string (1024)<br><b>NOTE</b><br>ITA bidirectional calls do not support the <b>callData</b> field. |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.5 | callerPresent | String | No               | <p>Calling number displayed on the user side. If this parameter is not carried, the access code of the tenant space is used by default. If this parameter is carried, an access code must be transferred. If a non-access code number needs to be transferred, contact O&amp;M personnel to enable the calling number anonymization feature. After this feature is enabled, the number verification rule is as follows: The number must be an access code or a number of 11 to 14 digits.</p> <p><b>NOTE</b><br/>ITA bidirectional calls do not support the <b>callerPresent</b> field.</p> |

## Response Description

- Status code: 200

**Table 6-361** Response body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----|-----------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | retCode   | String | No               | <p>Return code. The value <b>0</b> indicates success, and other values indicates failure.</p> <p><b>1:</b> Failed to add the outbound call task. The same outbound call task may exist in the outbound call database.</p> <p><b>2:</b> Call data information.</p> <p><b>3:</b> The call SN field is not queried.</p> <p><b>5:</b> The format of the calling number, called number, or CLIP number is incorrect.</p> <p><b>6:</b> The VDN is unavailable.</p> <p><b>8:</b> The calling number is not in the softphone number range used by the mobile agent assigned by the tenant.</p> <p><b>16:</b> The agent-side number of the trial tenant is not in the trustlist.</p> <p><b>21:</b> The number of one-click bidirectional calls of the trial tenant exceeds the upper limit 10 per day.</p> <p>For details about the return codes for ITA bidirectional calls, see <a href="#">Table 6-362</a>.</p> |
| 1.2 | retMsg    | String | No               | Failure cause.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 1.3 | result    | Object | No               | Result content.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |



| No.   | Parameter    | Type   | Mandatory or Not | Description |
|-------|--------------|--------|------------------|-------------|
| 1.3.1 | callSerialNo | String | No               | Call SN.    |

**Table 6-362** Return codes for ITA bidirectional calls

| retcode  | retMsg                              | Description                                                                             |
|----------|-------------------------------------|-----------------------------------------------------------------------------------------|
| 90100100 | Invalid Input Parameter             | The request message is incorrect. For example, a parameter is missing or not supported. |
| 90100200 | Auth Failed                         | The request source or signature does not pass the verification.                         |
| 90100300 | Bad Request                         | The request is incorrect.                                                               |
| 90100400 | Not found                           | The requested resource does not exist.                                                  |
| 90100600 | Internal Server Error               | Internal system error.                                                                  |
| 90102001 | Insufficient Balance                | Insufficient balance.                                                                   |
| 90102002 | Request Restriction                 | Request restriction.                                                                    |
| 90104001 | Insufficient Permission             | Insufficient permission.                                                                |
| 90104003 | Request Forbidden                   | Request forbidden.                                                                      |
| 90104004 | Service Unavailable                 | The business function is not supported or implemented.                                  |
| 90104008 | Service Process Failure             | The business processing times out or fails.                                             |
| 90104029 | Too Many Requests                   | Too many requests.                                                                      |
| 90106001 | Binding relationship already exists | The number binding relationship exists.                                                 |
| 90106002 | Binding relationship not exists     | The number binding relationship does not exist.                                         |
| 90106003 | Insufficient Number resources       | The number resource pool is insufficient.                                               |
| 90106004 | No corresponding number found       | No available number is found.                                                           |
| 90106005 | Inconsistent binding data           | The number binding data is inconsistent.                                                |
| 90106006 | Other Error                         | An error occurs due to other number reasons.                                            |

| retcode  | retMsg        | Description                       |
|----------|---------------|-----------------------------------|
| 90106010 | Policy Forbid | Forbidden by policies.            |
| 90106011 | Caller Forbid | The calling number is restricted. |
| 90106012 | Callee forbid | The called number is restricted.  |

- Status code: 400**  
 Incorrect request. Check the request path and parameters.
- Status code: 401**  
 Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- Status code: 404**  
 The requested content is not found. Check the request path.
- Status code: 500**  
 Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: example message  
 Request header:  

```
x-app-key:9*****3
Authorization:Bearer 9*****7
Content-Type:application/json
```

 Request parameters:  

```
{
 "caller": 8888888,
 "softPhone": 66666666 "called": 6666614
}
```

 Response parameters:  

```
{
 "retMsg": "Called is not configured",
 "retCode": "5"
}
```

## 6.2.3 Querying Call History Records (queryCallDetailRecord)

### Scenario

This interface is invoked to view history records.

### Method

POST

## URI

<https://Domain name/apiaccess/CC-Management/v1/mobileAgent/queryCallDetailRecord> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 6-363** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | X-APP-Key     | String | No               | App key, which is the user ID.                                                                                                                                            |
| 2   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |

**Table 6-364** Request body parameters

| No. | Parameter | Type        | Mandatory or Not | Description              |
|-----|-----------|-------------|------------------|--------------------------|
| 1   | Body      | <b>Body</b> | No               | Request body parameters. |

**Table 6-365** Body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                       |
|-----|-----------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Body      | Object | No               | Request body.                                                                                                                                     |
| 1.1 | endTime   | String | Yes              | End time. The interval between the start and the end time cannot exceed seven days. The value is a timestamp, for example, <b>1572794607000</b> . |

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                                                                                                    |
|-----|-----------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.2 | offset    | String | No               | Pagination query offset. The default value is <b>0</b> , indicating no offset. This parameter is optional.                                                                                                                     |
| 1.3 | limit     | String | No               | Page size for pagination query. The default value is <b>100</b> , indicating that 100 records are displayed on each page. This parameter is optional.                                                                          |
| 1.4 | startTime | String | Yes              | Start time. The value is a timestamp, for example, <b>1572794607000</b> .                                                                                                                                                      |
| 1.5 | caller    | String | No               | Calling number, which is optional. If this parameter is not set, all calling numbers are queried by default.<br>Length limit: string (32)                                                                                      |
| 1.6 | taskType  | String | No               | <b>0</b> : all types of tasks (except ITA bidirectional call tasks)<br><b>1</b> : CEC bidirectional call task<br><b>2</b> : anonymous outbound call task<br><b>3</b> : voice notification<br><b>4</b> : ITA bidirectional call |

## Response Description

- Status code: 200

**Table 6-366** Response body parameters

| No.     | Parameter    | Type           | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                        |
|---------|--------------|----------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1     | retCode      | String         | Yes              | Return code. The value <b>0</b> indicates success, and other values indicate failure.<br><b>1</b> : No data is found.<br><b>2</b> : The format of the start time and end time is incorrect.<br><b>4</b> : The <b>limit</b> or <b>offset</b> pagination data format is incorrect.<br><b>12</b> : The calling number is unavailable. |
| 1.2     | retMsg       | String         | Yes              | Failure cause.                                                                                                                                                                                                                                                                                                                     |
| 1.3     | result       | Object         | No               | Result content.                                                                                                                                                                                                                                                                                                                    |
| 1.3.1   | total        | Number         | No               | Total number of records.                                                                                                                                                                                                                                                                                                           |
| 1.3.2   | callInfo     | Array [Object] | No               | Record list.                                                                                                                                                                                                                                                                                                                       |
| 1.3.2.1 | callSerialNo | String         | No               | Call SN.                                                                                                                                                                                                                                                                                                                           |
| 1.3.2.2 | caller       | String         | No               | Calling number.<br>Length limit: string (32)                                                                                                                                                                                                                                                                                       |
| 1.3.2.3 | called       | String         | No               | Called number.<br>Length limit: string (32)                                                                                                                                                                                                                                                                                        |
| 1.3.2.4 | startTime    | String         | No               | Start time of an outbound call. The value is a timestamp, for example, <b>1572794607000</b> .                                                                                                                                                                                                                                      |
| 1.3.2.5 | endTime      | String         | No               | Call end time, which is a timestamp, for example, <b>1572794607000</b> .                                                                                                                                                                                                                                                           |

| No.     | Parameter  | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|---------|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.3.2.6 | state      | Number | No               | <p>Call status.</p> <p><b>0:</b> to be called<br/> <b>1:</b> calling<br/> <b>2:</b> talking<br/> <b>3:</b> ended</p> <p>Length limit: number (1)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 1.3.2.7 | reasonCode | Number | No               | <p>Code of the reason for ending a call.</p> <p>The value ranges from 0 to 65535.</p> <p><b>0:</b> The called party hangs up. The call ends.<br/> <b>1:</b> The calling party hangs up. The call ends.<br/> <b>2:</b> The outbound call fails to be made to the calling party.<br/> <b>3:</b> The called party fails to be called.<br/> <b>4:</b> The calling party does not answer the call.<br/> <b>5:</b> The called party does not answer the call.<br/> <b>6:</b> Failed to initiate the call.<br/> <i>xxx:</i> Other exceptions occur.</p> <p>Length limit: number (5)</p> <p>For details about reason codes for ITA bidirectional calls, see <a href="#">Table 6-367</a>.</p> |
| 1.3.2.8 | callData   | String | No               | <p>Call data customized by a third party.</p> <p>Length limit: string (1024)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| No.      | Parameter         | Type   | Mandatory or Not | Description                                                                                         |
|----------|-------------------|--------|------------------|-----------------------------------------------------------------------------------------------------|
| 1.3.2.9  | callerPresent     | String | No               | CLIP number.<br>Length limit: string (32)                                                           |
| 1.3.2.10 | alertingTime      | String | No               | Time when a customer's phone rings. The value is a timestamp, for example, <b>1572794607000</b> .   |
| 1.3.2.11 | talkingTime       | String | No               | Customer call time. The value is a timestamp, for example, <b>1572794607000</b> .                   |
| 1.3.2.12 | releaseTime       | String | No               | Time when a customer releases a call. The value is a timestamp, for example, <b>1572794607000</b> . |
| 1.3.2.13 | talkDuration      | String | No               | User call duration, in seconds.                                                                     |
| 1.3.2.14 | agentAlertingTime | String | No               | Time when an agent's phone rings. The value is a timestamp, for example, <b>1572794607000</b> .     |
| 1.3.2.15 | agentTalkingTime  | String | No               | Agent call time. The value is a timestamp, for example, <b>1572794607000</b> .                      |
| 1.3.2.16 | agentReleaseTime  | String | No               | Time when an agent releases a call. The value is a timestamp, for example, <b>1572794607000</b> .   |
| 1.3.2.17 | agentTalkDuration | String | No               | Agent call duration, in seconds.                                                                    |

| No.      | Parameter    | Type   | Mandatory or Not | Description                                                                                                                                                                                                               |
|----------|--------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.3.2.18 | taskType     | String | No               | <b>0:</b> all types of tasks (except ITA bidirectional call tasks)<br><b>1:</b> CEC bidirectional call task<br><b>2:</b> anonymous outbound call task<br><b>3:</b> voice notification<br><b>4:</b> ITA bidirectional call |
| 1.3.2.19 | agentPresent | String | No               | CLIP number displayed to the customer manager.<br>Length limit: string (32)                                                                                                                                               |

**Table 6-367** Reason codes for ITA bidirectional calls

| retCode | Description                         |
|---------|-------------------------------------|
| 0       | N/A                                 |
| 1       | The number cannot be found.         |
| 2       | Failed to route to the network.     |
| 3       | Failed to route to the destination. |
| 4       | Special messages are sent.          |
| 5       | Incorrect trunk prefix.             |
| 6       | The channel cannot be accessed.     |
| 7       | A channel has been created.         |
| 8       | Preemption.                         |
| 9       | Preemption reservation.             |
| 16      | Normal call clearance.              |
| 17      | The user is busy.                   |
| 18      | No answer.                          |
| 19      | No user answers the call.           |
| 20      | The user is unreachable.            |



| retCode | Description                           |
|---------|---------------------------------------|
| 21      | Call rejected.                        |
| 22      | The number has been changed.          |
| 23      | Redirection.                          |
| 25      | The switching route is incorrect.     |
| 26      | No user permission.                   |
| 27      | The target is disordered.             |
| 28      | Invalid number format.                |
| 29      | Rejected by the device.               |
| 30      | Status query.                         |
| 31      | Normal.                               |
| 34      | Unreachable route.                    |
| 38      | Poor network quality.                 |
| 39      | Service out of connection.            |
| 40      | Connecting.                           |
| 41      | Temporarily failed.                   |
| 42      | The device is congested.              |
| 43      | Discarded information.                |
| 44      | The channel cannot be accessed.       |
| 46      | Call blocked.                         |
| 47      | No available resource.                |
| 49      | Invalid quality.                      |
| 50      | The device is not reserved.           |
| 53      | Outbound calls barred within the CUG. |
| 55      | Inbound calls barred within the CUG.  |
| 57      | No permission for transmission.       |
| 58      | Invalid transmission.                 |
| 62      | The levels are inconsistent.          |
| 63      | Invalid service.                      |
| 65      | Transmission cannot be performed.     |
| 66      | The channel cannot be implemented.    |

| retCode | Description                                   |
|---------|-----------------------------------------------|
| 69      | Invalid device.                               |
| 70      | Valid transmission.                           |
| 79      | The CV service is not configured.             |
| 81      | An invalid value is referenced.               |
| 82      | The channel does not exist.                   |
| 83      | The ID does not exist.                        |
| 84      | The call ID does not exist.                   |
| 85      | No call is suspended.                         |
| 86      | Anonymous call.                               |
| 87      | The CUG has no member.                        |
| 88      | Incompatible destination.                     |
| 90      | The CUG does not exist.                       |
| 91      | Invalid network.                              |
| 95      | Invalid information.                          |
| 96      | Not hosting element.                          |
| 97      | Type not found.                               |
| 98      | The information is not implemented.           |
| 99      | The information element does not exist.       |
| 100     | Invalid information element.                  |
| 101     | Inconsistent call status.                     |
| 102     | The timer times out.                          |
| 103     | The parameter does not exist.                 |
| 110     | The message contains unidentified parameters. |
| 111     | Protocol error.                               |
| 127     | Unspecified interaction.                      |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.

- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Example

- Scenario: Query the information about the corresponding outbound call task.

Request header:

```
x-app-key:9*****3
Authorization:Bearer e*****e
Content-Type:application/json
```

Request parameters:

```
{
 "startTime": "1562786332000",
 "endTime": "1563391072000",
 "taskType": "0",
 "offset": 0,
 "limit": 10
}
```

Response header:

```
{
 "connection": "keep-alive",
 "content-type": "application/json;charset=UTF-8"
}
```

Response parameters:

```
{
 "result": {
 "total": 11,
 "callInfo": [{
 "releaseTime": 1621577022000,
 "called": "88889060",
 "callerPresent": "640003",
 "agentAlertingTime": 1621576992000,
 "agentPresent": "640060",
 "talkingTime": 1621576995000,
 "alertingTime": 1621576994000,
 "caller": "88889050",
 "agentTalkingTime": 1621576994000,
 "agentReleaseTime": 1621577022000,
 "agentTalkDuration": 27,
 "callSerialNo": "1037058396471308289",
 "startTime": 1621576992000,
 "endTime": 1621577022000,
 "talkDuration": 26,
 "state": 3,
 "reasonCode": 1
 }]
 },
 "retCode": "0",
 "retMsg": "Query call detail record successfully"
}
```

## 6.2.4 Querying Call Status (queryCallState)

### Scenario

This interface is invoked to query the call status.

## Method

POST

## URI

https://*Domain name*/apiaccess/CC-Management/v1/mobileAgent/queryCallState  
(For example, the domain name is service.besclouds.com.)

## Request Description

**Table 6-368** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | X-APP-Key     | String | No               | App key, which is the user ID.                                                                                                                                            |
| 2   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |

**Table 6-369** Request body parameters

| No. | Parameter    | Type   | Mandatory or Not | Description                           |
|-----|--------------|--------|------------------|---------------------------------------|
| 1   | callSerialNo | String | Yes              | Call SN.<br>Length limit: string (50) |

## Response Description

- Status code: 200

**Table 6-370** Response body parameters

| No.   | Parameter | Type   | Mandatory or Not | Description                                                                                                                                                                           |
|-------|-----------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1   | retCode   | String | Yes              | Return code. The value <b>0</b> indicates success, and other values indicate failure.<br><b>1</b> : Failed to query the status.<br><b>3</b> : The format of the call SN is incorrect. |
| 1.2   | retMsg    | String | Yes              | Failure cause.                                                                                                                                                                        |
| 1.3   | result    | Object | No               | Result content.                                                                                                                                                                       |
| 1.3.1 | state     | Number | No               | Call status.<br><b>0</b> : to be called<br><b>1</b> : calling<br><b>2</b> : talking<br><b>3</b> : ended<br>Length limit: number (1)                                                   |

| No.   | Parameter  | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------|------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.3.2 | reasonCode | Number | No               | <p>Code of the reason for ending a call.</p> <p>The value ranges from 0 to 65535.</p> <p><b>0:</b> The call ends and the called party hangs up.</p> <p><b>1:</b> The call ends and the calling party hangs up.</p> <p><b>2:</b> The outbound call fails to be made to the calling party.</p> <p><b>3:</b> The called party fails to be called.</p> <p><b>4:</b> The calling party does not answer the call.</p> <p><b>5:</b> The called party does not answer the call.</p> <p><b>6:</b> Failed to initiate the call.</p> <p>xxx: Other exceptions occur.</p> <p>Length limit: number (5)</p> <p>For details about reason codes for ITA bidirectional calls, see <a href="#">Table 6-371</a>.</p> |
| 1.3.3 | callData   | String | No               | <p>Call data customized by a third party.</p> <p>Length limit: string (1024)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1.3.4 | caller     | String | No               | <p>Calling number.</p> <p>Length limit: string (32)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 1.3.5 | called     | String | No               | <p>Called number.</p> <p>Length limit: string (32)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

| No.   | Parameter     | Type   | Mandatory or Not | Description                                                                                   |
|-------|---------------|--------|------------------|-----------------------------------------------------------------------------------------------|
| 1.3.6 | startTime     | String | No               | Start time of an outbound call. The value is a timestamp, for example, <b>1572794607000</b> . |
| 1.3.7 | endTime       | String | No               | Call end time, which is a timestamp, for example, <b>1572794607000</b> .                      |
| 1.3.8 | callerPresent | String | No               | CLIP number.<br>Length limit: string (32)                                                     |
| 1.3.9 | agentPresent  | String | No               | CLIP number displayed to the customer manager.                                                |

**Table 6-371** Reason codes for ITA bidirectional calls

| retCode | Description                         |
|---------|-------------------------------------|
| 0       | N/A                                 |
| 1       | The number cannot be found.         |
| 2       | Failed to route to the network.     |
| 3       | Failed to route to the destination. |
| 4       | Special messages are sent.          |
| 5       | Incorrect trunk prefix.             |
| 6       | The channel cannot be accessed.     |
| 7       | A channel has been created.         |
| 8       | Preemption.                         |
| 9       | Preemption reservation.             |
| 16      | Normal call clearance.              |
| 17      | The user is busy.                   |
| 18      | No answer.                          |
| 19      | No user answers the call.           |
| 20      | The user is unreachable.            |

| retCode | Description                           |
|---------|---------------------------------------|
| 21      | Call rejected.                        |
| 22      | The number has been changed.          |
| 23      | Redirection.                          |
| 25      | The switching route is incorrect.     |
| 26      | No user permission.                   |
| 27      | The target is disordered.             |
| 28      | Invalid number format.                |
| 29      | Rejected by the device.               |
| 30      | Status query.                         |
| 31      | Normal.                               |
| 34      | Unreachable route.                    |
| 38      | Poor network quality.                 |
| 39      | Service out of connection.            |
| 40      | Connecting.                           |
| 41      | Temporarily failed.                   |
| 42      | The device is congested.              |
| 43      | Discarded information.                |
| 44      | The channel cannot be accessed.       |
| 46      | Call blocked.                         |
| 47      | No available resource.                |
| 49      | Invalid quality.                      |
| 50      | The device is not reserved.           |
| 53      | Outbound calls barred within the CUG. |
| 55      | Inbound calls barred within the CUG.  |
| 57      | No permission for transmission.       |
| 58      | Invalid transmission.                 |
| 62      | The levels are inconsistent.          |
| 63      | Invalid service.                      |
| 65      | Transmission cannot be performed.     |
| 66      | The channel cannot be implemented.    |



| retCode | Description                                   |
|---------|-----------------------------------------------|
| 69      | Invalid device.                               |
| 70      | Valid transmission.                           |
| 79      | The CV service is not configured.             |
| 81      | An invalid value is referenced.               |
| 82      | The channel does not exist.                   |
| 83      | The ID does not exist.                        |
| 84      | The call ID does not exist.                   |
| 85      | No call is suspended.                         |
| 86      | Anonymous call.                               |
| 87      | The CUG has no member.                        |
| 88      | Incompatible destination.                     |
| 90      | The CUG does not exist.                       |
| 91      | Invalid network.                              |
| 95      | Invalid information.                          |
| 96      | Not hosting element.                          |
| 97      | Type not found.                               |
| 98      | The information is not implemented.           |
| 99      | The information element does not exist.       |
| 100     | Invalid information element.                  |
| 101     | Inconsistent call status.                     |
| 102     | The timer times out.                          |
| 103     | The parameter does not exist.                 |
| 110     | The message contains unidentified parameters. |
| 111     | Protocol error.                               |
| 127     | Unspecified interaction.                      |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.

- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Query call status.

Request header:

```
x-app-key:9*****3
Authorization:Bearer e*****e
Content-Type:application/json
```

Request parameters:

```
{
 "callSerialNo": "645735364434067472"
}
```

Response header:

```
{
 "connection": "keep-alive",
 "content-type": "application/json;charset=UTF-8"
}
```

Response parameters:

```
{
 "retMsg": "Query call state successfully",
 "retCode": "0",
 "result": {
 "caller": "88889050",
 "called": "88889060",
 "callerPresent": "640003",
 "startTime": 1621823865000,
 "state": 3,
 "reasonCode": 0,
 "agentPresent": "640060",
 "endTime": 1621823872000
 }
}
```

## 6.2.5 Obtaining the Recording File URL (getRecordingAddress)

### Scenario

This interface is invoked to obtain the recording URL.

### Method

POST

### URI

<https://{Domain name}/apiaccess/CC-Management/v1/mobileAgent/getRecordingAddress>, where, *{Domain name}* can be **service.besclouds.com**.

## Request Description

**Table 6-372** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | X-APP-Key     | String | No               | User ID, which is the same as the value of <b>app_key</b> in the tokenByAkSk interface request.                                                                            |
| 2   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the tokenByAkSk interface}</i> . (A space is required after <b>Bearer</b> .) |

**Table 6-373** Request body parameters

| No. | Parameter    | Type   | Mandatory or Not | Description                           |
|-----|--------------|--------|------------------|---------------------------------------|
| 1   | callSerialNo | String | Yes              | Call SN.<br>Length limit: string (50) |

## Response Description

- Status code: 200

**Table 6-374** Response body parameters

| No.   | Parameter | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------|-----------|--------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1   | retCode   | Number | Yes              | Return code. The value <b>0</b> indicates success and other values indicate failure.<br><b>1:</b> Failed to upload data to OBS.<br><b>3:</b> The VDN is unavailable.<br><b>5:</b> No corresponding history record.<br><b>6:</b> The VDN does not exist.<br><b>7:</b> The SFTP information is empty.<br><b>8:</b> The SFTP user password is empty.<br><b>9:</b> SFTP connection failed.<br><b>10:</b> Failed to obtain the temporary path.<br><b>11:</b> Failed to download files from the UAP.<br><b>12:</b> The length of the call SN cannot exceed 50 characters.<br><b>13:</b> The size of the recording file exceeds the upper limit. |
| 1.2   | retMsg    | String | Yes              | Failure cause.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 1.3   | result    | Object | No               | Result content.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 1.3.1 | url       | String | No               | Recording URL.<br>Length limit: string (200)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.

- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.  
>

## Error Codes

None

## Example

- Scenario: example message

Request header:

```
x-app-key:6*****b
Authorization:Bearer e*****6
Content-Type:application/json
```

Request parameters:

```
{
 "callSerialNo": "679218118865715226"
}
```

Response header:

```
{
 "connection": "keep-alive",
 "content-type": "application/json;charset=UTF-8"
}
```

Response parameters:

```
{
 "retMsg": "success",
 "result": {
 "url": "https://aicc-obs0.obs.cn-south-1.myhuaweicloud.com:443/644429155876552705?
AWSAccessKeyId=ZGUZVMUDBS2DKAQ5X141&Expires=1565681851&Signature=sb3ZDPyzg
%2FXZLMIPK0zBTRA6x5s%3D"
 },
 "retCode": "0"
}
```

## 6.2.6 Querying Allocated Softphone Numbers (V1.0.0) (queryPhone)

### Scenario

This interface is invoked to query allocated softphone numbers.

### Method

POST

### URI

<https://Domain name/apiaccess/CC-Management/v1/mobileAgent/queryPhone>  
(For example, the domain name is service.besclouds.com.)

## Request Description

**Table 6-375** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                             |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | X-APP-Key     | String | No               | App key, which is the user ID.                                                                                                                                                          |
| 2   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <code>tokenByAkSk</code> interface}</i> . (A space is required after <b>Bearer</b> .) |

**Table 6-376** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                           |
|-----|-----------|--------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | limit     | String | No               | Page size for pagination query. The default value is <b>100</b> , indicating that 100 records are displayed on each page. This parameter is optional. |
| 1   | offset    | String | No               | Pagination query offset. The default value is <b>0</b> , indicating no offset. This parameter is optional.                                            |

## Response Description

- Status code: 200

**Table 6-377** Response body parameters

| No.     | Parameter    | Type           | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                        |
|---------|--------------|----------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1     | retCode      | String         | Yes              | Return code. The value <b>0</b> indicates success, and other values indicate failure.<br><b>1</b> : Query failed.<br><b>2</b> : The mobile agent information is empty.<br><b>3</b> : The registered service address or port number is empty.<br><b>4</b> : The <b>limit</b> or <b>offset</b> pagination data is empty.<br><b>5</b> : The virtual call center information is empty. |
| 1.2     | retMsg       | String         | No               | Failure cause.                                                                                                                                                                                                                                                                                                                                                                     |
| 1.3     | result       | Object         | No               | Result content.                                                                                                                                                                                                                                                                                                                                                                    |
| 1.3.1   | total        | Number         | No               | Total number of records.                                                                                                                                                                                                                                                                                                                                                           |
| 1.3.2   | regIPAddress | String         | No               | Registered address.<br>Length limit: string (50)                                                                                                                                                                                                                                                                                                                                   |
| 1.3.3   | phone        | Array [Object] | No               | Softphone information list.                                                                                                                                                                                                                                                                                                                                                        |
| 1.3.3.1 | phoneNum     | String         | No               | Softphone number.<br>Length limit: string (32)                                                                                                                                                                                                                                                                                                                                     |
| 1.3.3.2 | password     | String         | No               | Softphone password.<br>Length limit: string (50)                                                                                                                                                                                                                                                                                                                                   |
| 1.3.4   | regPort      | Number         | No               | Registered port.<br>Length limit: number (5)                                                                                                                                                                                                                                                                                                                                       |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.

- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: example message

Request header:

```
x-app-key:9*****3
Authorization:Bearer c*****f
Content-Type:application/json
```

Request parameters:

```
{
 "offset": 0,
 "limit": 3
}
```

Response header:

```
{
 "connection": "keep-alive",
 "content-type": "application/json;charset=UTF-8"
}
```

Response parameters:

```
{
 "retMsg": "successfully",
 "retCode": "0",
 "result": {
 "total": 6,
 "regPort": "5060",
 "phone": [{
 "phoneNum": "999000",
 "password": "*****"
 },
 {
 "phoneNum": "999001",
 "password": "*****"
 },
 {
 "phoneNum": "999002",
 "password": "*****"
 }
]
},
 "regIPAddress": "10.10.18.36"
}
```



## 6.2.7 Querying Allocated Softphone Numbers (V2.0.0) (queryPhone)

### Scenario

This interface is invoked to query allocated softphone numbers.

### Method

POST

### URI

<https://Domain name/apiaccess/CC-Management/v2/mobileAgent/queryPhone>  
(For example, the domain name is service.besclouds.com.)

### Request Description

**Table 6-378** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | X-APP-Key     | String | No               | App key, which is the user ID.                                                                                                                                            |
| 2   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |

**Table 6-379** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                           |
|-----|-----------|--------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | limit     | String | No               | Page size for pagination query. The default value is <b>100</b> , indicating that 100 records are displayed on each page. This parameter is optional. |

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                |
|-----|-----------|--------|------------------|------------------------------------------------------------------------------------------------------------|
| 1   | offset    | String | No               | Pagination query offset. The default value is <b>0</b> , indicating no offset. This parameter is optional. |

## Response Description

- Status code: 200

**Table 6-380** Response body parameters

| No.     | Parameter     | Type           | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                        |
|---------|---------------|----------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1     | retCode       | String         | Yes              | Return code. The value <b>0</b> indicates success, and other values indicate failure.<br><b>1</b> : Query failed.<br><b>2</b> : The mobile agent information is empty.<br><b>3</b> : The registered service address or port number is empty.<br><b>4</b> : The <b>limit</b> or <b>offset</b> pagination data is empty.<br><b>5</b> : The virtual call center information is empty. |
| 1.2     | retMsg        | String         | No               | Failure cause.                                                                                                                                                                                                                                                                                                                                                                     |
| 1.3     | result        | Object         | No               | Result content.                                                                                                                                                                                                                                                                                                                                                                    |
| 1.3.1   | total         | Number         | No               | Total number of records.                                                                                                                                                                                                                                                                                                                                                           |
| 1.3.2   | singleRegServ | Array [Object] | No               | Single mode.                                                                                                                                                                                                                                                                                                                                                                       |
| 1.3.2.1 | regIPAddress  | String         | No               | Registered address.<br>Length limit: string (50)                                                                                                                                                                                                                                                                                                                                   |
| 1.3.2.2 | regPort       | String         | No               | Registered port.<br>Length limit: number (5)                                                                                                                                                                                                                                                                                                                                       |

| No.       | Parameter      | Type           | Mandatory or Not | Description                                                  |
|-----------|----------------|----------------|------------------|--------------------------------------------------------------|
| 1.3.2.3   | sipServicePort | String         | No               | Softphone registration port.<br>Length limit: number (5)     |
| 1.3.2.4   | sipServiceIp   | String         | No               | Softphone registration address.<br>Length limit: string (50) |
| 1.3.3     | poolRegServ    | Object         | No               | Pool mode.                                                   |
| 1.3.3.1   | node1          | Array [Object] | No               | Node 1.                                                      |
| 1.3.3.1.1 | regIPAddress   | String         | No               | Registered address.<br>Length limit: string (50)             |
| 1.3.3.1.2 | regPort        | String         | No               | Registered port.<br>Length limit: number (5)                 |
| 1.3.3.1.3 | sipServicePort | String         | No               | Softphone registration port.<br>Length limit: number (5)     |
| 1.3.3.1.4 | sipServiceIp   | String         | No               | Softphone registration address.<br>Length limit: string (50) |
| 1.3.3.2   | node2          | Array [Object] | No               | Node 2.                                                      |
| 1.3.3.2.1 | regIPAddress   | String         | No               | Registered address.<br>Length limit: string (50)             |
| 1.3.3.2.2 | regPort        | String         | No               | Registered port.<br>Length limit: number (5)                 |
| 1.3.3.2.3 | sipServicePort | String         | No               | Softphone registration port.<br>Length limit: number (5)     |

| No.           | Parameter    | Type           | Mandatory or Not | Description                                                                          |
|---------------|--------------|----------------|------------------|--------------------------------------------------------------------------------------|
| 1.3.3.<br>2.4 | sipServiceIp | String         | No               | Softphone registration address.<br>Length limit: string (50)                         |
| 1.3.4         | phone        | Array [Object] | No               | Softphone information list.                                                          |
| 1.3.4.<br>1   | phoneNum     | String         | No               | Softphone number.<br>Length limit: string (32)                                       |
| 1.3.4.<br>2   | password     | String         | No               | Softphone password.<br>Length limit: string (50)                                     |
| 1.3.4.<br>3   | id           | Number         | No               | Configuration ID.                                                                    |
| 1.3.4.<br>4   | status       | Number         | No               | Registration status. <b>0</b> indicates registered and <b>1</b> indicates suspended. |
| 1.3.4.<br>5   | remark       | String         | No               | Remarks.                                                                             |
| 1.3.4.<br>6   | tenantId     | String         | No               | Tenant space ID.                                                                     |
| 1.3.4.<br>7   | partDbId     | String         | No               | Partition ID.                                                                        |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: example message

Request header:

```
x-app-key:2*****8
Authorization:Bearer e*****5
Content-Type:application/json
```

Request parameters:

```
{
 "offset": 0,
 "limit": 3
}
```

Response parameters:

```
{
 "retMsg": "successfully",
 "retCode": "0",
 "result": {
 "total": 2,
 "regPort": "5060",
 "phone": [{
 "phoneNum": "88881196",
 "password": "****"
 }, {
 "phoneNum": "88881197",
 "password": "****"
 }
],
 "regIPAddress": "10.162.98.43"
}
```

## 6.2.8 Obtaining the Information About the Destination Device of a Call (getCalledInfo)

### Scenario

This interface is invoked to obtain call data.

### Method

POST

### URI

<https://{Domain name}/apiaccess/CC-Management/v1/mobileAgent/getCalledInfo>, where, {Domain name} can be **service.besclouds.com**.

### Request Description

**Table 6-381** Request header parameters

| No. | Parameter | Type   | Mandato ry or Not | Description                    |
|-----|-----------|--------|-------------------|--------------------------------|
| 1   | X-APP-Key | String | No                | App key, which is the user ID. |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |

**Table 6-382** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                  |
|-----|-----------|--------|------------------|----------------------------------------------|
| 1   | called    | String | Yes              | Called number.<br>Length limit: string (32)  |
| 1   | caller    | String | Yes              | Calling number.<br>Length limit: string (32) |

## Response Description

- **Status code: 200**

**Table 6-383** Response body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                                                                   |
|-----|-----------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | retCode   | String | Yes              | Return code. The value <b>0</b> indicates success and other values indicate failure.<br><b>4:</b> The called party ID cannot be obtained.<br><b>5:</b> The called party ID is not configured. |
| 1.2 | retMsg    | String | Yes              | Failure cause.                                                                                                                                                                                |
| 1.3 | result    | Object | No               | Result content.                                                                                                                                                                               |

| No.   | Parameter | Type   | Mandatory or Not | Description                                                                             |
|-------|-----------|--------|------------------|-----------------------------------------------------------------------------------------|
| 1.3.1 | devType   | Number | No               | Device type.<br><b>0</b> : skill queue<br><b>1</b> : number<br>Length limit: number (4) |
| 1.3.2 | called    | String | No               | Called number.<br>Length limit: string (32)                                             |
| 1.3.3 | skillId   | Number | No               | Skill queue.<br>Length limit: number (16)                                               |
| 1.3.4 | skillName | String | No               | Skill queue name.<br>Length limit: string(64)                                           |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: example message

Request header:

```
x-app-key:9*****3
Authorization:Bearer 9*****7
Content-Type:application/json
```

Request parameters:

```
{
 "caller": 8888888,
 "called": 6666614
}
```

Response parameters:

```
{
 "retMsg": "Called is not configured",
 "retCode": "5"
}
```

## 6.2.9 Creating a Voice Outbound Call (V1.0.0) (createVoiceNotification)

### Scenario

This interface is invoked to create a voice outbound call.

### Method

POST

### URI

<https://Domain name/apiaccess/rest/voiceNotification/v1/createVoiceNotification>  
(For example, the domain name is service.besclouds.com.)

### Request Description

**Table 6-384** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                       |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | X-APP-Key     | String | No               | App key, which is the user ID.                                                                                                                                                    |
| 2   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <b>tokenByAkSk</b> interface}</i> . (A space is required after <b>Bearer</b> .) |

**Table 6-385** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                     |
|-----|-----------|--------|------------------|-----------------------------------------------------------------|
| 1   | called    | String | Yes              | Called number of an outbound call.<br>Length limit: string (32) |



| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                                                    |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | voiceContent  | String | Yes              | Voice ID.<br>Length limit: string (1024)                                                                                                                                                                       |
| 3   | callbackUrl   | String | No               | Callback URL.<br>Length limit: string (256)<br>The IP address and port number, or domain name of the callback URL must have been added to the mobile agent callback URL trustlist by the system administrator. |
| 4   | callerPresent | String | No               | CLIP number on the user side.<br>Length limit: string (32)                                                                                                                                                     |
| 5   | priority      | String | No               | Playback priority of a voice notification.<br>The value is an integer ranging from 1 to 9. The default value is <b>9</b> . A smaller value indicates a higher priority.                                        |

## Response Description

- Status code: 200

Table 6-386 Response body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                           |
|-----|-----------|--------|------------------|---------------------------------------------------------------------------------------|
| 1.1 | retCode   | String | No               | Result code. The value <b>0</b> indicates success, and other values indicate failure. |
| 1.2 | retMsg    | String | No               | Failure cause.                                                                        |
| 1.3 | result    | Object | No               | Result content.                                                                       |

| No.   | Parameter    | Type   | Mandatory or Not | Description |
|-------|--------------|--------|------------------|-------------|
| 1.3.1 | callSerialNo | String | No               | Call SN.    |

- Status code: 400**  
 Incorrect request. Check the request path and parameters.
- Status code: 401**  
 Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- Status code: 404**  
 The requested content is not found. Check the request path.
- Status code: 500**  
 Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

Request header:

```
x-app-key:9*****3
Authorization:Bearer 9*****7
```

Request parameters:

```
{
 "called": "8899",
 "voiceContent": "10001",
 "callerPresent": "222201",
 "callBackUrl": "http://xx.xx.xx.xx:8800/callbackTest"
}
```

Response parameters:

```
{
 "retMsg": "Created successfully.",
 "retCode": "0",
 "result": {"callSerialNo": "1308434073450058757"}
}
```

## 6.2.10 Creating a Voice Outbound Call (V2.0.0) (createVoiceNotification)

### Scenario

This interface is invoked to create a voice outbound call.

### Method

POST

## URI

[https://Domain\\_name/apiaccess/rest/voiceNotification/v2/createVoiceNotification](https://Domain_name/apiaccess/rest/voiceNotification/v2/createVoiceNotification)  
(For example, the domain name is service.besclouds.com.)

## Request Description

**Table 6-387** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | X-APP-Key     | String | No               | App key, which is the user ID.                                                                                                                                            |
| 2   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |

**Table 6-388** Request body parameters

| No. | Parameter     | Type           | Mandatory or Not | Description                                                                                           |
|-----|---------------|----------------|------------------|-------------------------------------------------------------------------------------------------------|
| 1   | called        | String         | Yes              | Called number of an outbound call.<br>Length limit: string (32)                                       |
| 2   | playList      | Array [Object] | Yes              | Array length: 1-5                                                                                     |
| 2.1 | voiceld       | String         | No               | Recording ID. One of <b>voiceld</b> , <b>voiceFileName</b> , and <b>templated</b> must be set.        |
| 2.2 | voiceFileName | String         | No               | Recording file name. One of <b>voiceld</b> , <b>voiceFileName</b> , and <b>templated</b> must be set. |
| 2.3 | templated     | String         | No               | Template ID. One of <b>voiceld</b> , <b>voiceFileName</b> , and <b>templated</b> must be set.         |

| No. | Parameter      | Type          | Mandatory or Not | Description                                                                                                                                                                                                    |
|-----|----------------|---------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.5 | templateParams | array[string] | No               | Array length: 1-10<br>Length limit: string (32)                                                                                                                                                                |
| 3   | callbackUrl    | String        | No               | Callback URL.<br>Length limit: string (256)<br>The IP address and port number, or domain name of the callback URL must have been added to the mobile agent callback URL trustlist by the system administrator. |
| 4   | callerPresent  | String        | No               | CLIP number on the user side.<br>Length limit: string (32)                                                                                                                                                     |
| 5   | playTimes      | number        | No               | Number of playback times.<br>Value range: 1-5                                                                                                                                                                  |
| 6   | priority       | String        | No               | Playback priority of a voice notification.<br>The value is an integer ranging from 1 to 9. The default value is <b>9</b> . A smaller value indicates a higher priority.                                        |

## Response Description

- Status code: 200

**Table 6-389** Response body parameters

| No.   | Parameter    | Type   | Mandatory or Not | Description                                                                           |
|-------|--------------|--------|------------------|---------------------------------------------------------------------------------------|
| 1.1   | retCode      | String | No               | Result code. The value <b>0</b> indicates success, and other values indicate failure. |
| 1.2   | retMsg       | String | No               | Failure cause.                                                                        |
| 1.3   | result       | Object | No               | Result content.                                                                       |
| 1.3.1 | callSerialNo | String | No               | Call SN.                                                                              |

- Status code: 400**  
Incorrect request. Check the request path and parameters.
- Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- Status code: 404**  
The requested content is not found. Check the request path.
- Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

Request header:

```
x-app-key:9*****3
Authorization:Bearer 9*****7
```

Request parameters:

```
{
 "called": "8899",
 "playlist": [{
 "voiceId": "100001",
 "templateParams": ["100","200"]
 }],
 "playTimes": 1,
 "callerPresent": "2222201",
 "callBackUrl": "http://xx.xx.xx.xx:8800/callbackTest"
}
```

Response parameters:

```
{
 "retMsg": "Created successfully.",
 "retCode": "0",
 "result": {"callSerialNo": "1308434073450058757"}
}
```

## 6.2.11 Querying Contact Records (queryUserContactLimit)

### Scenario

This interface is invoked to query contact records.

### Method

POST

### URI

<https://Domain name/apiaccess/rest/workbench/v1/queryUserContactLimit> (For example, the domain name is service.besclouds.com.)

### Request Description

Table 6-390 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | X-APP-Key     | String | No               | App key, which is the user ID.                                                                                                                                            |
| 2   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |

Table 6-391 Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description |
|-----|-----------|--------|------------------|-------------|
| 1   | callId    | String | Yes              | Call ID.    |
| 2   | userId    | String | Yes              | User ID.    |
| 3   | tenantId  | String | Yes              | Tenant ID.  |

### Response Description

- **Status code: 200**

**Table 6-392** Response body parameters

| No. | Parameter    | Type      | Mandatory or Not | Description                                                        |
|-----|--------------|-----------|------------------|--------------------------------------------------------------------|
| 1   | callSerialno | String    | No               | Call SN.                                                           |
| 2   | countId      | String    | No               | Account.                                                           |
| 3   | callId       | String    | No               | Call ID.                                                           |
| 4   | mediaAbility | Number    | No               | Media type. The options are <b>1</b> (voice) and <b>2</b> (video). |
| 5   | channelType  | Number    | No               | Multimedia channel.                                                |
| 6   | talkReason   | String    | No               | Session reason ID.                                                 |
| 7   | beginTime    | Timestamp | No               | Start time.                                                        |
| 8   | callType     | Number    | No               | Call type.                                                         |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

Request header:

```
x-app-key:9*****3
Authorization:Bearer 9*****7
```

Request parameters:

```
{
 "callId": "1652317325-339",
 "userId": "1652268429538866153",
 "tenantId": "202205116084"
}
```

Response parameters:

```
{
 "callSerialno": "1243353389979684865",
```

```

"countId": "1652268429538866153",
"callId": "1652317325-339",
"mediaAbility": 1,
"channelType": 1,
"talkReason": "1300404704098042886,1300404506395329541",
"beginTime": "2022-05-12 01:01:33",
"callType": 1
}

```

## 6.2.12 Querying Call Information (queryCallInfoByCallId)

### Scenario

This interface is invoked to query call information.

### Method

POST

### URI

<https://Domain name/apiaccess/rest/workbench/v1/queryCallInfoByCallId> (For example, the domain name is service.besclouds.com.)

### Request Description

**Table 6-393** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | X-APP-Key     | String | No               | App key, which is the user ID.                                                                                                                                            |
| 2   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <b>tokenByAkSk</b> interface}. (A space is required after <b>Bearer</b> .) |

**Table 6-394** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description |
|-----|-----------|--------|------------------|-------------|
| 1   | callId    | String | Yes              | Call ID.    |
| 2   | userId    | String | Yes              | User ID.    |
| 3   | tenantId  | String | Yes              | Tenant ID.  |



| No. | Parameter | Type   | Mandatory or Not | Description |
|-----|-----------|--------|------------------|-------------|
| 4   | agentId   | String | Yes              | Agent ID.   |

## Response Description

- **Status code: 200**

**Table 6-395** Response body parameters

| No. | Parameter    | Type   | Mandatory or Not | Description             |
|-----|--------------|--------|------------------|-------------------------|
| 1   | caller       | Number | No               | Calling number.         |
| 2   | called       | Number | No               | Called number.          |
| 3   | mediaAbility | Number | No               | Media type.             |
| 4   | calldata     | String | No               | Call-associated data.   |
| 5   | callId       | String | No               | Call ID.                |
| 6   | callSkillId  | Number | No               | Call skill ID.          |
| 7   | callSkill    | String | No               | Call skill description. |
| 8   | callType     | Number | No               | Call type.              |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

Request header:

```
x-app-key:9*****3
Authorization:Bearer 9*****7
```

Request parameters:

```
{
 "callId": "1652317325-339",
 "userId": "1652268429538866153",
 "tenantId": "202205116084",
 "agentId": "109",
}
```

Response parameters:

```
{
 "caller": 70004,
 "called": 60015,
 "mediaAbility": 1,
 "calldata": "1",
 "callId": "1652317325-339",
 "callSkillId": 1,
 "callSkill": "voice",
 "callType": 0
}
```

## 6.2.13 Sending an ITA Bidirectional Call Result Notification (statusnotify)

### Scenario

This interface is invoked by the ITA to push bidirectional call CDR data to the AICC after a call ends.

### Method

POST

### URI

<https://Domain name/apiaccess/rest/cc-management/v1/ita/twopartiescall/statusnotify> (For example, the domain name is service.besclouds.com.)

### Request Description

Table 6-396 Request header parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                    |
|-----|-----------|--------|------------------|------------------------------------------------|
| 1   | AppKey    | String | No               | App key on the ITA side, which is the user ID. |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Host          | String | Yes              | Internet host and port number of the requested resource. <ul style="list-style-type: none"> <li>• <b>hostname</b> indicates the IP address or domain name of the AXB service.</li> <li>• <b>port</b> indicates the port number.</li> </ul> |
| 3   | Content-Type  | String | Yes              | Media type of the request body sent to the recipient (server).                                                                                                                                                                             |
| 4   | X-Sdk-Date    | String | Yes              | Time when a request is initiated.                                                                                                                                                                                                          |
| 5   | Authorization | String | Yes              | Authentication field. For details, see ITA documents.                                                                                                                                                                                      |

**Table 6-397** Request body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                               |
|-----|------------|--------|------------------|-----------------------------------------------------------------------------------------------------------|
| 1   | callID     | String | Yes              | Unique call ID, which is used to download recording files.                                                |
| 2   | remark     | String | Yes              | Remark when a call is initiated. This is a reserved field. (Currently, the value is the tenant space ID.) |
| 3   | startTime  | String | No               | Time when a call is initiated, accurate to seconds.<br>The format is <i>YYYYMMDDHHmmss</i> .              |
| 4   | finishTime | String | No               | Call end time.                                                                                            |

| No. | Parameter        | Type   | Mandatory or Not | Description                                                                                                                                |
|-----|------------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 5   | callDuration     | String | No               | Call duration, in seconds. This parameter is for reference only.<br>The call duration is calculated from the time when the call is set up. |
| 6   | callerAnswerTime | String | No               | Time when the calling party answers the call.                                                                                              |
| 7   | calledAnswerTime | String | No               | Time when the called party answers the call.                                                                                               |
| 8   | releaseCause     | String | No               | Cause value carried by the call end event.                                                                                                 |
| 9   | appKey           | String | No               | Customer resource allocation ID.                                                                                                           |
| 10  | telA             | String | No               | Original calling number.                                                                                                                   |
| 11  | telX             | String | No               | Terminated service number.                                                                                                                 |
| 12  | telB             | String | No               | Original called number.                                                                                                                    |
| 13  | calledDisplay    | String | No               | CLIP called number.                                                                                                                        |

## Response Description

- Status code: 200**  
 After the message is received, the system returns a 200 OK message. Ensure that the value of **Content-Type** in the response is **application/json; charset=UTF-8**.
- Status code: 400**  
 Incorrect request. Check the request path and parameters.
- Status code: 401**  
 Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- Status code: 404**  
 The requested content is not found. Check the request path.
- Status code: 500**  
 Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

Request example:

```
POST /twopartiescall/statusnotify HTTP/1.1
Request:
AppKey: CMCCGX_0001
X-Sdk-Date: 20210512T115430Z
Content-Type: application/json;charset=UTF-8
Host: 10.10.10.10:9003
Authorization: SDK-HMAC-SHA256 Access=1*****2F4J8Q5T, SignedHeaders=appkey;content-type;host;x-sdk-date, Signature=77c4*****62f48bcb4873e1d9ad9c1acc34b9b

{
 "appKey": "CMCCGX_0001",
 "remark": "2022091800",
 "telA": "1580****001",
 "telX": "184****0497",
 "telB": "158****0002",
 "calleeDisplay": "158****0001",
 "startTime": "20210512115422",
 "callerAnswerTime": "20210512115422",
 "calledAnswerTime": "20210512115422",
 "finishTime": "20210512115430",
 "callID": "cmccgx20210512195422",
 "releaseCause": "1",
 "callDuration": 8
}
```

Response example:

```
HTTP/1.1 200 OK
Date: Mon, 12 Nov 2007 15:55:01 GMT
Content-Length: xxx
Content-Type: application/json; charset=UTF-8
{
}
```

## 6.2.14 Callback Interface

The CEC can call back the URL provided by a third-party system to push the current call event to the third-party system.

This chapter describes the specifications of requests sent by the CEC to third-party systems and responses returned by third-party systems to the CEC. When the CEC connects to a third-party system, the third-party system needs to develop interfaces based on specifications described in this chapter.

### 6.2.14.1 Callback Interface Description

- The connection callback URL of agent bidirectional calls can be configured only on the GUI. A tenant administrator can choose **Configuration Center > Expansion Management > Bidirectional Call** to set **Connection Callback URL**.
- The release callback URL for agent bidirectional calls can be configured using either of the following methods:

- a. Configuration on the GUI: A tenant administrator chooses **Configuration Center > Expansion Management > Bidirectional Call** to set **Hang-up Callback URL**.
- b. Configuration using the call creation interface (V1.0.0): The request parameter **callbackUrl** can be transferred when the call creation interface (V1.0.0) is invoked.

 **NOTE**

- For configuration of the release callback URL on the GUI, no URL authentication is performed. No authentication may cause security risks. Exercise caution when using this mode.
- If the release callback URL is configured using both methods, the value of **callbackUrl** transferred using the call creation interface (V1.0.0) is used.

## Description of the Agent Bidirectional Call Callback Interface Signature Algorithm

- **Signature algorithm (authentication) prerequisites**

The release callback URL has been transferred using the call creation interface (V1.0.0), and **Callback URL Authentication Mode** has been set to **Shared Key** on the callback URL configuration page.

- **Authentication procedure**

- a. When the system calls back the release callback URL, if the signing conditions are met, the following parameters are added to the input parameters of the interface:

**timestamp**: current timestamp

**nonce**: random string

**signature**: authentication signature

- b. After the customer receives the callback request, an authentication signature is generated based on the signature algorithm and will be verified based on the input parameter **signature**. The verification passes upon consistency.

- **Signature string generation method**

- a. Sort all request parameters (except **timestamp**, **nonce**, and **signature**) in alphabetical order based on the parameter name and combine them into a string using commas (.). For example, the parameters in **{"b":"2", "a":1, "d":"null", "c":""}** are sorted and combined into the string **"a=1,b=2,c=,d=null"**.
- b. Generate the values of **timestamp** (timestamp) and **nonce** (random string) and combine them with the value of **appSecret** (shared key configured on the GUI) and the string generated in **a** using underscores (\_). The format is **{Value of appSecret}\_{Value of timestamp}\_{Value of nonce}\_{String generated in a}**.
- c. Encrypt the value into a byte array using the SHA256 algorithm and encode the array using Base64.

- **Reference code**

```
import javax.crypto.Mac;
import javax.crypto.spec.SecretKeySpec;
```

```
private String generateSinature(TreeMap<String, Object> callbackParameters, String nonce, long
timestamp, String appSecret) {
 // {Value of appSecret}_{Value of timestamp}_{Value of nonce}_Parameters
 // Sort the parameters in {"b":"2", "a":1, "d":"null", "c":""} and combine them into the string
 "a=1,b=2,c=d=null".
 String paramStr = callbackParameters.toString().replace(" ", "");
 String toSignString = appSecret + "_" + timestamp + "_" + nonce + "_" +
 paramStr.substring(1, paramStr.length() - 1);
 return
 Base64.encodeBase64String(tokenByHmacSha256(toSignString.getBytes(StandardCharsets.UTF_8),
appSecret));
}

public static byte[] tokenByHmacSha256(byte[] dataBytes, String appSecret) {
 try {
 Mac mac = Mac.getInstance("HmacSHA256");
 byte[] key = appSecret.getBytes(StandardCharsets.UTF_8);
 SecretKeySpec secretKey = new SecretKeySpec(key, "HmacSHA256");
 mac.init(secretKey);return mac.doFinal(dataBytes);
 } catch (Exception e) {
 LOGGER.error("tokenByHmacSha256 failed: ", e);throw new RuntimeException("HmacSha256
run failed.");
 }
}
```

### 6.2.14.2 Call Status Event Callback

#### Scenario

This interface is invoked to push a call status event.

#### Method

POST

#### URL

The URL is customized by the customer.

The connection callback URL of bidirectional calls can be configured only on the GUI. A tenant administrator can choose **Configuration Center > Expansion Management > Bidirectional Call** to set **Connection Callback URL**.

#### Request Description

- Request header parameters  
None
- Request body parameters

**Table 6-398** Request body parameters

| No. | Parameter    | Type   | Mandat<br>ory or<br>Not | Description                              |
|-----|--------------|--------|-------------------------|------------------------------------------|
| 1   | callSerialNo | String | Yes                     | Call SN.<br>Length limit: string<br>(50) |

| No. | Parameter | Type   | Mandatory or Not | Description            |
|-----|-----------|--------|------------------|------------------------|
| 2   | serviceNo | String | Yes              | Agent ID.              |
| 3   | called    | String | Yes              | Customer phone number. |
| 4   | callData  | String | No               | Call data.             |

## Response Description

**Response code: 200**

- Response message

**Table 6-399** Response body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                            |
|-----|-----------|--------|------------------|----------------------------------------------------------------------------------------|
| 1   | retCode   | String | Yes              | Result code. The value <b>0</b> indicates success, and other values indicates failure. |
| 2   | retMsg    | String | Yes              | Description of a failure cause.                                                        |

## Example

Request parameters:

```
{
 callSerialNo=1197235857187927062,
 serviceNo=,
 called=88880067,
 callData=
}
```

Response parameters:

```
{
 "retCode": "0",
 "retMsg": "success"
}
```



### 6.2.14.3 Release Event Callback

#### Scenario

This interface is invoked to push a call release event.

#### Method

POST

#### URL

The URL is customized by the customer.

The release callback URL for bidirectional calls can be configured using either of the following methods:

- Configuration on the GUI: A tenant administrator chooses **Configuration Center > Expansion Management > Bidirectional Call** to set **Hang-up Callback URL**.
- Configuration using the bidirectional call creation interface (V1.0.0): The request parameter **callBackUrl** can be transferred when the call creation interface (V1.0.0) is invoked.

#### Request Description

- Request header parameters  
None
- Request body parameters

**Table 6-400** Request body parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                             |
|-----|---------------|--------|------------------|---------------------------------------------------------|
| 1   | callSerialNo  | String | Yes              | Call SN.<br>Length limit: string (50)                   |
| 2   | serviceNo     | String | Yes              | Agent ID.                                               |
| 3   | called        | String | Yes              | Customer phone number.                                  |
| 4   | caller        | String | No               | Phone number bound to the agent who initiates the call. |
| 5   | callerPresent | String | No               | CLIP number.                                            |
| 6   | callData      | String | No               | Call data.                                              |

| No. | Parameter         | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----|-------------------|--------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7   | createCallTime    | String | No               | Time when a call is initiated.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 8   | alertingTime      | String | No               | Ringing time of a subscriber.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 9   | talkingTime       | String | No               | Call connection time.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 10  | releaseTime       | String | No               | Call release time.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 11  | talkDuration      | String | No               | Call duration.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 12  | recordfile        | String | No               | Path to the voice recording file.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 13  | locationId        | String | No               | Voice recording node.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 14  | releaseReason     | String | No               | Call release cause code. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0</b>: The call ends and the called party hangs up.</li> <li>● <b>1</b>: The call ends and the calling party hangs up.</li> <li>● <b>2</b>: The outgoing call fails to be made to the calling party.</li> <li>● <b>3</b>: The called party fails to be called.</li> <li>● <b>4</b>: The calling party does not answer the call.</li> <li>● <b>5</b>: The called party does not answer the call.</li> <li>● <b>xxx</b>: Other exceptions occur.</li> </ul> |
| 15  | agentAlertingTime | String | No               | Ringing time of an agent.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 16  | agentTalkingTime  | String | No               | Call connection time of an agent.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

| No. | Parameter         | Type   | Mandatory or Not | Description                           |
|-----|-------------------|--------|------------------|---------------------------------------|
| 17  | agentReleaseTime  | String | No               | Time when an agent releases the call. |
| 18  | agentTalkDuration | String | No               | Call duration of an agent.            |

## Response Description

**Response code: 200**

- Response message

**Table 6-401** Response body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                            |
|-----|-----------|--------|------------------|----------------------------------------------------------------------------------------|
| 1   | retCode   | String | Yes              | Result code. The value <b>0</b> indicates success, and other values indicates failure. |
| 2   | retMsg    | String | Yes              | Description of a failure cause.                                                        |

## Example

Request parameters:

```
{
agentAlertingTime=2022/02/22,10:04:29:004,
agentReleaseTime=2022/02/22,10:04:29:004,
agentTalkDuration=2022/02/22,10:04:29:004,
agentTalkingTime=2022/02/22,10:04:29:004,
alertingTime=2022/02/22,10:04:29:004,
callData=null,
callSerialNo=1197765398201387012,
called=88880067,
caller=960003,
callerPresent=960003,
createCallTime=2022/02/22,10:04:28:823,
locationId=0,
nonce=-1482421808053124529,
recordfile=Y:/2/mobileAgent/20220222/1645524268-824.wav,
releaseReason=0,
releaseTime=2022/02/22,10:04:36:318,
serviceNo=null,
signature=+lk3*****tO50=,
talkDuration=0,
```

```
talkingTime=2022/02/22,10:04:30:418,
timestamp=1645524163326
}
```


Response parameters:

```
{
 "retCode": "0",
 "retMsg": "success"
}
```

## 6.3 Voice Recognition Result Subscription Interfaces

### NOTE

Before invoking a voice recognition result subscription interface, you need to perform the following operations:

- Contact the system administrator to enable the intelligent agent feature for the tenant space. Sign in to the AICC as a tenant administrator and enable the **Intelligent Recognition** feature on the  > **Call Center Configuration** > **Basic Information** page.
- Set **IF\_SUB\_CONFIGURE** to **ON** in the `/home/elpis/tomcat/webapps/agentgateway/WEB-INF/config/basic.properties` file on all CC-Gateway servers.

### 6.3.1 Subscription

#### Description

This interface is used by a third-party business client to send a subscription task registration request to the CTI platform of the call center so that third-party business client can receive event notifications from the CTI platform of the call center.

### NOTE

- The CC-Gateway address needs to be configured on the **Manage Subscription Server** page of the web configuration console.
- After this interface is successfully invoked, that is, the value of **retcode** is **0**, the handshake interface can be invoked to remain the subscription status.

#### Interface Method

This interface supports only the POST method.

#### URI

`https://IP:Port/agentgateway/resource/config/subscribe/register`

#### Method Name in Logs

register

#### Request Message

- Message header

**Table 6-402** Parameters in the message header

| No. | Parameter    | Value Type | Mandatory | Description                                                                                                                                |
|-----|--------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | String     | Yes       | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                             |
| 2   | Guid         | String     | Yes       | The value of <b>Guid</b> is that returned through the interface in <a href="#">4.6 C5 Intelligent Auxiliary Interface Authentication</a> . |

- Message body

**Table 6-403** Parameters in the message body

| No. | Parameter     | Value Type | Mandatory | Description                                              |
|-----|---------------|------------|-----------|----------------------------------------------------------|
| 1   | subscribeType | String     | Yes       | Subscription type.<br>1: recognition<br>Others: reserved |

| No. | Parameter           | Value Type | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                               |
|-----|---------------------|------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | serviceToken        | String     | No        | <p>Authentication token, which is generated by a third-party service.<br/>Example:<br/><b>3320EA*****</b><br/><b>*****36ED</b><br/><b>638</b></p> <p>The value contains a maximum of 256 characters.</p> <p>This parameter needs to be transferred when the interfaces described in <a href="#">6.3.5 Handshake (Extended)</a> and <a href="#">6.3.6 Recognition Result Notification</a> are invoked.</p> |
| 3   | serviceCallBack Uri | String     | Yes       | <p>Event notification callback address.</p> <p>The value contains a maximum of 200 characters.</p>                                                                                                                                                                                                                                                                                                        |

| No. | Parameter      | Value Type | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                       |
|-----|----------------|------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | nlpFlag        | Boolean    | Yes       | <p>Whether to use intelligent semantic analysis.</p> <ul style="list-style-type: none"> <li>• <b>true:</b> Use intelligent semantic analysis. You need to contact O&amp;M personnel to configure the CC-Gateway callback URL in the <b>basic.properties</b> file of the CC-Gateway.</li> <li>• <b>false:</b> Do not use intelligent semantic analysis.</li> </ul> |
| 5   | flowAccessCode | String     | No        | <p>Intelligent IVR chatbot access code, which is returned when a chatbot is added. This parameter needs to be set only when <b>nlpFlag</b> is set to <b>true</b>.</p>                                                                                                                                                                                             |

## Response Message

**Table 6-404** Parameters in the message body

| No. | Parameter | Value Type | Description       |
|-----|-----------|------------|-------------------|
| 1   | message   | String     | Returned message. |

| No. | Parameter | Value Type | Description                                                                                                                                                                                             |
|-----|-----------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | retcode   | String     | Result cause code.<br>The value is an integer. <ul style="list-style-type: none"> <li>• 0: success</li> <li>• Others: failure. For details, see <a href="#">6.3.7 Error Code Definition</a>.</li> </ul> |
| 3   | result    | Object     | Returned result. For details about the parameters of this object, see <a href="#">Table 6-405</a> .                                                                                                     |

**Table 6-405** Parameter of the result object

| No. | Parameter | Value Type | Description                                                                                                                                                                   |
|-----|-----------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.1 | serverId  | String     | Subscription task ID returned by the CTI platform upon successful subscription based on the subscription request sent from a third-party business client to the CTI platform. |

## Example

- **Message header**  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- **Request parameter**  

```
{
 "subscribeType": "1",
 "serviceToken": "3320EA1E*****8E336ED638",
 "serviceCallBackUri": "https://10.10.10.1:8080/rest/cc-ai/nlrresult",
 "nlpFlag": "true",
 "flowAccessCode": "801166010768953344"
}
```
- **Response parameter**  

```
{
 "result": {
 "serverId": "20140414172508-001-00101"
 },
 "message": "success",
 "retcode": "0"
}
```



## 6.3.2 Subscription Modification

### Description

This interface is used by a third-party business client to modify a subscription task.

### Interface Method

This interface supports only the POST method.

### URI

https://IP:Port/agentgateway/resource/config/subscribe/modify?serverId=xxx

**Table 6-406** Parameter in the URI

| No. | Parameter | Value Type | Mandatory | Description                                                                                                                                                                                                                                       |
|-----|-----------|------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | serverId  | string     | Yes       | ID of an existing subscription task on the CTI platform, that is, subscription task ID returned by the CTI platform to a third-party business client upon successful subscription.<br>This parameter cannot be left empty or set to <b>null</b> . |

### Method Name in Logs

modify

### Request Message

- Message header

**Table 6-407** Parameters in the message header

| No. | Parameter    | Value Type | Mandatory | Description                                                                                                                                |
|-----|--------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes       | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                             |
| 2   | Guid         | string     | Yes       | The value of <b>Guid</b> is that returned through the interface in <a href="#">4.6 C5 Intelligent Auxiliary Interface Authentication</a> . |

- Message body

**Table 6-408** Parameters in the message body

| No. | Parameter          | Value Type | Mandatory | Description                                                                          |
|-----|--------------------|------------|-----------|--------------------------------------------------------------------------------------|
| 1   | serviceCallBackUri | string     | Yes       | Event notification callback address. The value contains a maximum of 200 characters. |
| 2   | nlpFlag            | boolean    | Mandatory | Whether Natural Language Processing (NLP) is used.                                   |
| 3   | flowAccessCode     | string     | Optional  | Flow access code.                                                                    |

## Response Message

**Table 6-409** Parameters in the message body

| No. | Parameter | Value Type | Description       |
|-----|-----------|------------|-------------------|
| 1   | message   | string     | Returned message. |

| No. | Parameter | Value Type | Description                                                                                                                                                                                             |
|-----|-----------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | retcode   | string     | Result cause code.<br>The value is an integer. <ul style="list-style-type: none"> <li>• 0: success</li> <li>• Others: failure. For details, see <a href="#">6.3.7 Error Code Definition</a>.</li> </ul> |
| 3   | result    | object     | Returned result. For details about the parameters of this object, see <a href="#">Table 6-410</a> .                                                                                                     |

**Table 6-410** Parameter of result

| No. | Parameter | Value Type | Description                                                                                                                                                                   |
|-----|-----------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.1 | serverId  | string     | Subscription task ID returned by the CTI platform upon successful subscription based on the subscription request sent from a third-party business client to the CTI platform. |

## Example

- **Message header**  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- **Request parameter**  

```
{
 "serviceCallBackUri": "https://10.10.10.1:8080/rest/cc-ai/nlrresult",
 "nlpFlag": "true",
 "flowAccessCode": "801166010768953344"
}
```
- **Response parameter**  

```
{
 "message": "success",
 "retcode": "0"
}
```

## 6.3.3 Unsubscription

### Description

This interface is used by a third-party business client to unregister a subscription task.

### Interface Method

This interface supports only the PUT method.

### URI

https://IP:Port/agentgateway/resource/config/subscribe/unregister

### Method Name in Logs

unregister

### Request Message

- Message header

**Table 6-411** Parameters in the message header

| No. | Parameter    | Value Type | Mandatory | Description                                                                                                                                |
|-----|--------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes       | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                             |
| 2   | Guid         | string     | Yes       | The value of <b>Guid</b> is that returned through the interface in <a href="#">4.6 C5 Intelligent Auxiliary Interface Authentication</a> . |

- Message body

**Table 6-412** Parameters in the request message body

| No. | Parameter | Value Type | Mandatory | Description                                                                                                                                                                                                                                           |
|-----|-----------|------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | serverId  | string     | Yes       | ID of an existing subscription task on the CTI platform, that is, subscription task ID returned by the CTI platform to a third-party business client upon successful subscription.<br><br>This parameter cannot be left empty or set to <b>null</b> . |

## Response Message

**Table 6-413** Parameters in the response message body

| No. | Parameter | Value Type | Description                                                                                                                                                                                                    |
|-----|-----------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | message   | string     | Returned message.                                                                                                                                                                                              |
| 2   | retcode   | string     | Result cause code.<br>The value is an integer. <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Others: failure. For details, see <a href="#">6.3.7 Error Code Definition</a>.</li> </ul> |

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
{  
  "serverId": "20140414172508-001-00101"  
}
- Response parameter  
{  
  "message": "success",

```
"retcode": "0"
}
```

## 6.3.4 Handshake

### Description

This interface is used by a third-party client to send heartbeat messages to the CTI platform of the call center to remain the validity of a subscription task. If the CTI platform of the call center does not detect any heartbeat message within five minutes, it invalids the subscription task. Then the client needs to send a subscription request to the CTI platform of the call center again.

It is recommended that a third-party business client send a heartbeat message to the CTI platform of the call center every two minutes.

### Interface Method

This interface supports only the GET method.

### URI

<https://IP:Port/agentgateway/resource/config/subscribe/handshake/{serviceid}>

**Table 6-414** Parameter in the URI

| Parameter | Data Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                                       |
|-----------|-----------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| serverid  | string    | Yes                | ID of an existing subscription task on the CTI platform, that is, subscription task ID returned by the CTI platform to a third-party business client upon successful subscription.<br>This parameter cannot be left empty or set to <b>null</b> . |

### Method Name in Logs

handshake

## Request Message

- Message header

**Table 6-415** Parameters in the message header

| No. | Parameter    | Value Type | Mandatory | Description                                                                                                                                |
|-----|--------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes       | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                             |
| 2   | Guid         | string     | Yes       | The value of <b>Guid</b> is that returned through the interface in <a href="#">4.6 C5 Intelligent Auxiliary Interface Authentication</a> . |

## Response Message

**Table 6-416** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                                                                                                                                             |
|-----|-----------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | message   | string     | Returned message.                                                                                                                                                                                       |
| 2   | retcode   | string     | Result cause code.<br>The value is an integer. <ul style="list-style-type: none"> <li>• 0: success</li> <li>• Others: failure. For details, see <a href="#">6.3.7 Error Code Definition</a>.</li> </ul> |

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "message": "success",
 "retcode": "0"
}
```

## 6.3.5 Handshake (Extended)

### Description

This interface is used by a third-party client to send heartbeat messages to the CTI platform of the call center to remain the validity of a subscription task. If the CTI platform of the call center does not detect any heartbeat message within five minutes, it invalids the subscription task. Then the client needs to send a subscription request to the CTI platform of the call center again.

It is recommended that a third-party business client send a heartbeat message to the CTI platform of the call center every two minutes.

The handshake interface contains the `service_token` header field and is changed to support the POST method. Other information is the same as that in the handshake.

### Interface Method

This interface supports only the POST method.

### URI

`https://IP:Port/agentgateway/resource/config/subscribe/handshake/{serviceid}`

**Table 6-417** Parameter in the URI

| No. | Parameter | Value Type | Mandatory | Description                                                                                                                                                                                                                                           |
|-----|-----------|------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | serverid  | string     | Yes       | ID of an existing subscription task on the CTI platform, that is, subscription task ID returned by the CTI platform to a third-party business client upon successful subscription.<br><br>This parameter cannot be left empty or set to <b>null</b> . |

### Method Name in Logs

handshakeEx



## Request Message

- Message header

**Table 6-418** Parameters in the message header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                                                               |
|-----|---------------|------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | string     | Yes       | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                            |
| 2   | Guid          | string     | Yes       | The value of <b>Guid</b> is that returned through the interface in <a href="#">4.6 C5 Intelligent Auxiliary Interface Authentication</a> .                                                |
| 3   | service_token | string     | Yes       | Authentication token, which is generated in <a href="#">6.3.1 Subscription</a> , for example, <b>3320EA1E5E*****7112A68E336ED638</b> .<br>The value contains a maximum of 256 characters. |

## Response Message

**Table 6-419** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                                                                                                                                                    |
|-----|-----------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | message   | string     | Returned message.                                                                                                                                                                                              |
| 2   | retcode   | string     | Result cause code.<br>The value is an integer. <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Others: failure. For details, see <a href="#">6.3.7 Error Code Definition</a>.</li> </ul> |

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None

- Response parameter

```
{
 "message": "success",
 "retcode": "0"
}
```

## 6.3.6 Recognition Result Notification

### Description

After a third-party business client registers a subscription task with the CTI platform, this interface is used by the CTI platform to report recognition results to the third-party business client. The invoking party is the OpenProxy of the CTI platform, and the receiving party is the CC-AI of the AICC.

### Interface Method

This interface supports only the POST method.

### URI

The format of the URI for the CTI platform of the call center to invoke the recognition result notification interface is as follows:

{servicecallbackuri}/v100/subscribe/asrevent/asresult (In the format, **servicecallbackuri** indicates the event notification callback address during registration.)

Example: https://10.21.117.9:8043/agentgateway/resource/asresult/v100/subscribe/asrevent/asresult

A third-party business client needs to enable the function of receiving messages from this address.

### Request Message

- Message header

**Table 6-420** Parameters in the message header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                                                               |
|-----|---------------|------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                            |
| 2   | service_token | String     | Yes       | Authentication token, which is generated in <a href="#">6.3.1 Subscription</a> , for example, <b>3320EA1E5E*****7112A68E336ED638</b> .<br>The value contains a maximum of 256 characters. |

- Message body

**Table 6-421** Parameters for sending the recognition result notification

| No. | Parameter      | Value Type | Mandatory | Description                                                                                                                                                                                     |
|-----|----------------|------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | serverid       | String     | Yes       | Subscription task ID reported by the CTI platform to a third-party business client.                                                                                                             |
| 2   | subscribetype  | String     | Yes       | Type of the reported subscription event. <ul style="list-style-type: none"> <li>• <b>1:</b> recognition</li> <li>• Others: reserved</li> </ul> Currently, only the value <b>1</b> is supported. |
| 3   | initialagentid | String     | Yes       | Agent ID of the control party, that is, ID of the agent to whom an inbound call is made or ID the agent who initiates an outbound call.                                                         |
| 4   | ccid           | String     | Yes       | ID of the CTI platform of the call center to which the current agent belongs.                                                                                                                   |
| 5   | vdnid          | String     | Yes       | ID of the VDN to which the current agent belongs.                                                                                                                                               |
| 6   | curcallid      | String     | Yes       | ID of the current call.                                                                                                                                                                         |

| No. | Parameter  | Value Type | Mandatory | Description                                                                                                                                                                                                                                       |
|-----|------------|------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7   | curuserdn  | String     | Yes       | Phone number of the subscriber who is talking with the current agent. If the call is made between agents, leave this parameter empty.                                                                                                             |
| 8   | talkertype | String     | Yes       | Current speaker type. <ul style="list-style-type: none"> <li>• 1: agent</li> <li>• 2: subscriber</li> </ul>                                                                                                                                       |
| 9   | talkerid   | String     | Yes       | Current speaker ID. <ul style="list-style-type: none"> <li>• When <b>talkertype</b> is set to 1, this parameter indicates the agent ID.</li> <li>• When <b>talkertype</b> is set to 2, this parameter indicates the subscriber number.</li> </ul> |
| 10  | nlpResult  | Object     | No        | Analysis results. For details about the parameters of this object, see <a href="#">Table 6-422</a> .                                                                                                                                              |

| No. | Parameter | Value Type | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----|-----------|------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11  | result    | Array      | Yes       | <p>Recognition result content. The value is an array. The parameters of this array are described as follows:</p> <ul style="list-style-type: none"> <li>• <b>confidence:</b> credibility of a valid recognition result.</li> <li>• <b>content:</b> content of a recognition result.</li> <li>• <b>iscontentenc:</b> indicates whether to encrypt a recognition result. <ul style="list-style-type: none"> <li>- <b>0:</b> no</li> <li>- <b>1:</b> yes</li> </ul> </li> </ul> |

| No. | Parameter   | Value Type | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----|-------------|------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12  | asrusercase | String     | Yes       | <p>Reason code of the recognition result. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>0</b>: The recognition result is normal and the recognition ends (discontinuous recognition).</li> <li>• <b>61</b>: A talk starts and no recognition content is carried.</li> <li>• <b>62</b>: The recognition result is normal and the recognition continues.</li> <li>• <b>63</b>: The recognition ends.</li> <li>• <b>Others</b>: A recognition error occurs.</li> </ul> |

| No. | Parameter | Value Type | Mandatory | Description                                                                                                                                                                                                                                      |
|-----|-----------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13  | calldata  | String     | No        | <p>Call-associated data, which contains a maximum of 1024 bytes.</p> <p>The content stored in <b>calldata</b> is as follows:</p> <pre>{   "nlpFlag": true or false "flowAccessCode": flow access code "callbackUrl": actual callback URL }</pre> |

**Table 6-422** Parameter description of nlpResult

| No.  | Parameter               | Value Type | Description                                                                                               |
|------|-------------------------|------------|-----------------------------------------------------------------------------------------------------------|
| 10.1 | call_script             | Array      | Script progress. For details about the parameters of this object, see <a href="#">Table 6-423</a> .       |
| 10.2 | call_script_matchedstep | String     | Current script.                                                                                           |
| 10.3 | Intend                  | String     | Intention.                                                                                                |
| 10.4 | sensitive_word          | Object     | Sensitive word.                                                                                           |
| 10.5 | recomand_KP             | Object     | Recommended knowledge. For details about the parameters of this object, see <a href="#">Table 6-424</a> . |

**Table 6-423** Parameter description of call\_script

| No.    | Parameter   | Value Type | Description                                                                                                                                                                                                                                                       |
|--------|-------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.1.1 | intentcode  | String     | Intention code.                                                                                                                                                                                                                                                   |
| 10.1.2 | intentDsp   | String     | Intention.                                                                                                                                                                                                                                                        |
| 10.1.3 | status      | String     | Intention status. The options are as follows: <ul style="list-style-type: none"> <li>• <b>finished</b></li> <li>• Left blank: unsent</li> </ul>                                                                                                                   |
| 10.1.4 | childintent | Array      | Script. The options are as follows: <ul style="list-style-type: none"> <li>• <b>intentcode</b></li> <li>• <b>intentDsp</b></li> <li>• <b>status</b> <ul style="list-style-type: none"> <li>- <b>finished</b></li> <li>- Left blank: unsent</li> </ul> </li> </ul> |

**Table 6-424** Parameter description of recomand\_KP

| No.    | Parameter   | Value Type | Description                                                                                                              |
|--------|-------------|------------|--------------------------------------------------------------------------------------------------------------------------|
| 10.5.1 | similarFaqs | Array      | Recommended similar FAQs (knowledge). For details about the parameters of this object, see <a href="#">Table 6-425</a> . |
| 10.5.2 | answer      | Array      | Recommended FAQs (knowledge).                                                                                            |

**Table 6-425** Parameter description of similarFaqs

| No.      | Parameter    | Value Type | Description                  |
|----------|--------------|------------|------------------------------|
| 10.5.1.1 | faqGroupName | Array      | Q&A team and knowledge team. |



| No.              | Parameter  | Value Type | Description                                                                                                      |
|------------------|------------|------------|------------------------------------------------------------------------------------------------------------------|
| 10.<br>5.1.<br>2 | prob       | String     | Recommended probability value.                                                                                   |
| 10.<br>5.1.<br>3 | question   | String     | Question and knowledge title.                                                                                    |
| 10.<br>5.1.<br>4 | answers    | Array      | Answer and knowledge content. For details about the parameters of this object, see <a href="#">Table 6-426</a> . |
| 10.<br>5.1.<br>5 | faqId      | String     | FAQ ID or knowledge ID.                                                                                          |
| 10.<br>5.1.<br>6 | faqGroupId | String     | FAQ group ID.                                                                                                    |

**Table 6-426** Parameter description of answer

| No.                | Parameter    | Value Type | Description                    |
|--------------------|--------------|------------|--------------------------------|
| 10.<br>5.1.<br>4.1 | faqGroupName | Array      | Q&A team and knowledge team.   |
| 10.<br>5.1.<br>4.2 | prob         | String     | Recommended probability value. |
| 10.<br>5.1.<br>4.3 | question     | String     | Question and knowledge title.  |
| 10.<br>5.1.<br>4.4 | answers      | String     | Answer and knowledge content.  |
| 10.<br>5.1.<br>4.5 | faqId        | String     | FAQ ID or knowledge ID.        |
| 10.<br>5.1.<br>4.6 | faqGroupId   | String     | FAQ group ID.                  |

## Response Message

**Table 6-427** Parameters in the response message body

| Parameter | Data Type | Description                                                                                                                                                                                             |
|-----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| message   | String    | Returned message.                                                                                                                                                                                       |
| retcode   | String    | Result cause code.<br>The value is an integer. <ul style="list-style-type: none"> <li>• 0: success</li> <li>• Others: failure. For details, see <a href="#">6.3.7 Error Code Definition</a>.</li> </ul> |

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1

- Request parameter
 

```
{
 "subscribetype": "1",
 "curuserdn": "88880313",
 "serverid": "20200723164539-001-00625",
 "initialagentid": "184",
 "result": {
 "iscontentenc": "0",
 "confidence": "100",
 "content": "{<nlresult" missing claiming; time=9460 9850>"
 },
 "ccid": "1",
 "createTime": 1595493968513,
 "vdnid": "14",
 "talkertype": "2",
 "talkerid": "88880313",
 "asusercase": "62",
 "curcallid": "1595493961-913",
 "nlpResult": {
 "call_script": [
 {
 "intentcode": "guashi",
 "intentDsp": "Claim missing",
 "status": "finished",
 "childintent": [
 {
 "intentcode": "shoujihaoma",
 "intentDsp": "Your mobile number",
 "status": ""
 },
 {
 "intentcode": "shenfenzheng",
 "intentDsp": "Your ID card number-Copy1",
 "status": ""
 }
]
 }
]
 },
 "call_script_matchedstep": "guashi",
 "Intend": "Claim missing",
}
```

```

"sensitive_word": "",
"recomand_KP": {
 "similarFaqs": [
 {
 "faqGroupName": "Claim missing",
 "prob": "1E-08",
 "question": "Process for handling claim missing",
 "answers": [
 "To claim missing, you need to fill in the information on the counter. To claim missing, you need to fill in the information on the counter. To claim missing, you need to fill in the information on the counter. To claim missing, you need to fill in the information on the counter."
],
 "faqId": 10002,
 "faqGroupId": 10000
 }
],
 "answer": {
 "faqGroupName": "Claim missing",
 "prob": 4.05465109108164,
 "question": "Handling mode of the missing claiming business",
 "answers": [
 "To handle the missing claiming business, you need to fill in the information at the counter."
],
 "faqId": 10001,
 "faqGroupId": 10000
 }
}
}

```

- Response parameter

```

{
 "message": "success",
 "retcode": "0"
}

```

## 6.3.7 Error Code Definition

### 6.3.7.1 Error Codes Returned by the CC-Gateway

| Error Code | Description                                                                    |
|------------|--------------------------------------------------------------------------------|
| 0          | The configuration interface is invoked successfully.                           |
| 104-001    | The recording download function is not enabled.                                |
| 104-002    | The user does not have the recording inspection or playback right.             |
| 104-003    | Failed to delete the recording file because the file name is invalid.          |
| 104-004    | Failed to delete the recording file because no drive mapping is configured.    |
| 104-005    | Failed to delete the recording file because the recording file does not exist. |
| 104-006    | Failed to delete the recording file due to insufficient space.                 |
| 104-007    | The recording file format is not supported.                                    |
| 104-008    | The recording format is not configured.                                        |

| Error Code | Description                                                                                 |
|------------|---------------------------------------------------------------------------------------------|
| 104-009    | The recording file failed to be converted.                                                  |
| 104-010    | The recording node ID is not configured.                                                    |
| 104-011    | Failed to delete the recording file.                                                        |
| 107-000    | Failed to cache sign-in information and sign-in authentication needs to be performed again. |
| 107-001    | An exception occurs when the configuration interface is invoked.                            |
| 107-002    | Input parameter are invalid or mandatory parameters are empty.                              |
| 107-003    | Failed to log in due to incorrect user name or password.                                    |
| 107-004    | Failed to configure the data.                                                               |
| 107-005    | Failed to invoke the configuration interface.                                               |
| 107-007    | Authentication fails before interface configuration.                                        |
| 107-010    | An exception occurs when an agent is added of agents are added in batches.                  |
| 107-011    | An exception occurs when an agent is modified of agents are modified in batches.            |
| 107-012    | Agent query exception.                                                                      |
| 107-013    | Failed to delete the agent.                                                                 |
| 107-014    | Failed to add the role.                                                                     |
| 107-015    | Failed to modify the role.                                                                  |
| 107-016    | Failed to query the role.                                                                   |
| 107-017    | Failed to delete the role.                                                                  |
| 107-018    | Failed to add the called party.                                                             |
| 107-019    | Failed to modify the called party.                                                          |
| 107-020    | Failed to query the called party.                                                           |
| 107-021    | Failed to delete the called party.                                                          |
| 107-022    | Failed to modify the VDN.                                                                   |
| 107-023    | Failed to query the VDN.                                                                    |
| 107-024    | Failed to query the IVR flow.                                                               |
| 107-025    | The IVR flow file name is empty.                                                            |
| 107-033    | Failed to add the system access code.                                                       |
| 107-034    | Failed to modify the system access code.                                                    |

| Error Code           | Description                                                                   |
|----------------------|-------------------------------------------------------------------------------|
| 107-035              | Failed to query the system access code.                                       |
| 107-036              | Failed to delete the system access code.                                      |
| 107-037              | Failed to add the IVR service process.                                        |
| 107-038              | Failed to modify the IVR service process.                                     |
| 107-039              | Failed to query the IVR service process.                                      |
| 107-040              | Failed to delete the IVR service process.                                     |
| 107-041              | Failed to add the system VDN.                                                 |
| 107-042              | Failed to modify the system VDN.                                              |
| 107-043              | Failed to query the system VDN.                                               |
| 107-044              | Failed to delete the system VDN.                                              |
| 107-045              | Failed to delete the system VDN because the VDN ID and VDN name do not match. |
| 107-107 –<br>107-109 | Used by ConfigProxy of the ipccbase.                                          |
| 107-064              | Failed to add UAP multimedia users.                                           |
| 107-065              | Failed to query UAP multimedia users.                                         |
| 107-066              | UAP configuration exception.                                                  |
| 107-067              | Failed to change UAP multimedia user passwords.                               |
| 107-068              | Failed to delete UAP multimedia users.                                        |
| 107-069              | Failed to query the UAP user registration status.                             |
| 107-070              | Failed to deregister UAP users.                                               |
| 107-071              | The UAP user number is left blank.                                            |
| 107-072              | The UAP user number is invalid.                                               |
| 107-073              | The IP address is left blank.                                                 |
| 107-074              | The password is left blank.                                                   |
| 107-075              | The password length is out of range.                                          |
| 107-076              | The password is different from the confirm password                           |
| 107-077              | The IP address type is not supported.                                         |
| 107-078              | The length of the start number is different from that of the end number.      |
| 107-079              | The end number is smaller than the start number.                              |

| Error Code | Description                                                                           |
|------------|---------------------------------------------------------------------------------------|
| 107-080    | The number quantity exceeds the upper limit.                                          |
| 107-081    | Failed to verify the VDN permission, or the user number is not included in the VDN.   |
| 107-082    | Failed to sign in to the UAP, or disconnection from the UAP.                          |
| 107-083    | Failed to send MML commands.                                                          |
| 107-084    | Failed to obtain the product type.                                                    |
| 107-085    | The product type cannot be identified.                                                |
| 107-086    | Call prefixes are not configured for some numbers.                                    |
| 107-087    | The number you want to deregister is not registered.                                  |
| 107-088    | Failed to add the rest reason code.                                                   |
| 107-089    | Failed to modify the rest reason code.                                                |
| 107-090    | Failed to query the rest reason code.                                                 |
| 107-091    | Failed to delete the rest reason code.                                                |
| 107-092    | Either the intelligent recognition or dual-channel recording function can be enabled. |
| 107-093    | The parameter for adding or modifying a skill queue is invalid.                       |
| 107-094    | The value of <b>authFlag</b> is abnormal.                                             |
| 107-095    | The input parameter is invalid and exceeds the value range.                           |

 NOTE

For error codes returned by the CTI platform, see the following sections.

### 6.3.7.2 Common Voice Recognition Result Subscription Interface Error Codes

| Error Code | Description                                                                                 |
|------------|---------------------------------------------------------------------------------------------|
| 0          | The configuration interface is invoked successfully.                                        |
| 107-000    | Failed to cache sign-in information and sign-in authentication needs to be performed again. |
| 107-001    | An exception occurs when the configuration interface is invoked.                            |
| 107-002    | Invalid input parameter. Mandatory parameters are empty.                                    |
| 107-003    | The administrator password is incorrect and the account is locked after multiple retries.   |
| 107-004    | Invalid administrator account.                                                              |

| Error Code | Description                                                               |
|------------|---------------------------------------------------------------------------|
| 107-005    | Failed to invoke the configuration interface.                             |
| 107-007    | Authentication fails before interface configuration.                      |
| 107-026    | Subscription failed.                                                      |
| 107-027    | Subscription registration failed.                                         |
| 107-028    | Subscription request failed.                                              |
| 107-029    | The subscription request times out.                                       |
| 107-030    | Subscription exception.                                                   |
| 107-031    | Failed to deregister the subscription.                                    |
| 107-032    | Subscription handshake failed.                                            |
| 107-049    | Failed to obtain the flow access code for sending the recognition result. |
| 107-050    | Failed to obtain the service token for sending the recognition result.    |
| 107-051    | Invalid service token for sending the recognition result.                 |
| 107-052    | Failed to send the recognition result.                                    |
| 107-053    | Invalid request for sending the recognition result.                       |
| 107-054    | The recognition result sending request times out.                         |
| 107-055    | ODFS session initialization exception.                                    |
| 107-056    | ODFS session interaction exception.                                       |
| 107-057    | ODFS disconnection.                                                       |

### 6.3.7.3 Common Error Codes Returned by the CTI Platform

**Table 6-428** Common error codes returned by the CTI platform

| Error Code | Description                                     |
|------------|-------------------------------------------------|
| 120000     | Interface error.                                |
| 120001     | The maximum number for batch processing is 500. |
| 120002     | The configuration already exists.               |
| 120003     | The configuration does not exist.               |
| 120004     | Reached the upper limit.                        |
| 120005     | Configuration item authentication failed.       |

|        |                                                |
|--------|------------------------------------------------|
| 120006 | The number of threads has reached the maximum. |
|--------|------------------------------------------------|

### 6.3.7.4 VDN Configuration Interface Error Codes Returned by the CTI Platform

Table 6-429 Agent

| Error Code | Description                                                                       |
|------------|-----------------------------------------------------------------------------------|
| 120601     | The username of the default VDN administrator cannot be changed.                  |
| 120602     | The password of the default VDN administrator cannot be changed.                  |
| 120603     | The role of the default VDN administrator cannot be changed.                      |
| 120604     | The agent is the default VDN administrator and cannot be deleted.                 |
| 120605     | The agent is a group leader and cannot be deleted.                                |
| 120606     | The agent is referenced by a flow and cannot be deleted.                          |
| 120607     | The agent is referenced by the default private skill queue and cannot be deleted. |
| 120608     | The agent is referenced by a skill queue and cannot be deleted.                   |
| 120609     | The agent is referenced by another agent and cannot be deleted.                   |
| 120610     | The agent group referenced by the agent does not exist.                           |
| 120611     | The skill queue referenced by the agent does not exist.                           |
| 120612     | The skill group referenced by the agent does not exist.                           |
| 120613     | The agent role referenced by the agent does not exist.                            |
| 120614     | Another agent referenced by the agent does not exist.                             |
| 120615     | The flow referenced by the agent does not exist.                                  |
| 120616     | The called party configuration referenced by the agent does not exist.            |
| 120617     | The disk referenced by the agent does not exist.                                  |
| 120618     | The agent ID cannot be the same as the group leader ID.                           |
| 120619     | The agent ID must be unique.                                                      |
| 120620     | The agent password is shorter than the minimum password length {0}.               |



| Error Code | Description                                                                                                                                                                                                                  |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 120621     | The password must contain at least three types of the following characters: uppercase letters, lowercase letters, digits, and other characters. In addition, the password cannot be the same as the username or its reverse. |
| 120622     | The agent is a group leader and cannot switch to another group.                                                                                                                                                              |
| 120627     | Either the ASR or dual-channel recording function can be enabled.                                                                                                                                                            |

**Table 6-430** Role

| Error Code | Description                                                     |
|------------|-----------------------------------------------------------------|
| 123051     | The agent role name must be unique.                             |
| 123052     | The agent role is referenced by an agent and cannot be deleted. |
| 123053     | The agent role is the default role and cannot be changed.       |

**Table 6-431** Skill Queue

| Error Code | Description                                                                             |
|------------|-----------------------------------------------------------------------------------------|
| 120952     | The media type of the skill queue is email, which is not allowed.                       |
| 120953     | The skill element of the skill queue must be unique.                                    |
| 120954     | The business type referenced by the skill queue does not exist.                         |
| 120955     | Another skill queue referenced by the skill queue does not exist.                       |
| 120956     | The agent referenced by the skill queue does not exist.                                 |
| 120957     | The flow referenced by the skill queue does not exist.                                  |
| 120958     | The called party configuration referenced by the skill queue does not exist.            |
| 120959     | The skill queue is referenced by the default private skill queue and cannot be deleted. |
| 120960     | The skill queue is referenced by another skill queue and cannot be deleted.             |
| 120961     | The skill queue is referenced by a CDN and cannot be deleted.                           |
| 120962     | The skill queue is referenced by a customer group and cannot be deleted.                |
| 120963     | The skill queue is referenced by an agent and cannot be deleted.                        |

| Error Code | Description                                                                                          |
|------------|------------------------------------------------------------------------------------------------------|
| 120964     | The skill queue is referenced by a flow and cannot be deleted.                                       |
| 120965     | The skill queue is referenced by a called party configuration and cannot be deleted.                 |
| 120966     | The disk referenced by the skill queue does not exist.                                               |
| 120967     | No email address or mailbox user is configured for the skill queue media of the fax call type.       |
| 120968     | The minimum call completion rate of the skill queue cannot exceed the expected call completion rate. |
| 120969     | The skill queue is referenced by an ACDDN and cannot be deleted.                                     |
| 120970     | The skill queue is referenced by a shared device and cannot be deleted.                              |
| 120971     | The skill queue is referenced by a skill group and cannot be deleted.                                |
| 120972     | The sub-media type referenced by the skill queue does not exist.                                     |
| 123001     | The name of the skill element must be unique.                                                        |
| 123002     | The skill element does not exist.                                                                    |
| 123003     | The skill element is referenced by a skill queue and cannot be deleted.                              |
| 123004     | The skill element is referenced by a skill queue and cannot be renamed.                              |
| 120901     | The description of the business type must be unique.                                                 |
| 120902     | The business type is referenced by a flow and cannot be deleted.                                     |
| 120903     | The business type is referenced by a skill queue and cannot be deleted.                              |
| 120904     | The business type is referenced by the standard working time and cannot be deleted.                  |
| 120905     | The disk referenced by the business type does not exist.                                             |

**Table 6-432** Called Party Configuration

| Error Code | Description                                                                          |
|------------|--------------------------------------------------------------------------------------|
| 120651     | The system access code contained in the called party configuration is not allocated. |

| Error Code | Description                                                                                                                      |
|------------|----------------------------------------------------------------------------------------------------------------------------------|
| 120652     | The combination of the system access code and subsequent access code contained in the called party configuration must be unique. |
| 120655     | The access code referenced by the called party configuration does not exist.                                                     |
| 120656     | The skill queue referenced by the called party configuration does not exist.                                                     |
| 120658     | The media type of the access code of an IVR device can only be click-to-dial (CTD), callback request, or common call.            |
| 120659     | The routing script referenced by the called party configuration does not exist.                                                  |
| 120660     | The system access code contained in the called party configuration does not match the media type of the called party device.     |
| 120661     | The called party configuration is referenced by the default private skill queue and cannot be deleted.                           |
| 120662     | The called party configuration is referenced by a skill queue and cannot be deleted.                                             |
| 120663     | The called party configuration is referenced by an agent and cannot be deleted.                                                  |

**Table 6-433** IVR

| Error Code | Description                                                 |
|------------|-------------------------------------------------------------|
| 120216     | The IVR and CCIVR cannot be changed to each other.          |
| 120217     | One IP address can be configured for a maximum of 20 IVRs.  |
| 120219     | The IVR is referenced by a VDN and cannot be deleted.       |
| 120220     | The IVR is referenced by a VDN group and cannot be deleted. |
| 120221     | The parameter group referenced by the IVR does not exist.   |
| 120222     | The CTI node referenced by the IVR does not exist.          |
| 120763     | The access code of the flow is duplicate.                   |
| 120764     | The flow description is duplicate.                          |

### 6.3.7.5 System Configuration Interface Error Codes Returned by the CTI Platform

**Table 6-434** VDN

| Error Code | Description                                                                                                                                      |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 120501     | The number of agents who concurrently sign in exceeds the maximum.                                                                               |
| 120502     | The number of concurrent voice calls exceeds the maximum.                                                                                        |
| 120503     | The number of concurrent web calls exceeds the maximum.                                                                                          |
| 120504     | The number of concurrent outbound calls exceeds the maximum.                                                                                     |
| 120505     | The number of CP conference participants exceeds the maximum.                                                                                    |
| 120506     | The number of video agents who concurrently sign in exceeds the maximum.                                                                         |
| 120507     | The calling number cannot have any inclusion relationship.                                                                                       |
| 120508     | The calling number prefix cannot be empty.                                                                                                       |
| 120509     | By default, the calling number starts with the restricted prefix.                                                                                |
| 120510     | The VDN name must be unique.                                                                                                                     |
| 120511     | The VDN name cannot be the same as the VDN group name.                                                                                           |
| 120512     | The agent ID range of the VDN cannot be the same as that of another VDN.                                                                         |
| 120513     | The OBS referenced by the VDN does not exist.                                                                                                    |
| 120514     | The distributed resource referenced by the VDN does not exist.                                                                                   |
| 120515     | The data source referenced by the VDN does not exist.                                                                                            |
| 120516     | The IVR referenced by the VDN does not exist.                                                                                                    |
| 120517     | If no recording system is specified in the basic RMS information configuration, only Huawei ACD recording can be configured for the current VDN. |
| 120519     | The distributed node used for VDN forcible self-recording is not allocated to the VDN.                                                           |
| 120520     | The system access code referenced by the VDN does not exist.                                                                                     |

| Error Code | Description                                                                                                                                                               |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 120521     | The VDN does not support the email and fax call types, but system access codes of the email or fax call type are allocated to the VDN.                                    |
| 120522     | The VDN does not support the web call type, but system access codes of the web call type are allocated to the VDN.                                                        |
| 120523     | The system access code allocated to the VDN has been allocated to another VDN.                                                                                            |
| 120524     | The system access code allocated to the VDN has been allocated to a VDN group.                                                                                            |
| 120525     | The IVR data source is not any VDN or third-party data source allocated to the VDN.                                                                                       |
| 120526     | The default IVR data source is not any VDN or third-party data source allocated to the VDN.                                                                               |
| 120527     | The VDN is referenced by the local CCP client and cannot be deleted.                                                                                                      |
| 120528     | After agent hang-up transfer is enabled, a prompt tone needs to be played after a call is transferred back to an agent. Therefore, the prompt tone parameter must be set. |
| 120529     | The VDN administrator ID must be within the configured agent ID range.                                                                                                    |
| 120530     | The drive letter referenced by the VDN does not exist.                                                                                                                    |
| 120531     | The access code in the basic VDN information is not allocated to the VDN.                                                                                                 |
| 120533     | The agent ID range of the VDN must be unique.                                                                                                                             |
| 120534     | The CCS resource group referenced by the VDN does not exist.                                                                                                              |
| 120535     | The agent ID range is in use and cannot be canceled.                                                                                                                      |
| 120536     | The length of the available VDN cannot be 0.                                                                                                                              |
| 120537     | The available VDNs cannot contain transferred-to VDNs.                                                                                                                    |
| 120538     | The number of transferable agent IDs is insufficient.                                                                                                                     |
| 120539     | Invalid multimedia license type.                                                                                                                                          |
| 120540     | The multimedia license value is out of range.                                                                                                                             |
| 120541     | The maximum number of concurrent calls that can be handled by an agent ranges from 1 to 60.                                                                               |
| 120624     | The new VDN interconnection password is the same as the old password.                                                                                                     |

**Table 6-435** Access code

| Error Code | Description                                                                     |
|------------|---------------------------------------------------------------------------------|
| 120201     | The system access code must be unique.                                          |
| 120202     | The system access code is the same as a special routing access code.            |
| 120203     | The system access code is the same as the network call access code of the NIRC. |
| 120204     | The system access code is referenced by a VDN and cannot be deleted.            |
| 120205     | The system access code is referenced by a VDN group and cannot be deleted.      |

### 6.3.7.6 Error Code Returned by UAP

**Table 6-436** Error code returned by UAP

| Error Code | Description                                                     |
|------------|-----------------------------------------------------------------|
| 500-100    | The format of the softphone number is incorrect.                |
| 500-101    | The signaling IP address or password is invalid.                |
| 500-102    | The signaling IP address does not exist                         |
| 500-103    | The password does not meet complexity requirements.             |
| 500-104    | The subscriber already exists.                                  |
| 500-105    | An internal error occurs when the UAP executes the MML command. |
| 500-106    | The subscriber number is not created.                           |
| 500-107    | The subscriber number is not found.                             |

### 6.3.8 Role Permission Bit Description

The agent role permission bits are described as follows:

- 1: busy showing or idle showing
- 2: muting or unmuting
- 3: call holding or call holding cancellation
- 4: connection holding

- 5: common outbound call
- 6: internal call
- 7: internal transfer
- 8: transferred call answering
- 9: three-party call
- 10: transfer-out
- 11: manual-to-automatic
- 12: no answer
- 13: call listening or break in
- 14: call interception
- 15: forcible sign-out, busy showing, or idle showing
- 16: QC inspection recording or voice playback
- 17: QC inspection monitoring
- 18: appraisal administrator
- 19: common appraiser
- 20: alarm console
- 21: report processing personnel
- 22: discarded
- 23: monitoring console
- 24: configuration administrator
- 25: report administrator
- 26: national outbound toll call
- 27: international outbound toll call
- 28: outbound call initiated from the local call center access code
- 29: full-screen QC inspection
- 30: call pick-up by agents in a same group
- 31: discarded
- 32: configuration agent
- 33: configuration skill
- 34: input of the calling number of an outbound call not allowed
- 35: configuration audit

## 6.4 App Personal Settings

### 6.4.1 Creating App Personal Settings (create)

#### Scenario

This interface provided by the AICC is invoked to create app personal settings for the AppCube.

## Method

POST

## URI

https://{Domain name}/apiaccess/CC-Management/v1/openapp/agentsettings/create, where, *Domain name* can be **service.besclouds.com**.

## Request Description

**Table 6-437** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                      |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | X-APP-Key     | String | Yes              | App key, which is the user ID.                                                                                                                                                   |
| 2   | Authorization | String | No               | Authentication field. The format is <b>Bearer</b> (space){Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |

**Table 6-438** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                           |
|-----|-----------|--------|------------------|-------------------------------------------------------------------------------------------------------|
| 1   | callType  | String | No               | Call type.<br><b>0</b> : direct call<br><b>1</b> : bidirectional call<br><b>2</b> : pass-through call |
| 2   | userId    | String | Yes              | User ID.<br>Value of <b>USER_ID</b> in the <b>t_aicc_pub_appcube_user</b> table.                      |



| No. | Parameter            | Type     | Mandatory or Not | Description                                                                                                                                                              |
|-----|----------------------|----------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | callerPresent        | String[] | No               | Display number of the called party.<br>A maximum of five numbers are displayed. Use commas (,) to separate multiple numbers.<br>Length limit of each number: string (15) |
| 4   | callNumber           | String[] | No               | Agent softphone number.<br>A maximum of five numbers are displayed. Use commas (,) to separate multiple numbers.<br>Length limit of each number: string (15)             |
| 5   | callNumberDefault    | String   | No               | Default softphone number bound to the agent.<br>Length limit: string (15)                                                                                                |
| 6   | callerPresentDefault | String   | No               | Default display number of the called party.<br>Length limit: string (15)                                                                                                 |

## Response Description

- Status code: 200

**Table 6-439** Response body parameters

| No. | Parameter | Type   | Mandatory or Not | Description     |
|-----|-----------|--------|------------------|-----------------|
| 1   | id        | String | No               | Primary key ID. |

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                     |
|-----|------------|--------|------------------|-------------------------------------------------------------------------------------------------|
| 2   | returnCode | String | Yes              | <ul style="list-style-type: none"> <li>● 0: success</li> <li>● Other values: failure</li> </ul> |
| 3   | returnDesc | String | No               | Response result description.                                                                    |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

Request header:

```
x-app-key:9*****3
Authorization:Bearer e*****e
Content-Type:application/json
```

Request parameters:

```
{
 "callType": "1",
 "userId": "1660270845627002401",
 "callerPresent": ["12323", "232232", "12323", "12323"],
 "callNumber": ["12323", "232343", "233", "232343"],
 "callNumberDefault": "23232323",
 "callerPresentDefault": "1212121212"
}
```

Response header:

```
{
 "connection": "keep-alive",
 "content-type": "application/json;charset=UTF-8"
}
```

Response parameters:

```
{
 "returnCode": "0",
 "returnDesc": "The AgentSettings created successfully.",
 "id": "1307145259662215169"
}
```

## 6.4.2 Updating App Personal Settings (update)

### Scenario

This interface provided by the AICC is invoked to update app personal settings for the AppCube.

### Method

POST

### URI

https://{Domain name}/apiaccess/CC-Management/v1/openapp/agentsettings/update, where, {Domain name} can be **service.besclouds.com**.

### Request Description

**Table 6-440** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                      |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | X-APP-Key     | String | Yes              | App key, which is the user ID.                                                                                                                                                   |
| 2   | Authorization | String | No               | Authentication field. The format is <b>Bearer</b> (space){Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |

**Table 6-441** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                |
|-----|-----------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------|
| 1   | id        | String | Yes              | Primary key ID. Value of the response body parameter ID in <a href="#">6.4.1 Creating App Personal Settings (create)</a> . |

| No. | Parameter            | Type     | Mandatory or Not | Description                                                                                                                                                              |
|-----|----------------------|----------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | callType             | String   | No               | Call type.<br><b>0</b> : direct call<br><b>1</b> : bidirectional call<br><b>2</b> : pass-through call                                                                    |
| 3   | userId               | String   | Yes              | User ID.<br>Value of <b>USER_ID</b> in the <b>t_aicc_pub_appcube_user</b> table.                                                                                         |
| 4   | callerPresent        | String[] | No               | Display number of the called party.<br>A maximum of five numbers are displayed. Use commas (,) to separate multiple numbers.<br>Length limit of each number: string (15) |
| 5   | callNumber           | String[] | No               | Agent softphone number.<br>A maximum of five numbers are displayed. Use commas (,) to separate multiple numbers.<br>Length limit of each number: string (15)             |
| 6   | callNumberDefault    | String   | No               | Default softphone number bound to the agent.<br>Length limit: string (15)                                                                                                |
| 7   | callerPresentDefault | String   | No               | Default display number of the called party.<br>Length limit: string (15)                                                                                                 |

## Response Description

- **Status code: 200**

**Table 6-442** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                     |
|-----|------------|--------|------------------|-------------------------------------------------------------------------------------------------|
| 1   | id         | String | No               | Primary key ID.                                                                                 |
| 2   | returnCode | String | Yes              | <ul style="list-style-type: none"> <li>• 0: success</li> <li>• Other values: failure</li> </ul> |
| 3   | returnDesc | String | No               | Response result description.                                                                    |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

Request header:

```
x-app-key:9*****3
Authorization:Bearer e*****e
Content-Type:application/json
```

Request parameters:

```
{
 "id":"1307145259662215169",
 "callType":"1",
 "userId":"1660270845627002401",
 "callerPresent":["12323"],
 "callNumber":["12323","232343","233","239343"],
 "callNumberDefault":"23232323",
 "callerPresentDefault":"1212121212"
}
```

Response header:

```
{
 "connection": "keep-alive",
```

```
"content-type": "application/json;charset=UTF-8"
}
```

Response parameters:

```
{
 "returnCode": "0",
 "returnDesc": "update success.",
 "id": "1307145259662215169"
}
```

## 6.4.3 Querying App Personal Settings (query)

### Scenario

This interface provided by the AICC is invoked to query app personal settings for the AppCube.

### Method

POST

### URI

<https://{Domain name}/apiaccess/CC-Management/v1/openapp/agentsettings/query>, where, *{Domain name}* can be **service.besclouds.com**.

### Request Description

**Table 6-443** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                               |
|-----|---------------|--------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | X-APP-Key     | String | Yes              | App key, which is the user ID.                                                                                                                                                            |
| 2   | Authorization | String | No               | Authentication field. The format is <b>Bearer</b> (space) <i>{Value of <b>AccessToken</b> returned by the <b>tokenByAkSk</b> interface}</i> . (A space is required after <b>Bearer</b> .) |

**Table 6-444** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                      |
|-----|-----------|--------|------------------|----------------------------------------------------------------------------------|
| 1   | userId    | String | Yes              | User ID.<br>Value of <b>USER_ID</b> in the <b>t_aicc_pub_appcube_user</b> table. |

## Response Description

- **Status code: 200**

**Table 6-445** Response body parameters

| No. | Parameter     | Type     | Mandatory or Not | Description                                                                                                                                                              |
|-----|---------------|----------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | id            | String   | No               | Primary key ID.                                                                                                                                                          |
| 2   | callType      | String   | No               | Call type.<br><b>0</b> : direct call<br><b>1</b> : bidirectional call<br><b>2</b> : pass-through call                                                                    |
| 3   | callerPresent | String[] | No               | Display number of the called party.<br>A maximum of five numbers are displayed. Use commas (,) to separate multiple numbers.<br>Length limit of each number: string (15) |
| 4   | callNumber    | String[] | No               | Agent softphone number.<br>A maximum of five numbers are displayed. Use commas (,) to separate multiple numbers.<br>Length limit of each number: string (15)             |

| No. | Parameter            | Type   | Mandatory or Not | Description                                                                                            |
|-----|----------------------|--------|------------------|--------------------------------------------------------------------------------------------------------|
| 5   | userId               | String | No               | User ID<br>Value of <b>SUM_USER_ID</b> in the <b>t_aicc_pub_appcube_user</b> table.                    |
| 6   | callNumberDefault    | String | No               | Default softphone number bound to the agent.<br>Length limit: string (15)                              |
| 7   | callerPresentDefault | String | No               | Default display number of the called party.<br>Length limit: string (15)                               |
| 8   | agentName            | String | No               | Business account bound to an agent.                                                                    |
| 9   | returnCode           | String | Yes              | <ul style="list-style-type: none"> <li>● <b>0</b>: success</li> <li>● Other values: failure</li> </ul> |
| 10  | returnDesc           | String | No               | Response result description.                                                                           |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

Request header:



```
x-app-key:9*****3
Authorization:Bearer e*****e
Content-Type:application/json
```

Request parameters:

```
{
 "userId": "1660270845627002401"
}
```

Response header:

```
{
 "connection": "keep-alive",
 "content-type": "application/json;charset=UTF-8"
}
```

Response parameters:

```
{
 "returnCode": "0",
 "callNumber": ["12323", "232343", "233", "239343"],
 "callerPresent": ["12323"],
 "callNumberDefault": "23232323",
 "agentName": "y111",
 "id": "1307145259662215169",
 "userId": "1660270845627002401",
 "callerPresentDefault": "1212121212",
 "returnDesc": "query success",
 "callType": "1"
}
```

## 6.4.4 Deleting App Personal Settings (delete)

### Scenario

This interface provided by the AICC is invoked to delete app personal settings for the AppCube.

### Method

POST

### URI

<https://{Domain name}/apiaccess/CC-Management/v1/openapp/agentsettings/delete>, where, *{Domain name}* can be **service.besclouds.com**.

### Request Description

**Table 6-446** Request header parameters

| No. | Parameter | Type   | Mandato ry or Not | Description                    |
|-----|-----------|--------|-------------------|--------------------------------|
| 1   | X-APP-Key | String | Yes               | App key, which is the user ID. |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                      |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Authorization | String | No               | Authentication field. The format is <b>Bearer</b> (space){Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |

**Table 6-447** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                   |
|-----|-----------|--------|------------------|-------------------------------------------------------------------------------|
| 1   | userId    | String | Yes              | User ID. Value of <b>USER_ID</b> in the <b>t_aicc_pub_appcube_user</b> table. |

## Response Description

- **Status code: 200**

**Table 6-448** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                            |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------|
| 1   | returnCode | String | Yes              | <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> |
| 2   | returnDesc | String | No               | Response result description.                                                                           |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**

Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

Request header:

```
x-app-key:9*****3
Authorization:Bearer e*****e
Content-Type:application/json
```

Request parameters:

```
{
 "userId": "1660270845627002401"
}
```

Response header:

```
{
 "connection": "keep-alive",
 "content-type": "application/json;charset=UTF-8"
}
```

Response parameters:

```
{
 "returnCode": "0",
 "returnDesc": "The AgentSettings delete successfully."
}
```

## 6.5 Appendix

### 6.5.1 Events

#### 6.5.1.1 Events Related to Agent State

##### 6.5.1.1.1 Busy

- Identifier:  
AgentState\_Busy
- Function:  
This event indicates that an agent is making a call.
- Additional information:  
None
- Example:  

```
{"message":"","retcode":"0","event":{"eventType":"AgentState_Busy","workNo":"49997","content":null}}
```

### 6.5.1.1.2 Working

- Identifier:  
AgentState\_Work
- Function:  
This event indicates that an agent enters the Working state.
- Additional information:  
None
- Example:  

```
{"message":"","retcode":"0","event":{"eventType":"AgentState_Work",
"workNo":"49997","content":null}}
```

### 6.5.1.1.3 Idle

- Identifier:  
AgentState\_Ready
- Function:  
This event indicates that an agent becomes idle.
- Additional information:  
None
- Example:  

```
{"message":"","retcode":"0","event":{"eventType":"AgentState_Ready",
"workNo":"49997","content":null}}
```

### 6.5.1.1.4 Entering the Busy State Successfully

- Identifier  
AgentState\_SetNotReady\_Success
- Function  
This event indicates that an agent enters the busy state successfully.
- Additional information  
**reason** indicates the busy reason code transferred when the request for entering the busy state is sent. If there is no busy reason code, the value **0** is returned. The value **7** indicates that the agent releases the call.
- Example  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentState_SetNotReady_Success","workNo":"49997","content":
{"reason":"200"}}}
```

### 6.5.1.1.5 Quitting the Busy State Successfully

- Identifier:  
AgentState\_CancelNotReady\_Success
- Function:  
This event indicates that an agent quits the Busy state successfully.
- Additional information:

None

- Example:  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentState_CancelNotReady_Success","workNo":"49997",
"content":null}}
```

#### 6.5.1.1.6 Requesting Rest Successfully

- Identifier:  
AgentState\_SetRest\_Success
- Function:  
This event indicates that an agent successfully requests a rest.
- Additional information:  
None
- Example:  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentState_SetRest_Success","workNo":"49999","content":
{"reason":"200"}}}
```

#### 6.5.1.1.7 Quitting the Rest State Successfully

- Identifier:  
AgentState\_CancelRest\_Success
- Function:  
This event indicates that an agent quits the Rest state successfully.
- Additional information:  
None
- Example:  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentState_CancelRest_Success","workNo":"49999",
"content":null}}
```

#### 6.5.1.1.8 Rest Timeout Reminder

- Identifier:  
AgentState\_Rest\_Timeout
- Function:  
This event indicates that the system notifies the agent that rest times out.  
(This event does not indicate that the agent exits theReststate.)
- Additional information:  
None
- Example:  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentState_Rest_Timeout","workNo":"49999","content":null}}
```

### 6.5.1.1.9 Turning to the Working State

- Identifier:  
AgentState\_SetWork\_Success
- Function:  
This event indicates that an agent successfully requests to turn to the Working state.
- Additional information:  
None
- Example:  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentState_SetWork_Success","workNo":"49999",
"content":null}}
```

### 6.5.1.1.10 Quitting the Working State

- Identifier:  
AgentState\_CancelWork\_Success
- Function:  
This event indicates that an agent successfully requests to quit the Working state.
- Additional information:  
None
- Example:  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentState_CancelWork_Success","workNo":"49999",
"content":null}}
```

### 6.5.1.1.11 Receiving Notes

- Identifier:  
AgentOther\_Note
- Function:  
This event indicates that an agent receives a note.
- Additional information:  
None
- Example:  

```
{"message":"","retcode":"0","event":{"eventType":
"AgentOther_Note","content": null,"workNo": "31001"}}
```

## 6.5.1.2 Audio and Video Call Event

### 6.5.1.2.1 Entering the Talking State

- Identifier  
AgentEvent\_Talking

- Function  
This event indicates that an agent enters the **Talking** state.
- Additional information  
**called**: called number.  
**caller**: calling number.  
**callid**: call ID.  
**type**: media type of the call, either assistant call or main call.  
**feature**: call type. For details, see [6.5.4 Call Type](#).  
**mediaAbility**: media capability, where **1** indicates voice, **3** indicates voice and video, **5** indicates text, and **6** indicates H5 video.
- Example  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentEvent_Talking","workNo":"49999","content":
{"caller":"10086","callid":"1456401416-3","called":"70092","feature":"7","type":
:"main","mediaAbility":"1"}}}
```

### 6.5.1.2.2 Customer Ringing

- Identifier:  
AgentEvent\_Customer\_Alerting
- Function:  
This event indicates that the phone of the customer associated with the agent is ringing.
- Additional information:  
**otherPhone**: character string, either the phone number of the party whose phone is ringing or the work ID of the agent whose phone is ringing.  
**callid**: call ID  
**type**: media type of the call, either assistant call or main call
- Triggering condition  
The other side of the call is ringing.
- Example:  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentEvent_Customer_Alerting","workNo":"49999","content":
{"callid":"1456401416-3","otherPhoneWorkno":"","otherPhone":"70092",
"type":"main"}}}
```

### 6.5.1.2.3 Holding Success

- Identifier  
AgentEvent\_Hold
- Function  
This interface indicates that the current agent is in the hold state.
- Additional information  
**content**: ID of the call in text format.
- Example:

```
{"message":"","retcode":"0","event":
{"eventType":"AgentEvent_Hold","workNo":"49999","content":"1456402370-7"
}}
```

#### 6.5.1.2.4 Entering Three-Party Conversation Successfully

- Identifier:  
AgentEvent\_Conference
- Function:  
This event indicates that the agent enters three-party conversation successfully.
- Additional information:  
**partner:** character string, which is the phone numbers of other parties of the call, such as **7101,7102**  
**callid:** call ID
- Example:  

```
{"message":"","retcode":"0","event":{"eventType":"AgentEvent_Conference",
"workNo":"49999","content":{"callid":"1456403570-17","partner":"49997,
70093"}}
```

#### 6.5.1.2.5 Making an Outgoing Call Unsuccessfully

- Identifier:  
AgentEvent\_Call\_Out\_Fail
- Function:  
This event indicates that the agent's outgoing call fails. This may occur when the called number is incorrect.
- Additional information:  
Character string: call ID
- Triggering condition  
The outgoing call initiated by an agent fails.
- Example:  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentEvent_Call_Out_Fail","workNo":"49999",
"content":"1456403661-19"}}
```

#### 6.5.1.2.6 Outbound Call Failure Cause Detected

- Identifier  
OUTBOUND\_DETECT\_EVENT
- Function  
The agent receives the outbound call failure cause code and failure cause.
- Additional information  
**callid:** call ID.  
**detect:** outbound call failure cause code. The accuracy depends on the cause code in the signaling returned by the core network or gateway. For details, see [Table 6-451](#).



**desc:** description of the outbound call failure cause.

- Example  

```
{"message":"success","event":
{"eventType":"OUTBOUND_DETECT_EVENT","workNo":"464","content":
{"callId":"1589167025-134428","detect":1552,"desc":"The calling number is
not allowed to make a call."},"retcode":"0"}
```

#### 6.5.1.2.7 Making an Internal Call Unsuccessfully

- Identifier:  
AgentEvent\_Inside\_Call\_Fail
- Function:  
This event indicates that the internal call initiated by the agent fails.
- Additional information:  
Character string: call ID
- Triggering condition  
The internal call initiated by an agent fails.
- Example:  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentEvent_Inside_Call_Fail","workNo":"49999",
"content":"1456403699-21"}}
```

#### 6.5.1.2.8 No Answer from an Agent for a Long Time

- Identifier:  
AgentEvent\_No\_Answer
- Function:  
This event indicates that the agent does not answer a call for a long time and the system notifies the agent that the call is hung up.
- Additional information:  
Character string: call ID
- Triggering condition  
The system notifies the agent that a call that must be answered manually is hung up.
- Example:  

```
{"message":"","retcode":"0","event":{"eventType":"AgentEvent_No_Answer",
"workNo":"49999","content":"1456403745-23"}}
```

#### 6.5.1.2.9 Agent Exiting a Call

- Identifier:  
AgentEvent\_Call\_Release
- Function:  
This event indicates that an agent exits a call with the specified callId.
- Additional information:  
Character string: call ID

- Example:  

```
{"message":"","retcode":"0","event":{"eventType":"AgentEvent_Call_Release",
"workNo":"49999","content":"1456403549-15"}}
```

#### 6.5.1.2.10 User Exiting a Call

- Identifier:  
AgentEvent\_Customer\_Release
- Function:  
This event indicates that a user exits a call with the specified callId.
- Additional information:  
**callid**: call ID  
**number**: phone number of the party who releases the call
- Example:  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentEvent_Customer_Release","workNo":"49999","content":
{"callid":"1456404171-43","number":"70093"}}
```

#### 6.5.1.2.11 Automatically Answering a Call

- Identifier  
AgentEvent\_Auto\_Answer
- Function  
This event indicates that an agent automatically answers a call.
- Additional information  
**caller**: calling number in text format.  
**called**: called number in text format.  
**callid**: ID of the call in text format.  
**type**: media type of the call, either assistant call or main call.  
**feature**: call type, where **0** indicates a common inbound call, **7** indicates a common outbound call, and **43** indicates a predicted outbound call. **feature** is associated with **callid** and does not change with actions such as call transfer.  
**mediaAbility**: media capability, where **1** indicates voice, **2** indicates video, **3** indicates voice and video, **5** indicates text, and **6** indicates H5 video.
- Example  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentEvent_Auto_Answer","workNo":"49999","content":
{"caller":"70093","transfer":"no","callid":"1456404171-43","transfrom":"","calle
d":"6048","type":"main","mediaAbility":"1","feature":"0"}}
```

#### 6.5.1.2.12 Notifying the Agent of an Inbound Call

- Identifier:  
AgentEvent\_Ringing
- Function:  
This event indicates that the agent is asked to manually answer a call.

- Additional information:
  - caller:** calling number in text format. If the number belongs to an agent, the number starts with **a** or **A**.
  - called:** called number in text format. If the number belongs to an agent, the number starts with **a** or **A**.
  - callid:** ID of the call in text format.
  - type:** media type of the call, either assistant call or main call.
  - feature:** call type, where **0** indicates a common inbound call and **7** indicates a common outboundcall.
  - mediaAbility:** media capability, where **1** indicates voice, **2** indicates video, **3** indicates voice and video, **5** indicates text, and **6** indicates H5 video.
- Example:

```
{"message":"","retcode":"0","event":
{"eventType":"AgentEvent_Ringing","workNo":"49999","content":
{"caller":"49997","transfer":"no","callid":"1456404043-37","transfrom":"","called":"49999","type":"main","mediaAbility":"1","feature":"0"}}
```

#### 6.5.1.2.13 Connection Failure

- Identifier  
AgentEvent\_Connect\_Fail
- Function  
This interface indicates that the agent fails to be connected.
- Additional information  
**content:** ID of the call in text format.
- Example:

```
{"message":"","retcode":"0","event":
{"eventType":"AgentEvent_Connect_Fail","workNo":"49999","content":"145640
4043-38"}}
```

#### 6.5.1.2.14 Consultation Failure

- Identifier  
AgentEvent\_Consult\_Fail
- Function  
The agent fails to seek internal help.
- Additional information  
**content:** ID of the call in text format.
- Example  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentEvent_Consult_Fail","workNo":"49999","content":"145640
4043-39"}}
```

#### 6.5.1.2.15 Notifying the Transfer Success Result

- Identifier  
AgentEvent\_SuccTransResult

- Function  
In the audio/video call or text transfer scenario, when an agent successfully invokes the transfer interface to transfer a call, the agent receives this event, indicating whether the call is successfully transferred.
- Additional information  
**callId** indicates the unique ID of the call.  
**result** indicates the success transfer result. The value **0** indicates success and other values indicate failure.
- Example  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentEvent_SuccTransResult","workNo":"20011","content":
{"result":1,"callId":"1477467960-16777237"}}}
```

#### 6.5.1.2.16 Returning from IVR

- Identifier  
AgentEvent\_ReturnFromIvr
- Function  
In the audio and video call transfer scenario, an agent invokes the transfer interface, selects the IVR as a transfer device, and sets the transfer mode to the hang-up transfer mode. When the call is transferred from the IVR to the agent, the agent receives the event indicating that the call is successfully transferred from the IVR.
- Additional information  
**content**: ID of the call in text format.
- Example  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentEvent_ReturnFromIvr","workNo":"108","content":"152957
1145-1187"}}}
```

#### 6.5.1.2.17 Switching Between Audio and Video Calls

- Identifier  
AgentEvent\_MediaSwitth
- Function  
In the scenario where an audio call is switched to a video call, the agent invokes the audio and video switchover interface and sets the media type to video. After the interface is successfully invoked, the agent receives the event that an audio call is switched to a video call. If **reason** is set to **0**, the IVR returns an event successfully.
- Additional information  
**reason** indicates the switchover reason code. The value **0** indicates success, and other values indicate failure.  
**caller** indicates the calling number.  
**called** indicates the called number.  
**callId** indicates the unique ID of the call.  
**mediaType** indicates the media type.

- Example

```
{"eventType":"AgentEvent_MediaSwitH","workNo":"111","content":
{"callid":"1603286369-16773","reason":0,"caller":"","mediaType":3,"called":"88
022","jsonKey":["callid","reason","caller","mediaType","called"],"jsonKey":
["eventType","workNo","content"]}
```

### 6.5.1.2.18 Media Capability Check

- Identifier:  
AgentEvent\_UserMediaAbility
- Function:  
In the scenario where an agent calls a user, when the agent calls the user, the agent receives this event and determines whether the user's mobile phone supports the video capability.
- Additional information:  
**userAbility**: call capability, where **1** indicates that the mobile phone supports audio, and **3** indicates that the mobile phone supports audio and video.  
**callId**: unique ID of the call.
- Example:

```
{"eventType":"AgentEvent_UserMediaAbility","workNo":"20011","content":
{"userAbility":"1","callid":"1456403745-23"}}
```

#### NOTE

1. For the CTI, choose **web configuration console** > **system configuration** > **software parameters** and set **P10** to **1**.
2. For the UAP, set bit 14 of software parameter 955 to **0**.

### 6.5.1.2.19 Inbound Call Notification

- Identifier  
AgentEvent\_Incoming\_CallInfo
- Function  
This event notifies an agent of an inbound call.
- Additional information  
**callId**: unique call ID.  
**skillName**: skill queue name.  
**skillId**: skill queue ID.  
**caller**: calling number.  
**called**: called number.  
**lastReleaseAgentId**: ID of the agent who released the call last time.  
**mediaType**: media type.  
**releaseAndReQueueCount**: number of times the call is released by an agent and rerouted.  
**releaseAndReQueueCallFlag**: whether the call is rerouted after being released by an agent. The options are **0** (no) and **1** (yes).
- Example

```
{"eventType": "AgentEvent_Incoming_CallInfo", "workNo": "56020", "content":
{"callId": "1669951418-12166", "skillName": "defaultVideoSkill", "skillId": 1,
"caller": "88880165", "called": "310300", "lastReleaseAgentId":
65535, "mediaType": 19, "releaseAndReQueueCount":
0, "releaseAndReQueueCallFlag": 0}}
```

### 6.5.1.3 Events Related to Outgoing Call

#### 6.5.1.3.1 Previewed Outbound Call Released

- Identifier  
AgentEvent\_Release\_Preview
- Function  
This event indicates that the previewed call is released.
- Additional information  
None
- Example  

```
{"message": "", "retcode": "0", "event":
{"eventType": "AgentEvent_Release_Preview", "workNo": "49999", "content": null}
}
```

#### 6.5.1.3.2 Agent Preoccupied

- Identifier:  
AgentEvent\_Agent\_Occupied
- Function:  
This event indicates that the agent is preoccupied.
- Additional information:  
None
- Example:  

```
{"message": "", "retcode": "0", "event":
{"eventType": "AgentEvent_Agent_Occupied", "workNo": "49999",
"content": null}}
```

#### 6.5.1.3.3 Previewed Outgoing Call Initiated

- Identifier:  
AgentEvent\_Preview
- Function:  
This event indicates that the agent receives a previewed outgoing call initiating event.
- Additional information:  
**controlid**: control block ID of the previewed outgoing call  
**dialeddigits**: called number of the previewed outgoing call
- Example:  

```
{"message": "", "retcode": "0", "event": {"eventType": "AgentEvent_Preview",
"workNo": "49999", "content": {"controlid": "1456404043", "dialeddigits": ""}}}
```

#### 6.5.1.3.4 Previewed Outbound Call

- Identifier  
AgentEvent\_Preview\_CallOut
- Function  
The agent receives a previewed outbound call. The length of the previewed outbound number is 24 digits.
- Additional information  
**controlid**: control block ID of the previewed outbound call.  
**dialeddigits**: called number of the previewed outbound call.  
**callData**: call-associated data. The maximum length is 16 KB.
- Example

```
{
 "message": "",
 "retcode": "0",
 "event": {
 "eventType": "AgentEvent_Preview_CallOut",
 "workNo": "49999",
 "content": {
 "controlid": "0",
 "dialeddigits": "1456404043",
 "callData": "xxxxxx"
 }
 }
}
```

#### 6.5.1.3.5 New Previewed Outbound Call

- Identifier  
AgentEvent\_Preview\_CallOut\_Ex
- Function  
The agent receives a new previewed outbound call. The length of the previewed outbound number is 120.
- Additional information  
**controlid**: control block ID of the previewed outbound call.  
**dialeddigits**: called number of the previewed outbound call.  
**callData**: call-associated data. The maximum length is 16 KB.
- Example

```
{
 "message": "",
 "retcode": "0",
 "event": {
 "eventType": "AgentEvent_Preview_CallOut_Ex",
```

```
"workNo": "49999",
content: {
 "dialeddigits": "100,101,103,105",
 "controlid": "1536",
 "callData": "4"
}
}
}
```

## 6.5.1.4 Recording Events

### 6.5.1.4.1 Recording Started

- Identifier  
AgentMediaEvent\_Record
- Function  
This event indicates that the recording of the current agent starts.
- Additional information  
**taskId**: recording task ID in the platform.  
**caller**: calling number.  
**called**: called number.  
**locationId**: ID of the central node corresponding to the recording.  
**recordID**: serial number of a recording.  
**fileName**: address of a recording file.  
**callId**: unique ID of the call.  
**fileMediaType**: media type. The options are **1** (audio) and **2** (video).
- Example  
Audio:  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentMediaEvent_Record","workNo":"20011","content":
{"taskId":"5206","caller":"70006","recordID":"Yc1v6a20011d20161025t1902050",
"called":"60015","locationId":"256","fileName":"Y:/6/0/20161025/20011/19020
50.V3","fileMediaType":"1","callId":"1477393325-164"}}}
```

  
RSE video recording:  

```
{"eventType":"AgentMediaEvent_Record","workNo":"25002","content":
{"recordID":"0a08082d-df1e-4c06-9a97-
c7c6f7a4724e","callId":"1606459553-176","fileName":"conferenceId=7a00830
7-34ad-435b-bccd-222be5ac5385;recordId0=0a08082d-df1e-4c06-9a97-
c7c6f7a4724e;","caller":"25002","called":"22061","locationId":"255","taskId":50
65,"fileMediaType":2,"jsonKey":
["recordID","callId","fileName","caller","called","locationId","taskId","fileMedia
Type"]},"jsonKey":["eventType","workNo","content"]}
```

  
Third-party video recording:  

```
{"eventType":"AgentMediaEvent_Record","workNo":"503","content":
{"recordID":"Yc1v1a503d20201202t1714442","callId":"1606900483-31","fileNa
```



```
me": "Y:/1/0/20201202/503/1714442.mp4", "caller": "83110091", "called": "94865001", "locationId": "65535", "taskId": "5007", "fileMediaType": "2", "jsonKey": [{"recordID", "callId", "fileName", "caller", "called", "locationId", "taskId", "fileMediaType"}], "jsonKey": ["eventType", "workNo", "content"]}]}
```

#### 6.5.1.4.2 Recording Startup Failed

- Identifier  
AgentMediaEvent\_Record\_Fail
- Function  
This event indicates that the recording of the current agent fails to be started.
- Additional information  
**taskId**: recording task ID in the platform.  
**caller**: calling number.  
**called**: called number.  
**locationId**: ID of the central node corresponding to the recording.  
**recordID**: serial number of a recording.  
**fileName**: address of a recording file.  
**callId**: unique ID of the call.  
**fileMediaType**: media type. The options are **1** (audio) and **2** (video).
- Example  

```
{"message": "", "retcode": "0", "event": {"eventType": "AgentMediaEvent_Record_Fail", "workNo": "20011", "content": {"taskId": "5255", "caller": "70006", "recordID": "Cc1v6a20011d20161025t1930326", "called": "60015", "locationId": "65535", "fileName": "C:/6/0/20161025/20011/1930326.V3", "fileMediaType": "1", "callId": "1477395030-183"}}}
```

#### 6.5.1.4.3 Recording Stopped

- Identifier  
AgentMediaEvent\_StopRecordDone
- Function  
This event indicates that the recording of an agent is stopped.
- Additional information  
**beginTime**: recording start time.  
**endTime**: recording end time.  
**taskId**: recording task ID in the platform.  
**fileMediaType**: media type. The options are **1** (audio) and **2** (video).
- Example  

```
{"eventType": "AgentMediaEvent_StopRecordDone", "workNo": "1115", "content": {"beginTime": "1566867437000", "endTime": "1566867472000", "fileMediaType": "1", "taskId": "5451", "jsonKey": ["beginTime", "endTime", "taskId"]}, "jsonKey": ["eventType", "workNo", "content"]}]}
```

## 6.5.1.5 Events Related to Voice Playback by Quality Checks

### 6.5.1.5.1 Recording Playback Started

- Identifier:  
AgentMediaEvent\_Play
- Function:  
This event indicates that recording playback is started.
- Additional information:  
None
- Example:  

```
{"message":"","retcode":"0","event":{"eventType":"AgentMediaEvent_Play","workNo":"49999","content":null}}
```

### 6.5.1.5.2 Recording Playback Succeeded

- Identifier:  
AgentMediaEvent\_Play\_Succ
- Function:  
This event indicates that recording playback is successful.
- Additional information:  
None
- Example:  

```
{"message":"","retcode":"0","event":{"eventType":"AgentMediaEvent_Play_Succ","workNo":"49999","content":null}}
```

### 6.5.1.5.3 Recording Playback Failed

- Identifier:  
AgentMediaEvent\_Play\_Fail
- Function:  
This event indicates that recording playback has failed.
- Additional information:  
None
- Example:  

```
{"message":"","retcode":"0","event":{"eventType":"AgentMediaEvent_Play_Fail","workNo":"49999","content":null}}
```

### 6.5.1.5.4 Stopping Playing the Recording

- Identifier  
AgentMediaEvent\_StopPlayDone
- Function  
This interface indicates that the recording is stopped.

- Additional information  
**Cause** indicates the reason for stopping the recording. **0**: The playback is complete. **1**: The agent stops playing the recording. **2**: The recording fails to be played and therefore stops.
- Example  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentMediaEvent_StopPlayDone","workNo":"49999","content":
{"cause":0}}
```

#### 6.5.1.5.5 Recording Playback Paused

- Identifier:  
AgentMediaEvent\_PausePlayDone
- Function:  
This event indicates that recording playback is paused.
- Additional information:  
None
- Example:  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentMediaEvent_PausePlayDone","workNo":"49999",
"content":null}}
```

#### 6.5.1.5.6 Recording Playback Resumed

- Identifier:  
AgentMediaEvent\_ResumePlayDone
- Function:  
This event indicates that recording playback is resumed.
- Additional information:  
None
- Example:  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentMediaEvent_ResumePlayDone","workNo":"49999",
"content":null}}
```

#### 6.5.1.5.7 Recording Playback Fast-Forwarded

- Identifier  
AgentMediaEvent\_JumpPlayDone
- Function  
This event indicates that recording playback is fast-forwarded.
- Additional information  
None
- Example  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentMediaEvent_JumpPlayDone","workNo":"49999","content":
null}}
```

## 6.5.1.6 Events Related to Real-time Quality Control

### 6.5.1.6.1 Agent Monitoring

- Identifier  
QC\_AgentState\_Notify
- Function  
Indicates the monitoring (inspection) event of an agent.
- Additional information  
**agentname**: employee ID or user name of an agent.  
**subtype**: state or operation of the agent that is monitored.
- Example  

```
{"eventType":"QC_AgentState_Notify","workNo":"107","content":
{"subtype":"QC_AgentState_Login","monitoredagent":"108","agentname":"108
","mediaserver":"CtiServer","jsonKey":
["subtype","monitoredagent","agentname","mediaserver"]},"jsonKey":
["eventType","workNo","content"]}
```

Values of **subtype** are as follows:  
**QC\_AgentState\_Login**: sign-in event of the agent that is monitored  
**QC\_AgentState\_Logout**: sign-out event of the agent that is monitored

## 6.5.1.7 Events Related to Physical Phone

### 6.5.1.7.1 Phone State Unknown

- Identifier:  
AgentOther\_PhoneUnknow
- Function:  
This event indicates that the phone state of an agent is unknown.
- Additional information:  
None
- Example:  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentOther_PhoneUnknow","workNo":"49999",
"content":null}}
```

### 6.5.1.7.2 Phone in On-Hook State

- Identifier:  
AgentOther\_PhoneRelease
- Function:  
This event indicates that the phone of an agent is in the on-hook state.
- Additional information:  
**phoneState**: release cause. 3 indicates on-hook by the platform, and 2 indicates on-hook by the agent.

- Example:  

```
{"eventType":"AgentOther_PhoneRelease","workNo":"20012","content":
{"phoneState":3}}
```

### 6.5.1.7.3 Phone in Off-Hook State

- Identifier  
AgentOther\_PhoneOffhook
- Function  
This event indicates that the phone of an agent is in off-hook state.
- Additional information  
**type** indicates the event call type. The options are **unknown** (unknown call), **main** (main call), and **assistant** (assistant call).
- Example  

```
{"message":"","retcode":"0","event":{"eventType":
"AgentOther_PhoneOffhook","workNo": "56020","content": {"type": "main"}}
```

### 6.5.1.7.4 Phone in Ringing State

- Identifier:  
AgentOther\_PhoneAlerting
- Function:  
This event indicates that the phone of an agent is ringing.
- Additional information:  
None
- Example:  

```
{"message":"","retcode":"0", "event":
{"eventType":"AgentOther_PhoneAlerting", "workNo":"49999",
"content":null}}
```

### 6.5.1.7.5 Phone in Busy State

- Identifier  
AgentOther\_PhoneBusy
- Function  
This event indicates that the phone of an agent cannot answer calls.
- Additional information  
None
- Example  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentOther_PhoneBusy","workNo":"49999","content":null}}
```

### 6.5.1.8 Other Agent-Related Events

### 6.5.1.8.1 Agent Starting to Sign In

- Identifier  
AgentOther\_InService
- Function  
This event indicates that an agent starts to sign in.
- Additional information  
None
- Example  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentOther_InService","workNo":"49999","content":null}}
```

### 6.5.1.8.2 Agent Successfully Signed Out

- Identifier  
AgentOther\_ShutdownService
- Function  
This interface indicates that an agent signs out successfully.
- Additional information  
**loginTime**: sign-in time
- Example  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentOther_ShutdownService","workNo":"49999","content":
{"loginTime":"1471585949806"}}}
```

### 6.5.1.8.3 All Agents in Busy State

- Identifier:  
AgentOther\_All\_Agent\_Busy
- Function:  
This event indicates that all agents are in the Busy state.
- Additional information:  
None
- Example:  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentOther_All_Agent_Busy","workNo":"49999",
"content":null}}
```

## 6.5.1.9 Events Related to Multimedia

### 6.5.1.9.1 Multimedia Message

- Identifier:  
AgentEvent\_MessageData
- Function:  
This event indicates that an agent receives a multimedia session message.

- Additional information:
  - workNo**: agent ID.
  - content**: message object in JSON format. The following fields are contained:
    - callid**: call ID.
    - caller**: calling number.
    - called**: called number.
    - feature**: call type, where **0** indicates a common inbound call and **7** indicates a common outbound call.
    - type**: media type of the call, either assistant call or main call.
    - message**: content of the message to be sent.
    - mediaAbility**: media capability, where **1** indicates voice, **2** indicates video, **3** indicates audio and video, **5** indicates text, and **6** indicates H5 video.
- Example:

```
{"eventType":"AgentEvent_MessageData","workNo":"211","content":
{"callid":"1552038964-16797222","caller":"88880022","called":"20012","feature":0,
"type":"main","message":"testmessage","mediaAbility":"5","jsonKey":
["callid","caller","called","feature","type","message","mediaAbility"]},"jsonKey":
["eventType","workNo","content"]}
```

#### 6.5.1.9.2 HTML5 Access Information Event

- Identifier:  
AgentEvent\_RequestConnect
- Function:  
This event indicates that the H5 access information event is reported.
- Additional information:
  - workNo**: agent ID.
  - content**: message object in JSON format. The following fields are contained:
    - callid**: call ID.
    - userId**: agent ID.
    - ctime**: expiration time.
    - channelId**: channel ID (room ID).
    - role**: role.
    - ip**: IP address of the media server access point.
    - port**: port number of the access point of the media server.
    - signalingDomainIn**: internal-side signaling domain.
    - signalingDomainOut**: external signaling domain.
    - locationId**: node.
    - signature**: signature.
    - apId**: user ID.
- Example:

```
{"message":"","retcode":"0","event":{"eventType":"
AgentEvent_RequestConnect","workNo":"49999","content":{"userId":"Agent
```

```
ID',"ctime": "Expiration time","channelId": "15945185-345","appld":
"8345234631", "ip": "xxx.xxx.xxx.xxx","port": "6500","role":
"0","signalingDomainIn": "https://in.isdpdomain.com","signalingDomainOut":
"https://out.isdpdomain.com","locationId": "65535","signature": "xxx","appld":
"sdcP0BPcVGymItWppGX6XqrZGTCYa13d"}}}
```

### 6.5.1.9.3 HTML5 Screenshot Event

- Identifier:  
AgentEvent\_ImageCapture
- Function:  
This event indicates the H5 screenshot result event.
- Additional information:  
**workNo**: agent ID.  
**content**: message object in JSON format. The following fields are contained:  
**callid**: call ID.  
**filename**: address of the recording file.  
**locationId**: ID of the node corresponding to the screenshot file.  
**result**: screenshot result, where **0** indicates success, **1** indicates failure, and **2** indicates user rejection.
- Example:  

```
{"eventType": "AgentEvent_ImageCapture","workNo": "1002","content": {"callid":
"1654917192-17845843","result": 0,"filename":
"F:/5/1/20220611/1002/1113201.jpg","locationId": 256}}
```

### 6.5.1.10 Agent Conference Event

#### 6.5.1.10.1 Successful Conference Application

- Identifier  
AgentConf\_RequestSuccess
- Function  
This event indicates that the conference is successfully applied for and the chairperson has joined the conference.
- Additional information  
**confId**: conference ID.
- Example:  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentConf_RequestSuccess","workNo":"153","content":
{"confId":1030400}}}
```

#### 6.5.1.10.2 Failed Conference Application

- Identifier  
AgentConf\_RequestFailed
- Function



This event indicates that the conference application fails.

- Additional information

**cause:** failure cause code.

- Example:

```
{"message":"","retcode":"0","event":
{"eventType":"AgentConf_RequestFailed","workNo":"153","content":
{"cause":21234}}}
```

### 6.5.1.10.3 Joining a Conference

- Identifier

AgentConf\_SelfJoinResult

- Function

This event indicates that the current agent has joined the conference.

- Additional information

**confId:** conference ID.

- Example:

```
{"message":"","retcode":"0","event":
{"eventType":"AgentConf_SelfJoinResult","workNo":"153","content":
{"confId":1030400}}}
```

### 6.5.1.10.4 Conference Timeout Notification

- Identifier

AgentConf\_Timeout

- Function

The timing starts when a conference is successfully applied for. When the remaining conference time reaches the configured notification time point, this event will be triggered.

After receiving this event, an agent determines whether to extend the conference. If the agent does not extend the conference, the conference will be released when the end time arrives.

- Additional information

**confId:** conference ID.

- Example:

```
{"message":"","retcode":"0","event":
{"eventType":"AgentConf_Timeout","workNo":"153","content":
{"confId":1030656}}}
```

### 6.5.1.10.5 Conference Ringing

- Identifier

AgentConf\_Ringing

- Function

An invited agent receives this event.

- Additional information

**confId:** conference ID.

- Example:

```
{"message":"","retcode":"0","event":
{"eventType":"AgentConf_Ringing","workNo":"154","content":
{"confId":1031168}}}
```

### 6.5.1.10.6 Participant Change

- Identifier  
AgentConf\_ParticipantChanged
- Function  
An invited agent receives this event.
- Additional information  
**result**: change result.  
The value **0** indicates success and other values indicates failure.  
**changeType**: change type.  
The options are as follows: **0**: A participant joins a conference. **1**: A participant leaves a conference. **2**: A chairperson is changed. **3**: A participant is muted. **4**: A participant is unmuted. **5**: A participant is held. **6**: A participant is unheld.  
**changeReason**: change reason.  
If **ChangeType** is set to **1**, this parameter is valid. If **ChangeType** is set to other values, this parameter is invalid. The options are as follows: **0**: A participant proactively leaves a conference. **1**: A chairperson forcibly removes a participant from a conference. **2**: A participant hangs up. **3**: A conference ends. **4**: A participant signs out of the conference. **6**: A participant is forcibly removed from the conference due to other reasons.  
**confId**: conference ID.  
**participant**: participant ID.  
**participantType**: participant type.  
The options are as follows: **6**: phone number and **9**: agent ID.  
**deviceCallType**: user-defined device call type.  
**deviceType**: user-defined device type.
- Example:

```
{"message":"","retcode":"0","event":
{"eventType":"AgentConf_ParticipantChanged","workNo":"154","content":
{"result":0,"changeReason":255,"changeType":3,"confId":1031168,"participant":
:"154","participantType":9,"deviceCallType":0,"deviceType":0}}}
```

### 6.5.1.10.7 Leaving a Conference

- Identifier  
AgentConf\_SelfLeaveResult
- Function  
This event indicates that the current agent leaves the conference.
- Additional information  
**confId**: conference ID.

- Example:  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentConf_SelfLeaveResult","workNo":"153","content":
{"confId":1030400}}}
```

#### 6.5.1.10.8 Chairperson Change

- Identifier  
AgentConf\_PresidentChanged
- Function  
This event indicates that the current agent becomes the conference chairperson.
- Additional information  
**confId**: conference ID.
- Example:  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentConf_PresidentChanged","workNo":"154","content":
{"confId":1031168}}}
```

#### 6.5.1.10.9 Stopping Conference Announcement Playing

- Identifier  
AgentConf\_StopVoice
- Function  
This event indicates that the conference announcement is stopped.
- Additional information  
**result**: result of stopping conference announcement playing. The options are as follows: **0** (success) and **1** (failure).
- Example:  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentConf_StopVoice","workNo":"154","content":{"result":0}}}
```

#### 6.5.1.10.10 Stopping Announcement Playing in a Conference Channel

- Identifier  
AgentConf\_StopParticipantVoice
- Function  
This event indicates that the announcement playing in a conference channel is stopped.
- Additional information  
**result**: result of stopping conference announcement playing. The options are as follows: **0** (success) and **1** (failure).
- Example:  

```
{"message":"","retcode":"0","event":
{"eventType":"AgentConf_StopParticipantVoice","workNo":"154","content":
{"result":0}}}
```

### 6.5.1.11 Events Related to Disaster Recovery

- Identifier:  
Agent\_Recover
- Function:  
This event indicates that the CC-Gateway is recovered after being restarted for the current agent.
- Additional information:  
None
- Example:  

```
{"message":"","retcode":"0","event":
{"eventType":"Agent_Recover","workNo":"49999","content":
{"agentStatus":"4"}}}
```

#### NOTE

If this event is received, an abnormal switchover occurs in the CC-Gateway. During the switchover, some interface invoking operations and events of the current call are affected, and the next call is not affected.

The scenarios that may be affected are as follows:

1. In scenarios such as the two-party help-seeking and three-party help-seeking (help-seeking from a skill queue, an agent, or an external number), some events such as AgentEvent\_Call\_Release, AgentEvent\_Customer\_Release, and AgentEvent\_Talking are missing.
2. In scenarios such as success transfer, talk transfer, and three-party transfer, some events such as AgentEvent\_Call\_Release, AgentEvent\_Customer\_Release, AgentEvent\_Talking, and AgentEvent\_Call\_Release are missing.

The rectification method is as follows:

1. Hang up the phone of the agent (such as the softphone, fixed-line phone, or mobile phone).
2. Sign out of the system manually and then sign in again as the agent.

### 6.5.1.12 Phone Linkage Events

#### NOTE

Currently, the phone linkage capability supports only eSpace 7910 phones on the CC network.

#### 6.5.1.12.1 Linkage Capability

- Identifier  
AgentEvent\_linkageCapability
- Function  
Whether an agent phone is successfully linked.
- Additional information  
**result** indicates the linkage result. The value **0** indicates success, and other values indicate failure.
- Example

```
{"message":"","retcode":"0","event":
{"eventType":"AgentEvent_linkageCapability","workNo":"120","content":
{"result":0}}}
```

### 6.5.1.12.2 Linkage Status

- Identifier

AgentEvent\_linkagePhoneStatus

- Function

Status of an agent phone.

- Additional information

**result** indicates phone status events. **0**: off-hook; **1**: on-hook; **2**: talking; **3**: phone online; **4**: phone offline; **5**: ringing.

- Example

```
{"message":"","retcode":"0","event":
{"eventType":"AgentEvent_linkagePhoneStatus","workNo":"120","content":
{"result":2}}}
```

### 6.5.1.12.3 Muting a Call

- Identifier

AgentEvent\_linkagePhoneMute

- Function

A call is muted.

- Additional information

**callId**: unique ID of a muted call.

- Example

```
{"message":"","retcode":"0","event":
{"eventType":"AgentEvent_linkagePhoneMute","workNo":"120","content":
{"callId":"1474269843-24"}}}
```

### 6.5.1.12.4 Unmuting a Call

- Identifier

AgentEvent\_linkagePhoneUnMute

- Function

A call is unmuted.

- Additional information

**callId**: unique ID of an unmuted call.

- Example

```
{"message":"","retcode":"0","event":
{"eventType":"AgentEvent_linkagePhoneUnMute","workNo":"120","content":
{"callId":"1474269843-24"}}}
```

### 6.5.1.12.5 Transfer-out Notification

- Identifier

AgentEvent\_linkagePhoneTransferOut

- Function

An agent is transferring the current call out with a phone.

- Additional information

**addrOut:** phone number to which a call is transferred out.

**addrSelf:** phone number of an agent.

**address:** address ID.

**addressType:** address type. Currently, the value is **6**, indicating the phone number.

- Example

```
{"message":"","retcode":"0","event":
{"eventType":"AgentEvent_linkagePhoneTransferOut","workNo":"120","content":
{"addrOut":{"address":"70002","addressType":6},"addrSelf":
{"address":"70001","addressType":6}}}
```

### 6.5.1.12.6 Transfer-out Result Notification

- Identifier

AgentEvent\_linkagePhoneTransferOut\_Result

- Function

Phone linkage transfer-out result.

- Additional information

**result:** The value **0** indicates that the transfer-out is successful, and other values indicate that the transfer-out fails.

**callId:** unique ID of a call that is transferred out.

- Example

```
{"message":"","retcode":"0","event":
{"eventType":"AgentEvent_linkagePhoneTransferOut_Result","workNo":"130","cont
ent":{"result":1138,"callId":"1481881644-21"}}}
```

### 6.5.1.12.7 Holding a Call

- Identifier

AgentEvent\_linkagePhoneHold

- Function

A call is held by a phone.

- Additional information

**callId**: unique ID of a held call.

- Example

```
{"message":"","retcode":"0","event":
{"eventType":"AgentEvent_linkagePhoneHold","workNo":"120","content":
{"callId":"1474269843-24"}}}
```

### 6.5.1.12.8 Unholding a Call

- Identifier

AgentEvent\_linkagePhoneUnHold

- Function

A call is unheld by a phone.

- Additional information

**callId**: unique ID of an unheld call.

- Example

```
{"message":"","retcode":"0","event":
{"eventType":"AgentEvent_linkagePhoneUnHold","workNo":"120","content":
{"callId":"1474269843-24"}}}
```

### 6.5.1.12.9 Making an Outbound Call

- Identifier

AgentEvent\_linkagePhoneCallOut

- Function

An agent is making an outbound call with a phone.

- Additional information

**addrCalled**: called number.

**addrCaller**: phone number of an agent.

**address**: address ID.

**addressType**: address type. Currently, the value is **6**, indicating the phone number.

**callId**: unique call ID. (This parameter is not used because it is not the call ID returned after the actual call is connected.)

- Example

```
{"message":"","retcode":"0","event":
{"eventType":"AgentEvent_linkagePhoneCallOut","workNo":"120","content":
{"addrCalled":{"address":"70002","addressType":6},"addrCaller":
{"address":"70001","addressType":6},"skillId":0,"callId":"1475051437-34"}}}
```

## 6.5.2 Error Codes

**Table 6-449** CC-Gateway error codes

| Error Code | Description                                                                                                                                                      |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 000-001    | The method of obtaining the agent event is incorrect.                                                                                                            |
| 000-002    | The parameter or address transferred by the agent through the URL is incorrect, or the interface parameter is invalid.                                           |
| 000-003    | No permission to invoke the interface. The agent authentication may have expired.                                                                                |
| 000-004    | The agent is being switched over.                                                                                                                                |
| 000-005    | The agent to be inspected is the inspector.                                                                                                                      |
| 000-006    | Message parameter error.                                                                                                                                         |
| 100-001    | The sign-in parameter is left empty or is invalid.                                                                                                               |
| 100-002    | The agent has signed in.                                                                                                                                         |
| 100-003    | The ResourceUnavailableException or ProviderUnavailableException error is reported when the agent signs in to the system.                                        |
| 100-004    | The username or password entered for sign-in is incorrect.                                                                                                       |
| 100-005    | The sign-out parameter is invalid.                                                                                                                               |
| 100-006    | The agent does not sign in.                                                                                                                                      |
| 100-007    | An exception occurs during the agent's operation. The possible cause is that the WAS resource is incorrect and fails to be accessed or an internal error occurs. |
| 100-008    | The agent has signed out.                                                                                                                                        |
| 100-009    | The agent status is incorrect.                                                                                                                                   |
| 100-010    | A state error occurs during sign-out.                                                                                                                            |
| 100-011    | The parameter is invalid when the agent signs in.                                                                                                                |
| 100-012    | The agent type is incorrect during sign-in.                                                                                                                      |
| 100-013    | The phone number bound to the agent is invalid.                                                                                                                  |



| Error Code | Description                                                                        |
|------------|------------------------------------------------------------------------------------|
| 100-014    | The phone number used for the agent to sign in is not within the configured range. |
| 100-015    | The agent has signed in and cannot be forcibly signed out.                         |
| 100-016    | When the agent signs in, the IP address is invalid.                                |
| 100-017    | The uPortal authentication fails.                                                  |
| 100-018    | The VDN ID for agent sign-in is different from that for voice playing.             |
| 110-016    | The account is locked.                                                             |
| 101-001    | The agent does not have a conference call.                                         |
| 101-002    | The agent is not the chairperson of the current conference call.                   |
| 101-003    | The agent is in a conference.                                                      |
| 101-004    | A non-inspector does not have the permission to query VDN conferences.             |
| 101-005    | The permission of a chairperson cannot be transferred to itself.                   |
| 101-006    | A chairperson cannot delete itself.                                                |
| 101-007    | The chairperson cannot leave the conference.                                       |
| 104-001    | The recording download function is not enabled.                                    |
| 104-002    | The user does not have the recording inspection or playback permission.            |
| 104-003    | Failed to download the recording file because the file name is invalid.            |
| 104-004    | Failed to download the recording file because no drive mapping is configured.      |
| 104-005    | Failed to download the recording file because the recording file does not exist.   |
| 104-006    | Failed to download the recording file due to insufficient space.                   |
| 104-007    | The recording file format is not supported.                                        |
| 104-008    | The recording format is not set.                                                   |
| 104-009    | Failed to convert the recording file.                                              |

| Error Code | Description                                                                                             |
|------------|---------------------------------------------------------------------------------------------------------|
| 104-010    | <b>locationId</b> is not configured in pool mode.                                                       |
| 105-001    | Agent information is not cached in the Redis.                                                           |
| 105-002    | The current agent is in DR state.                                                                       |
| 105-003    | DR has been completed.                                                                                  |
| 105-004    | Failed to add the agent to the DR queue.                                                                |
| 105-005    | The DR times out. The agent needs to sign in again.                                                     |
| 105-006    | The GUID for DR does not match. The agent needs to sign in again to obtain the GUID.                    |
| 105-007    | The DR function is disabled. The agent needs to sign in again.                                          |
| 106-001    | The multimedia function is disabled.                                                                    |
| 106-002    | An empty message is sent.                                                                               |
| 106-003    | The number of sessions exceeds the maximum value (60).                                                  |
| 106-004    | The session transfer device type is not supported.                                                      |
| 106-005    | An internal error occurs in session transfer, or the transfer-out mode or device type is not supported. |
| 106-006    | The agent information is empty during session transfer.                                                 |
| 106-007    | The message content length exceeds the upper limit (2048 bytes).                                        |
| 106-008    | The channel type is incorrect.                                                                          |
| 106-009    | The maximum size of data that can be carried during session transfer is 2048 bytes.                     |
| 106-010    | The transfer-out mode is not supported during session transfer.                                         |
| 106-011    | The parameter is empty.                                                                                 |
| 106-012    | The value is beyond the short range.                                                                    |
| 106-013    | When an agent sends a multimedia message, the call ID is empty.                                         |

| Error Code | Description                                                                                              |
|------------|----------------------------------------------------------------------------------------------------------|
| 106-014    | When an agent sends a multimedia message, the call ID is invalid (not the call ID of the current agent). |
| 106-015    | Invalid user type.                                                                                       |
| 108-001    | The video download function is not enabled.                                                              |
| 108-002    | The VDN corresponding to the video ID is different from the current VDN.                                 |
| 108-003    | The record ID does not exist.                                                                            |
| 108-004    | The RSE service request timed out.                                                                       |
| 108-005    | Error in the video file download request.                                                                |
| 108-006    | Failed to query the recording address during video file download.                                        |
| 108-007    | Failed to download the video file.                                                                       |
| 108-008    | Incorrect format of the RSE service address for downloading video files.                                 |
| 108-009    | The type of the video file to be downloaded does not exist.                                              |
| 108-011    | Failed to download the video because the mapping path does not exist.                                    |
| 108-012    | Failed to download the video because the video file does not exist.                                      |
| 108-013    | Failed to convert the video file.                                                                        |
| 108-014    | The VoiceCyber service address is not configured.                                                        |
| 108-015    | Failed to download the recording file.                                                                   |
| 108-016    | The recording file download request is abnormal.                                                         |
| 108-017    | The authentication token is empty.                                                                       |
| 108-018    | The file path does not match.                                                                            |
| 200-001    | The outbound call number is incorrect.                                                                   |
| 200-002    | No call exists for the agent to answer or reject.                                                        |
| 200-003    | No call exists for the agent to mute.                                                                    |

| Error Code | Description                                                            |
|------------|------------------------------------------------------------------------|
| 200-004    | A call state error occurs after the agent mutes the call.              |
| 200-005    | No call exists for the agent to hold.                                  |
| 200-006    | Failed to hold the call.                                               |
| 200-007    | No call exists for the agent to unmute.                                |
| 200-008    | A call state error occurs after the agent unmutes the call.            |
| 200-009    | No call exists for the agent to play an announcement.                  |
| 200-010    | No call exists for the agent to initiate a three-party call.           |
| 200-011    | Failed to hold the call in the three-party call.                       |
| 200-012    | No call exists for the agent to transfer.                              |
| 200-013    | No call exists for the agent to hold.                                  |
| 200-014    | A call state error occurs after the agent holds the call.              |
| 200-015    | No call exists for the agent to unhold.                                |
| 200-016    | A call state error occurs after the agent unholds the call.            |
| 200-017    | No call exists for the agent to end.                                   |
| 200-018    | No call exists for the agent to ask for internal consultation.         |
| 200-019    | No call exists for the agent to freeze the image.                      |
| 200-020    | A call state error occurs after the agent freezes the image.           |
| 200-021    | No call exists for the agent to unfreeze the image.                    |
| 200-022    | A call state error occurs after the agent unfreezes the image.         |
| 200-023    | No call of the specified phone number exists for the agent to release. |
| 200-024    | No call of the specified phone number exists for the agent to release. |
| 200-025    | No call exists for the agent to release.                               |

| Error Code | Description                                                                     |
|------------|---------------------------------------------------------------------------------|
| 200-026    | No call exists.                                                                 |
| 200-027    | No call exists during the audio and video switchover.                           |
| 200-028    | Incorrect media type during the audio and video switchover.                     |
| 200-029    | Incorrect call type during the audio and video switchover.                      |
| 200-030    | Error in the audio and video switchover request.                                |
| 200-031    | An error occurred during the adjustment of three-party video image parameters.  |
| 200-032    | No call is available during the adjustment of three-party video images.         |
| 200-033    | A call type error occurred during the adjustment of three-party video images.   |
| 200-034    | A call status error occurred during the adjustment of three-party video images. |
| 200-035    | A request exception occurred during the adjustment of three-party video images. |
| 200-036    | Invalid preview outbound call parameter.                                        |
| 200-037    | No ringing call exists for the agent to reject.                                 |
| 200-038    | The <b>TerminalConnection</b> parameter is empty when the call is rejected.     |
| 200-039    | The agent is not bound to a phone when the call is rejected.                    |
| 210-001    | The URL information is not found.                                               |
| 300-001    | No agent information query permission.                                          |
| 300-002    | No agent information is found during query.                                     |
| 300-003    | No agent information is found during agent group query.                         |
| 300-004    | No agent group information is found during query.                               |
| 400-001    | No call information is returned when call-associated data is configured.        |

| Error Code | Description                                                                                                                  |
|------------|------------------------------------------------------------------------------------------------------------------------------|
| 400-003    | No traffic information is found when the hold queue information is obtained.                                                 |
| 500-001    | A state error occurs during fast rewinding.                                                                                  |
| 500-002    | A state error occurs during fast forwarding.                                                                                 |
| 500-003    | A state error occurs when recording playback pauses.                                                                         |
| 500-004    | A state error occurs when recording pauses.                                                                                  |
| 500-005    | A state error occurs when recording playback continues.                                                                      |
| 500-006    | A state error occurs when recording continues.                                                                               |
| 500-007    | A state error occurs when recording playback starts.                                                                         |
| 500-008    | A state error occurs when recording starts.                                                                                  |
| 500-009    | A state error occurs when recording playback stops.                                                                          |
| 500-010    | A state error occurs when recording stops.                                                                                   |
| 500-011    | The function of specifying a file path is not enabled when voice recording starts.                                           |
| 600-001    | No information about the agent or skill queue is found when the agent skill queue information is queried.                    |
| 600-002    | No skill queue information is found when the skill queue is queried by VDN.                                                  |
| 600-003    | No configuration information is found when the VDN access code is queried.                                                   |
| 600-004    | No configuration information is found when the VDN IVR information is queried.                                               |
| 600-005    | No skill queue information is found during the query of information about skill queues of the VDN that the agent belongs to. |
| 700-001    | The session does not exist.                                                                                                  |
| 700-002    | Failed to invoke the platform.                                                                                               |
| 700-012    | Failed to send the message.                                                                                                  |
| 700-013    | The function to upload rich media files is not enabled.                                                                      |

| Error Code | Description                                                                                                      |
|------------|------------------------------------------------------------------------------------------------------------------|
| 700-014    | The file server is abnormal when the rich media file is uploaded.                                                |
| 700-015    | The name extension or size of the rich media file to be uploaded does not meet the requirement.                  |
| 700-016    | The rich media file to be downloaded does not exist.                                                             |
| 700-017    | No permission to download the rich media file.                                                                   |
| 700-018    | Database exception.                                                                                              |
| 701-001    | No member exists in a multimedia conference.                                                                     |
| 701-002    | No value is returned when the multimedia conference status is queried.                                           |
| 701-003    | When the conference is created, the creator or participant is in another conference.                             |
| 701-004    | The current operator is not in the conference when inviting a participant.                                       |
| 701-005    | When the conference ends, the conference does not exist or no permission is available to operate the conference. |
| 701-006    | When the conference is created, the MS IP address of the console is not set.                                     |
| 800-001    | The agent service is empty.                                                                                      |
| 800-002    | Failed to query configuration information.                                                                       |
| 800-003    | The default media gateway information does not exist.                                                            |
| 900-001    | The NOPROVIDER error occurs during quality check.                                                                |
| 900-002    | No permission exists during quality check.                                                                       |
| 900-003    | The ResourceUnavailableException error occurs during quality check.                                              |
| 900-004    | No agent information is found during quality check monitoring.                                                   |
| 900-005    | The status is abnormal during quality check.                                                                     |

| Error Code | Description                                                                        |
|------------|------------------------------------------------------------------------------------|
| 900-006    | The time parameter of screen recording is incorrect during quality check.          |
| 900-007    | The license for screen recording is not loaded during quality check.               |
| 900-008    | An unknown error occurs on the platform for screen recording during quality check. |
| 900-009    | Failed to find the quality check task to be deleted.                               |
| 900-010    | The inspected agent cannot be an inspector.                                        |
| 999-001    | The WAS URL in the configuration file on the server is incorrect.                  |
| 999-002    | Message query overload.                                                            |
| 999-003    | The number of sign-in agents exceeds the maximum.                                  |

**Table 6-450** CTI error codes

| Error Code | Description                                                                                                                                     |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| 21201      | The number of participants exceeds the upper limit (120).                                                                                       |
| 21202      | The number of conferences exceeds the default value.                                                                                            |
| 21203      | The conference creation is not allowed because the number of available PSTN calls of the current VDN is less than 3 during conference creation. |
| 21204      | An agent who has joined a conference cannot join other conferences.                                                                             |
| 21205      | Only an idle agent or agent in a call is allowed to initiate a conference.                                                                      |
| 21207      | Internal error. No call control block can be allocated to the conference during conference creation.                                            |
| 21208      | Internal error. No VISIT can be allocated to the conference during conference creation.                                                         |



| Error Code | Description                                                                                                                              |
|------------|------------------------------------------------------------------------------------------------------------------------------------------|
| 21209      | Internal error. No CALL object can be allocated to the conference during conference creation.                                            |
| 21210      | Internal error. Failed to bind VISIT to the call during conference creation.                                                             |
| 21211      | Internal error. A conference call does not exist.                                                                                        |
| 21212      | Failed to occupy the agent.                                                                                                              |
| 21213      | Conference occupation times out.                                                                                                         |
| 21214      | The conference does not exist.                                                                                                           |
| 21215      | The chairperson is not in a conference when the conference is released.                                                                  |
| 21216      | When the chairperson modifies a participant attribute, the current attribute of the participant must be the same as that to be modified. |
| 21217      | The chairperson is in the list of participants to be deleted in batches.                                                                 |
| 21218      | Failed to transfer the chairperson permission because the chairperson transfer the permission to the chairperson.                        |
| 21219      | The number of available PSTN calls for the current VDN is 0 when an agent joins a conference.                                            |
| 21220      | When an idle agent applies for a conference, the agent forcibly signs out. As a result, the conference is released.                      |
| 21221      | The chairperson is in the list of participants to be added during batch participant adding.                                              |
| 21222      | The applied conference duration is less than 4 minutes.                                                                                  |
| 21223      | The applied conference duration exceeds 24 hours.                                                                                        |
| 21224      | The number of participants to be added to a conference exceeds the number of remaining resources of the conference.                      |

| Error Code | Description                                                                                                                                                          |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 21225      | No operation can be performed on a conference by invoking an interface when the conference is applied for or released.                                               |
| 21226      | Internal error. An error occurs when creating the conference object.                                                                                                 |
| 21227      | The applied number of participants is 0 during conference creation.                                                                                                  |
| 21228      | Zero participant is added during batch addition.                                                                                                                     |
| 21229      | Zero participant is deleted during batch deletion.                                                                                                                   |
| 21230      | The operator is not the chairperson when the conference is released, the chairperson permission is transferred, a participant is added, or a participant is deleted. |
| 21231      | The CTIS does not respond (no ACK message is returned).                                                                                                              |
| 21232      | After an active/standby switchover, the conference fails to be created and is released.                                                                              |
| 21233      | The conference is abnormally released during conference creation.                                                                                                    |
| 21234      | A participant leaves the conference before the conference is created successfully.                                                                                   |
| 21235      | The number of members exceeds the upper limit.                                                                                                                       |
| 21236      | Conference handshake times out.                                                                                                                                      |
| 21237      | The agent on which an operation is performed is not in the conference.                                                                                               |
| 21238      | The number of participants is increased and exceeds 120 during the change for the number of participants.                                                            |
| 21239      | The number of participants to be decreased exceeds the number of remaining participants during the change for the number of participants.                            |
| 21240      | The operation type is incorrect during the change for the number of participants.                                                                                    |

| Error Code | Description                                                                                                                                                                                                 |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 21241      | The number of participants to be changed is less than 2 during the change for the number of participants.                                                                                                   |
| 21242      | The number of participants to be changed exceeds 118 during the change for the number of participants.                                                                                                      |
| 21243      | The number of VDNs is incorrect during the query for ongoing conference IDs.                                                                                                                                |
| 21244      | The number of conferences to be queried is greater than the number that can be queried during batch conference query.                                                                                       |
| 21245      | The conference duration to be extended is less than 1 minute.                                                                                                                                               |
| 21246      | The conference duration to be extended is greater than 1440 minutes.                                                                                                                                        |
| 21247      | When the chairperson plays the announcement in the conference, the announcement is being played in the conference. The announcement can be played only when the conference is in talking state.             |
| 21248      | When the chairperson stops playing the announcement in the conference, the announcement is not being played in the conference.                                                                              |
| 21249      | When the chairperson plays the announcement in the conference channel, the announcement is being played in the channel. The announcement can be played only when the channel is in talking or hold state.   |
| 21250      | When the chairperson stops playing the announcement in the conference channel, the announcement is not being played in the channel. The announcement can be stopped only when it is playing in the channel. |
| 21251      | When the chairperson holds a channel, the channel has been held. The channel can be held only when it is in non-hold state.                                                                                 |

| Error Code | Description                                                                                                                              |
|------------|------------------------------------------------------------------------------------------------------------------------------------------|
| 21252      | When the chairperson unholds a channel, the channel has been in non-hold state. The channel can be unheld only when it is in hold state. |

 **NOTE**

The reason why the same reason corresponds to different reason codes is that the version iteration needs to be compatible with historical versions. When locating a fault, you need to consider the reason and reason code.

**Table 6-451** CTI error cause codes

| Cause Code | Description                                                                                                                                                                                                             |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3          | No resources, such as control blocks and circuit resources, are available in the ACD. The called party is not reached.                                                                                                  |
| 4          | The called party is changing and the call is forwarded.                                                                                                                                                                 |
| 5          | Call waiting. When user A is talking with user B, user C attempts to set up a call connection with user A. In this case, user A receives a call waiting indication, indicating that another user is waiting for a call. |
| 6          | The call is being forwarded on busy.                                                                                                                                                                                    |
| 7          | The call is being forwarded on no reply.                                                                                                                                                                                |
| 8          | The call is being forwarded unconditionally. In this case, the call is forwarded to a specified number regardless of the status of the called party.                                                                    |
| 9          | The Do-not-Disturb service is also called the Temporary Refusal of Call service. The cause is no disturbance. Generally, the called office disconnects the call.                                                        |
| 10         | The call is being forwarded during ringing.                                                                                                                                                                             |
| 11         | The call is being forwarded on immediate response before ringing.                                                                                                                                                       |
| 12         | Unreachable mobile user.                                                                                                                                                                                                |
| 13         | Invalid DTE status.                                                                                                                                                                                                     |
| 14         | Unconditional DTE transfer.                                                                                                                                                                                             |
| 15         | Called forwarding by hooking.                                                                                                                                                                                           |
| 18         | The signaling detects that the peer switch is playing voices.                                                                                                                                                           |
| 129        | Unallocated number.                                                                                                                                                                                                     |

| Cause Code | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 132        | Tone for sending dedicated information.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 145        | The user is busy.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 146        | The user does not respond.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 147        | The user does not answer the call.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 149        | The call is rejected.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 150        | The number is changed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 155        | The destination is unreachable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 160        | Music is detected.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 162        | An automatic device is detected, for example, an automatic message machine or a group PBX.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 180        | Ringback tone.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 181        | Busy tone.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 182        | Special information tone (SIT) is defined in ITU-T E.181 and ITU-T E.182. It refers to the do-not-disturb (DND) tone. Currently, SIT is used on DND devices, generally, it is a small device connected to a telephone. When an inbound call exists, the device automatically answers the call and plays a SIT tone consisting of three fixed frequencies. The SIT tone is used to make the calling party consider that the called party is an automatic device and hang up the call (actually a device that blocks the outbound call system). The calling party considers that the called party is an automatic device and hangs up. |
| 184        | A modem is detected.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 185        | A fax is detected.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 186        | A modem or fax is detected. Some signal tones of the fax and modem are based on the same standard. Audio detection may fail to specify the tone type.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 187        | The signal tone is not defined. The signal tone complies with the signal tone feature but does not correspond to a specific definition. The signal tone features are as follows: <ol style="list-style-type: none"> <li>1. The frequency is constant and the ON duration is longer than 2.5 seconds.</li> <li>2. The frequency is constant and the ON duration is longer than 1.5 seconds.</li> <li>3. The OFF duration is longer than 100 milliseconds before the ON duration.</li> </ol>                                                                                                                                           |
| 190        | Text Telephone (ANS1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 191        | Text Telephone (ANS2)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| Cause Code | Description                                                                                                                            |
|------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 192        | Text Telephone (ANS3)                                                                                                                  |
| 193        | Text Telephone (ANS4)                                                                                                                  |
| 194        | Text Telephone (ANS5)                                                                                                                  |
| 195        | Text Telephone (EDT)                                                                                                                   |
| 196        | Text Telephone (FSK)                                                                                                                   |
| 197        | Text Telephone (DTMF)                                                                                                                  |
| 259        | Insufficient resources.                                                                                                                |
| 260        | The called party is a modem.                                                                                                           |
| 261        | The called party is a fax.                                                                                                             |
| 262        | The called party is a fax or modem.                                                                                                    |
| 263        | The called party is an automatic answering machine.                                                                                    |
| 531        | The called party hangs up.                                                                                                             |
| 537        | The called party is busy.                                                                                                              |
| 538        | Unreachable or wrong number.                                                                                                           |
| 548        | The phone is powered off.                                                                                                              |
| 549        | The phone is out of service.                                                                                                           |
| 551        | The ACD disconnects the call abnormally.                                                                                               |
| 601        | The called party hangs up before the call is answered.                                                                                 |
| 602        | No resource is available on the ACD.                                                                                                   |
| 603        | The call is disconnected on no reply.                                                                                                  |
| 604        | The call is rejected.                                                                                                                  |
| 605        | The ACD is busy.                                                                                                                       |
| 606        | The ACD times out.                                                                                                                     |
| 701        | The called party hangs up when the call is in a queue.                                                                                 |
| 702        | The queue times out and the platform releases the call (if the call is configured to be released due to queuing timeout).              |
| 703        | Call data times out (in API mode).                                                                                                     |
| 1040       | The ringing times out and the platform releases the call. (The called party does not answer the phone within the preset ringing time.) |
| 1041       | The agent occupation times out.                                                                                                        |

| Cause Code | Description                                                                                                                                                                                                                                                                                |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1043       | Waiting for outbound call results times out on the platform.                                                                                                                                                                                                                               |
| 1046       | Failed to occupy an agent.                                                                                                                                                                                                                                                                 |
| 1048       | The number of OBS calls reaches the upper limit.                                                                                                                                                                                                                                           |
| 1049       | The outbound call detection result after ACD offhooking times out.                                                                                                                                                                                                                         |
| 1056       | Failed to set up a voice channel between an agent and a subscriber.                                                                                                                                                                                                                        |
| 1281       | Before a voice channel is set up, an agent releases a call using the agent bar control.                                                                                                                                                                                                    |
| 1288       | When a voice channel is set up, an agent releases a call using the agent bar control.                                                                                                                                                                                                      |
| 1333       | When an agent answers a call using the agent bar control, the agent's phone is disconnected.                                                                                                                                                                                               |
| 23000      | A call queue overflows.                                                                                                                                                                                                                                                                    |
| 34601      | No outbound call task available.                                                                                                                                                                                                                                                           |
| 34602      | Cannot suspend the task because it is already in the suspended state.                                                                                                                                                                                                                      |
| 34603      | Cannot recover the task because the task is not in the suspended state.                                                                                                                                                                                                                    |
| 34605      | The outbound number is empty.                                                                                                                                                                                                                                                              |
| 34606      | The call attempt fails. That is, the outbound call interface fails to be invoked. The common cause is that the number of concurrent outbound calls reaches the number of outbound calls set on the system configuration console. You can view OBS logs to know the detailed failure cause. |
| 34607      | Failed records are written back when the OBS exits (or a task is deleted).                                                                                                                                                                                                                 |
| 34608      | Outbound call data is written back when no result is obtained after the call times out.                                                                                                                                                                                                    |
| 34609      | When the OBS changes to the standby state, if no agent is available for secure exit or preempted outbound calls, failed records are canceled.                                                                                                                                              |
| 34610      | When the OBS changes to the standby state, ongoing records are canceled.                                                                                                                                                                                                                   |
| 34611      | When the OBS exits, unanswered ongoing records are canceled and written back.                                                                                                                                                                                                              |
| 35027      | Incorrect called number in the preview.                                                                                                                                                                                                                                                    |

| Cause Code | Description                    |
|------------|--------------------------------|
| 714        | Failed to route the call.      |
| 715        | The call times out.            |
| 1138       | The called party hangs up.     |
| 1153       | The agent hangs up.            |
| 1154       | The agent cancels the call.    |
| 1155       | Timeout.                       |
| 1156       | The agent is disconnected.     |
| 1162       | Resource overload.             |
| 1163       | Unreachable or wrong number.   |
| 1164       | The called party is busy.      |
| 1165       | The phone is powered off.      |
| 1166       | The phone is out of service.   |
| 1167       | Insufficient resources.        |
| 1168       | The user does not respond.     |
| 1169       | The call is rejected.          |
| 1170       | The ACD is busy.               |
| 1171       | Timeout.                       |
| 20301      | Invalid user.                  |
| 20302      | Invalid device.                |
| 20303      | No answering device available. |
| 20304      | Exception.                     |
| 20305      | Invalid routing device.        |
| 20306      | Unreachable or wrong number.   |
| 20307      | The called party is busy.      |
| 20308      | The switch restarted.          |
| 20309      | The user does not respond.     |
| 20310      | Unknown error.                 |
| 20920      | Insufficient call resources.   |
| 20921      | No valid VDN available.        |
| 20922      | The call fails.                |



| Cause Code | Description                                                        |
|------------|--------------------------------------------------------------------|
| 20923      | Failed to route the call to the agent.                             |
| 20924      | Invalid skill queue.                                               |
| 20925      | Failed to route the skill queue.                                   |
| 20926      | Failed to transfer the call to the manual service through routing. |

### 6.5.3 Agent Status

**Table 6-452** CC-Gateway status

| Status Value | Description                                                                |
|--------------|----------------------------------------------------------------------------|
| 0            | Unknown, corresponding to state 9 on the CTI platform.                     |
| 1            | Sign-in state. This value is reserved.                                     |
| 2            | Sign-out state, corresponding to state 0 on the CTI platform.              |
| 3            | Busy state, corresponding to state 7 on the CTI platform.                  |
| 4            | Idle state, corresponding to state 1 on the CTI platform.                  |
| 5            | Wrap-up state, corresponding to state 6 on the CTI platform.               |
| 6            | Same as the idle state. This value is reserved.                            |
| 7            | Talking state, corresponding to states 2, 3, 4, and 5 on the CTI platform. |
| 8            | Rest state, corresponding to state 8 on the CTI platform.                  |
| 9            | Pre-rest state.                                                            |

**Table 6-453** CTI platform status

| Status Value | Description               |
|--------------|---------------------------|
| 0            | Not signed in.            |
| 1            | Idle state.               |
| 2            | Preoccupied state.        |
| 3            | Occupied state.           |
| 4            | Answering state.          |
| 5            | Talking state.            |
| 6            | Post-event wrap-up state. |

| Status Value | Description  |
|--------------|--------------|
| 7            | Busy state.  |
| 8            | Rest state.  |
| 9            | Study state. |

**Table 6-454** Agent status

| Status Value | Description          |
|--------------|----------------------|
| 1            | Idle state.          |
| 2            | Wrap-up state.       |
| 3            | Rest state.          |
| 4            | Busy state.          |
| 5            | Playback state.      |
| 6            | Outbound call state. |
| 7            | Occupied state.      |
| 8            | Request response.    |
| 9            | Talking state.       |
| 10           | Three-party call.    |
| 11           | Hold state.          |
| 12           | Mute state.          |
| 13           | Help seeking state.  |
| 14           | Talk transfer state. |
| 15           | Inserting state.     |
| 16           | Listening state.     |
| 17           | Whispering state.    |
| 255          | Abnormal state.      |

## 6.5.4 Call Type

Table 6-455 Call type

| Value | Description                        |
|-------|------------------------------------|
| 0     | Common incoming call.              |
| 6     | Internal call.                     |
| 7     | Common outgoing call.              |
| 40    | Reserved outgoing call.            |
| 41    | Presold outgoing call.             |
| 43    | Predicted outgoing call.           |
| 44    | Previewed outgoing call.           |
| 45    | Reserved callback.                 |
| 51    | Internal two-party consultation.   |
| 52    | Internal three-party consultation. |
| 53    | Multi-party call.                  |

## 6.5.5 Device Type

Table 6-456 Device type

| ID | Description  |
|----|--------------|
| 1  | Skill queue. |
| 2  | Agent ID.    |
| 3  | IVR          |

Table 6-457 User-defined device types

| ID | Description                 |
|----|-----------------------------|
| 0  | Unknown.                    |
| 1  | Ordinary phone.             |
| 2  | Wireless digital equipment. |
| 3  | Wireless analog device.     |
| 4  | Shortwave.                  |

| ID | Description   |
|----|---------------|
| 5  | Mobile phone. |
| 6  | Agent.        |
| 7  | eLTE.         |

**Table 6-458** User-defined device call types

| ID | Description                                |
|----|--------------------------------------------|
| 0  | Normal call.                               |
| 1  | Group call.                                |
| 2  | Secret call, that is, point-to-point call. |

**Table 6-459** Transfer modes

| Name                                    | Description                                                                                                                                                           |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Blind transfer                          | An agent releases a call no matter whether the call is successfully transferred or transferred out.                                                                   |
| Release-after-transfer                  | The system monitors the call transfer/transfer-out process. The business agent releases the call only after the call is successfully transferred.                     |
| Talk forwarding                         | The system monitors the call transfer-out process. After answering the call, the called party talks with the agent. The agent then releases the call.                 |
| Release-after-three-way-talk forwarding | The system monitors the transfer-out process. After the called party answers the call, the three-party conversation is implemented. The agent then releases the call. |
| Hang-up transfer                        | A call is transferred to an automatic flow. After processing the call, the automatic flow transfers the call back to the original agent.                              |

## 6.5.6 Interface Parameters

The parameters such as the skill queue ID, access code, VDN ID, agent ID, agent group ID, and call ID must be transferred to the interface. The CC-Gateway has restrictions on interface parameter validation. The restrictions are reflected in user validity check. The CTI checks the validity of interface parameters when the CC-Gateway invokes the CTI interface.

Unless otherwise specified, the time parameters in the interface return values and input parameters are in the timestamp format and of the long type by default. The unit is ms.

Query interfaces:

- `/resource/queuedevice/*` (querying queue sign-in and number of queuing users)
- `/resource/agentgroup/*` (querying skill queue information)
- `/resource/calldata/*` (querying associated data and call information)
- `/resource/onlineagent/{agentid}/agentskills` (querying the configured skill queues)
- `/resource/onlineagent/{agentid}/agentskillsbyworkno/{workno}` (querying the skill queue configured for a specified agent)
- `/resource/onlineagent/{agentid}/agentstatus` (obtaining the current agent status)
- `/resource/onlineagent/{agentid}/syncagentinfo` (synchronizing the agent status and call information during the agent page refreshing)
- `/resource/onlineagent/{agentid}/updateGuid` (proactively requesting to update the GUID during the agent page refreshing)

These interfaces are used to query the information about agents and queues and the current call processing information of agents during call transfer and help seeking in the agent integrated connection application. To prevent abnormal development of the multi-tenant third-party system from affecting system stability, flow control is performed at the system level and agent level, which cannot be invoked frequently.

# 7 Telemarketing Outbound Call Interface Reference

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- [7.1 Outbound Campaign Management Interfaces](#)
- [7.2 Interfaces for Managing Outbound Campaign Holidays](#)
- [7.3 Interface for Outbound Blacklist Management](#)
- [7.4 Outbound Call Data Interfaces](#)
- [7.5 Outbound Result Interface](#)
- [7.6 Outbound Callback](#)
- [7.7 Business Result Writeback](#)
- [7.8 File Server Management Interfaces](#)
- [7.9 Outbound Call External Result Definition Interfaces](#)
- [7.10 Querying Interface Invocation Records](#)

## 7.1 Outbound Campaign Management Interfaces

### 7.1.1 Adding an Outbound Campaign (V1)

#### Scenario

This interface is invoked to add a predicted, intelligent, automatic, previewed, or preempted outbound campaign.

#### Usage Description

- Prerequisites
  - You have applied for a developer account.
  - For intelligent outbound calls, the customer needs to develop the IVR. For details, see [Configuring Intelligent IVR](#) in *User Guide* on Huawei Cloud.

- Restrictions
  - Only 20 outbound campaign tasks whose device type is skill queue can be created.
  - Only 20 outbound campaign tasks whose device type is IVR can be created.

 **NOTE**

The number of active outbound campaign tasks of the same type of a tenant cannot be greater than a specified value. The value is specified by **max.liveliest.taskCount**. The default value is 20.

- After an outbound campaign is created, the device type cannot be changed.

## Method

This interface supports only the POST method.

## URI

`https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-1** Parameters in the URL

| No. | Parameter | Type    | Mandatory or Not | Description                                                |
|-----|-----------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |

## Request Description

**Table 7-2** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-3** Request body parameters

| No. | Parameter    | Type    | Man<br>dato<br>ry or<br>Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----|--------------|---------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | name         | String  | Yes                         | Name of an outbound campaign.<br>The name must be unique.<br>The value can contain a maximum of 32 characters.                                                                                                                                                                                                                                                                                                                                                                     |
| 2   | description  | String  | No                          | Description of an outbound campaign.<br>The value can contain a maximum of 200 characters, excluding the following special characters: "[]=;<>                                                                                                                                                                                                                                                                                                                                     |
| 3   | strBeginTime | String  | Yes                         | Time when an outbound campaign starts.<br>The format is <i>yyyy-MM-dd HH:mm:ss</i> .<br>The time cannot be earlier than 00:00 of the current day.                                                                                                                                                                                                                                                                                                                                  |
| 4   | strEndTime   | String  | Yes                         | Time when an outbound campaign ends.<br>The format is <i>yyyy-MM-dd HH:mm:ss</i> .                                                                                                                                                                                                                                                                                                                                                                                                 |
| 5   | deviceType   | Integer | Yes                         | Type of an outbound device.<br>The options are as follows: <ul style="list-style-type: none"> <li>• <b>1:</b> IVR in intelligent outbound calls (available in the SaaS environment when the intelligent feature is enabled)</li> <li>• <b>2:</b> skill queue in predicted outbound calls</li> <li>• <b>3:</b> IVR in automatic outbound calls</li> <li>• <b>5:</b> skill queue in previewed outbound calls</li> <li>• <b>6:</b> skill queue in preempted outbound calls</li> </ul> |
| 6   | callerNo     | String  | Yes                         | Calling number.<br>Number displayed on the phone of a customer after a call is connected.<br>The value can contain a maximum of 24 characters, including only digits, asterisks (*), and number signs (#).                                                                                                                                                                                                                                                                         |



| No. | Parameter       | Type    | Mandatory or Not | Description                                                                                                                                                                                                                                                                                   |
|-----|-----------------|---------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7   | maxAlertingTime | Integer | Yes              | Maximum ringing duration for no answer. If the ringing duration exceeds the value of this parameter, the call is released.<br><br>For previewed outbound calls, the value ranges from 9 to 120, in seconds. For other types of outbound calls, the value ranges from 5 to 120, in seconds.    |
| 8   | scheduleParam   | Object  | Yes              | Outbound call time segment.<br>For details about the parameters of this object, see <a href="#">Table 7-4</a> .                                                                                                                                                                               |
| 9   | ivrParam        | Object  | No               | This parameter is mandatory when <b>deviceType</b> is set to <b>1</b> or <b>3</b> (IVR).<br>For details about the parameters of this object, see <a href="#">Table 7-5</a> .                                                                                                                  |
| 10  | skillParam      | Object  | No               | This parameter is mandatory when <b>deviceType</b> is set to <b>2</b> , <b>5</b> , or <b>6</b> (skill queue).<br>For details about the parameters of this object, see <a href="#">Table 7-6</a> .                                                                                             |
| 11  | initStatus      | Integer | No               | Campaign status after addition. The default value is <b>0</b> .<br>The options are as follows: <ul style="list-style-type: none"> <li>• <b>0</b>: The campaign is in started status after being added.</li> <li>• <b>1</b>: The campaign is in suspended status after being added.</li> </ul> |
| 12  | callbackUrl     | String  | Yes              | Callback notification URL of the outbound call result.<br>The URL must start with <b>https://</b> or <b>http://</b> .<br><b>NOTE</b><br>HTTP is an insecure protocol, which may bring risks to the system. Therefore, it is not recommended. The secure HTTPS protocol is recommended.        |

| No. | Parameter | Type    | Mandatory or Not          | Description                                                                                 |
|-----|-----------|---------|---------------------------|---------------------------------------------------------------------------------------------|
| 13  | cclId     | Integer | Yes in the OP environment | Center ID. This parameter can be used to identify a center when there are multiple centers. |

**Table 7-4** Parameter description of scheduleParam

| No.  | Parameter         | Type   | Mandatory or Not | Description                                                                     |
|------|-------------------|--------|------------------|---------------------------------------------------------------------------------|
| 8.1  | workdayBeginTime1 | String | No               | Start time of outbound call time segment 1 on workdays, in <i>HH:mm</i> format. |
| 8.2  | workdayEndTime1   | String | No               | End time of outbound call time segment 1 on workdays, in <i>HH:mm</i> format.   |
| 8.3  | workdayBeginTime2 | String | No               | Start time of outbound call time segment 2 on workdays, in <i>HH:mm</i> format. |
| 8.4  | workdayEndTime2   | String | No               | End time of outbound call time segment 2 on workdays, in <i>HH:mm</i> format.   |
| 8.5  | workdayBeginTime3 | String | No               | Start time of outbound call time segment 3 on workdays, in <i>HH:mm</i> format. |
| 8.6  | workdayEndTime3   | String | No               | End time of outbound call time segment 3 on workdays, in <i>HH:mm</i> format.   |
| 8.7  | holidayBeginTime1 | String | No               | Start time of outbound call time segment 1 on holidays, in <i>HH:mm</i> format. |
| 8.8  | holidayEndTime1   | String | No               | End time of outbound call time segment 1 on holidays, in <i>HH:mm</i> format.   |
| 8.9  | holidayBeginTime2 | String | No               | Start time of outbound call time segment 2 on holidays, in <i>HH:mm</i> format. |
| 8.10 | holidayEndTime2   | String | No               | End time of outbound call time segment 2 on holidays, in <i>HH:mm</i> format.   |
| 8.11 | holidayBeginTime3 | String | No               | Start time of outbound call time segment 3 on holidays, in <i>HH:mm</i> format. |

| No.      | Parameter           | Type   | Man<br>dato<br>ry or<br>Not | Description                                                                   |
|----------|---------------------|--------|-----------------------------|-------------------------------------------------------------------------------|
| 8.1<br>2 | holidayEnd<br>Time3 | String | No                          | End time of outbound call time segment 3 on holidays, in <i>HH:mm</i> format. |

 **NOTE**

1. Among the outbound call time segments 1, 2, and 3 on workdays, at least one segment must be specified.
2. The start time and end time must be specified or left empty at the same time.
3. The start time must be earlier than the end time.
4. Outbound calls are made by workday unless a date or a day in a week is specified as a holiday.
5. **After the holiday time segment is configured, to be compatible with the AICC-sales page, the interface of 6.2 (Adding an Outbound Call Campaign Holiday) must be invoked to specify the relationship between the outbound call campaign and the holiday. Otherwise, the interface is incompatible with the page.**

**Table 7-5** Parameter description of ivrParam

| No. | Parameter    | Type    | Man<br>dato<br>ry or<br>Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----|--------------|---------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9.1 | deviceSign   | String  | Yes                         | <p>When <b>deviceType</b> is set to <b>1</b>, the value is an intelligent IVR flow code (<b>oifde-flowcode</b>). To obtain the flow code, sign in to the AICC as a tenant administrator and choose <b>Configuration Center &gt; Flow Configuration &gt; Intelligent IVR &gt; Flow Management &gt; Flow Orchestration</b>.</p> <p>When <b>deviceType</b> is set to <b>3</b>, the value is the flow access code of a common IVR or the chatbot access code of an intelligent IVR.</p> <p>To obtain the flow access code of a common IVR, sign in to the AICC as a tenant administrator and choose <b>Configuration Center &gt; Flow Configuration &gt; Flow Management</b>.</p> <p>To obtain the chatbot access code of an intelligent IVR, sign in to the AICC as a tenant administrator and choose <b>Configuration Center &gt; Flow Configuration &gt; Intelligent IVR &gt; Chatbot Management</b>.</p> |
| 9.2 | callCount    | Integer | Yes                         | <p>Number of outbound calls that are made in an outbound task each time.</p> <p>The value ranges from 1 to 100.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 9.3 | callInterval | Integer | Yes                         | <p>Interval for executing an outbound campaign task.</p> <p>The value ranges from 1 to 9999, in seconds.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

 **NOTE**

For example, if an outbound campaign task requires 60 outbound calls in one minute, you are advised to set **callInterval** to **3** and **callCount** to **3**.

The IVR is used after outbound calls are made. The number of outbound calls is calculated as follows: The value of  $(\text{callCount}/\text{callInterval}) \times \text{Interval}$  rounded up to 3 (only when the number of outbound calls is greater than 1). If the outbound call interval is greater than **3**, outbound calls are made every 3 seconds. If the outbound call interval is less than **3**, the configured outbound call interval is used.

**Table 7-6** Parameter description of skillParam

| No.  | Parameter    | Type    | Mandatory or Not | Description                                                                                                                                                                                                   |
|------|--------------|---------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.1 | skillId      | Integer | Yes              | ID of a skill queue.<br>The value ranges from 1 to 1000.                                                                                                                                                      |
| 10.2 | skillName    | String  | No               | Skill queue name.<br>The value can contain a maximum of 100 characters.                                                                                                                                       |
| 10.3 | outBoundType | Integer | Yes              | Outbound call mode.<br>The options are as follows: <ul style="list-style-type: none"> <li>• 2: predicted outbound call</li> <li>• 5: previewed outbound call</li> <li>• 6: preempted outbound call</li> </ul> |
| 10.4 | predictParam | Object  | No               | Parameter settings for predicted outbound calls. This parameter is mandatory when <b>outBoundType</b> is set to 2.<br>For details about the parameters of this object, see <a href="#">Table 7-8</a> .        |
| 10.5 | previewParam | Object  | No               | Parameter settings for previewed outbound calls. This parameter is mandatory when <b>outBoundType</b> is set to 5.<br>For details about the parameters of this object, see <a href="#">Table 7-7</a> .        |

**Table 7-7** Parameter description of previewParam

| No.    | Parameter    | Type    | Mandatory or Not | Description                                                                                                                |
|--------|--------------|---------|------------------|----------------------------------------------------------------------------------------------------------------------------|
| 10.5.1 | failInterval | Integer | Yes              | Outbound call interval, in seconds. The value ranges from 3 to 60.                                                         |
| 10.5.2 | obCallCount  | Integer | Yes              | Number of outbound calls each time. The value ranges from 1 to 100.                                                        |
| 10.5.3 | autoCallTime | Integer | Yes              | Duration of a previewed outbound call, in seconds. The value ranges from 5 to the value of <b>maxAlertingTime</b> minus 3. |

**Table 7-8** Parameter description of predictParam

| No.    | Parameter           | Type    | Mandatory or Not | Description                                                                                                                                                                                                                                                                                       |
|--------|---------------------|---------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.4.1 | predictMethod       | Integer | Yes              | Algorithm for predicted outbound calls. The options are as follows:<br><b>1:</b> Algorithm for empirical prediction<br><b>2:</b> Algorithm for agent usage prediction<br><b>3:</b> Algorithm for predicting the outbound call completion rate<br><b>5:</b> Algorithm for off-hook rate prediction |
| 10.4.2 | expPredictParam     | Object  | No               | Parameter settings of the algorithm for empirical prediction. This parameter is mandatory when <b>predictMethod</b> is set to <b>1</b> .<br>For details about the parameters of this object, see <a href="#">Table 7-9</a> .                                                                      |
| 10.4.3 | agentPredictParam   | Object  | No               | Parameter settings of the algorithm for agent usage prediction. This parameter is mandatory when <b>predictMethod</b> is set to <b>2</b> .<br>For details about the parameters of this object, see <a href="#">Table 7-10</a> .                                                                   |
| 10.4.4 | connectPredictParam | Object  | No               | Parameter settings of the algorithm for predicting the outbound call completion rate. This parameter is mandatory when <b>predictMethod</b> is set to <b>3</b> .<br>For details about the parameters of this object, see <a href="#">Table 7-11</a> .                                             |
| 10.4.5 | offhookPredictParam | Object  | No               | Parameter settings of the algorithm for off-hook rate prediction. This parameter is mandatory when <b>predictMethod</b> is set to <b>5</b> .<br>For details about the parameters of this object, see <a href="#">Table 7-12</a> .                                                                 |

**Table 7-9** Parameter description of expPredictParam

| No.              | Parameter          | Type    | Man<br>dato<br>ry or<br>Not | Description                                                                                                                                                                                  |
|------------------|--------------------|---------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.<br>4.2.<br>1 | maxAvgCall<br>Time | Integer | Yes                         | Maximum average call duration, in seconds. The value is a positive integer. The value ranges from 50 to 200.                                                                                 |
| 10.<br>4.2.<br>2 | minAvgCall<br>Time | Integer | Yes                         | Minimum average call duration, in seconds. The value is a positive integer. The value ranges from 50 to 200. The value must be smaller than or equal to the value of <b>maxAvgCallTime</b> . |
| 10.<br>4.2.<br>3 | outBoundR<br>ate   | Integer | Yes                         | Outbound call rate.<br>The value ranges from 0 to 100. The default value is <b>70</b> .                                                                                                      |

**Table 7-10** Parameter description of agentPredictParam

| No.              | Parameter          | Type    | Man<br>dato<br>ry or<br>Not | Description                                                                                                                                                                                  |
|------------------|--------------------|---------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.<br>4.3.<br>1 | maxAvgCall<br>Time | Integer | Yes                         | Maximum average call duration, in seconds. The value is a positive integer. The value ranges from 50 to 200.                                                                                 |
| 10.<br>4.3.<br>2 | minAvgCall<br>Time | Integer | Yes                         | Minimum average call duration, in seconds. The value is a positive integer. The value ranges from 50 to 200. The value must be smaller than or equal to the value of <b>maxAvgCallTime</b> . |
| 10.<br>4.3.<br>3 | lossRate           | Integer | Yes                         | Minimum call loss rate.<br>The value ranges from 0 to 100. The default value is <b>3</b> .                                                                                                   |
| 10.<br>4.3.<br>5 | utilRate           | Integer | Yes                         | Agent usage.<br>The value ranges from 0 to 100. The default value is <b>70</b> .                                                                                                             |

| No.      | Parameter      | Type    | Mandatory or Not | Description                                                                                                                                                                                                 |
|----------|----------------|---------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.4.3.6 | utilRateMethod | Integer | Yes              | Algorithm for agent usage.<br>The options are as follows:<br>1: Agent usage = Total call duration/Total login duration<br>2: Agent usage = (Total call duration + Work state duration)/Total login duration |

**Table 7-11** Parameter description of connectPredictParam

| No.      | Parameter      | Type    | Mandatory or Not | Description                                                                                                                                                                                  |
|----------|----------------|---------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.4.4.1 | maxAvgCallTime | Integer | Yes              | Maximum average call duration, in seconds. The value is a positive integer. The value ranges from 5 to 200.                                                                                  |
| 10.4.4.2 | minAvgCallTime | Integer | Yes              | Minimum average call duration, in seconds. The value is a positive integer. The value ranges from 50 to 200. The value must be smaller than or equal to the value of <b>maxAvgCallTime</b> . |
| 10.4.4.3 | lossRate       | Integer | Yes              | Minimum call loss rate.<br>The value ranges from 0 to 100. The default value is <b>3</b> .                                                                                                   |
| 10.4.4.4 | waitTime       | Integer | Yes              | Called party's waiting time.<br>The value ranges from 0 to 16, in seconds. The default value is <b>5</b> .                                                                                   |
| 10.4.4.5 | connRate       | Integer | Yes              | Outbound call connection rate.<br>The value ranges from 0 to 100.                                                                                                                            |



**Table 7-12** Parameter description of offhookPredictParam

| No.      | Parameter   | Type    | Mandatory or Not | Description                                                                          |
|----------|-------------|---------|------------------|--------------------------------------------------------------------------------------|
| 10.4.5.1 | offHookRate | Integer | Yes              | Off-hook rate.<br>The value ranges from 50 to 200. The default value is <b>100</b> . |

## Response Description

**Table 7-13** Response body parameters

| No. | Parameter    | Type   | Description                                                                                                                                |
|-----|--------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode   | String | Error code. The value <b>0200000</b> indicates success and other values indicate failure.<br>For details, see <a href="#">Table 7-15</a> . |
| 2   | resultDesc   | String | Description.                                                                                                                               |
| 3   | returnCode   | String | Error code. The value <b>0200000</b> indicates success and other values indicate failure.<br>For details, see <a href="#">Table 7-15</a> . |
| 4   | returnDesc   | String | Description.                                                                                                                               |
| 5   | returnObject | Object | For details, see <a href="#">Table 7-14</a> .                                                                                              |

**Table 7-14** Parameter description of returnObject

| No. | Parameter | Type    | Description                 |
|-----|-----------|---------|-----------------------------|
| 5.1 | id        | Integer | ID of an outbound campaign. |

## Triggered Event

None

## Error Codes

**Table 7-15** Error code description

| No. | Error Code   | Description                                                                                                                                                                        |
|-----|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> .                                                                                                              |
| 2   | 020000<br>2  | The start time of an outbound campaign is earlier than the early morning of the current day.                                                                                       |
| 3   | 020000<br>3  | The number of outbound campaigns whose device type is skill queue reaches the upper limit. To add more outbound campaigns, delete some campaigns whose device type is skill queue. |
| 4   | 020000<br>4  | The number of outbound campaigns whose device type is IVR reaches the upper limit. To add more outbound campaigns, delete some campaigns whose device type is IVR.                 |
| 5   | 020000<br>5  | The outbound campaign name must be unique.                                                                                                                                         |
| 6   | 020001<br>7  | The skill queue ID does not exist.                                                                                                                                                 |
| 7   | 020000<br>01 | Empty parameter.                                                                                                                                                                   |
| 8   | 020000<br>02 | The parameter contains invalid characters.                                                                                                                                         |
| 9   | 020000<br>03 | The parameter length cannot exceed the maximum length.                                                                                                                             |
| 10  | 020000<br>06 | Incorrect parameter type.                                                                                                                                                          |
| 11  | 020000<br>07 | Incorrect parameter value.                                                                                                                                                         |
| 12  | 020000<br>09 | Incorrect parameter combination. Check the request parameters.                                                                                                                     |

## Example

- The following provides an example of the request body of this interface:

```
{
 "name": "Data Package Recommendation for National Day",
 "description": "Data Package Recommendation for National Day",
 "strBeginTime": "2020-09-10 00:00:00",
 "strEndTime": "2020-10-07 23:59:59",
 "deviceType": 2,
 "callerNo": "10085",
 "maxAlertingTime": 20,
```

```
"scheduleParam": {
 "workdayBeginTime1": "08:00",
 "workdayEndTime1": "11:30",
 "workdayBeginTime2": "13:00",
 "workdayEndTime2": "17:30",
 "workdayBeginTime3": "",
 "workdayEndTime3": "",
 "holidayBeginTime1": "10:00",
 "holidayEndTime1": "11:00",
 "holidayBeginTime2": "13:00",
 "holidayEndTime2": "17:30",
 "holidayBeginTime3": "",
 "holidayEndTime3": ""
},
"skillParam": {
 "skillId": 5,
 "skillName": "Voice Skill Queue",
 "outBoundType": 2,
 "predictParam": {
 "predictMethod": 5,
 "offhookPredictParam": {
 "offHookRate": 100
 }
 }
},
"initStatus": 0,
"callBackUrl": "https://10.10.10.10/xxx/xxx/xxx"
}
```

- The following provides an example of the response body of this interface:

```
{
 "resultCode": "0200000",
 "resultDesc": "",
 "returnCode": "0200000",
 "returnDesc": "",
 "returnObject": {
 "id": 46
 }
}
```

## 7.1.2 Adding an Outbound Campaign (V2)

### Scenario

This interface is invoked to add a predicted, intelligent, automatic, previewed, or preempted outbound campaign.

The V2 version is recommended. It supports the adding of the outbound call retry policy, call policy, and business result policy. Only one interface is required to add the data related to an outbound campaign task. The interface for setting the outbound campaign retry policy does not need to be invoked.

### Usage Description

- Prerequisites
  - You have applied for a developer account.
  - For intelligent outbound calls, the customer needs to develop the IVR. For details, see [Configuring Intelligent IVR](#).
- Restrictions
  - Only 20 outbound campaign tasks whose device type is skill queue can be created.

- Only 20 outbound campaign tasks whose device type is IVR can be created.

 **NOTE**

The number of active outbound campaign tasks of the same type of a tenant cannot be greater than a specified value. The value is specified by **max.liveliest.taskCount**. The default value is 20.

- After an outbound campaign is created, the device type cannot be changed.

## Method

This interface supports only the POST method.

## URI

https://ip:port/rest/isales/v2/openapi/campaigns/{vdnId}

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-16** Parameters in the URL

| No. | Parameter | Type    | Mandatory or Not | Description                                                |
|-----|-----------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |

## Request Description

**Table 7-17** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-18** Request body parameters

| No. | Parameter       | Type    | Man<br>dato<br>ry or<br>Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----|-----------------|---------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | name            | String  | Yes                         | Name of an outbound campaign.<br>The name must be unique.<br>The value can contain a maximum of 32 characters.                                                                                                                                                                                                                                                                                                                                                                          |
| 2   | description     | String  | No                          | Description of an outbound campaign.<br>The value can contain a maximum of 200 characters, excluding the following special characters: "[ ] = ; < >                                                                                                                                                                                                                                                                                                                                     |
| 3   | strBeginTime    | String  | Yes                         | Time when an outbound campaign starts.<br>The format is <i>yyyy-MM-dd HH:mm:ss</i> .<br>The time cannot be earlier than 00:00 of the current day.                                                                                                                                                                                                                                                                                                                                       |
| 4   | strEndTime      | String  | Yes                         | Time when an outbound campaign ends.<br>The format is <i>yyyy-MM-dd HH:mm:ss</i> .                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5   | deviceType      | Integer | Yes                         | Type of an outbound device.<br>The options are as follows: <ul style="list-style-type: none"> <li>• <b>1:</b> IVR for intelligent outbound calls (available in the SaaS environment when the intelligent feature is enabled)</li> <li>• <b>2:</b> skill queue for predicted outbound calls</li> <li>• <b>3:</b> IVR for automatic outbound calls</li> <li>• <b>5:</b> skill queue for previewed outbound calls</li> <li>• <b>6:</b> skill queue for preempted outbound calls</li> </ul> |
| 6   | callerNo        | List    | Yes                         | Multiple calling numbers are supported.<br>For details about the parameters of this object, see <a href="#">Table 7-28</a> .                                                                                                                                                                                                                                                                                                                                                            |
| 7   | maxAlertingTime | Integer | Yes                         | Maximum ringing duration for no answer.<br>If the ringing duration exceeds the value of this parameter, the call is released.<br>For previewed outbound calls, the value ranges from 9 to 120, in seconds. For other types of outbound calls, the value ranges from 5 to 120, in seconds.                                                                                                                                                                                               |

| No. | Parameter     | Type    | Mandatory or Not | Description                                                                                                                                                                                                                                                                                   |
|-----|---------------|---------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8   | priority      | Integer | No               | Task priority.<br>The value ranges from 1 to 5. A smaller value indicates a higher priority.                                                                                                                                                                                                  |
| 9   | scheduleParam | Object  | Yes              | Outbound call time segment.<br>For details about the parameters of this object, see <a href="#">Table 7-19</a> .                                                                                                                                                                              |
| 10  | ivrParam      | Object  | No               | This parameter is mandatory when <b>deviceType</b> is set to <b>1</b> or <b>3</b> (IVR).<br>For details about the parameters of this object, see <a href="#">Table 7-20</a> .                                                                                                                 |
| 11  | skillParam    | Object  | No               | This parameter is mandatory when <b>deviceType</b> is set to <b>2</b> , <b>5</b> , or <b>6</b> (skill queue).<br>For details about the parameters of this object, see <a href="#">Table 7-21</a> .                                                                                            |
| 12  | initStatus    | Integer | No               | Campaign status after addition. The default value is <b>0</b> .<br>The options are as follows: <ul style="list-style-type: none"> <li>• <b>0</b>: The campaign is in started status after being added.</li> <li>• <b>1</b>: The campaign is in suspended status after being added.</li> </ul> |
| 13  | callbackUrl   | String  | Yes              | Callback notification address of the outbound call result.<br>The URL must start with https:// or http.<br><b>NOTE</b><br>HTTP is an insecure protocol, which may bring risks to the system. Therefore, it is not recommended. The secure HTTPS protocol is recommended.                      |
| 14  | retryPolicy   | Object  | Yes              | Outbound call result policy.<br>For details about the parameters of this object, see <a href="#">Table 7-29</a> .                                                                                                                                                                             |
| 15  | callPolicy    | Object  | No               | Call policy.<br>For details about the parameters of this object, see <a href="#">Table 7-34</a> .                                                                                                                                                                                             |

| No. | Parameter | Type    | Mandatory or Not          | Description                                                                                 |
|-----|-----------|---------|---------------------------|---------------------------------------------------------------------------------------------|
| 16  | cclId     | Integer | Yes in the OP environment | Center ID. This parameter can be used to identify a center when there are multiple centers. |

 NOTE

If the value of **callPolicy** is not empty and the value of **callType** is **1** (round call), the value of **policyType** in the outbound call result policy **retryPolicy** can only be **1**, that is, the number type policy.

**Table 7-19** Parameter description of scheduleParam

| No. | Parameter         | Type   | Mandatory or Not | Description                                                                     |
|-----|-------------------|--------|------------------|---------------------------------------------------------------------------------|
| 9.1 | workdayBeginTime1 | String | No               | Start time of outbound call time segment 1 on workdays, in <i>HH:mm</i> format. |
| 9.2 | workdayEndTime1   | String | No               | End time of outbound call time segment 1 on workdays, in <i>HH:mm</i> format.   |
| 9.3 | workdayBeginTime2 | String | No               | Start time of outbound call time segment 2 on workdays, in <i>HH:mm</i> format. |
| 9.4 | workdayEndTime2   | String | No               | End time of outbound call time segment 2 on workdays, in <i>HH:mm</i> format.   |
| 9.5 | workdayBeginTime3 | String | No               | Start time of outbound call time segment 3 on workdays, in <i>HH:mm</i> format. |
| 9.6 | workdayEndTime3   | String | No               | End time of outbound call time segment 3 on workdays, in <i>HH:mm</i> format.   |
| 9.7 | holidayBeginTime1 | String | No               | Start time of outbound call time segment 1 on holidays, in <i>HH:mm</i> format. |
| 9.8 | holidayEndTime1   | String | No               | End time of outbound call time segment 1 on holidays, in <i>HH:mm</i> format.   |
| 9.9 | holidayBeginTime2 | String | No               | Start time of outbound call time segment 2 on holidays, in <i>HH:mm</i> format. |

| No.  | Parameter         | Type   | Mandatory or Not | Description                                                                     |
|------|-------------------|--------|------------------|---------------------------------------------------------------------------------|
| 9.10 | holidayEndTime2   | String | No               | End time of outbound call time segment 2 on holidays, in <i>HH:mm</i> format.   |
| 9.11 | holidayBeginTime3 | String | No               | Start time of outbound call time segment 3 on holidays, in <i>HH:mm</i> format. |
| 9.12 | holidayEndTime3   | String | No               | End time of outbound call time segment 3 on holidays, in <i>HH:mm</i> format.   |

 NOTE

1. Among the outbound call time segments 1, 2, and 3 on workdays, at least one segment must be specified.
2. The start time and end time must be specified or left empty at the same time.
3. The start time must be earlier than the end time.
4. Outbound calls are made by workday unless a date or a day in a week is specified as a holiday.
5. **For the compatibility with the CC-iSales page, after the holiday time segment is configured, the interface in "Adding a Holiday for an Outbound Campaign" must be invoked to specify the relationship between the outbound campaign and the holiday. Otherwise, the interface is incompatible with the page.**

**Table 7-20** Parameter description of ivrParam

| No.  | Parameter  | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------|------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.1 | deviceSign | String | Yes              | <p>When <b>deviceType</b> is set to <b>1</b>, the value is an intelligent IVR flow code (<b>oifd-flowcode</b>). To obtain the flow code, sign in to the AICC as a tenant administrator and choose <b>Configuration Center &gt; Flow Configuration &gt; Intelligent IVR &gt; Flow Management &gt; Flow Orchestration</b>.</p> <p>When <b>deviceType</b> is set to <b>3</b>, the value is a common IVR flow access code. To obtain the flow access code, sign in to the AICC as a tenant administrator and choose <b>Configuration Center &gt; Flow Configuration &gt; Flow Management</b>.</p> |



| No.  | Parameter    | Type    | Mandatory or Not | Description                                                                                              |
|------|--------------|---------|------------------|----------------------------------------------------------------------------------------------------------|
| 10.2 | callCount    | Integer | Yes              | Number of outbound calls that are made in an outbound task each time.<br>The value ranges from 1 to 100. |
| 10.3 | callInterval | Integer | Yes              | Interval for executing an outbound campaign task.<br>The value ranges from 1 to 9999, in seconds.        |

 NOTE

For example, if an outbound campaign task requires 60 outbound calls in one minute, you are advised to set **callInterval** to **3** and **callCount** to **3**.

When the device type is IVR and outbound calls are made, the number of outbound calls is calculated as follows: (Value of **callCount**/Value of **callInterval**) x 3, rounded up. Outbound calls are made only when the result is greater than 1. If the value of **callInterval** is greater than **3**, **3** is used for calculation. If the value of **callInterval** is less than **3**, the actual value is used.

**Table 7-21** Parameter description of skillParam

| No.  | Parameter    | Type    | Mandatory or Not | Description                                                                                                                                                                                                     |
|------|--------------|---------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11.1 | skillId      | Integer | Yes              | ID of a skill queue.<br>The value ranges from 1 to 1000.                                                                                                                                                        |
| 11.2 | skillName    | String  | Yes              | Skill queue name.<br>The value can contain a maximum of 100 characters.                                                                                                                                         |
| 11.3 | outBoundType | Integer | Yes              | Outbound call mode.<br>The options are as follows: <ul style="list-style-type: none"> <li>• 2: predicted outbound call</li> <li>• 5: previewed outbound call</li> <li>• 6: preempted outbound call</li> </ul>   |
| 11.4 | predictParam | Object  | No               | Parameter settings for predicted outbound calls. This parameter is mandatory when <b>outBoundType</b> is set to <b>2</b> .<br>For details about the parameters of this object, see <a href="#">Table 7-23</a> . |

| No.  | Parameter    | Type   | Mandatory or Not | Description                                                                                                                                                                                                     |
|------|--------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11.5 | previewParam | Object | No               | Parameter settings for previewed outbound calls. This parameter is mandatory when <b>outBoundType</b> is set to <b>5</b> .<br>For details about the parameters of this object, see <a href="#">Table 7-22</a> . |

**Table 7-22** Parameter description of previewParam

| No.    | Parameter    | Type    | Mandatory or Not | Description                                                                                                                |
|--------|--------------|---------|------------------|----------------------------------------------------------------------------------------------------------------------------|
| 11.5.1 | failInterval | Integer | Yes              | Outbound call interval, in seconds. The value ranges from 3 to 60.                                                         |
| 11.5.2 | obCallCount  | Integer | Yes              | Number of outbound calls each time. The value ranges from 1 to 100.                                                        |
| 11.5.3 | autoCallTime | Integer | Yes              | Duration of a previewed outbound call, in seconds. The value ranges from 5 to the value of <b>maxAlertingTime</b> minus 3. |

**Table 7-23** Parameter description of predictParam

| No.    | Parameter     | Type    | Mandatory or Not | Description                                                                                                                                                                                                                                                                                       |
|--------|---------------|---------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11.4.1 | predictMethod | Integer | Yes              | Algorithm for predicted outbound calls. The options are as follows:<br><b>1:</b> Algorithm for empirical prediction<br><b>2:</b> Algorithm for agent usage prediction<br><b>3:</b> Algorithm for predicting the outbound call completion rate<br><b>5:</b> Algorithm for off-hook rate prediction |

| No.    | Parameter           | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                           |
|--------|---------------------|--------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11.4.2 | expPredictParam     | Object | No               | Parameter settings of the algorithm for empirical prediction. This parameter is mandatory when <b>predictMethod</b> is set to <b>1</b> .<br>For details about the parameters of this object, see <a href="#">Table 7-24</a> .                         |
| 11.4.3 | agentPredictParam   | Object | No               | Parameter settings of the algorithm for agent usage prediction. This parameter is mandatory when <b>predictMethod</b> is set to <b>2</b> .<br>For details about the parameters of this object, see <a href="#">Table 7-25</a> .                       |
| 11.4.4 | connectPredictParam | Object | No               | Parameter settings of the algorithm for predicting the outbound call completion rate. This parameter is mandatory when <b>predictMethod</b> is set to <b>3</b> .<br>For details about the parameters of this object, see <a href="#">Table 7-26</a> . |
| 11.4.5 | offhookPredictParam | Object | No               | Parameter settings of the algorithm for off-hook rate prediction. This parameter is mandatory when <b>predictMethod</b> is set to <b>5</b> .<br>For details about the parameters of this object, see <a href="#">Table 7-27</a> .                     |

**Table 7-24** Parameter description of expPredictParam

| No.      | Parameter      | Type    | Mandatory or Not | Description                                                                                                                                                                               |
|----------|----------------|---------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11.4.2.1 | maxAvgCallTime | Integer | Yes              | Maximum average call duration, in seconds. The value is a positive integer. The value ranges from 50 to 200.                                                                              |
| 11.4.2.2 | minAvgCallTime | Integer | Yes              | Minimum average call duration, in seconds. The value is a positive integer. The value ranges from 50 to 200. The value must be less than or equal to the value of <b>maxAvgCallTime</b> . |

| No.      | Parameter    | Type    | Mandatory or Not | Description                                                                             |
|----------|--------------|---------|------------------|-----------------------------------------------------------------------------------------|
| 11.4.2.3 | outBoundRate | Integer | Yes              | Outbound call rate.<br>The value ranges from 0 to 100. The default value is <b>70</b> . |

**Table 7-25** Parameter description of agentPredictParam

| No.      | Parameter      | Type    | Mandatory or Not | Description                                                                                                                                                                                                               |
|----------|----------------|---------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11.4.3.1 | maxAvgCallTime | Integer | Yes              | Maximum average call duration, in seconds. The value is a positive integer. The value ranges from 50 to 200.                                                                                                              |
| 11.4.3.2 | minAvgCallTime | Integer | Yes              | Minimum average call duration, in seconds. The value is a positive integer. The value ranges from 50 to 200. The value must be less than or equal to the value of <b>maxAvgCallTime</b> .                                 |
| 11.4.3.3 | lossRate       | Integer | Yes              | Minimum call loss rate.<br>The value ranges from 0 to 100. The default value is <b>3</b> .                                                                                                                                |
| 11.4.3.4 | utilRate       | Integer | Yes              | Agent usage.<br>The value ranges from 0 to 100. The default value is <b>70</b> .                                                                                                                                          |
| 11.4.3.5 | utilRateMethod | Integer | Yes              | Algorithm for agent usage.<br>The options are as follows:<br><b>1:</b> Agent usage = Total call duration/Total login duration<br><b>2:</b> Agent usage = (Total call duration + Work state duration)/Total login duration |

**Table 7-26** Parameter description of connectPredictParam

| No.              | Parameter          | Type    | Man<br>dato<br>ry or<br>Not | Description                                                                                                                                                                               |
|------------------|--------------------|---------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11.<br>4.4.<br>1 | maxAvgCall<br>Time | Integer | Yes                         | Maximum average call duration, in seconds. The value is a positive integer. The value ranges from 50 to 200.                                                                              |
| 11.<br>4.4.<br>2 | minAvgCall<br>Time | Integer | Yes                         | Minimum average call duration, in seconds. The value is a positive integer. The value ranges from 50 to 200. The value must be less than or equal to the value of <b>maxAvgCallTime</b> . |
| 11.<br>4.4.<br>3 | lossRate           | Integer | Yes                         | Minimum call loss rate.<br>The value ranges from 0 to 100. The default value is <b>3</b> .                                                                                                |
| 11.<br>4.4.<br>4 | waitTime           | Integer | Yes                         | Called party's waiting time.<br>The value ranges from 0 to 16, in seconds. The default value is <b>5</b> .                                                                                |
| 11.<br>4.4.<br>5 | connRate           | Integer | Yes                         | Outbound call connection rate.<br>The value ranges from 0 to 100.                                                                                                                         |

**Table 7-27** Parameter description of offhookPredictParam

| No.              | Parameter       | Type    | Man<br>dato<br>ry or<br>Not | Description                                                                          |
|------------------|-----------------|---------|-----------------------------|--------------------------------------------------------------------------------------|
| 11.<br>4.5.<br>1 | offHookRat<br>e | Integer | Yes                         | Off-hook rate.<br>The value ranges from 50 to 200. The default value is <b>100</b> . |

**Table 7-28** Parameter description of callerNo

| No. | Parameter  | Type    | Mandatory or Not | Description                                                                                                                                                           |
|-----|------------|---------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6.1 | accessCode | String  | Yes              | Calling number.<br>Number displayed on the phone of a customer after a call is connected.<br>The value can contain a maximum of 32 characters, including only digits. |
| 6.2 | priority   | Integer | Yes              | Calling number priority.<br>The value ranges from 1 to 5. A smaller value indicates a higher priority.                                                                |

**Table 7-29** Parameter description of retryPolicy

| No.  | Parameter    | Type    | Mandatory or Not | Description                                                                                                                                                                                        |
|------|--------------|---------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14.1 | policyType   | Integer | Yes              | Retry policy type.<br><b>0</b> : global policy; <b>1</b> : number type matching policy.                                                                                                            |
| 14.2 | retryDay     | Integer | --               | Maximum number of days for call attempts.<br>This parameter is mandatory for common policies under the global policy.<br>The value ranges from 1 to 5.                                             |
| 14.3 | retryTimes   | Integer | --               | Maximum number of call attempts per day.<br>This parameter is mandatory for common policies under the global policy.<br>The value ranges from 1 to 6.                                              |
| 14.4 | callInterval | Integer | --               | Outbound call interval, in seconds.<br>This parameter is mandatory for common policies under the global policy.<br>The value ranges from 1 to 86400.                                               |
| 14.5 | resultRetry  | String  | --               | JSON string of the result policy.<br>This parameter is mandatory for result policies under the global policy.<br>For details about the parameters of this object, see <a href="#">Table 7-30</a> . |

| No.  | Parameter     | Type             | Mandatory or Not                                                         | Description                                                                                                                                                                                            |
|------|---------------|------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14.6 | policyJson    | String           | --                                                                       | JSON string of the number type matching policy.<br>This parameter is mandatory for number type matching policies.<br>For details about the parameters of this object, see <a href="#">Table 7-31</a> . |
| 14.7 | busiPolicy    | String           | No                                                                       | JSON string of the business result policy.<br>For details about the parameters of this object, see <a href="#">Table 7-33</a> .                                                                        |
| 14.8 | noRetryPolicy | List<br><String> | No<br>(This parameter cannot be set when <b>policyType</b> is set to 1.) | Result codes for which no retry policy is configured. The result codes come from the <b>resultCode</b> field in the <b>data</b> attribute in <a href="#">7.5.1 Querying Outbound Call Results</a> .    |

 NOTE

If the value of **policyType** is 0 and the policy is a common policy, set **retryDay**, **retryTimes**, and **callInterval**, for example, "**retryDay**": 2,"**retryTimes**": 2,"**callInterval**": 2. For a result-based policy, set only **resultRetry**, for example, "[{"**result**": "2", "**retryNumber**": "1", "**callInterval**": "600"}]".

When the value of **policyType** is 1, set only **policyJson**.

For a common policy, an example of **policyJson** is as follows: **policyJson**: [{"**dataType**": "ST", "**type**": "0", "**policy**": {"**retryDay**": "2", "**retryTimes**": "2"}}].

For a result-based policy, an example of **policyJson** is as follows: "**policyJson**": [{"**dataType**": "SI", "**type**": "1", "**policy**": [{"**result**": "4", "**retryNumber**": "3", "**callInterval**": "600"}]}].

**Table 7-30** Parameter description of resultRetry

| No.    | Parameter    | Type    | Mandatory or Not | Description                                                                                                                                       |
|--------|--------------|---------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 14.5.1 | result       | Integer | --               | Result type.<br>This parameter is mandatory for result policies under the global policy. The value ranges from 1 to 9.                            |
| 14.5.2 | callInterval | Integer | --               | Outbound call interval, in seconds.<br>This parameter is mandatory for result policies under the global policy. The value ranges from 1 to 86400. |
| 14.5.3 | retryNumber  | Integer | --               | Number of retry times.<br>This parameter is mandatory for result policies under the global policy. The value ranges from 0 to 9.                  |

**Table 7-31** Parameter description of policyJson

| No.    | Parameter | Type    | Mandatory or Not | Description                                                                                                               |
|--------|-----------|---------|------------------|---------------------------------------------------------------------------------------------------------------------------|
| 14.6.1 | dataType  | String  | Yes              | Number type.<br>The value can contain a maximum of 20 characters, excluding special characters.                           |
| 14.6.2 | type      | Integer | Yes              | Retry logic policy type. <ul style="list-style-type: none"> <li>● 0: common policy</li> <li>● 1: result policy</li> </ul> |
| 14.6.3 | policy    | String  | Yes              | Policy configuration information.<br>For details about the parameters of this object, see <a href="#">Table 7-32</a> .    |



**Table 7-32** Parameter description of policy

| No.      | Parameter    | Type    | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------|--------------|---------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14.6.3.1 | retryDay     | Integer | --               | Maximum number of days for call attempts.<br>This parameter is mandatory for common policies that are matched based on the number type. The value ranges from 1 to 5.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 14.6.3.2 | retryTimes   | Integer | --               | Maximum number of call attempts per day.<br>This parameter is mandatory for common policies that are matched based on the number type. The value ranges from 1 to 6.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 14.6.3.3 | result       | Integer | --               | Result type.<br>This parameter is mandatory for result policies that are matched based on the number type. The value ranges from 0 to 9.<br>The options are as follows: <b>1</b> : The customer is busy. <b>2</b> : The customer does not answer the call. <b>3</b> : The customer rejects the call. <b>4</b> : The number does not exist. <b>5</b> : The customer's phone is powered off. <b>6</b> : The customer is out of the service area. <b>7</b> : Fax or switchboard. <b>8</b> : The call times out. <b>9</b> : The call fails. <b>0</b> : Others.<br>The retry policy is also determined based on the specific failure code ( <b>failCode</b> ).<br>For details about failure codes, see <a href="#">Table 7-295</a> . |
| 14.6.3.4 | callInterval | Integer | --               | Outbound call interval, in seconds.<br>This parameter is mandatory for result policies that are matched based on the number type. The value ranges from 1 to 86400.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 14.6.3.5 | retryNumber  | Integer | --               | Number of retry times.<br>This parameter is mandatory for result policies that are matched based on the number type. The value ranges from 0 to 9.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

**Table 7-33** Parameter description of busiPolicy

| No.    | Parameter         | Type    | Mandatory or Not | Description                                                                                                                                                                                    |
|--------|-------------------|---------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14.7.1 | busiResultCode    | String  | Yes              | Business result code.                                                                                                                                                                          |
| 14.7.2 | busiResultSubCode | String  | --               | Business result subcode. (This parameter is associated with the business result code.)                                                                                                         |
| 14.7.3 | busiResultPolicy  | Integer | Yes              | Call policy for a business result.<br><b>0</b> : Stop calling. <b>1</b> : Call the next number.<br><b>2</b> : Call the current number.                                                         |
| 14.7.4 | callInterval      | Integer | --               | Outbound call interval, in seconds.<br>If the call policy is set to <b>0</b> , you do not need to set this parameter. Otherwise, this parameter is mandatory. The value ranges from 1 to 3600. |

**Table 7-34** Parameter description of callPolicy

| No.  | Parameter  | Type    | Mandatory or Not | Description                                                                                                                                                            |
|------|------------|---------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 15.1 | callType   | Integer | No               | Call mode.<br><b>0</b> : by sequence; <b>1</b> : by round. The default value is <b>0</b> .                                                                             |
| 15.2 | chooseType | Integer | --               | Round mode.<br><b>0</b> : by number category; <b>1</b> : by number sequence. This parameter is mandatory when the call mode is by round.                               |
| 15.3 | turns      | List    | --               | Round information.<br>This parameter is mandatory when the call mode is by round.<br>For details about the parameters of this object, see <a href="#">Table 7-35</a> . |

**Table 7-35** Parameter description of turns

| No.    | Parameter | Type    | Mandatory or Not | Description                                                                                                                                                               |
|--------|-----------|---------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 15.3.1 | turnType  | String  | --               | Number type.<br>The value can contain a maximum of 20 characters, excluding special characters.<br>This parameter is mandatory when the round mode is by number category. |
| 15.3.2 | turnOrder | Integer | --               | Number sequence.<br>The value ranges from 1 to 10. This parameter is mandatory when the round mode is by number sequence.                                                 |

## Response Description

**Table 7-36** Response body parameters

| No. | Parameter    | Type   | Description                                                                                                                                 |
|-----|--------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode   | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-38</a> . |
| 2   | resultDesc   | String | Description.                                                                                                                                |
| 3   | returnCode   | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-38</a> . |
| 4   | returnDesc   | String | Description.                                                                                                                                |
| 5   | returnObject | Object | For details, see <a href="#">Table 7-37</a> .                                                                                               |

**Table 7-37** Parameter description of returnObject

| No. | Parameter | Type    | Description                 |
|-----|-----------|---------|-----------------------------|
| 5.1 | id        | Integer | ID of an outbound campaign. |

## Triggered Event

None

## Error Codes

**Table 7-38** Error code description

| No. | Error Code   | Description                                                                                                                                                                                      |
|-----|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> .                                                                                                                            |
| 2   | 020000<br>2  | The start time of an outbound campaign is earlier than the early morning of the current day.                                                                                                     |
| 3   | 020000<br>3  | The number of outbound campaigns whose device type is skill queue has reached the upper limit. To add more outbound campaigns, delete other outbound campaigns whose device type is skill queue. |
| 4   | 020000<br>4  | The number of outbound campaigns whose device type is IVR has reached the upper limit. To add more outbound campaigns, delete other outbound campaigns whose device type is IVR.                 |
| 5   | 020000<br>5  | The outbound campaign name must be unique.                                                                                                                                                       |
| 6   | 020001<br>7  | The skill queue ID does not exist.                                                                                                                                                               |
| 7   | 020000<br>01 | Empty parameter.                                                                                                                                                                                 |
| 8   | 020000<br>02 | The parameter contains invalid characters.                                                                                                                                                       |
| 9   | 020000<br>03 | The parameter length cannot exceed the maximum length.                                                                                                                                           |
| 10  | 020000<br>04 | The parameter length cannot be less than the minimum length.                                                                                                                                     |
| 11  | 020000<br>05 | The parameter length must be within the specified range.                                                                                                                                         |
| 12  | 020000<br>06 | Incorrect parameter type.                                                                                                                                                                        |
| 13  | 020000<br>07 | Incorrect parameter value.                                                                                                                                                                       |
| 14  | 020000<br>08 | Parameter conversion error. Check the request parameters.                                                                                                                                        |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 15  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 16  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 17  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:

```
{
 "name": "test0827shwocase1",
 "description": "long0825",
 "strBeginTime": "2021-08-27 00:00:00",
 "strEndTime": "2021-08-28 23:59:59",
 "deviceType": 2,
 "callerNo": [
 {
 "accessCode": "88889527",
 "priority": 3
 },
 {
 "accessCode": "88880066",
 "priority": 4
 }
],
 "maxAlertingTime": 20,
 "priority": 4,
 "scheduleParam": {
 "workdayBeginTime1": "00:00",
 "workdayEndTime1": "23:59",
 "workdayBeginTime2": "",
 "workdayEndTime2": "",
 "workdayBeginTime3": "",
 "workdayEndTime3": "",
 "holidayBeginTime1": "10:00",
 "holidayEndTime1": "11:00",
 "holidayBeginTime2": "13:00",
 "holidayEndTime2": "17:30",
 "holidayBeginTime3": "",
 "holidayEndTime3": ""
 },
 "skillParam": {
 "skillId": 2,
 "skillName": "defaultAudioSkill",
 "outBoundType": 2,
 "predictParam": {
 "predictMethod": 1,
 "expPredictParam": {
 "maxAvgCallTime": 100,
 "minAvgCallTime": 50,
 "outBoundRate": 50
 }
 }
 },
 "retryPolicy": {
 "policyType": 1,
 "policyJson": "[{'dataType':'SI','type':1,'policy':{'result':4,'retryNumber':3,'callInterval':600}}]"
 },
}
```

```
"callPolicy": {
 "callType": 1,
 "chooseType": 0,
 "turns": [
 {
 "turnType": "SI"
 }
]
},
"initStatus": 0,
"callBackUrl": "https://10.10.10.10/xxx/xxx/xxx"
}
```

- The following provides an example of the response body of this interface:

```
{
 "resultCode": "0200000",
 "resultDesc": "",
 "returnCode": "0200000",
 "returnDesc": "",
 "returnObject": {
 "id": 46
 }
}
```

## 7.1.3 Modifying an Outbound Campaign (V1)

### Scenario

This interface is invoked to modify the configurations of an outbound campaign.

### Usage Description

- Prerequisites
  - You have applied for a developer account.
  - The ID of the outbound campaign to be modified has been obtained.
  - The outbound campaign task must exist and is not complete.
- Restrictions
  - After an outbound campaign is created, the device type cannot be changed.

### Method

This interface supports only the PUT method.

### URI

`https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/{campaignId}`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-39** Parameters in the URL

| No. | Parameter  | Type    | Mandatory or Not | Description                                                |
|-----|------------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId      | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | campaignId | Integer | Yes              | Outbound campaign task ID.                                 |

## Request Description

**Table 7-40** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-41** Request body parameters

| No. | Parameter   | Type   | Mandatory or Not | Description                                                                                                                                   |
|-----|-------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | name        | String | Yes              | Name of an outbound campaign.<br>The name must be unique.<br>The value can contain a maximum of 32 characters.                                |
| 2   | description | String | No               | Description of an outbound campaign.<br>The value can contain a maximum of 200 characters, excluding the following special characters: "[]=<> |

| No. | Parameter       | Type    | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----|-----------------|---------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | strBeginTime    | String  | No               | Time when an outbound campaign starts. The format is <i>yyyy-MM-dd HH:mm:ss</i> . The time cannot be earlier than 00:00 of the current day.                                                                                                                                                                                                                                                                                                                                                                                                               |
| 4   | strEndTime      | String  | No               | Time when an outbound campaign ends. The format is <i>yyyy-MM-ddHH:mm:ss</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5   | deviceType      | Integer | Yes              | Type of an outbound device. The options are as follows: <ul style="list-style-type: none"> <li>• <b>1:</b> IVR in intelligent outbound calls (available in the SaaS environment when the intelligent feature is enabled)</li> <li>• <b>2:</b> skill queue in predicted outbound calls</li> <li>• <b>3:</b> IVR in automatic outbound calls</li> <li>• <b>5:</b> skill queue in previewed outbound calls</li> <li>• <b>6:</b> skill queue in preempted outbound calls</li> </ul> The default value is the value set during creation and cannot be changed. |
| 6   | callerNo        | String  | Yes              | Calling number. Number displayed on the phone of a customer after a call is connected. The value can contain a maximum of 24 characters, including only digits, asterisks (*), and number signs (#).                                                                                                                                                                                                                                                                                                                                                      |
| 7   | maxAlertingTime | Integer | Yes              | Maximum ringing duration for no answer. If the ringing duration exceeds the value of this parameter, the call is released. For previewed outbound calls, the value ranges from 9 to 120, in seconds. For other types of outbound calls, the value ranges from 5 to 120, in seconds.                                                                                                                                                                                                                                                                       |
| 8   | scheduleParam   | Object  | Yes              | Outbound call time segment. For details about the parameters of this object, see <a href="#">Table 7-42</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                             |



| No. | Parameter   | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                            |
|-----|-------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9   | ivrParam    | Object | No               | This parameter is mandatory when <b>deviceType</b> is set to <b>1</b> or <b>3</b> (IVR).<br>For details about the parameters of this object, see <a href="#">Table 7-43</a> .                                                                                                          |
| 10  | skillParam  | Object | No               | This parameter is mandatory when <b>deviceType</b> is set to <b>2</b> , <b>5</b> , or <b>6</b> (skill queue).<br>For details about the parameters of this object, see <a href="#">Table 7-44</a> .                                                                                     |
| 11  | callbackUrl | String | Yes              | Callback notification URL of the outbound call result.<br>The URL must start with <b>https://</b> or <b>http://</b> .<br><b>NOTE</b><br>HTTP is an insecure protocol, which may bring risks to the system. Therefore, it is not recommended. The secure HTTPS protocol is recommended. |

 **NOTE**

The start time and end time of an outbound campaign are optional but must meet the following rules:

1. If one of the parameters is set, the other parameter must also be set.
2. The start time cannot be later than the end time.
3. The end time cannot be earlier than the current time.

**Table 7-42** Parameter description of scheduleParam

| No. | Parameter         | Type   | Mandatory or Not | Description                                                                     |
|-----|-------------------|--------|------------------|---------------------------------------------------------------------------------|
| 8.1 | workdayBeginTime1 | String | No               | Start time of outbound call time segment 1 on workdays, in <i>HH:mm</i> format. |
| 8.2 | workdayEndTime1   | String | No               | End time of outbound call time segment 1 on workdays, in <i>HH:mm</i> format.   |
| 8.3 | workdayBeginTime2 | String | No               | Start time of outbound call time segment 2 on workdays, in <i>HH:mm</i> format. |

| No.  | Parameter         | Type   | Mandatory or Not | Description                                                                     |
|------|-------------------|--------|------------------|---------------------------------------------------------------------------------|
| 8.4  | workdayEndTime2   | String | No               | End time of outbound call time segment 2 on workdays, in <i>HH:mm</i> format.   |
| 8.5  | workdayBeginTime3 | String | No               | Start time of outbound call time segment 3 on workdays, in <i>HH:mm</i> format. |
| 8.6  | workdayEndTime3   | String | No               | End time of outbound call time segment 3 on workdays, in <i>HH:mm</i> format.   |
| 8.7  | holidayBeginTime1 | String | No               | Start time of outbound call time segment 1 on holidays, in <i>HH:mm</i> format. |
| 8.8  | holidayEndTime1   | String | No               | End time of outbound call time segment 1 on holidays, in <i>HH:mm</i> format.   |
| 8.9  | holidayBeginTime2 | String | No               | Start time of outbound call time segment 2 on holidays, in <i>HH:mm</i> format. |
| 8.10 | holidayEndTime2   | String | No               | End time of outbound call time segment 2 on holidays, in <i>HH:mm</i> format.   |
| 8.11 | holidayBeginTime3 | String | No               | Start time of outbound call time segment 3 on holidays, in <i>HH:mm</i> format. |
| 8.12 | holidayEndTime3   | String | No               | End time of outbound call time segment 3 on holidays, in <i>HH:mm</i> format.   |

 NOTE

1. Among the outbound call time segments 1, 2, and 3 on workdays, at least one segment must be specified.
2. The start time and end time must be specified or left empty at the same time.
3. The start time must be earlier than the end time.
4. Outbound calls are made by workday unless a date or a day in a week is specified as a holiday.
5. **After the holiday time segment is configured, to be compatible with the AICC-sales page, the interface of 6.2 (Adding an Outbound Call Campaign Holiday) must be invoked to specify the relationship between the outbound call campaign and the holiday. Otherwise, the interface is incompatible with the page.**

**Table 7-43** Parameter description of ivrParam

| No. | Parameter    | Type    | Man<br>dato<br>ry or<br>Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----|--------------|---------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9.1 | deviceSign   | String  | Yes                         | <p>When <b>deviceType</b> is set to <b>1</b>, the value is an intelligent IVR flow code (<b>oifde-flowcode</b>). To obtain the flow code, sign in to the AICC as a tenant administrator and choose <b>Configuration Center &gt; Flow Configuration &gt; Intelligent IVR &gt; Flow Management &gt; Flow Orchestration</b>.</p> <p>When <b>deviceType</b> is set to <b>3</b>, the value is the flow access code of a common IVR or the chatbot access code of an intelligent IVR.</p> <p>To obtain the flow access code of a common IVR, sign in to the AICC as a tenant administrator and choose <b>Configuration Center &gt; Flow Configuration &gt; Flow Management</b>.</p> <p>To obtain the chatbot access code of an intelligent IVR, sign in to the AICC as a tenant administrator and choose <b>Configuration Center &gt; Flow Configuration &gt; Intelligent IVR &gt; Chatbot Management</b>.</p> |
| 9.2 | callCount    | Integer | Yes                         | <p>Number of outbound calls that are made in an outbound task each time.</p> <p>The value ranges from 1 to 100.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 9.3 | callInterval | Integer | Yes                         | <p>Interval for executing an outbound campaign task.</p> <p>The value ranges from 1 to 9999, in seconds.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

 **NOTE**

For example, if an outbound campaign task requires 60 outbound calls in one minute, you are advised to set **callInterval** to **3** and **callCount** to **3**.

The IVR is used after outbound calls are made. The number of outbound calls is calculated as follows: The value of  $(\text{callCount}/\text{callInterval}) \times \text{Interval}$  rounded up to 3 (only when the number of outbound calls is greater than 1). If the outbound call interval is greater than **3**, outbound calls are made every 3 seconds. If the outbound call interval is less than **3**, the configured outbound call interval is used.

**Table 7-44** Parameter description of skillParam

| No.  | Parameter    | Type    | Mandatory or Not | Description                                                                                                                                                                                                   |
|------|--------------|---------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.1 | skillId      | Integer | Yes              | ID of a skill queue.<br>The value ranges from 1 to 1000.                                                                                                                                                      |
| 10.2 | skillName    | String  | No               | Skill queue name.<br>The value can contain a maximum of 100 characters.                                                                                                                                       |
| 10.3 | outBoundType | Integer | Yes              | Outbound call mode.<br>The options are as follows: <ul style="list-style-type: none"> <li>• 2: predicted outbound call</li> <li>• 5: previewed outbound call</li> <li>• 6: preempted outbound call</li> </ul> |
| 10.4 | predictParam | Object  | No               | Parameter settings for predicted outbound calls. This parameter is mandatory when <b>outBoundType</b> is set to 2.<br>For details about the parameters of this object, see <a href="#">Table 7-46</a> .       |
| 10.5 | previewParam | Object  | No               | Parameter settings for previewed outbound calls. This parameter is mandatory when <b>outBoundType</b> is set to 5.<br>For details about the parameters of this object, see <a href="#">Table 7-45</a> .       |

**Table 7-45** Parameter description of previewParam

| No.    | Parameter    | Type    | Mandatory or Not | Description                                                                                                                |
|--------|--------------|---------|------------------|----------------------------------------------------------------------------------------------------------------------------|
| 10.5.1 | failInterval | Integer | Yes              | Outbound call interval, in seconds. The value ranges from 3 to 60.                                                         |
| 10.5.2 | obCallCount  | Integer | Yes              | Number of outbound calls each time. The value ranges from 1 to 100.                                                        |
| 10.5.3 | autoCallTime | Integer | Yes              | Duration of a previewed outbound call, in seconds. The value ranges from 5 to the value of <b>maxAlertingTime</b> minus 3. |

**Table 7-46** Parameter description of predictParam

| No.    | Parameter           | Type    | Mandatory or Not | Description                                                                                                                                                                                                                                                                                       |
|--------|---------------------|---------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.4.1 | predictMethod       | Integer | Yes              | Algorithm for predicted outbound calls. The options are as follows:<br><b>1:</b> Algorithm for empirical prediction<br><b>2:</b> Algorithm for agent usage prediction<br><b>3:</b> Algorithm for predicting the outbound call completion rate<br><b>5:</b> Algorithm for off-hook rate prediction |
| 10.4.2 | expPredictParam     | Object  | No               | Parameter settings of the algorithm for empirical prediction. This parameter is mandatory when <b>predictMethod</b> is set to <b>1</b> .<br>For details about the parameters of this object, see <a href="#">Table 7-47</a> .                                                                     |
| 10.4.3 | agentPredictParam   | Object  | No               | Parameter settings of the algorithm for agent usage prediction. This parameter is mandatory when <b>predictMethod</b> is set to <b>2</b> .<br>For details about the parameters of this object, see <a href="#">Table 7-48</a> .                                                                   |
| 10.4.4 | connectPredictParam | Object  | No               | Parameter settings of the algorithm for predicting the outbound call completion rate. This parameter is mandatory when <b>predictMethod</b> is set to <b>3</b> .<br>For details about the parameters of this object, see <a href="#">Table 7-49</a> .                                             |
| 10.4.5 | offhookPredictParam | Object  | No               | Parameter settings of the algorithm for off-hook rate prediction. This parameter is mandatory when <b>predictMethod</b> is set to <b>5</b> .<br>For details about the parameters of this object, see <a href="#">Table 7-50</a> .                                                                 |

**Table 7-47** Parameter description of expPredictParam

| No.              | Parameter          | Type    | Man<br>dato<br>ry or<br>Not | Description                                                                                                                                                                                  |
|------------------|--------------------|---------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.<br>4.2.<br>1 | maxAvgCall<br>Time | Integer | Yes                         | Maximum average call duration, in seconds. The value is a positive integer. The value ranges from 50 to 200.                                                                                 |
| 10.<br>4.2.<br>2 | minAvgCall<br>Time | Integer | Yes                         | Minimum average call duration, in seconds. The value is a positive integer. The value ranges from 50 to 200. The value must be smaller than or equal to the value of <b>maxAvgCallTime</b> . |
| 10.<br>4.2.<br>3 | outBoundR<br>ate   | Integer | Yes                         | Outbound call rate.<br>The value ranges from 0 to 100. The default value is <b>70</b> .                                                                                                      |

**Table 7-48** Parameter description of agentPredictParam

| No.              | Parameter          | Type    | Man<br>dato<br>ry or<br>Not | Description                                                                                                                                                                                  |
|------------------|--------------------|---------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.<br>4.3.<br>1 | maxAvgCall<br>Time | Integer | Yes                         | Maximum average call duration, in seconds. The value is a positive integer. The value ranges from 50 to 200.                                                                                 |
| 10.<br>4.3.<br>2 | minAvgCall<br>Time | Integer | Yes                         | Minimum average call duration, in seconds. The value is a positive integer. The value ranges from 50 to 200. The value must be smaller than or equal to the value of <b>maxAvgCallTime</b> . |
| 10.<br>4.3.<br>3 | lossRate           | Integer | Yes                         | Minimum call loss rate.<br>The value ranges from 0 to 100. The default value is <b>3</b> .                                                                                                   |
| 10.<br>4.3.<br>4 | utilRate           | Integer | Yes                         | Agent usage.<br>The value ranges from 0 to 100. The default value is <b>70</b> .                                                                                                             |

| No.      | Parameter      | Type    | Mandatory or Not | Description                                                                                                                                                                                                 |
|----------|----------------|---------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.4.3.5 | utilRateMethod | Integer | Yes              | Algorithm for agent usage.<br>The options are as follows:<br>1: Agent usage = Total call duration/Total login duration<br>2: Agent usage = (Total call duration + Work state duration)/Total login duration |

**Table 7-49** Parameter description of connectPredictParam

| No.      | Parameter      | Type    | Mandatory or Not | Description                                                                                                                                                                                  |
|----------|----------------|---------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.4.4.1 | maxAvgCallTime | Integer | Yes              | Maximum average call duration, in seconds. The value is a positive integer. The value ranges from 50 to 200.                                                                                 |
| 10.4.4.2 | minAvgCallTime | Integer | Yes              | Minimum average call duration, in seconds. The value is a positive integer. The value ranges from 50 to 200. The value must be smaller than or equal to the value of <b>maxAvgCallTime</b> . |
| 10.4.4.3 | lossRate       | Integer | Yes              | Minimum call loss rate.<br>The value ranges from 0 to 100. The default value is <b>3</b> .                                                                                                   |
| 10.4.4.4 | waitTime       | Integer | Yes              | Called party's waiting time.<br>The value ranges from 0 to 16, in seconds. The default value is <b>5</b> .                                                                                   |
| 10.4.4.5 | connRate       | Integer | Yes              | Outbound call connection rate.<br>The value ranges from 0 to 100.                                                                                                                            |

**Table 7-50** Parameter description of offhookPredictParam

| No.      | Parameter   | Type    | Mandatory or Not | Description                                                                          |
|----------|-------------|---------|------------------|--------------------------------------------------------------------------------------|
| 10.4.5.1 | offHookRate | Integer | Yes              | Off-hook rate.<br>The value ranges from 50 to 200. The default value is <b>100</b> . |

## Response Description

**Table 7-51** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                             |
|-----|------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>020000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-52</a> . |
| 2   | resultDesc | String | Description.                                                                                                                            |
| 3   | returnCode | String | Error code. The value <b>020000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-52</a> . |
| 4   | returnDesc | String | Description.                                                                                                                            |

## Triggered Event

None

## Error Codes

**Table 7-52** Error code description

| No. | Error Code | Description                                                           |
|-----|------------|-----------------------------------------------------------------------|
| 1   | 0200001    | Parameter error. For details about the error, see <b>resultDesc</b> . |



| No. | Error Code   | Description                                                                                  |
|-----|--------------|----------------------------------------------------------------------------------------------|
| 2   | 020000<br>2  | The start time of an outbound campaign is earlier than the early morning of the current day. |
| 3   | 020000<br>5  | The outbound campaign name must be unique.                                                   |
| 4   | 020000<br>7  | The outbound campaign does not exist.                                                        |
| 5   | 020001<br>6  | The outbound campaign has expired.                                                           |
| 6   | 020001<br>7  | The skill queue ID does not exist.                                                           |
| 7   | 020000<br>01 | Empty parameter.                                                                             |
| 8   | 020000<br>02 | The parameter contains invalid characters.                                                   |
| 9   | 020000<br>03 | The parameter length cannot exceed the maximum length.                                       |
| 10  | 020000<br>04 | The parameter length cannot be less than the minimum length.                                 |
| 11  | 020000<br>05 | The parameter length must be within the specified range.                                     |
| 12  | 020000<br>06 | Incorrect parameter type.                                                                    |
| 13  | 020000<br>07 | Incorrect parameter value.                                                                   |
| 14  | 020000<br>08 | Parameter conversion error. Check the request parameters.                                    |
| 15  | 020000<br>09 | Incorrect parameter combination. Check the request parameters.                               |
| 16  | 020000<br>10 | The <b>hour</b> and <b>minute</b> parameters must be set at the same time.                   |
| 17  | 020000<br>11 | The number of parameters cannot exceed the specified number.                                 |

## Example

- The following provides an example of the request body of this interface:

```
{
 "name": "Data Package Recommendation for National Day",
 "description": "Data Package Recommendation for National Day",
```

```
"strBeginTime": "2020-09-10 00:00:00",
"strEndTime": "2020-10-07 23:59:59",
"deviceType": 2,
"callerNo": "10085",
"maxAlertingTime": 20,
"scheduleParam": {
 "workdayBeginTime1": "08:00",
 "workdayEndTime1": "11:30",
 "workdayBeginTime2": "13:00",
 "workdayEndTime2": "17:30",
 "workdayBeginTime3": "",
 "workdayEndTime3": "",
 "holidayBeginTime1": "10:00",
 "holidayEndTime1": "11:00",
 "holidayBeginTime2": "13:00",
 "holidayEndTime2": "17:30",
 "holidayBeginTime3": "",
 "holidayEndTime3": ""
},
"skillParam": {
 "skillId": 5,
 "skillName": "Voice Skill Queue",
 "outBoundType": 2,
 "predictParam": {
 "predictMethod": 5,
 "offhookPredictParam": {
 "offHookRate": 100
 }
 }
}
},
"callBackUrl": "https://10.10.10.xxx/xxx/xxx"
}
```

- The following provides an example of the response body of this interface:

```
{
 "resultCode": "0200000",
 "resultDesc": "",
 "returnCode": "0200000",
 "returnDesc": ""
}
```

## 7.1.4 Modifying an Outbound Campaign (V2)

### Scenario

This interface is invoked to modify the configurations of an outbound campaign.

### Usage Description

- Prerequisites
  - You have applied for a developer account.
  - The ID of the outbound campaign to be modified has been obtained.
  - The outbound campaign task must exist and is not complete.
- Restrictions
  - After an outbound campaign is created, the device type cannot be changed.

### Method

This interface supports only the PUT method.

## URI

https://ip:port/rest/isales/v2/openapi/campaigns/{vdnId}/{campaignId}

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-53** Parameters in the URL

| No. | Parameter  | Type    | Mandatory or Not | Description                                                |
|-----|------------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId      | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | campaignId | Integer | Yes              | Outbound campaign task ID.                                 |

## Request Description

**Table 7-54** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-55** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                    |
|-----|-----------|--------|------------------|----------------------------------------------------------------------------------------------------------------|
| 1   | name      | String | Yes              | Name of an outbound campaign.<br>The name must be unique.<br>The value can contain a maximum of 32 characters. |

| No. | Parameter       | Type    | Man<br>dato<br>ry or<br>Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----|-----------------|---------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | description     | String  | No                          | Description of an outbound campaign.<br>The value can contain a maximum of 200 characters, excluding the following special characters: "[ ] = ; < >                                                                                                                                                                                                                                                                                                                                                                                                          |
| 3   | strBeginTime    | String  | Yes                         | Time when an outbound campaign starts.<br>The format is <i>yyyy-MM-dd HH:mm:ss</i> .<br>The time cannot be earlier than 00:00 of the current day.                                                                                                                                                                                                                                                                                                                                                                                                            |
| 4   | strEndTime      | String  | Yes                         | Time when an outbound campaign ends.<br>The format is <i>yyyy-MM-ddHH:mm:ss</i> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5   | deviceType      | Integer | Yes                         | Type of an outbound device.<br>The options are as follows: <ul style="list-style-type: none"> <li>• <b>1:</b> IVR in intelligent outbound calls (available in the SaaS environment when the intelligent feature is enabled)</li> <li>• <b>2:</b> skill queue in predicted outbound calls</li> <li>• <b>3:</b> IVR in automatic outbound calls</li> <li>• <b>5:</b> skill queue in previewed outbound calls</li> <li>• <b>6:</b> skill queue in preempted outbound calls</li> </ul> The default value is the value set during creation and cannot be changed. |
| 6   | callerNo        | List    | Yes                         | Multiple calling numbers are supported.<br>For details about the parameters of this object, see <a href="#">Table 7-65</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 7   | maxAlertingTime | Integer | Yes                         | Maximum ringing duration for no answer.<br>If the ringing duration exceeds the value of this parameter, the call is released.<br>The value ranges from 5 to 60, in seconds.                                                                                                                                                                                                                                                                                                                                                                                  |
| 8   | priority        | Integer | No                          | Task priority.<br>The value ranges from 1 to 5. A smaller value indicates a higher priority.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| No. | Parameter     | Type    | Mandatory or Not | Description                                                                                                                                                                                                                                                                                   |
|-----|---------------|---------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9   | scheduleParam | Object  | Yes              | Outbound call time segment.<br>For details about the parameters of this object, see <a href="#">Table 7-56</a> .                                                                                                                                                                              |
| 10  | ivrParam      | Object  | No               | This parameter is mandatory when <b>deviceType</b> is set to <b>1</b> or <b>3</b> (IVR).<br>For details about the parameters of this object, see <a href="#">Table 7-57</a> .                                                                                                                 |
| 11  | skillParam    | Object  | No               | This parameter is mandatory when <b>deviceType</b> is set to <b>2</b> , <b>5</b> , or <b>6</b> (skill queue).<br>For details about the parameters of this object, see <a href="#">Table 7-58</a> .                                                                                            |
| 12  | initStatus    | Integer | No               | Campaign status after addition. The default value is <b>0</b> .<br>The options are as follows: <ul style="list-style-type: none"> <li>• <b>0</b>: The campaign is in started status after being added.</li> <li>• <b>1</b>: The campaign is in suspended status after being added.</li> </ul> |
| 13  | callbackUrl   | String  | Yes              | Callback notification address of the outbound call result.<br>The URL must start with https:// or http.<br><b>NOTE</b><br>HTTP is an insecure protocol, which may bring risks to the system. Therefore, it is not recommended. The secure HTTPS protocol is recommended.                      |
| 14  | retryPolicy   | Object  | Yes              | Outbound call result policy.<br>For details about the parameters of this object, see <a href="#">Table 7-66</a> .                                                                                                                                                                             |
| 15  | callPolicy    | Object  | No               | Call policy.<br>For details about the parameters of this object, see <a href="#">Table 7-71</a> .                                                                                                                                                                                             |

 **NOTE**

If the value of **callPolciy** is not empty and the value of **callType** is **1** (round call), the value of **policyType** in the outbound call result policy **retryPolicy** can only be **1**, that is, the number type policy.

**Table 7-56** Parameter description of scheduleParam

| No.  | Parameter             | Type   | Man<br>dato<br>ry or<br>Not | Description                                                                     |
|------|-----------------------|--------|-----------------------------|---------------------------------------------------------------------------------|
| 9.1  | workdayBe<br>ginTime1 | String | No                          | Start time of outbound call time segment 1 on workdays, in <i>HH:mm</i> format. |
| 9.2  | workdayEn<br>dTime1   | String | No                          | End time of outbound call time segment 1 on workdays, in <i>HH:mm</i> format.   |
| 9.3  | workdayBe<br>ginTime2 | String | No                          | Start time of outbound call time segment 2 on workdays, in <i>HH:mm</i> format. |
| 9.4  | workdayEn<br>dTime2   | String | No                          | End time of outbound call time segment 2 on workdays, in <i>HH:mm</i> format.   |
| 9.5  | workdayBe<br>ginTime3 | String | No                          | Start time of outbound call time segment 3 on workdays, in <i>HH:mm</i> format. |
| 9.6  | workdayEn<br>dTime3   | String | No                          | End time of outbound call time segment 3 on workdays, in <i>HH:mm</i> format.   |
| 9.7  | holidayBegi<br>nTime1 | String | No                          | Start time of outbound call time segment 1 on holidays, in <i>HH:mm</i> format. |
| 9.8  | holidayEnd<br>Time1   | String | No                          | End time of outbound call time segment 1 on holidays, in <i>HH:mm</i> format.   |
| 9.9  | holidayBegi<br>nTime2 | String | No                          | Start time of outbound call time segment 2 on holidays, in <i>HH:mm</i> format. |
| 9.10 | holidayEnd<br>Time2   | String | No                          | End time of outbound call time segment 2 on holidays, in <i>HH:mm</i> format.   |
| 9.11 | holidayBegi<br>nTime3 | String | No                          | Start time of outbound call time segment 3 on holidays, in <i>HH:mm</i> format. |
| 9.12 | holidayEnd<br>Time3   | String | No                          | End time of outbound call time segment 3 on holidays, in <i>HH:mm</i> format.   |

 **NOTE**

1. Among the outbound call time segments 1, 2, and 3 on workdays, at least one segment must be specified.
2. The start time and end time must be specified or left empty at the same time.
3. The start time must be earlier than the end time.
4. Outbound calls are made by workday unless a date or a day in a week is specified as a holiday.
5. **For the compatibility with the AICC-isales page, after the holiday time segment is configured, the interface in "6.2 Adding a Holiday for an Outbound Campaign" must be invoked to specify the relationship between the outbound call campaign and the holiday. Otherwise, the interface is incompatible with the page.**

**Table 7-57** Parameter description of ivrParam

| No.  | Parameter    | Type    | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------|--------------|---------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.1 | deviceSign   | String  | Yes              | <p>When <b>deviceType</b> is set to <b>1</b>, the value is an intelligent IVR flow code (<b>oifde-flowcode</b>).</p> <p>To obtain the flow code, sign in to the AICC as a tenant administrator and choose <b>Configuration Center &gt; Flow Configuration &gt; Intelligent IVR &gt; Flow Management &gt; Flow Orchestration</b>.</p> <p>When <b>deviceType</b> is set to <b>3</b>, the value is a common IVR flow access code.</p> <p>To obtain the flow access code, choose <b>Configuration Center &gt; Flow Configuration &gt; Intelligent IVR &gt; Chatbot Management</b>.</p> |
| 10.2 | callCount    | Integer | Yes              | <p>Number of outbound calls that are made in an outbound task each time.</p> <p>The value ranges from 1 to 100.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 10.3 | callInterval | Integer | Yes              | <p>Interval for executing an outbound campaign task.</p> <p>The value ranges from 1 to 9999, in seconds.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

 **NOTE**

For example, if an outbound campaign task requires 60 outbound calls in one minute, you are advised to set **callInterval** to **3** and **callCount** to **3**.

When the device type is IVR and outbound calls are made, the number of outbound calls is calculated as follows:  $(\text{Value of callCount} / \text{Value of callInterval}) \times 3$ , rounded up. Outbound calls are made only when the result is greater than 1. If the value of **callInterval** is greater than **3**, **3** is used for calculation. If the value of **callInterval** is less than **3**, the actual value is used.

**Table 7-58** Parameter description of skillParam

| No.  | Parameter | Type    | Mandatory or Not | Description                                                         |
|------|-----------|---------|------------------|---------------------------------------------------------------------|
| 11.1 | skillId   | Integer | Yes              | <p>ID of a skill queue.</p> <p>The value ranges from 1 to 1000.</p> |

| No.  | Parameter    | Type    | Mandatory or Not | Description                                                                                                                                                                                                   |
|------|--------------|---------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11.2 | skillName    | String  | No               | Skill queue name.<br>The value can contain a maximum of 100 characters.                                                                                                                                       |
| 11.3 | outBoundType | Integer | Yes              | Outbound call mode.<br>The options are as follows: <ul style="list-style-type: none"> <li>• 2: predicted outbound call</li> <li>• 5: previewed outbound call</li> <li>• 6: preempted outbound call</li> </ul> |
| 11.4 | predictParam | Object  | No               | Parameter settings for predicted outbound calls. This parameter is mandatory when <b>outBoundType</b> is set to 2.<br>For details about the parameters of this object, see <a href="#">Table 7-60</a> .       |
| 11.5 | previewParam | Object  | No               | Parameter settings for previewed outbound calls. This parameter is mandatory when <b>outBoundType</b> is set to 5.<br>For details about the parameters of this object, see <a href="#">Table 7-59</a> .       |

**Table 7-59** Parameter description of previewParam

| No.    | Parameter    | Type    | Mandatory or Not | Description                                                                                                                |
|--------|--------------|---------|------------------|----------------------------------------------------------------------------------------------------------------------------|
| 11.5.1 | failInterval | Integer | Yes              | Outbound call interval, in seconds. The value ranges from 3 to 60.                                                         |
| 11.5.2 | obCallCount  | Integer | Yes              | Number of outbound calls each time. The value ranges from 1 to 100.                                                        |
| 11.5.3 | autoCallTime | Integer | Yes              | Duration of a previewed outbound call, in seconds. The value ranges from 5 to the value of <b>maxAlertingTime</b> minus 3. |



**Table 7-60** Parameter description of predictParam

| No.    | Parameter           | Type    | Mandatory or Not | Description                                                                                                                                                                                                                                                                                       |
|--------|---------------------|---------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11.4.1 | predictMethod       | Integer | Yes              | Algorithm for predicted outbound calls. The options are as follows:<br><b>1:</b> Algorithm for empirical prediction<br><b>2:</b> Algorithm for agent usage prediction<br><b>3:</b> Algorithm for predicting the outbound call completion rate<br><b>5:</b> Algorithm for off-hook rate prediction |
| 11.4.2 | expPredictParam     | Object  | No               | Parameter settings of the algorithm for empirical prediction. This parameter is mandatory when <b>predictMethod</b> is set to <b>1</b> .<br>For details about the parameters of this object, see <a href="#">Table 7-61</a> .                                                                     |
| 11.4.3 | agentPredictParam   | Object  | No               | Parameter settings of the algorithm for agent usage prediction. This parameter is mandatory when <b>predictMethod</b> is set to <b>2</b> .<br>For details about the parameters of this object, see <a href="#">Table 7-62</a> .                                                                   |
| 11.4.4 | connectPredictParam | Object  | No               | Parameter settings of the algorithm for predicting the outbound call completion rate. This parameter is mandatory when <b>predictMethod</b> is set to <b>3</b> .<br>For details about the parameters of this object, see <a href="#">Table 7-63</a> .                                             |
| 11.4.5 | offhookPredictParam | Object  | No               | Parameter settings of the algorithm for off-hook rate prediction. This parameter is mandatory when <b>predictMethod</b> is set to <b>5</b> .<br>For details about the parameters of this object, see <a href="#">Table 7-64</a> .                                                                 |

**Table 7-61** Parameter description of expPredictParam

| No.              | Parameter          | Type    | Man<br>dato<br>ry or<br>Not | Description                                                                                                                                                                               |
|------------------|--------------------|---------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11.<br>4.2.<br>1 | maxAvgCall<br>Time | Integer | Yes                         | Maximum average call duration, in seconds. The value is a positive integer. The value ranges from 50 to 200.                                                                              |
| 11.<br>4.2.<br>2 | minAvgCall<br>Time | Integer | Yes                         | Minimum average call duration, in seconds. The value is a positive integer. The value ranges from 50 to 200. The value must be less than or equal to the value of <b>maxAvgCallTime</b> . |
| 11.<br>4.2.<br>3 | outBoundR<br>ate   | Integer | Yes                         | Outbound call rate.<br>The value ranges from 0 to 100. The default value is <b>70</b> .                                                                                                   |

**Table 7-62** Parameter description of agentPredictParam

| No.              | Parameter          | Type    | Man<br>dato<br>ry or<br>Not | Description                                                                                                                                                                               |
|------------------|--------------------|---------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11.<br>4.3.<br>1 | maxAvgCall<br>Time | Integer | Yes                         | Maximum average call duration, in seconds. The value is a positive integer. The value ranges from 50 to 200.                                                                              |
| 11.<br>4.3.<br>2 | minAvgCall<br>Time | Integer | Yes                         | Minimum average call duration, in seconds. The value is a positive integer. The value ranges from 50 to 200. The value must be less than or equal to the value of <b>maxAvgCallTime</b> . |
| 11.<br>4.3.<br>3 | lossRate           | Integer | Yes                         | Minimum call loss rate.<br>The value ranges from 0 to 100. The default value is <b>3</b> .                                                                                                |
| 11.<br>4.3.<br>4 | utilRate           | Integer | Yes                         | Agent usage.<br>The value ranges from 0 to 100. The default value is <b>70</b> .                                                                                                          |

| No.      | Parameter      | Type    | Mandatory or Not | Description                                                                                                                                                                                                 |
|----------|----------------|---------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11.4.3.5 | utilRateMethod | Integer | Yes              | Algorithm for agent usage.<br>The options are as follows:<br>1: Agent usage = Total call duration/Total login duration<br>2: Agent usage = (Total call duration + Work state duration)/Total login duration |

**Table 7-63** Parameter description of connectPredictParam

| No.      | Parameter      | Type    | Mandatory or Not | Description                                                                                                                                                                               |
|----------|----------------|---------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11.4.4.1 | maxAvgCallTime | Integer | Yes              | Maximum average call duration, in seconds. The value is a positive integer. The value ranges from 50 to 200.                                                                              |
| 11.4.4.2 | minAvgCallTime | Integer | Yes              | Minimum average call duration, in seconds. The value is a positive integer. The value ranges from 50 to 200. The value must be less than or equal to the value of <b>maxAvgCallTime</b> . |
| 11.4.4.3 | lossRate       | Integer | Yes              | Minimum call loss rate.<br>The value ranges from 0 to 100. The default value is <b>3</b> .                                                                                                |
| 11.4.4.4 | waitTime       | Integer | Yes              | Called party's waiting time.<br>The value ranges from 0 to 16, in seconds. The default value is <b>5</b> .                                                                                |
| 11.4.4.5 | connRate       | Integer | Yes              | Outbound call connection rate.<br>The value ranges from 0 to 100.                                                                                                                         |

**Table 7-64** Parameter description of offhookPredictParam

| No.      | Parameter   | Type    | Mandatory or Not | Description                                                                          |
|----------|-------------|---------|------------------|--------------------------------------------------------------------------------------|
| 11.4.5.1 | offHookRate | Integer | Yes              | Off-hook rate.<br>The value ranges from 50 to 200. The default value is <b>100</b> . |

**Table 7-65** Parameter description of callerNo

| No. | Parameter  | Type    | Mandatory or Not | Description                                                                                                                                                           |
|-----|------------|---------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6.1 | accessCode | String  | Yes              | Calling number.<br>Number displayed on the phone of a customer after a call is connected.<br>The value can contain a maximum of 32 characters, including only digits. |
| 6.2 | priority   | Integer | Yes              | Calling number priority.<br>The value ranges from 1 to 5. A smaller value indicates a higher priority.                                                                |

**Table 7-66** Parameter description of retryPolicy

| No.  | Parameter     | Type    | Mandatory or Not | Description                                                                                                                                            |
|------|---------------|---------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14.1 | retryPolicyId | String  | Yes              | Retry policy ID.                                                                                                                                       |
| 14.2 | retryDay      | Integer | --               | Maximum number of days for call attempts.<br>This parameter is mandatory for common policies under the global policy.<br>The value ranges from 1 to 5. |
| 14.3 | retryTimes    | Integer | --               | Maximum number of call attempts per day.<br>This parameter is mandatory for common policies under the global policy.<br>The value ranges from 1 to 6.  |

| No.  | Parameter     | Type          | Mandatory or Not                                                                 | Description                                                                                                                                                                                                       |
|------|---------------|---------------|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14.4 | policyType    | Integer       | Yes                                                                              | Retry policy type.<br><b>0</b> : global policy; <b>1</b> : number type matching policy.                                                                                                                           |
| 14.5 | callInterval  | Integer       | --                                                                               | Outbound call interval, in seconds.<br>This parameter is mandatory for common policies under the global policy. The value ranges from 1 to 86400.                                                                 |
| 14.6 | resultRetry   | String        | --                                                                               | JSON string of the result policy.<br>This parameter is mandatory for result policies under the global policy.<br>For details about the parameters of this object, see <a href="#">Table 7-70</a> .                |
| 14.7 | policyJson    | String        | --                                                                               | JSON string of the number type matching policy.<br>This parameter is mandatory for number type matching policies.<br>For details about the parameters of this object, see <a href="#">Table 7-68</a> .            |
| 14.8 | busiPolicy    | String        | No                                                                               | Business result policy.<br>For details about the parameters of this object, see <a href="#">Table 7-67</a> .                                                                                                      |
| 14.9 | noRetryPolicy | List <String> | No<br>(This parameter cannot be set when <b>policyType</b> is set to <b>1</b> .) | Result codes for which no retry policy is configured. The result codes come from the <b>resultCode</b> field in the <b>data</b> attribute of the interface for querying the definitions of outbound call results. |

**Table 7-67** Parameter description of busiPolicy

| No.    | Parameter         | Type    | Mandatory or Not | Description                                                                                                                                                                                 |
|--------|-------------------|---------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14.8.1 | busiResultCode    | String  | Yes              | Business result code.                                                                                                                                                                       |
| 14.8.2 | busiResultSubCode | String  | --               | Business result subcode. (This parameter is associated with the business result code.)                                                                                                      |
| 14.8.3 | busiResultPolicy  | Integer | Yes              | Call policy for a business result.<br><b>0</b> : Stop calling. <b>1</b> : Call the next number. <b>2</b> : Call the current number.                                                         |
| 14.8.4 | callInterval      | Integer | --               | Outbound call interval, in seconds. If the call policy is set to <b>0</b> , you do not need to set this parameter. Otherwise, this parameter is mandatory. The value ranges from 1 to 3600. |

**Table 7-68** Parameter description of policyJson

| No.    | Parameter | Type    | Mandatory or Not | Description                                                                                                                         |
|--------|-----------|---------|------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| 14.7.1 | dataType  | String  | Yes              | Number type.<br>The value can contain a maximum of 20 characters, excluding special characters.                                     |
| 14.7.2 | type      | Integer | Yes              | Retry logic policy type. <ul style="list-style-type: none"> <li><b>0</b>: common policy</li> <li><b>1</b>: result policy</li> </ul> |
| 14.7.3 | policy    | String  | Yes              | Policy configuration information.<br>For details about the parameters of this object, see <a href="#">Table 7-69</a> .              |

**Table 7-69** Parameter description of policy

| No.      | Parameter    | Type    | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------|--------------|---------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14.7.3.1 | retryDay     | Integer | --               | Maximum number of days for call attempts.<br>This parameter is mandatory for common policies that are matched based on the number type. The value ranges from 1 to 5.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 14.7.3.2 | retryTimes   | Integer | --               | Maximum number of call attempts per day.<br>This parameter is mandatory for common policies that are matched based on the number type. The value ranges from 1 to 6.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 14.7.3.3 | result       | Integer | --               | Result type.<br>This parameter is mandatory for result policies that are matched based on the number type. The value ranges from 0 to 9.<br>The options are as follows: <b>1</b> : The customer is busy. <b>2</b> : The customer does not answer the call. <b>3</b> : The customer rejects the call. <b>4</b> : The number does not exist. <b>5</b> : The customer's phone is powered off. <b>6</b> : The customer is out of the service area. <b>7</b> : Fax or switchboard. <b>8</b> : The call times out. <b>9</b> : The call fails. <b>0</b> : Others.<br>The retry policy is also determined based on the specific failure code ( <b>failCode</b> ).<br>For details about failure codes, see <a href="#">Table 7-295</a> . |
| 14.7.3.4 | callInterval | Integer | --               | Outbound call interval, in seconds.<br>This parameter is mandatory for common policies and result policies that are matched based on the number type. The value ranges from 1 to 86400.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 14.7.3.5 | retryNumber  | Integer | --               | Number of retry times.<br>This parameter is mandatory for result policies that are matched based on the number type. The value ranges from 0 to 9.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

**Table 7-70** Parameter description of resultRetry

| No.    | Parameter    | Type    | Mandatory or Not | Description                                                                                                                                       |
|--------|--------------|---------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 14.6.1 | result       | Integer | --               | Result type.<br>This parameter is mandatory for result policies under the global policy. The value ranges from 0 to 9.                            |
| 14.6.2 | callInterval | Integer | --               | Outbound call interval, in seconds.<br>This parameter is mandatory for result policies under the global policy. The value ranges from 1 to 86400. |
| 14.6.3 | retryNumber  | Integer | --               | Number of retry times.<br>This parameter is mandatory for result policies under the global policy. The value ranges from 0 to 9.                  |

**Table 7-71** Parameter description of callPolicy

| No.  | Parameter    | Type    | Mandatory or Not | Description                                                                                                                                                            |
|------|--------------|---------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 15.1 | callPolicyId | String  | --               | ID of a call policy.<br>This parameter is mandatory for modifying a call policy.                                                                                       |
| 15.2 | callType     | Integer | No               | Call mode.<br>The options are <b>0</b> (by sequence) and <b>1</b> (by round). The default value is <b>0</b> .                                                          |
| 15.3 | chooseType   | Integer | --               | Round mode.<br>The options are <b>0</b> (by number category) and <b>1</b> (by number sequence). This parameter is mandatory when the call mode is by round.            |
| 15.4 | turns        | List    | --               | Round information.<br>This parameter is mandatory when the call mode is by round.<br>For details about the parameters of this object, see <a href="#">Table 7-72</a> . |



**Table 7-72** Parameter description of turns

| No.    | Parameter | Type    | Mandatory or Not | Description                                                                                                                                                               |
|--------|-----------|---------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 15.4.1 | turnType  | String  | --               | Number type.<br>The value can contain a maximum of 20 characters, excluding special characters.<br>This parameter is mandatory when the round mode is by number category. |
| 15.4.2 | turnOrder | Integer | --               | Number sequence.<br>The value ranges from 1 to 10. This parameter is mandatory when the round mode is by number sequence.                                                 |

## Response Description

**Table 7-73** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                                 |
|-----|------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-74</a> . |
| 2   | resultDesc | String | Description.                                                                                                                                |
| 3   | returnCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-74</a> . |
| 4   | returnDesc | String | Description.                                                                                                                                |

## Triggered Event

None

## Error Codes

**Table 7-74** Error code description

| No. | Error Code   | Description                                                                                  |
|-----|--------------|----------------------------------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> .                        |
| 2   | 020000<br>2  | The start time of an outbound campaign is earlier than the early morning of the current day. |
| 3   | 020000<br>5  | The outbound campaign name must be unique.                                                   |
| 4   | 020000<br>7  | The outbound campaign does not exist.                                                        |
| 5   | 020001<br>6  | The outbound campaign has expired.                                                           |
| 6   | 020001<br>7  | The skill queue ID does not exist.                                                           |
| 7   | 020000<br>01 | Empty parameter.                                                                             |
| 8   | 020000<br>02 | The parameter contains invalid characters.                                                   |
| 9   | 020000<br>03 | The parameter length cannot exceed the maximum length.                                       |
| 10  | 020000<br>04 | The parameter length cannot be less than the minimum length.                                 |
| 11  | 020000<br>05 | The parameter length must be within the specified range.                                     |
| 12  | 020000<br>06 | Incorrect parameter type.                                                                    |
| 13  | 020000<br>07 | Incorrect parameter value.                                                                   |
| 14  | 020000<br>08 | Parameter conversion error. Check the request parameters.                                    |
| 15  | 020000<br>09 | Incorrect parameter combination. Check the request parameters.                               |
| 16  | 020000<br>10 | The <b>hour</b> and <b>minute</b> parameters must be set at the same time.                   |
| 17  | 020000<br>11 | The number of parameters cannot exceed the specified number.                                 |

## Example

- The following provides an example of the request body of this interface:

```
{
 "name": "test0827shwocase1",
 "description": "long0825",
 "strBeginTime": "2021-08-27 00:00:00",
 "strEndTime": "2021-08-28 23:59:59",
 "deviceType": 2,
 "callerNo": [
 {
 "accessCode": "88889527",
 "priority": 3
 }
],
 "maxAlertingTime": 20,
 "priority": 4,
 "scheduleParam": {
 "workdayBeginTime1": "00:00",
 "workdayEndTime1": "23:59",
 "workdayBeginTime2": "",
 "workdayEndTime2": "",
 "workdayBeginTime3": "",
 "workdayEndTime3": "",
 "holidayBeginTime1": "",
 "holidayEndTime1": "",
 "holidayBeginTime2": "",
 "holidayEndTime2": "",
 "holidayBeginTime3": "",
 "holidayEndTime3": ""
 },
 "skillParam": {
 "skillId": 2,
 "skillName": "defaultAudioSkill",
 "outBoundType": 2,
 "predictParam": {
 "predictMethod": 1,
 "expPredictParam": {
 "maxAvgCallTime": 100,
 "minAvgCallTime": 50,
 "outBoundRate": 50
 }
 }
 },
 "retryPolicy": {
 "retryPolicyId": "163005925789859991571901887599",
 "policyType": 1,
 "policyJson": "[{'dataType':'SI','type':1,'policy':{'result':2,'retryNumber':4,'callInterval':600}}]",
 "busiPolicy":
 "[{'busiResultCode':'14376596','busiResultSubCode':'14963248','busiResultPolicy':1,'callInterval':300}]"
 },
 "callPolicy": {
 "callPolicyId": "163005925791583092505770074569",
 "callType": 1,
 "chooseType": 0,
 "turns": [
 {
 "turnType": "SI"
 }
]
 },
 "initStatus": 0,
 "callBackUrl": "https://10.10.10.10/xxx/xxx/xxx"
}
```

- The following provides an example of the response body of this interface:

```
{
 "resultCode": "0200000",
 "resultDesc": "",
 "returnCode": "0200000",
}
```

```
"returnDesc": ""
}
```

## 7.1.5 Deleting an Outbound Campaign

### Prerequisites

- You have applied for a developer account.
- The ID of the outbound campaign to be deleted has been obtained.
- The outbound campaign task must exist and is not started. If the value of **status** is not **2**, the outbound campaign task can be deleted.

### Scenario

This interface is invoked to delete an outbound campaign.

### Method

This interface supports only the DELETE method.

### URI

`https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/{campaignId}`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-75** Parameters in the URL

| No. | Parameter  | Type    | Mandatory or Not | Description                                                |
|-----|------------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId      | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | campaignId | Integer | Yes              | Outbound campaign task ID.                                 |

## Request Description

**Table 7-76** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-77** Request body parameters

| No. | Parameter      | Type    | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                         |
|-----|----------------|---------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | archiveHistory | Integer | No               | Whether to move the outbound campaign task to the history table.<br>The options are <b>0</b> and <b>1</b> .<br>The value <b>0</b> indicates that the outbound campaign task is deleted without being moving to the history table.<br>The value <b>1</b> indicates that the outbound campaign task is moved to the history table.<br>The default value is <b>0</b> . |

## Response Description

**Table 7-78** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                                 |
|-----|------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-79</a> . |
| 2   | resultDesc | String | Description.                                                                                                                                |
| 3   | returnCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-79</a> . |
| 4   | returnDesc | String | Description.                                                                                                                                |

## Triggered Event

None

## Error Codes

**Table 7-79** Error code description

| No. | Error Code   | Description                                                           |
|-----|--------------|-----------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 020000<br>6  | The database is abnormal.                                             |
| 3   | 020000<br>7  | The outbound campaign does not exist.                                 |
| 4   | 020000<br>9  | The outbound campaign task is running.                                |
| 5   | 020000<br>01 | Empty parameter.                                                      |
| 6   | 020000<br>02 | The parameter contains invalid characters.                            |
| 7   | 020000<br>03 | The parameter length cannot exceed the maximum length.                |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 8   | 02000004   | The parameter length cannot be less than the minimum length.               |
| 9   | 02000005   | The parameter length must be within the specified range.                   |
| 10  | 02000006   | Incorrect parameter type.                                                  |
| 11  | 02000007   | Incorrect parameter value.                                                 |
| 12  | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 13  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 14  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 15  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:

```
{
 "archiveHistory":1
}
```

- The following provides an example of the response body of this interface:

```
{
 "returnCode": "0200000",
 "resultCode": "0200000",
 "resultDesc": "delete task success",
 "returnDesc": "delete task success"
}
```

## 7.1.6 Querying Details About an Outbound Campaign

### Prerequisites

- You have applied for a developer account.
- An outbound campaign has been created.

### Scenario

This interface is invoked to query the configuration details about a specified outbound campaign.

## Method

This interface supports only the GET method.

## URI

https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/{campaignId}

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-80** Parameters in the URL

| No. | Parameter  | Type    | Mandatory or Not | Description                                                |
|-----|------------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId      | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | campaignId | Integer | Yes              | ID of an outbound campaign.                                |

## Request Description

**Table 7-81** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

No request body exists.



## Response Description

**Table 7-82** Response body parameters

| No. | Parameter    | Type   | Description                                                                                                                                  |
|-----|--------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode   | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-100</a> . |
| 2   | resultDesc   | String | Description.                                                                                                                                 |
| 3   | returnCode   | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-100</a> . |
| 4   | returnDesc   | String | Description.                                                                                                                                 |
| 5   | returnObject | Object | For details, see <a href="#">Table 7-83</a> .                                                                                                |

**Table 7-83** Parameter description of returnObject

| No. | Parameter    | Type    | Description                                                                                                                          |
|-----|--------------|---------|--------------------------------------------------------------------------------------------------------------------------------------|
| 5.1 | name         | String  | Name of an outbound campaign.                                                                                                        |
| 5.2 | description  | String  | Description of an outbound campaign.                                                                                                 |
| 5.3 | status       | Integer | Status of an outbound campaign.<br>The options are as follows:<br><b>2</b> : started<br><b>3</b> : suspended<br><b>4</b> : completed |
| 5.4 | strBeginTime | String  | Time when an outbound campaign starts.                                                                                               |
| 5.5 | strEndTime   | String  | Time when an outbound campaign ends.                                                                                                 |

| No.  | Parameter       | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------|-----------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5.6  | deviceType      | Integer | Type of an outbound device.<br>The options are as follows: <ul style="list-style-type: none"> <li>• <b>1</b>: IVR in intelligent outbound calls (available in the SaaS environment when the intelligent feature is enabled)</li> <li>• <b>2</b>: skill queue in predicted outbound calls</li> <li>• <b>3</b>: IVR in automatic outbound calls</li> <li>• <b>5</b>: skill queue in previewed outbound calls</li> <li>• <b>6</b>: skill queue in preempted outbound calls</li> </ul> |
| 5.7  | callerNo        | String  | Calling number.<br>Number displayed on the phone of a customer after a call is connected.                                                                                                                                                                                                                                                                                                                                                                                          |
| 5.8  | maxAlertingTime | Integer | Maximum ringing duration for no answer. If the ringing duration exceeds the value of this parameter, the call is released.                                                                                                                                                                                                                                                                                                                                                         |
| 5.9  | scheduleParam   | Object  | Outbound call time segment.<br>For details about the parameters of this object, see <a href="#">Table 7-84</a> .                                                                                                                                                                                                                                                                                                                                                                   |
| 5.10 | ivrParam        | Object  | This parameter is mandatory when <b>deviceType</b> is set to <b>1</b> or <b>3</b> (IVR).<br>For details about the parameters of this object, see <a href="#">Table 7-85</a> .                                                                                                                                                                                                                                                                                                      |
| 5.11 | skillParam      | Object  | This parameter is mandatory when <b>deviceType</b> is set to <b>2</b> , <b>5</b> , or <b>6</b> (skill queue).<br>For details about the parameters of this object, see <a href="#">Table 7-86</a> .                                                                                                                                                                                                                                                                                 |
| 5.12 | callbackUrl     | String  | Callback notification address of the outbound call result.                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 5.13 | retryPolicy     | Object  | Outbound call result policy.<br>For details about the parameters of this object, see <a href="#">Table 7-93</a> .                                                                                                                                                                                                                                                                                                                                                                  |
| 5.14 | callPolicy      | Object  | Call policy.<br>For details about the parameters of this object, see <a href="#">Table 7-95</a> .                                                                                                                                                                                                                                                                                                                                                                                  |

**Table 7-84** Parameter description of scheduleParam

| No.    | Parameter         | Type   | Description                                                                     |
|--------|-------------------|--------|---------------------------------------------------------------------------------|
| 5.9.1  | workdayBeginTime1 | String | Start time of outbound call time segment 1 on workdays, in <i>HH:mm</i> format. |
| 5.9.2  | workdayEndTime1   | String | End time of outbound call time segment 1 on workdays, in <i>HH:mm</i> format.   |
| 5.9.3  | workdayBeginTime2 | String | Start time of outbound call time segment 2 on workdays, in <i>HH:mm</i> format. |
| 5.9.4  | workdayEndTime2   | String | End time of outbound call time segment 2 on workdays, in <i>HH:mm</i> format.   |
| 5.9.5  | workdayBeginTime3 | String | Start time of outbound call time segment 3 on workdays, in <i>HH:mm</i> format. |
| 5.9.6  | workdayEndTime3   | String | End time of outbound call time segment 3 on workdays, in <i>HH:mm</i> format.   |
| 5.9.7  | holidayBeginTime1 | String | Start time of outbound call time segment 1 on holidays, in <i>HH:mm</i> format. |
| 5.9.8  | holidayEndTime1   | String | End time of outbound call time segment 1 on holidays, in <i>HH:mm</i> format.   |
| 5.9.9  | holidayBeginTime2 | String | Start time of outbound call time segment 2 on holidays, in <i>HH:mm</i> format. |
| 5.9.10 | holidayEndTime2   | String | End time of outbound call time segment 2 on holidays, in <i>HH:mm</i> format.   |
| 5.9.11 | holidayBeginTime3 | String | Start time of outbound call time segment 3 on holidays, in <i>HH:mm</i> format. |
| 5.9.12 | holidayEndTime3   | String | End time of outbound call time segment 3 on holidays, in <i>HH:mm</i> format.   |

**Table 7-85** Parameter description of ivrParam

| No.    | Parameter    | Type    | Description                                                           |
|--------|--------------|---------|-----------------------------------------------------------------------|
| 5.10.1 | deviceSign   | String  | Access code of an IVR flow.                                           |
| 5.10.2 | callCount    | Integer | Number of outbound calls that are made in an outbound task each time. |
| 5.10.3 | callInterval | Integer | Interval for executing an outbound campaign task, in seconds.         |

**Table 7-86** Parameter description of skillParam

| No.        | Parameter    | Type    | Description                                                                                                                                                                                                   |
|------------|--------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5.1<br>1.1 | skillId      | Integer | ID of a skill queue.                                                                                                                                                                                          |
| 5.1<br>1.2 | skillName    | String  | Skill queue name.                                                                                                                                                                                             |
| 5.1<br>1.3 | outBoundType | Integer | Outbound call mode.<br>The options are as follows: <ul style="list-style-type: none"> <li>• 2: predicted outbound call</li> <li>• 5: previewed outbound call</li> <li>• 6: preempted outbound call</li> </ul> |
| 5.1<br>1.4 | predictParam | Object  | Parameter settings for predicted outbound calls. This parameter is mandatory when <b>outBoundType</b> is set to 2.<br>For details about the parameters of this object, see <a href="#">Table 7-88</a> .       |
| 5.1<br>1.5 | previewParam | Object  | Parameter settings for previewed outbound calls. This parameter is mandatory when <b>outBoundType</b> is set to 5.<br>For details about the parameters of this object, see <a href="#">Table 7-87</a> .       |

**Table 7-87** Parameter description of previewParam

| No.          | Parameter    | Type    | Mandatory or Not | Description                                                                     |
|--------------|--------------|---------|------------------|---------------------------------------------------------------------------------|
| 5.1<br>1.5.1 | failInterval | Integer | Yes              | Outbound call interval, in seconds. The value is a positive integer.            |
| 5.1<br>1.5.2 | obCallCount  | Integer | Yes              | Number of outbound calls each time. The value is a positive integer.            |
| 5.1<br>1.5.3 | autoCallTime | Integer | Yes              | Previewed automatic call duration, in seconds. The value is a positive integer. |

**Table 7-88** Parameter description of predictParam

| No.              | Parameter           | Type    | Description                                                                                                                                                                                                                                                                                          |
|------------------|---------------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5.1<br>1.4.<br>1 | predictMethod       | Integer | Algorithm for predicted outbound calls.<br>The options are as follows:<br><b>1:</b> Algorithm for empirical prediction<br><b>2:</b> Algorithm for agent usage prediction<br><b>3:</b> Algorithm for predicting the outbound call completion rate<br><b>5:</b> Algorithm for off-hook rate prediction |
| 5.1<br>1.4.<br>2 | expPredictParam     | Object  | Parameter settings of the algorithm for empirical prediction. This parameter is mandatory when <b>predictMethod</b> is set to <b>1</b> .<br>For details about the parameters of this object, see <a href="#">Table 7-89</a> .                                                                        |
| 5.1<br>1.4.<br>3 | agentPredictParam   | Object  | Parameter settings of the algorithm for agent usage prediction. This parameter is mandatory when <b>predictMethod</b> is set to <b>2</b> .<br>For details about the parameters of this object, see <a href="#">Table 7-90</a> .                                                                      |
| 5.1<br>1.4.<br>4 | connectPredictParam | Object  | Parameter settings of the algorithm for predicting the outbound call completion rate. This parameter is mandatory when <b>predictMethod</b> is set to <b>3</b> .<br>For details about the parameters of this object, see <a href="#">Table 7-91</a> .                                                |
| 5.1<br>1.4.<br>5 | offhookPredictParam | Object  | Parameter settings of the algorithm for off-hook rate prediction. This parameter is mandatory when <b>predictMethod</b> is set to <b>5</b> .<br>For details about the parameters of this object, see <a href="#">Table 7-92</a> .                                                                    |

**Table 7-89** Parameter description of expPredictParam

| No.                | Parameter      | Type    | Description                                |
|--------------------|----------------|---------|--------------------------------------------|
| 5.1<br>1.4.<br>2.1 | maxAvgCallTime | Integer | Maximum average call duration, in seconds. |
| 5.1<br>1.4.<br>2.2 | mimAvgCallTime | Integer | Minimum average call duration, in seconds. |

| No.                | Parameter    | Type    | Description         |
|--------------------|--------------|---------|---------------------|
| 5.1<br>1.4.<br>2.3 | outBoundRate | Integer | Outbound call rate. |

**Table 7-90** Parameter description of agentPredictParam

| No.                | Parameter      | Type    | Description                                                                                                                                                                                                               |
|--------------------|----------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5.1<br>1.4.<br>3.1 | maxAvgCallTime | Integer | Maximum average call duration, in seconds.                                                                                                                                                                                |
| 5.1<br>1.4.<br>3.2 | mimAvgCallTime | Integer | Minimum average call duration, in seconds.                                                                                                                                                                                |
| 5.1<br>1.4.<br>3.3 | lossRate       | Integer | Minimum call loss rate.                                                                                                                                                                                                   |
| 5.1<br>1.4.<br>3.4 | utilRate       | Integer | Agent usage.                                                                                                                                                                                                              |
| 5.1<br>1.4.<br>3.5 | utilRateMethod | Integer | Algorithm for agent usage.<br>The options are as follows:<br><b>1:</b> Agent usage = Total call duration/Total login duration<br><b>2:</b> Agent usage = (Total call duration + Work state duration)/Total login duration |

**Table 7-91** Parameter description of connectPredictParam

| No.                | Parameter      | Type    | Description                                |
|--------------------|----------------|---------|--------------------------------------------|
| 5.1<br>1.4.<br>4.1 | maxAvgCallTime | Integer | Maximum average call duration, in seconds. |
| 5.1<br>1.4.<br>4.2 | mimAvgCallTime | Integer | Minimum average call duration, in seconds. |
| 5.1<br>1.4.<br>4.3 | lossRate       | Integer | Minimum call loss rate.                    |

| No.                | Parameter | Type    | Description                              |
|--------------------|-----------|---------|------------------------------------------|
| 5.1<br>1.4.<br>4.4 | waitTime  | Integer | Called party's waiting time, in seconds. |
| 5.1<br>1.4.<br>4.5 | connRate  | Integer | Outbound call connection rate.           |

**Table 7-92** Parameter description of offhookPredictParam

| No.                | Parameter   | Type    | Description    |
|--------------------|-------------|---------|----------------|
| 5.1<br>1.4.<br>5.1 | offHookRate | Integer | Off-hook rate. |

**Table 7-93** Parameter description of retryPolicy

| No.        | Parameter     | Type    | Description                                                                                                                                                                                        |
|------------|---------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5.1<br>3.1 | retryPolicyId | String  | Retry policy ID.                                                                                                                                                                                   |
| 5.1<br>3.2 | policyType    | Integer | Retry policy type.<br><b>0</b> : global policy; <b>1</b> : number type matching policy.                                                                                                            |
| 5.1<br>3.3 | retryDay      | Integer | Maximum number of days for call attempts.<br>This parameter is mandatory for common policies under the global policy.                                                                              |
| 5.1<br>3.4 | retryTimes    | Integer | Maximum number of call attempts per day.<br>This parameter is mandatory for common policies under the global policy.                                                                               |
| 5.1<br>3.5 | callInterval  | Integer | Outbound call interval, in seconds.<br>This parameter is mandatory for common policies under the global policy.                                                                                    |
| 5.1<br>3.6 | resultRetry   | String  | JSON string of the result policy.<br>This parameter is mandatory for result policies under the global policy.<br>For details about the parameters of this object, see <a href="#">Table 7-94</a> . |

| No.        | Parameter     | Type   | Description                                                                                                                                                                                                       |
|------------|---------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5.1<br>3.7 | policyJson    | String | JSON string of the number type matching policy.<br>This parameter is mandatory for number type matching policies.<br>For details about the parameters of this object, see <a href="#">Table 7-98</a> .            |
| 5.1<br>3.8 | busiPolicy    | String | JSON string of the business result policy.<br>For details about the parameters of this object, see <a href="#">Table 7-97</a> .                                                                                   |
| 5.1<br>3.9 | noRetryPolicy | String | Result codes for which no retry policy is configured. The result codes come from the <b>resultCode</b> field in the <b>data</b> attribute of the interface for querying the definitions of outbound call results. |

**Table 7-94** Parameter description of resultRetry

| No.              | Parameter    | Type    | Description                                                                                                     |
|------------------|--------------|---------|-----------------------------------------------------------------------------------------------------------------|
| 5.1<br>3.6.<br>1 | result       | Integer | Result type.<br>This parameter is mandatory for result policies under the global policy.                        |
| 5.1<br>3.6.<br>2 | callInterval | Integer | Outbound call interval, in seconds.<br>This parameter is mandatory for result policies under the global policy. |
| 5.1<br>3.6.<br>3 | retryNumber  | Integer | Number of retry times.<br>This parameter is mandatory for result policies under the global policy.              |

**Table 7-95** Parameter description of callPolicy

| No.        | Parameter    | Type    | Description                                                                                |
|------------|--------------|---------|--------------------------------------------------------------------------------------------|
| 5.1<br>4.1 | callPolicyId | String  | ID of a call policy.                                                                       |
| 5.1<br>4.2 | callType     | Integer | Call mode.<br><b>0</b> : by sequence; <b>1</b> : by round. The default value is <b>0</b> . |



| No.        | Parameter  | Type    | Description                                                                                                                                                                           |
|------------|------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5.1<br>4.3 | chooseType | Integer | Round mode.<br><b>0</b> : by number category; <b>1</b> : by number sequence. This parameter is mandatory when the call mode is by round.                                              |
| 5.1<br>4.4 | turns      | String  | Round information in JSON format.<br>This parameter is mandatory when the call mode is by round.<br>For details about the parameters of this object, see <a href="#">Table 7-96</a> . |

**Table 7-96** Parameter description of turns

| No.              | Parameter | Type    | Description                                                                                |
|------------------|-----------|---------|--------------------------------------------------------------------------------------------|
| 5.1<br>4.4.<br>1 | turnType  | String  | Number type.<br>This parameter is mandatory when the round mode is by number category.     |
| 5.1<br>4.4.<br>2 | turnOrder | Integer | Number sequence.<br>This parameter is mandatory when the round mode is by number sequence. |
| 5.1<br>4.4.<br>3 | orderNo   | Integer | Round number.                                                                              |

**Table 7-97** Parameter description of busiPolicy

| No.              | Parameter         | Type    | Description                                                                                                                                                  |
|------------------|-------------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5.1<br>3.8.<br>1 | busiResultCode    | String  | Business result code.                                                                                                                                        |
| 5.1<br>3.8.<br>2 | busiResultSubCode | String  | Business result subcode. (This parameter is associated with the business result code.)                                                                       |
| 5.1<br>3.8.<br>3 | busiResultPolicy  | Integer | Call policy for a business result.<br><b>0</b> : Stop calling. <b>1</b> : Call the next number. <b>2</b> : Call the current number.                          |
| 5.1<br>3.8.<br>4 | callInterval      | Integer | Outbound call interval, in seconds.<br>For call policies, set this parameter to <b>0</b> or leave it empty. For others, set this parameter to another value. |

**Table 7-98** Parameter description of policyJson

| No.              | Parameter | Type    | Description                                                                                                               |
|------------------|-----------|---------|---------------------------------------------------------------------------------------------------------------------------|
| 5.1<br>3.7.<br>1 | dataType  | String  | Number type.                                                                                                              |
| 5.1<br>3.7.<br>2 | type      | Integer | Retry logic policy type. <ul style="list-style-type: none"> <li>• 0: common policy</li> <li>• 1: result policy</li> </ul> |
| 5.1<br>3.7.<br>3 | policy    | String  | Policy configuration information.<br>For details about the parameters of this object, see <a href="#">Table 7-99</a> .    |

**Table 7-99** Parameter description of policy

| No.                | Parameter    | Type    | Description                                                                                                                             |
|--------------------|--------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 5.1<br>3.7.<br>3.1 | retryDay     | Integer | Maximum number of days for call attempts.<br>This parameter is mandatory for common policies that are matched based on the number type. |
| 5.1<br>3.7.<br>3.2 | retryTimes   | Integer | Maximum number of call attempts per day.<br>This parameter is mandatory for common policies that are matched based on the number type.  |
| 5.1<br>3.7.<br>3.3 | result       | Integer | Result type.<br>This parameter is mandatory for result policies that are matched based on the number type.                              |
| 5.1<br>3.7.<br>3.4 | callInterval | Integer | Outbound call interval, in seconds.<br>This parameter is mandatory for result policies that are matched based on the number type.       |
| 5.1<br>3.7.<br>3.5 | retryNumber  | Integer | Number of retry times.<br>This parameter is mandatory for result policies that are matched based on the number type.                    |

## Triggered Event

None

## Error Codes

**Table 7-100** Error code description

| No. | Error Code   | Description                                                                |
|-----|--------------|----------------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> .      |
| 2   | 020000<br>6  | Database operation error.                                                  |
| 3   | 020000<br>7  | The outbound campaign does not exist.                                      |
| 4   | 020000<br>01 | Empty parameter.                                                           |
| 5   | 020000<br>02 | The parameter contains invalid characters.                                 |
| 6   | 020000<br>03 | The parameter length cannot exceed the maximum length.                     |
| 7   | 020000<br>04 | The parameter length cannot be less than the minimum length.               |
| 8   | 020000<br>05 | The parameter length must be within the specified range.                   |
| 9   | 020000<br>06 | Incorrect parameter type.                                                  |
| 10  | 020000<br>07 | Incorrect parameter value.                                                 |
| 11  | 020000<br>08 | Parameter conversion error. Check the request parameters.                  |
| 12  | 020000<br>09 | Incorrect parameter combination. Check the request parameters.             |
| 13  | 020000<br>10 | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 14  | 020000<br>11 | The number of parameters cannot exceed the specified number.               |

### Example

- The following provides an example of the request body of this interface:  
None
- The following provides an example of the response body of this interface:  

```
{
 "resultCode": "0200000",
```

```
"resultDesc": "",
"returnCode": "0200000",
"returnDesc": "",
"returnObject": {
 "id": 146,
 "name": "lizhan_test",
 "description": null,
 "status": 2,
 "strBeginTime": "2018-12-01",
 "strEndTime": "2018-12-02",
 "deviceType": 2,
 "callerNo": "10086",
 "maxAlertingTime": 20,
 "scheduleParam": {
 "workdayBeginTime1": "08:00",
 "workdayEndTime1": "12:00",
 "workdayBeginTime2": "13:30",
 "workdayEndTime2": "17:30",
 "workdayBeginTime3": null,
 "workdayEndTime3": null,
 "holidayBeginTime1": "09:00",
 "holidayEndTime1": "12:00",
 "holidayBeginTime2": "14:00",
 "holidayEndTime2": "17:00",
 "holidayBeginTime3": null,
 "holidayEndTime3": null
 },
 "ivrParam": null,
 "skillParam": {
 "skillId": 1,
 "skillName": "Voice Skill Queue",
 "outBoundType": 2,
 "predictParam": {
 "predictMethod": 5,
 "expPredictParam": null,
 "agentPredictParam": null,
 "connectPredictParam": null,
 "offhookPredictParam": {
 "offHookRate": 100
 }
 }
 },
 "previewParam": null,
 "callBackUrl": "http://www.baidu.com"
}
```

## 7.1.7 Querying All Outbound Campaigns

### Scenario

This interface is invoked to query all outbound campaigns based on specified conditions.

### Method

This interface supports only the GET method.

### URI

```
https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}?
name={name}&status={status}&deviceType={deviceType}&beginTime={beginTime}
&endTime={endTime}&curPage={curPage}&rowsPerPage={rowsPerPage}
```

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-101** Parameters in the URL

| No. | Parameter  | Type    | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----|------------|---------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | vdnId      | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999.                                                                                                                                                                                                                                                                                                                                                                                |
| 2   | name       | String  | No               | Name of an outbound campaign.<br>The value is a string of 0 to 30 characters.<br>By default, this parameter is left blank.                                                                                                                                                                                                                                                                                                                |
| 3   | status     | Integer | Yes              | Status of an outbound campaign.<br>The options are as follows:<br><b>2:</b> started<br><b>3:</b> suspended<br><b>4:</b> completed<br>If this parameter is set to <b>0</b> , outbound campaigns in all statuses are queried by default.                                                                                                                                                                                                    |
| 4   | deviceType | Integer | Yes              | Type of an outbound device.<br>The options are as follows: <ul style="list-style-type: none"><li>• <b>2:</b> skill queue in predicted outbound calls</li><li>• <b>3:</b> IVR in automatic outbound calls</li><li>• <b>5:</b> skill queue in previewed outbound calls</li><li>• <b>6:</b> skill queue in preempted outbound calls</li></ul> If this parameter is set to <b>0</b> , outbound campaigns of all types are queried by default. |
| 5   | beginTime  | String  | No               | Minimum start time of an outbound campaign, in <i>yyyy-MM-dd HH:mm:ss</i> format.                                                                                                                                                                                                                                                                                                                                                         |
| 6   | endTime    | String  | No               | Maximum end time of an outbound campaign, in <i>yyyy-MM-dd HH:mm:ss</i> format.                                                                                                                                                                                                                                                                                                                                                           |

| No. | Parameter   | Type    | Mandatory or Not | Description                                                                                                                                     |
|-----|-------------|---------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| 7   | curPage     | Integer | Yes              | Current page.<br>The default value is <b>1</b> . If the input value is less than 1, the system automatically changes the value to <b>1</b> .    |
| 8   | rowsPerPage | Integer | Yes              | Number of records on each page.<br>If this parameter is not specified, 10 records are queried by default, and the maximum value is <b>100</b> . |
| 9   | cclId       | Integer | No               | If this parameter is set, data is filtered based on the specified call center ID. If this parameter is left blank, data is not filtered.        |

## Request Description

**Table 7-102** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

No request body exists.

## Response Description

**Table 7-103** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                                 |
|-----|------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>0200000</b> indicates success and other values indicate failure.<br>For details, see <a href="#">Table 7-105</a> . |

| No. | Parameter          | Type    | Description                                                                                                                                  |
|-----|--------------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | resultDesc         | String  | Description.                                                                                                                                 |
| 3   | returnCode         | String  | Error code. The value <b>0200000</b> indicates success and other values indicate failure.<br>For details, see <a href="#">Table 7-105</a> .  |
| 4   | returnDesc         | String  | Description.                                                                                                                                 |
| 5   | curPage            | Integer | Current page.                                                                                                                                |
| 6   | totalSize          | Integer | Total number of records.                                                                                                                     |
| 7   | rowsPerPage        | Integer | Number of records on each page.                                                                                                              |
| 8   | curSkillQueueCount | Integer | Total number of outbound campaigns in the current skill queue.                                                                               |
| 9   | curlvrCount        | Integer | Total number of current IVR outbound campaigns.                                                                                              |
| 10  | data               | List    | Object of the outbound campaign information that is returned when the query is successful.<br>For details, see <a href="#">Table 7-104</a> . |

**Table 7-104** Parameter description of Campaign

| No.  | Parameter    | Type    | Description                                                                                                                       |
|------|--------------|---------|-----------------------------------------------------------------------------------------------------------------------------------|
| 10.1 | id           | Integer | ID of an outbound campaign.                                                                                                       |
| 10.2 | name         | String  | Name of an outbound campaign.                                                                                                     |
| 10.3 | status       | Integer | Status of an outbound campaign.<br>The options are as follows:<br><b>2:</b> started<br><b>3:</b> suspended<br><b>4:</b> completed |
| 10.4 | strBeginTime | String  | Time when an outbound campaign starts.                                                                                            |
| 10.5 | strEndTime   | String  | Time when an outbound campaign ends.                                                                                              |

| No.  | Parameter  | Type    | Description                                                                                                                                                                                                                                                                                                         |
|------|------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.6 | deviceType | Integer | Type of an outbound device.<br>The options are as follows: <ul style="list-style-type: none"> <li>• 2: skill queue in predicted outbound calls</li> <li>• 3: IVR in automatic outbound calls</li> <li>• 5: skill queue in previewed outbound calls</li> <li>• 6: skill queue in preempted outbound calls</li> </ul> |
| 10.7 | callerNo   | String  | Calling number.<br>Number displayed on the phone of a customer after a call is connected.                                                                                                                                                                                                                           |

## Triggered Event

None

## Error Codes

**Table 7-105** Error code description

| No. | Error Code   | Description                                                           |
|-----|--------------|-----------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 020000<br>6  | Database operation error.                                             |
| 3   | 020000<br>01 | Empty parameter.                                                      |
| 4   | 020000<br>02 | The parameter contains invalid characters.                            |
| 5   | 020000<br>03 | The parameter length cannot exceed the maximum length.                |
| 6   | 020000<br>04 | The parameter length cannot be less than the minimum length.          |
| 7   | 020000<br>05 | The parameter length must be within the specified range.              |
| 8   | 020000<br>06 | Incorrect parameter type.                                             |
| 9   | 020000<br>07 | Incorrect parameter value.                                            |



| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 10  | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 11  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 12  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 13  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:  
None
- The following provides an example of the response body of this interface:

```
{
 "resultCode": "02000000",
 "resultDesc": "",
 "returnCode": "02000000",
 "returnDesc": "",
 "curPage": 1,
 "totalSize": 3,
 "rowsPerPage": 10,
 "data": [
 {
 "id": 3,
 "name": "666",
 "status": 1,
 "strBeginTime": "2018-11-30",
 "strEndTime": "2018-11-30",
 "deviceType": 2,
 "callerNo": "10080"
 },
 {
 "id": 4,
 "name": "666333696",
 "status": 1,
 "strBeginTime": "2018-11-30",
 "strEndTime": "2018-11-30",
 "deviceType": 2,
 "callerNo": "10080"
 },
 {
 "id": 2,
 "name": "SAAS_JST",
 "status": 3,
 "strBeginTime": "2018-11-29",
 "strEndTime": "2018-12-08",
 "deviceType": 2,
 "callerNo": "10080"
 }
],
 "curSkillQueueCount": 3,
 "curlvrCount": 0
}
```

## 7.1.8 Suspending an Outbound Campaign

### Prerequisites

- You have applied for a developer account.
- The ID of the outbound campaign to be suspended has been obtained.
- The outbound campaign is running.

### Scenario

This interface is invoked to change the status of a specified outbound campaign to **suspended**.

### Method

This interface supports only the PUT method.

### URI

`https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/{campaignId}/pause`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-106** Parameters in the URL

| No. | Parameter  | Type    | Mandatory or Not | Description                                                |
|-----|------------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId      | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | campaignId | Integer | Yes              | Outbound campaign task ID.                                 |

### Request Description

**Table 7-107** Request header parameters

| No. | Parameter    | Type   | Mandatory or Not | Description                                                    |
|-----|--------------|--------|------------------|----------------------------------------------------------------|
| 1   | Content-Type | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> . |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

No request body exists.

## Response Description

**Table 7-108** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                              |
|-----|------------|--------|------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>0200000</b> indicates success and other values indicate failure. For details, see <a href="#">Table 7-109</a> . |
| 2   | resultDesc | String | Description.                                                                                                                             |
| 3   | returnCode | String | Error code. The value <b>0200000</b> indicates success and other values indicate failure. For details, see <a href="#">Table 7-109</a> . |
| 4   | returnDesc | String | Description.                                                                                                                             |

## Triggered Event

None

## Error Codes

**Table 7-109** Error code description

| No. | Error Code | Description                                                           |
|-----|------------|-----------------------------------------------------------------------|
| 1   | 0200001    | Parameter error. For details about the error, see <b>resultDesc</b> . |

| No. | Error Code   | Description                                                                |
|-----|--------------|----------------------------------------------------------------------------|
| 2   | 020000<br>6  | Database operation error.                                                  |
| 3   | 020000<br>7  | The outbound campaign does not exist.                                      |
| 4   | 020001<br>1  | The outbound campaign in the current status cannot be suspended.           |
| 5   | 020000<br>01 | Empty parameter.                                                           |
| 6   | 020000<br>02 | The parameter contains invalid characters.                                 |
| 7   | 020000<br>03 | The parameter length cannot exceed the maximum length.                     |
| 8   | 020000<br>04 | The parameter length cannot be less than the minimum length.               |
| 9   | 020000<br>05 | The parameter length must be within the specified range.                   |
| 10  | 020000<br>06 | Incorrect parameter type.                                                  |
| 11  | 020000<br>07 | Incorrect parameter value.                                                 |
| 12  | 020000<br>08 | Parameter conversion error. Check the request parameters.                  |
| 13  | 020000<br>09 | Incorrect parameter combination. Check the request parameters.             |
| 14  | 020000<br>10 | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 15  | 020000<br>11 | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:  
None
- The following provides an example of the response body of this interface:

```
{
 "resultCode": "0200000",
 "resultDesc": "",
 "returnCode": "0200000",
 "returnDesc": ""
}
```

## 7.1.9 Resuming an Outbound Campaign

### Prerequisites

- You have applied for a developer account.
- The ID of the outbound campaign to be resumed has been obtained.
- The outbound campaign is suspended.

### Scenario

This interface is invoked to resume an outbound campaign.

### Method

This interface supports only the PUT method.

### URI

`https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/{campaignId}/resume`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-110** Parameters in the URL

| No. | Parameter  | Type    | Mandatory or Not | Description                                                |
|-----|------------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId      | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | campaignId | Integer | Yes              | Outbound campaign task ID.                                 |

### Request Description

**Table 7-111** Request header parameters

| No. | Parameter    | Type   | Mandatory or Not | Description                                                    |
|-----|--------------|--------|------------------|----------------------------------------------------------------|
| 1   | Content-Type | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> . |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

No request body exists.

## Response Description

**Table 7-112** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                               |
|-----|------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-113</a> . |
| 2   | resultDesc | String | Description.                                                                                                                              |
| 3   | returnCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-113</a> . |
| 4   | returnDesc | String | Description.                                                                                                                              |

## Triggered Event

None

## Error Codes

**Table 7-113** Error code description

| No. | Error Code | Description                                                           |
|-----|------------|-----------------------------------------------------------------------|
| 1   | 0200001    | Parameter error. For details about the error, see <b>resultDesc</b> . |

| No. | Error Code   | Description                                                                |
|-----|--------------|----------------------------------------------------------------------------|
| 2   | 020000<br>6  | Database operation error.                                                  |
| 3   | 020000<br>7  | The outbound campaign does not exist.                                      |
| 4   | 020001<br>1  | The outbound campaign in the current state cannot be resumed.              |
| 5   | 020000<br>01 | Empty parameter.                                                           |
| 6   | 020000<br>02 | The parameter contains invalid characters.                                 |
| 7   | 020000<br>03 | The parameter length cannot exceed the maximum length.                     |
| 8   | 020000<br>04 | The parameter length cannot be less than the minimum length.               |
| 9   | 020000<br>05 | The parameter length must be within the specified range.                   |
| 10  | 020000<br>06 | Incorrect parameter type.                                                  |
| 11  | 020000<br>07 | Incorrect parameter value.                                                 |
| 12  | 020000<br>08 | Parameter conversion error. Check the request parameters.                  |
| 13  | 020000<br>09 | Incorrect parameter combination. Check the request parameters.             |
| 14  | 020000<br>10 | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 15  | 020000<br>11 | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:  
None
- The following provides an example of the response body of this interface:

```
{
 "resultCode": "0200000",
 "resultDesc": "",
 "returnCode": "0200000",
 "returnDesc": ""
}
```

## 7.1.10 Setting the Retry Policy of an Outbound Campaign

### Prerequisites

- You have applied for a developer account.
- For intelligent outbound calls, the customer needs to develop the IVR. For details, see [Configuring Intelligent IVR](#).

### Scenario

This interface is invoked to set the retry policy of a specified outbound campaign.

### Method

This interface supports only the POST method.

### URI

`https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/retryPolicy/{campaignId}`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-114** Parameters in the URL

| No. | Parameter  | Type    | Mandatory or Not | Description                                                |
|-----|------------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId      | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | campaignId | Integer | Yes              | ID of an outbound campaign.                                |

### Request Description

**Table 7-115** Request header parameters

| No. | Parameter    | Type   | Mandatory or Not | Description                                                    |
|-----|--------------|--------|------------------|----------------------------------------------------------------|
| 1   | Content-Type | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> . |



| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-116** Request body parameters

| No. | Parameter  | Type    | Description                                                                                                                       |
|-----|------------|---------|-----------------------------------------------------------------------------------------------------------------------------------|
| 1   | policyJson | String  | JSON string of the policy.<br>For details about the parameters of this object, see <a href="#">Table 7-117</a> .                  |
| 2   | policyType | Integer | Retry policy type. <ul style="list-style-type: none"> <li>• 0: global policy</li> <li>• 1: number type matching policy</li> </ul> |

**Table 7-117** Parameter description of policyJson

| No. | Parameter  | Type    | Mandatory or Not | Description                                                                                                                                          |
|-----|------------|---------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | dataType   | String  | -                | Number type.                                                                                                                                         |
| 1.2 | policy     | String  | -                | JSON string of the policy that is matched based on the result.<br>For details about the parameters of this object, see <a href="#">Table 7-118</a> . |
| 1.3 | retryDay   | Integer | -                | Number of call attempt days in a common policy.                                                                                                      |
| 1.4 | retryTimes | Integer | -                | Number of call attempts per day in a common policy.                                                                                                  |

| No. | Parameter     | Type          | Mandatory or Not                                                              | Description                                                                                                                                                                                                       |
|-----|---------------|---------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.5 | type          | Integer       | -                                                                             | Retry logic policy type.<br><ul style="list-style-type: none"> <li>• <b>0</b>: common policy</li> <li>• <b>1</b>: result policy</li> </ul>                                                                        |
| 1.6 | noRetryPolicy | List <String> | No (This parameter cannot be set when <b>policyType</b> is set to <b>1</b> .) | Result codes for which no retry policy is configured. The result codes come from the <b>resultCode</b> field in the <b>data</b> attribute of the interface for querying the definitions of outbound call results. |

**Table 7-118** Parameter description of policy

| No.   | Parameter    | Type    | Mandatory or Not | Description            |
|-------|--------------|---------|------------------|------------------------|
| 1.2.1 | callInterval | Integer | -                | Delay time.            |
| 1.2.2 | result       | Integer | -                | Result type.           |
| 1.2.3 | retryNumber  | Integer | -                | Number of retry times. |

## Response Description

**Table 7-119** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                               |
|-----|------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-120</a> . |
| 2   | resultDesc | String | Description.                                                                                                                              |

| No. | Parameter  | Type   | Description                                                                                                                               |
|-----|------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | returnCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-120</a> . |
| 4   | returnDesc | String | Description.                                                                                                                              |

## Triggered Event

None

## Error Codes

**Table 7-120** Error code description

| No. | Error Code   | Description                                                           |
|-----|--------------|-----------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 0200-0<br>1  | The outbound campaign does not exist.                                 |
| 3   | 020000<br>01 | Empty parameter.                                                      |
| 4   | 020000<br>02 | The parameter contains invalid characters.                            |
| 5   | 020000<br>03 | The parameter length cannot exceed the maximum length.                |
| 6   | 020000<br>04 | The parameter length cannot be less than the minimum length.          |
| 7   | 020000<br>05 | The parameter length must be within the specified range.              |
| 8   | 020000<br>06 | Incorrect parameter type.                                             |
| 9   | 020000<br>07 | Incorrect parameter value.                                            |
| 10  | 020000<br>08 | Parameter conversion error. Check the request parameters.             |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 11  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 12  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 13  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides examples of the request body of this interface:  
You can select different policy combinations based on business requirements.
  - Global policy+normal policy (**policyType=0; type=0**)
 

```
{
 "policyJson": "{ 'type':0,'retryTimes':1,'retryDay':1 }",
 "policyType": 0
}
```
  - Global policy+result policy (**policyType=0; type=1**)
 

```
{
 "policyJson": "{ 'type':1,'policy':{ 'result':4,'retryNumber':3,'callInterval':60 } }",
 "policyType": 0
}
```
  - Number type matching policy+common policy (**policyType=1; type=0**)
 

```
{
 "policyJson": "{ 'dataType':'ST','type':0,'policy':{ 'retryTimes':2,'retryDay':1 } }",
 "policyType": 1
}
```
  - Number type matching policy+result policy (**policyType=1; type=1**)
 

```
{
 "policyJson": "{ 'dataType':'ST','type':1,'policy':{ 'result':4,'retryNumber':3,'callInterval':60 } }",
 "policyType": 1
}
```
- The following provides an example of the response body of this interface:
 

```
{
 "resultCode": "0200000",
 "resultDesc": "",
 "returnCode": "0200000",
 "returnDesc": ""
}
```

## 7.1.11 Querying the Retry Policy of an Outbound Campaign

### Prerequisites

- You have applied for a developer account.
- For intelligent outbound calls, the customer needs to develop the IVR. For details, see *IVR IDE User Guide*.

## Scenario

This interface is invoked to query the retry policy of a specified outbound campaign.

## Method

This interface supports only the GET method.

## URI

`https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/retryPolicy/{campaignId}`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-121** Parameters in the URL

| No. | Parameter  | Type    | Mandatory or Not | Description                                                |
|-----|------------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId      | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | campaignId | Integer | Yes              | ID of an outbound campaign.                                |

## Request Description

**Table 7-122** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

No request body exists.

## Response Description

**Table 7-123** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                                  |
|-----|------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-128</a> . |
| 2   | resultDesc | String | Description.                                                                                                                                 |
| 3   | data       | Object | Outbound call retry policy. For details, see <a href="#">Table 7-124</a> .                                                                   |
| 4   | returnCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-128</a> . |
| 5   | returnDesc | String | Description.                                                                                                                                 |

**Table 7-124** Parameter description of data

| No. | Parameter     | Type    | Description                                                                                                                                      |
|-----|---------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.1 | retryPolicyId | String  | Retry policy ID.                                                                                                                                 |
| 3.2 | policyType    | Integer | Retry policy type. <ul style="list-style-type: none"> <li>• <b>0</b>: global policy</li> <li>• <b>1</b>: number classification policy</li> </ul> |
| 3.3 | policyJson    | String  | Retry policy parameters. For details, see <a href="#">Table 7-125</a> .                                                                          |

| No. | Parameter     | Type   | Description                                                                                                                                                                                                       |
|-----|---------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.4 | noRetryPolicy | String | Result codes for which no retry policy is configured. The result codes come from the <b>resultCode</b> field in the <b>data</b> attribute of the interface for querying the definitions of outbound call results. |
| 3.5 | busiPolicy    | String | False<br>JSON string of the business result policy.<br>For details about the parameters of this object, see <a href="#">Table 7-126</a> .                                                                         |

**Table 7-125** Parameter description of policyJson

| No.   | Parameter  | Type    | Description                                                                                                                                          |
|-------|------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.3.1 | dataType   | String  | Number type.                                                                                                                                         |
| 3.3.2 | policy     | String  | JSON string of the policy that is matched based on the result.<br>For details about the parameters of this object, see <a href="#">Table 7-127</a> . |
| 3.3.3 | retryDay   | Integer | Number of call attempt days in a common policy.                                                                                                      |
| 3.3.4 | retryTimes | Integer | Number of call attempts per day in a common policy.                                                                                                  |
| 3.3.5 | type       | Integer | Retry logic policy type. <ul style="list-style-type: none"> <li>● <b>0</b>: common policy</li> <li>● <b>1</b>: result policy</li> </ul>              |

**Table 7-126** Parameter description of busiPolicy

| No.    | Parameter         | Type    | Mandatory or Not | Description                                                                                                                                                                                    |
|--------|-------------------|---------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14.7.1 | busiResultCode    | String  | Yes              | Business result code.                                                                                                                                                                          |
| 14.7.2 | busiResultSubCode | String  | --               | Business result subcode. (This parameter is associated with the business result code.)                                                                                                         |
| 14.7.3 | busiResultPolicy  | Integer | Yes              | Call policy for a business result.<br><b>0</b> : Stop calling. <b>1</b> : Call the next number.<br><b>2</b> : Call the current number.                                                         |
| 14.7.4 | callInterval      | Integer | --               | Outbound call interval, in seconds.<br>If the call policy is set to <b>0</b> , you do not need to set this parameter. Otherwise, this parameter is mandatory. The value ranges from 1 to 3600. |

**Table 7-127** Parameter description of policy

| No.     | Parameter    | Type    | Description            |
|---------|--------------|---------|------------------------|
| 3.3.2.1 | callInterval | Integer | Delay time.            |
| 3.3.2.2 | result       | Integer | Result type.           |
| 3.3.2.3 | retryNumber  | Integer | Number of retry times. |

## Triggered Event

None

## Error Codes

**Table 7-128** Error code description

| No. | Error Code | Description                                                           |
|-----|------------|-----------------------------------------------------------------------|
| 1   | 0200001    | Parameter error. For details about the error, see <b>resultDesc</b> . |



| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 2   | 02000001   | Empty parameter.                                                           |
| 3   | 02000002   | The parameter contains invalid characters.                                 |
| 4   | 02000003   | The parameter length cannot exceed the maximum length.                     |
| 5   | 02000004   | The parameter length cannot be less than the minimum length.               |
| 6   | 02000005   | The parameter length must be within the specified range.                   |
| 7   | 02000006   | Incorrect parameter type.                                                  |
| 8   | 02000007   | Incorrect parameter value.                                                 |
| 9   | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 10  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 11  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 12  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:

None

- The following provides an example of the response body of this interface:

```
{
 "returnCode": "02000000",
 "data": {
 "retryPolicyId": "1871694313",
 "policyType": 0,
 "policyJson": "[{'retryTimes':1,'retryDay':2,'type':0,'policy':[]}]"
 },
 "returnDesc": null
}
```

## 7.1.12 Adding the Definition of an Outbound Call Business Result

### Scenario

This interface is invoked to add the definition of an outbound call business result for a specified VDN ID.

### Usage Description

- Prerequisites
  - You have applied for a developer account.
- Restrictions
  - After the addition, no modification interface is provided.

### Method

This interface supports only the POST method.

### URI

`https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/addBusinessResult`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-129** Parameters in the URL

| No. | Parameter | Type    | Mandatory or Not | Description                                                |
|-----|-----------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |

### Request Description

**Table 7-130** Request header parameters

| No. | Parameter    | Type   | Mandatory or Not | Description                                                    |
|-----|--------------|--------|------------------|----------------------------------------------------------------|
| 1   | Content-Type | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> . |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-131** Request body parameters

| No. | Parameter   | Type   | Mandatory or Not | Description                                                                                                                |
|-----|-------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------|
| 1   | name        | String | Yes              | Business result name.<br>The value can contain a maximum of 50 characters, excluding special characters.                   |
| 2   | code        | String | No               | Business result code.<br>The value can contain a maximum of 50 characters, including only digits, letters, and hyphens (-) |
| 3   | description | String | No               | Business result description.<br>The value can contain a maximum of 200 characters, excluding special characters.           |
| 4   | children    | List   | No               | Subbusiness result.<br>For details about the parameters of this object, see <a href="#">Table 7-132</a> .                  |

**Table 7-132** Parameter description of children

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                   |
|-----|-----------|--------|------------------|-------------------------------------------------------------------------------------------------------------------------------|
| 4.1 | name      | String | Yes              | Subbusiness result name.<br>The value can contain a maximum of 50 characters, excluding special characters.                   |
| 4.2 | code      | String | No               | Subbusiness result code.<br>The value can contain a maximum of 50 characters, including only digits, letters, and hyphens (-) |

| No. | Parameter   | Type   | Mandatory or Not | Description                                                                                                         |
|-----|-------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------|
| 4.3 | description | String | No               | Subbusiness result description.<br>The value can contain a maximum of 200 characters, excluding special characters. |

## Response Description

**Table 7-133** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                                 |
|-----|------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>020000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-134</a> . |
| 2   | resultDesc | String | Description.                                                                                                                                |
| 3   | returnCode | String | Error code. The value <b>020000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-134</a> . |
| 4   | returnDesc | String | Description.                                                                                                                                |

## Triggered Event

None

## Error Codes

**Table 7-134** Error code description

| No. | Error Code  | Description                                                           |
|-----|-------------|-----------------------------------------------------------------------|
| 1   | 020000<br>1 | Parameter error. For details about the error, see <b>resultDesc</b> . |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 2   | 02000006   | Database operation error.                                                  |
| 3   | 02000001   | Empty parameter.                                                           |
| 4   | 02000002   | The parameter contains invalid characters.                                 |
| 5   | 02000003   | The parameter length cannot exceed the maximum length.                     |
| 6   | 02000004   | The parameter length cannot be less than the minimum length.               |
| 7   | 02000005   | The parameter length must be within the specified range.                   |
| 8   | 02000006   | Incorrect parameter type.                                                  |
| 9   | 02000007   | Incorrect parameter value.                                                 |
| 10  | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 11  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 12  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 13  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:

```
{
 "name": "Call failure",
 "code": "123456",
 "description": "Call failure",
 "children": [
 {
 "name": "The customer directly hangs up.",
 "code": "100001",
 "description": "The customer directly hangs up."
 },
 {
 "name": "The customer turns off the phone."
 "code": "100002",
 "description": "The customer turns off the phone."
 }
]
}
```

- The following provides an example of the response body of this interface:

```
{
 "resultCode": "0200000",
 "resultDesc": "addBusinessResult success",
 "returnCode": "0200000",
 "returnDesc": "addBusinessResult success"
}
```

## 7.1.13 Querying the Definitions of Outbound Call Business Results

### Prerequisites

You have applied for a developer account.

### Scenario

This interface is invoked to query the definitions of outbound call business results in a specified VDN.

### Method

This interface supports only the GET method.

### URI

<https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/queryBusinessResults?pageSize={pageSize}&pageNum={pageNum}>

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-135** Parameters in the URL

| No. | Parameter | Type    | Mandatory or Not | Description                                                                                           |
|-----|-----------|---------|------------------|-------------------------------------------------------------------------------------------------------|
| 1   | vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999.                                            |
| 2   | pageSize  | Integer | Yes              | Number of data records on each page in the pagination query result.<br>The value ranges from 1 to 50. |

| No. | Parameter | Type    | Mandatory or Not | Description                                              |
|-----|-----------|---------|------------------|----------------------------------------------------------|
| 3   | pageNum   | Integer | Yes              | Current page number.<br>The value is a positive integer. |

## Request Description

**Table 7-136** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

No request body exists.

## Response Description

**Table 7-137** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                                  |
|-----|------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-140</a> . |
| 2   | resultDesc | String | Description.                                                                                                                                 |
| 3   | returnCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-140</a> . |

| No. | Parameter  | Type      | Description                                                           |
|-----|------------|-----------|-----------------------------------------------------------------------|
| 4   | returnDesc | String    | Description.                                                          |
| 5   | data       | JSONArray | Result in JSON format. For details, see <a href="#">Table 7-138</a> . |
| 6   | totalCount | Long      | Total number of records in the returned list.                         |

**Table 7-138** Parameter description of data

| No. | Parameter | Type   | Description                                                                                                                             |
|-----|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 5.1 | name      | String | Business result name.                                                                                                                   |
| 5.2 | code      | String | Business result code.                                                                                                                   |
| 5.3 | defLevel  | String | Business result level. The value <b>1</b> indicates the parent business result and the value <b>2</b> indicates the subbusiness result. |
| 5.4 | children  | List   | Subbusiness result. For details about the parameters of this object, see <a href="#">Table 7-139</a> .                                  |

**Table 7-139** Parameter description of children

| No.   | Parameter | Type   | Description                                                                                                                             |
|-------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 5.4.1 | name      | String | Subbusiness result name.                                                                                                                |
| 5.4.2 | code      | String | Subbusiness result code.                                                                                                                |
| 5.4.3 | defLevel  | String | Business result level. The value <b>1</b> indicates the parent business result and the value <b>2</b> indicates the subbusiness result. |



## Triggered Event

None

## Error Codes

**Table 7-140** Error code description

| No. | Error Code   | Description                                                                |
|-----|--------------|----------------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> .      |
| 2   | 020000<br>5  | Parameter error. For details about the error, see <b>resultDesc</b> .      |
| 3   | 020000<br>7  | Parameter error. For details about the error, see <b>resultDesc</b> .      |
| 4   | 020000<br>01 | Empty parameter.                                                           |
| 5   | 020000<br>02 | The parameter contains invalid characters.                                 |
| 6   | 020000<br>03 | The parameter length cannot exceed the maximum length.                     |
| 7   | 020000<br>04 | The parameter length cannot be less than the minimum length.               |
| 8   | 020000<br>05 | The parameter length must be within the specified range.                   |
| 9   | 020000<br>06 | Incorrect parameter type.                                                  |
| 10  | 020000<br>07 | Incorrect parameter value.                                                 |
| 11  | 020000<br>08 | Parameter conversion error. Check the request parameters.                  |
| 12  | 020000<br>09 | Incorrect parameter combination. Check the request parameters.             |
| 13  | 020000<br>10 | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 14  | 020000<br>11 | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the response body of this interface:

```
{
 "returnCode": "0200000",
 "data": [
 {
 "code": "11111",
 "children": [
 {
 "code": "12324",
 "name": "sub02",
 "defLevel": "2"
 },
 {
 "code": "1232",
 "name": "sub01",
 "defLevel": "2"
 }
],
 "name": "test111",
 "defLevel": "1"
 },
 {
 "code": "test",
 "children": [],
 "name": "test0903",
 "defLevel": "1"
 },
 {
 "code": "15105671",
 "children": [
 {
 "code": "754646",
 "name": "Call interrupted",
 "defLevel": "2"
 },
 {
 "code": "ob-12",
 "name": "Multiple local officials",
 "defLevel": "2"
 }
],
 "name": "Failed 4up",
 "defLevel": "1"
 }
],
 "resultCode": "0200000",
 "resultDesc": "queryBusinessResults Success!",
 "totalCount": 3,
 "returnDesc": "queryBusinessResults Success!"
}
```

## 7.1.14 Collecting Outbound Call Exception Statistics

### Prerequisites

You have applied for a developer account.

### Scenario

This interface is invoked to collect outbound call exception statistics on the current day.

## Method

This interface supports only the GET method.

## URI

https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/failcategorystatistics?campaignId={campaignId}&startDate={startDate}&endDate={endDate}

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-141** Parameters in the URL

| No. | Parameter  | Type    | Mandatory or Not                                              | Description                                                                                                                        |
|-----|------------|---------|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| 1   | vdnId      | Integer | Yes                                                           | VDN ID.<br>The value is an integer ranging from 1 to 9999.                                                                         |
| 2   | campaignId | String  | Yes                                                           | Outbound call data ID.                                                                                                             |
| 3   | startDate  | String  | No (If this parameter is set, <b>endDate</b> is mandatory.)   | Start time for the query.<br>Format:<br><i>yyyy-MM-dd</i>                                                                          |
| 4   | endDate    | String  | No (If this parameter is set, <b>startDate</b> is mandatory.) | End time for the query.<br>Format:<br><i>yyyy-MM-dd</i><br>The interval between the end time and start time cannot exceed 30 days. |

## Request Description

**Table 7-142** Request header parameters

| No. | Parameter    | Type   | Mandatory or Not | Description                                                    |
|-----|--------------|--------|------------------|----------------------------------------------------------------|
| 1   | Content-Type | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> . |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

## Response Description

**Table 7-143** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                                  |
|-----|------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-145</a> . |
| 2   | resultDesc | String | Description.                                                                                                                                 |
| 3   | returnCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-145</a> . |
| 4   | returnDesc | String | Description.                                                                                                                                 |
| 5   | data       | Array  | Query result list.<br>For details, see <a href="#">Table 7-144</a> .                                                                         |

**Table 7-144** Parameter description of data

| No. | Parameter | Type                | Description                                                                                                                       |
|-----|-----------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | statDate  | String              | Statistics collection date.                                                                                                       |
| 1.2 | failData  | Map<String,Integer> | Failure data.<br><b>Key</b> indicates the failure code.<br><b>Value</b> indicates the number of times a failure code is returned. |

## Triggered Event

None

## Error Codes

**Table 7-145** Error code description

| No. | Error Code   | Description                                                                |
|-----|--------------|----------------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> .      |
| 2   | 020000<br>01 | Empty parameter.                                                           |
| 3   | 020000<br>02 | The parameter contains invalid characters.                                 |
| 4   | 020000<br>03 | The parameter length cannot exceed the maximum length.                     |
| 5   | 020000<br>04 | The parameter length cannot be less than the minimum length.               |
| 6   | 020000<br>05 | The parameter length must be within the specified range.                   |
| 7   | 020000<br>06 | Incorrect parameter type.                                                  |
| 8   | 020000<br>07 | Incorrect parameter value.                                                 |
| 9   | 020000<br>08 | Parameter conversion error. Check the request parameters.                  |
| 10  | 020000<br>09 | Incorrect parameter combination. Check the request parameters.             |
| 11  | 020000<br>10 | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 12  | 020000<br>11 | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:  
None

- The following provides an example of the response body of this interface:

```
{
 "returnCode": "0200000",
 "data": [
 {
 "statDate": "2022-10-14",
 "failData": {
 "01119": 1,
 "01153": 4,
 "01169": 2
 }
 },
 {
 "statDate": "2022-10-18",
 "failData": {
 "00701": 1
 }
 }
],
 "resultCode": "0200000",
 "resultDesc": "query success",
 "returnDesc": "query success"
}
```

## 7.1.15 Adding Calling Numbers

### Scenario

This interface is invoked to add calling numbers to an outbound campaign.

### Usage Description

- Prerequisites
  - You have applied for a developer account.
  - The outbound campaign has been created.
- Restrictions
  - For the same outbound campaign task, a maximum of 100 calling numbers can be added at a time. The total number of calling numbers cannot exceed the configured system parameter.
  - The calling numbers added each time must be unique.
  - Calling numbers cannot be added randomly in the OP scenario where **Restrict VDN Calling Number** is set to **No** on the web configuration console or in the SaaS scenario.

### Method

This interface supports only the POST method.

### URI

<https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/callerNo/{campaignId}>

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-146** Parameters in the URL

| No. | Parameter  | Type    | Mandatory or Not | Description                                                |
|-----|------------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId      | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | campaignId | Integer | Yes              | ID of an outbound campaign.                                |

## Request Description

**Table 7-147** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-148** Request body parameters

| No. | Parameter | Type | Mandatory or Not | Description                                                                                                                                                                    |
|-----|-----------|------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | callerNo  | List | Yes              | Multiple calling numbers are supported. A maximum of 100 numbers can be added at a time.<br>For details about the parameters of this object, see <a href="#">Table 7-149</a> . |

**Table 7-149** Parameter description of callerNo

| No. | Parameter  | Type    | Man<br>dato<br>ry or<br>Not | Description                                                                                                                                                           |
|-----|------------|---------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | accessCode | String  | Yes                         | Calling number.<br>Number displayed on the phone of a customer after a call is connected.<br>The value can contain a maximum of 24 characters, including only digits. |
| 1.2 | priority   | Integer | Yes                         | Calling number priority.<br>The value ranges from 1 to 5. A smaller value indicates a higher priority.                                                                |

## Response Description

**Table 7-150** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                                  |
|-----|------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-151</a> . |
| 2   | resultDesc | String | Description.                                                                                                                                 |
| 3   | returnCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-151</a> . |
| 4   | returnDesc | String | Description.                                                                                                                                 |

## Triggered Event

None



## Error Codes

**Table 7-151** Error code description

| No. | Error Code   | Description                                                                |
|-----|--------------|----------------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> .      |
| 2   | 020000<br>7  | The outbound campaign does not exist.                                      |
| 3   | 020000<br>01 | Empty parameter.                                                           |
| 4   | 020000<br>02 | The parameter contains invalid characters.                                 |
| 5   | 020000<br>03 | The parameter length cannot exceed the maximum length.                     |
| 6   | 020000<br>04 | The parameter length cannot be less than the minimum length.               |
| 7   | 020000<br>05 | The parameter length must be within the specified range.                   |
| 8   | 020000<br>06 | Incorrect parameter type.                                                  |
| 9   | 020000<br>07 | Incorrect parameter value.                                                 |
| 10  | 020000<br>08 | Parameter conversion error. Check the request parameters.                  |
| 11  | 020000<br>09 | Incorrect parameter combination. Check the request parameters.             |
| 12  | 020000<br>10 | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 13  | 020000<br>11 | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:

```

{"callerNo":[
 {"accessCode":"12345678901234","priority":1},
 {"accessCode":"525245","priority":2}
]}

```
- The following provides an example of the response body of this interface:

```

{
 "resultCode": "0200000",
 "resultDesc": "create callerNo success",
}

```

```
"returnCode": "0200000",
"returnDesc": "create callerNo success"
}
```

## 7.1.16 Deleting Calling Numbers

### Scenario

This interface is invoked to delete calling numbers from an outbound campaign.

### Usage Description

- Prerequisites
  - You have applied for a developer account.
  - The outbound campaign has been created.
- Restrictions
  - For the same outbound campaign task, a maximum of 100 calling numbers can be deleted at a time. At least one calling number must be reserved for a task.

### Method

This interface supports only the DELETE method.

### URI

`https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/callerNo/{campaignId}`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-152** Parameters in the URL

| No. | Parameter  | Type    | Mandatory or Not | Description                                                |
|-----|------------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId      | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | campaignId | Integer | Yes              | ID of an outbound campaign.                                |

## Request Description

**Table 7-153** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-154** Request body parameters

| No. | Parameter | Type | Mandatory or Not | Description                                                                                                                                                                      |
|-----|-----------|------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | callerNo  | List | Yes              | Multiple calling numbers are supported. A maximum of 100 numbers can be deleted at a time.<br>For details about the parameters of this object, see <a href="#">Table 7-155</a> . |

**Table 7-155** Parameter description of callerNo

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                                                                           |
|-----|------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | accessCode | String | Yes              | Calling number.<br>Number displayed on the phone of a customer after a call is connected.<br>The value can contain a maximum of 24 characters, including only digits. |

## Response Description

**Table 7-156** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                              |
|-----|------------|--------|------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>020000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-157</a> . |
| 2   | resultDesc | String | Description.                                                                                                                             |
| 3   | returnCode | String | Error code. The value <b>020000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-157</a> . |
| 4   | returnDesc | String | Description.                                                                                                                             |

## Triggered Event

None

## Error Codes

**Table 7-157** Error code description

| No. | Error Code   | Description                                                           |
|-----|--------------|-----------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 020000<br>7  | The outbound campaign does not exist.                                 |
| 3   | 020000<br>01 | Empty parameter.                                                      |
| 4   | 020000<br>02 | The parameter contains invalid characters.                            |
| 5   | 020000<br>03 | The parameter length cannot exceed the maximum length.                |
| 6   | 020000<br>04 | The parameter length cannot be less than the minimum length.          |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 7   | 02000005   | The parameter length must be within the specified range.                   |
| 8   | 02000006   | Incorrect parameter type.                                                  |
| 9   | 02000007   | Incorrect parameter value.                                                 |
| 10  | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 11  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 12  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 13  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:

```
{
 "callerNo": [
 {
 "accessCode": "5245241"
 }
]
}
```
- The following provides an example of the response body of this interface:

```
{
 "resultCode": "0200000",
 "resultDesc": "delete callerNo success.num:1",
 "returnCode": "0200000",
 "returnDesc": "delete callerNo success.num:1"
}
```

## 7.2 Interfaces for Managing Outbound Campaign Holidays

### 7.2.1 Querying the Holiday List of an Outbound Campaign

#### Prerequisites

- You have applied for a developer account.
- The ID of the outbound campaign has been obtained.

#### Scenario

This interface is invoked to query holidays of a specified outbound campaign.

## Method

This interface supports only the GET method.

## URI

https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/holiday/{campaignId}

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-158** Parameters in the URL

| No. | Parameter  | Type    | Mandatory or Not | Description                                                |
|-----|------------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId      | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | campaignId | Integer | Yes              | ID of an outbound campaign.                                |

## Request Description

**Table 7-159** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

No request body exists.

## Response Description

**Table 7-160** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                               |
|-----|------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-162</a> . |
| 2   | resultDesc | String | Description.                                                                                                                              |
| 3   | data       | List   | Holidays that are returned after the query is successful. For details, see <a href="#">Table 7-161</a> .                                  |
| 4   | returnCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-162</a> . |
| 5   | returnDesc | String | Description.                                                                                                                              |

**Table 7-161** Parameter description of data

| No. | Parameter | Type    | Description                                                                                                                |
|-----|-----------|---------|----------------------------------------------------------------------------------------------------------------------------|
| 3.1 | id        | Integer | Holiday ID.                                                                                                                |
| 3.2 | name      | String  | Holiday name.                                                                                                              |
| 3.3 | type      | Integer | Holiday type.<br>The options are as follows:<br><b>1:</b> set by week<br><b>2:</b> set by date<br><b>3:</b> repeat by date |

| No. | Parameter | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                      |
|-----|-----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.4 | week      | String | Day of week. This parameter is mandatory when <b>type</b> is set to <b>1</b> .<br>The options are as follows:<br><b>1</b> : Monday<br><b>2</b> : Tuesday<br><b>3</b> : Wednesday<br><b>4</b> : Thursday<br><b>5</b> : Friday<br><b>6</b> : Saturday<br><b>7</b> : Sunday<br>If multiple days are selected, separate them with commas (,). For example, <b>6,7</b> indicates Saturday and Sunday. |
| 3.5 | beginTime | String | Start time.<br>When <b>type</b> is <b>2</b> , the data format is <i>yyyy-MM-dd</i> .<br>When <b>type</b> is <b>3</b> , the data format is <i>MM-dd</i> .                                                                                                                                                                                                                                         |
| 3.6 | endTime   | String | End time.<br>When <b>type</b> is <b>2</b> , the data format is <i>yyyy-MM-dd</i> .<br>When <b>type</b> is <b>3</b> , the data format is <i>MM-dd</i> .                                                                                                                                                                                                                                           |

## Triggered Event

None

## Error Codes

**Table 7-162** Error code description

| No. | Error Code   | Description                                                           |
|-----|--------------|-----------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 020000<br>7  | The outbound campaign does not exist.                                 |
| 3   | 020000<br>01 | Empty parameter.                                                      |
| 4   | 020000<br>02 | The parameter contains invalid characters.                            |



| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 5   | 02000003   | The parameter length cannot exceed the maximum length.                     |
| 6   | 02000004   | The parameter length cannot be less than the minimum length.               |
| 7   | 02000005   | The parameter length must be within the specified range.                   |
| 8   | 02000006   | Incorrect parameter type.                                                  |
| 9   | 02000007   | Incorrect parameter value.                                                 |
| 10  | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 11  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 12  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 13  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:  
None
- The following provides an example of the response body of this interface:

```
{
 "resultCode": "0200000",
 "resultDesc": "",
 "data": [
 {
 "id": 11,
 "name": "Weekend",
 "type": 1,
 "week": "5,7",
 "beginTime": null,
 "endTime": null
 },
 {
 "id": 14,
 "name": "Mid-Autumn Festival",
 "type": 2,
 "week": null,
 "beginTime": "2018-09-22",
 "endTime": "2018-09-24"
 }
]
}
```

## 7.2.2 Adding a Holiday for an Outbound Campaign

### Prerequisites

- You have applied for a developer account.
- The ID of the outbound campaign has been obtained.
- The number of created holidays in the outbound campaign is less than 20.

### Scenario

This interface is invoked to add a holiday for a specified outbound campaign.

### Method

This interface supports only the POST method.

### URI

`https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/holiday/{campaignId}`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-163** Parameters in the URL

| No. | Parameter  | Type    | Mandatory or Not | Description                                                |
|-----|------------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId      | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | campaignId | Integer | Yes              | ID of an outbound campaign.                                |

### Request Description

**Table 7-164** Request header parameters

| No. | Parameter    | Type   | Mandatory or Not | Description                                                    |
|-----|--------------|--------|------------------|----------------------------------------------------------------|
| 1   | Content-Type | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> . |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-165** Request body parameters

| No. | Parameter | Type    | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                      |
|-----|-----------|---------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | name      | String  | Yes              | Holiday name.<br>The name must be unique and can contain a maximum of 30 characters.                                                                                                                                                                                                                                                                                                             |
| 2   | type      | Integer | Yes              | Holiday type.<br>The options are as follows:<br><b>1</b> : set by week<br><b>2</b> : set by date<br><b>3</b> : repeat by date                                                                                                                                                                                                                                                                    |
| 3   | week      | String  | No               | Day of week. This parameter is mandatory when <b>type</b> is set to <b>1</b> .<br>The options are as follows:<br><b>1</b> : Monday<br><b>2</b> : Tuesday<br><b>3</b> : Wednesday<br><b>4</b> : Thursday<br><b>5</b> : Friday<br><b>6</b> : Saturday<br><b>7</b> : Sunday<br>If multiple days are selected, separate them with commas (.). For example, <b>6,7</b> indicates Saturday and Sunday. |
| 4   | beginTime | String  | No               | Start time. This parameter is mandatory when <b>type</b> is set to <b>2</b> or <b>3</b> .<br><ul style="list-style-type: none"> <li>When <b>type</b> is <b>2</b>, the data format is <i>yyyy-MM-dd</i>.</li> <li>When <b>type</b> is <b>3</b>, the data format is <i>MM-dd</i>.</li> </ul>                                                                                                       |

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                 |
|-----|-----------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5   | endTime   | String | No               | <p>End time. This parameter is mandatory when <b>type</b> is set to <b>2</b> or <b>3</b>.</p> <ul style="list-style-type: none"> <li>When <b>type</b> is <b>2</b>, the data format is <i>yyyy-MM-dd</i>.</li> <li>When <b>type</b> is <b>3</b>, the data format is <i>MM-dd</i>.</li> </ul> |

## Response Description

**Table 7-166** Response body parameters

| No. | Parameter    | Type   | Description                                                                                                                               |
|-----|--------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode   | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-168</a> . |
| 2   | resultDesc   | String | Description.                                                                                                                              |
| 3   | returnObject | Object | For details, see <a href="#">Table 7-167</a> .                                                                                            |
| 4   | returnCode   | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-168</a> . |
| 5   | returnDesc   | String | Description.                                                                                                                              |

**Table 7-167** Parameter description of returnObject

| No. | Parameter | Type    | Description |
|-----|-----------|---------|-------------|
| 1   | id        | Integer | Holiday ID. |

## Triggered Event

None

## Error Codes

**Table 7-168** Error code description

| No. | Error Code   | Description                                                                |
|-----|--------------|----------------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> .      |
| 2   | 020000<br>7  | The outbound campaign does not exist.                                      |
| 3   | 020001<br>3  | The holiday name already exists.                                           |
| 4   | 020001<br>5  | The number of holidays in the outbound campaign reaches the upper limit.   |
| 5   | 020003<br>0  | The time format is incorrect.                                              |
| 6   | 020000<br>01 | Empty parameter.                                                           |
| 7   | 020000<br>02 | The parameter contains invalid characters.                                 |
| 8   | 020000<br>03 | The parameter length cannot exceed the maximum length.                     |
| 9   | 020000<br>04 | The parameter length cannot be less than the minimum length.               |
| 10  | 020000<br>05 | The parameter length must be within the specified range.                   |
| 11  | 020000<br>06 | Incorrect parameter type.                                                  |
| 12  | 020000<br>07 | Incorrect parameter value.                                                 |
| 13  | 020000<br>08 | Parameter conversion error. Check the request parameters.                  |
| 14  | 020000<br>09 | Incorrect parameter combination. Check the request parameters.             |
| 15  | 020000<br>10 | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 16  | 020000<br>11 | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:

```
{
 "name": "Mid-Autumn Festival",
 "type": 2,
 "week": null,
 "beginTime": "2018-09-22",
 "endTime": "2018-09-24"
}
```

- The following provides an example of the response body of this interface:

```
{
 "resultCode": "0200000",
 "resultDesc": "",
 "returnCode": "0200000",
 "returnDesc": "",
 "returnObject": {
 "id": 1318795089
 }
}
```

## 7.2.3 Modifying a Holiday for an Outbound Campaign

### Prerequisites

- You have applied for a developer account.
- The ID of the outbound campaign to be modified has been obtained.
- The ID of the holiday to be modified has been obtained.

### Scenario

This interface is invoked to modify a holiday for a specified outbound campaign.

### Method

This interface supports only the PUT method.

### URI

<https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/holiday/{campaignId}>

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-169** Parameters in the URL

| No. | Parameter | Type    | Mandatory or Not | Description                                                |
|-----|-----------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |

| No. | Parameter  | Type    | Mandatory or Not | Description                 |
|-----|------------|---------|------------------|-----------------------------|
| 2   | campaignId | Integer | Yes              | ID of an outbound campaign. |

## Request Description

**Table 7-170** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-171** Request body parameters

| No. | Parameter | Type    | Mandatory or Not | Description                                                                                                                |
|-----|-----------|---------|------------------|----------------------------------------------------------------------------------------------------------------------------|
| 1   | id        | Integer | Yes              | Holiday ID.                                                                                                                |
| 2   | name      | String  | Yes              | Holiday name.<br>The name must be unique and can contain a maximum of 30 characters.                                       |
| 3   | type      | Integer | Yes              | Holiday type.<br>The options are as follows:<br><b>1:</b> set by week<br><b>2:</b> set by date<br><b>3:</b> repeat by date |

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                      |
|-----|-----------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | week      | String | No               | Day of week. This parameter is mandatory when <b>type</b> is set to <b>1</b> .<br>The options are as follows:<br><b>1</b> : Monday<br><b>2</b> : Tuesday<br><b>3</b> : Wednesday<br><b>4</b> : Thursday<br><b>5</b> : Friday<br><b>6</b> : Saturday<br><b>7</b> : Sunday<br>If multiple days are selected, separate them with commas (.). For example, <b>6,7</b> indicates Saturday and Sunday. |
| 5   | beginTime | String | No               | Start time. This parameter is mandatory when <b>type</b> is set to <b>2</b> or <b>3</b> .<br>When <b>type</b> is <b>2</b> , the data format is <i>yyyy-MM-dd</i> .<br>When <b>type</b> is <b>3</b> , the data format is <i>MM-dd</i> .                                                                                                                                                           |
| 6   | endTime   | String | No               | End time. This parameter is mandatory when <b>type</b> is set to <b>2</b> or <b>3</b> .<br>When <b>type</b> is <b>2</b> , the data format is <i>yyyy-MM-dd</i> .<br>When <b>type</b> is <b>3</b> , the data format is <i>MM-dd</i> .                                                                                                                                                             |

## Response Description

Table 7-172 Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                                  |
|-----|------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-173</a> . |
| 2   | resultDesc | String | Description.                                                                                                                                 |



| No. | Parameter  | Type   | Description                                                                                                                               |
|-----|------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | returnCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-173</a> . |
| 4   | returnDesc | String | Description.                                                                                                                              |

## Triggered Event

None

## Error Codes

**Table 7-173** Error code description

| No. | Error Code | Description                                                           |
|-----|------------|-----------------------------------------------------------------------|
| 1   | 0200001    | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 0200007    | The outbound campaign does not exist.                                 |
| 3   | 0200013    | The holiday name already exists.                                      |
| 4   | 0200014    | The holiday does not exist.                                           |
| 5   | 0200030    | The time format is incorrect.                                         |
| 6   | 0200001    | Empty parameter.                                                      |
| 7   | 0200002    | The parameter contains invalid characters.                            |
| 8   | 0200003    | The parameter length cannot exceed the maximum length.                |
| 9   | 0200004    | The parameter length cannot be less than the minimum length.          |
| 10  | 0200005    | The parameter length must be within the specified range.              |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 11  | 02000006   | Incorrect parameter type.                                                  |
| 12  | 02000007   | Incorrect parameter value.                                                 |
| 13  | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 14  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 15  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 16  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:

```
{
 "id": 1318795089,
 "name": "Mid-Autumn Festival",
 "type": 2,
 "week": null,
 "beginTime": "2018-09-22",
 "endTime": "2018-09-24"
}
```

- The following provides an example of the response body of this interface:

```
{
 "resultCode": "02000000",
 "resultDesc": ""
}
```

## 7.2.4 Deleting a Holiday for an Outbound Campaign

### Prerequisites

- You have applied for a developer account.
- The ID of the outbound campaign has been obtained.
- The ID of the holiday to be deleted has been obtained.

### Scenario

This interface is invoked to delete a holiday for a specified outbound campaign.

### Method

This interface supports only the DELETE method.

## URI

https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/holiday/{campaignId}/  
{holidayId}

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-174** Parameters in the URL

| No. | Parameter  | Type    | Mandatory or Not | Description                                                |
|-----|------------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId      | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | campaignId | Integer | Yes              | ID of an outbound campaign.                                |
| 3   | holidayId  | Integer | Yes              | Holiday ID.                                                |

## Request Description

**Table 7-175** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

No request body exists.

## Response Description

**Table 7-176** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                               |
|-----|------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-177</a> . |
| 2   | resultDesc | String | Description.                                                                                                                              |
| 3   | returnCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-177</a> . |
| 4   | returnDesc | String | Description.                                                                                                                              |

## Triggered Event

None

## Error Codes

**Table 7-177** Error code description

| No. | Error Code | Description                                                           |
|-----|------------|-----------------------------------------------------------------------|
| 1   | 0200001    | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 0200007    | The outbound campaign does not exist.                                 |
| 3   | 0200014    | The holiday does not exist.                                           |
| 4   | 02000001   | Empty parameter.                                                      |
| 5   | 02000002   | The parameter contains invalid characters.                            |
| 6   | 02000003   | The parameter length cannot exceed the maximum length.                |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 7   | 02000004   | The parameter length cannot be less than the minimum length.               |
| 8   | 02000005   | The parameter length must be within the specified range.                   |
| 9   | 02000006   | Incorrect parameter type.                                                  |
| 10  | 02000007   | Incorrect parameter value.                                                 |
| 11  | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 12  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 13  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 14  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:  
None
- The following provides an example of the response body of this interface:

```
{
 "resultCode": "0200000",
 "resultDesc": ""
}
```

## 7.2.5 Deleting All Holidays for an Outbound Campaign

### Prerequisites

- You have applied for a developer account.
- The ID of the outbound campaign has been obtained.

### Scenario

This interface is invoked to delete all holidays for a specified outbound campaign.

### Method

This interface supports only the DELETE method.

## URI

https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/holiday/{campaignId}

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-178** Parameters in the URL

| No. | Parameter  | Type    | Mandatory or Not | Description                                                |
|-----|------------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId      | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | campaignId | Integer | Yes              | ID of an outbound campaign.                                |

## Request Description

**Table 7-179** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

No request body exists.

## Response Description

**Table 7-180** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                              |
|-----|------------|--------|------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>020000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-181</a> . |
| 2   | resultDesc | String | Description.                                                                                                                             |
| 3   | returnCode | String | Error code. The value <b>020000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-181</a> . |
| 4   | returnDesc | String | Description.                                                                                                                             |

## Triggered Event

None

## Error Codes

**Table 7-181** Error code description

| No. | Error Code   | Description                                                           |
|-----|--------------|-----------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 020000<br>7  | The outbound campaign does not exist.                                 |
| 3   | 020000<br>01 | Empty parameter.                                                      |
| 4   | 020000<br>02 | The parameter contains invalid characters.                            |
| 5   | 020000<br>03 | The parameter length cannot exceed the maximum length.                |
| 6   | 020000<br>04 | The parameter length cannot be less than the minimum length.          |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 7   | 02000005   | The parameter length must be within the specified range.                   |
| 8   | 02000006   | Incorrect parameter type.                                                  |
| 9   | 02000007   | Incorrect parameter value.                                                 |
| 10  | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 11  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 12  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 13  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:  
None
- The following provides an example of the response body of this interface:

```
{ "resultCode": "0200000", "resultDesc": ""}
```

## 7.3 Interface for Outbound Blacklist Management

### 7.3.1 Adding Outbound Numbers to the Blacklist

#### Scenario

This interface is invoked to add outbound numbers to the blacklist in batches for a specified outbound campaign.

#### Usage Description

- Prerequisites
  - You have applied for a developer account.
- Restrictions
  - A blacklisted number can contain a maximum of 24 characters.
  - A blacklisted number can contain only digits, asterisks (\*), and number signs (#).



- A maximum of 20 numbers can be added to the blacklist at a time. Otherwise, the system displays a message indicating that the maximum number of blacklisted numbers that can be added at a time is exceeded, and no number is added to the blacklist.
- The blacklisted number to be added each time cannot be duplicate. Otherwise, the system displays a message indicating that the number is duplicate, and no number is added to the blacklist.
- The numbers to be added to the blacklist each time are not in the blacklist.
- When both the validity period and expiration time are transferred, the specified time (**validityexpirationtime**) is used.
- The maximum number of calls must be less than the number of call attempts set for the retry policy.

## Method

This interface supports only the POST method.

## URI

<https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/blocklist/add>

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-182** Parameters in the URL

| No. | Parameter | Type    | Mandatory or Not | Description                                                |
|-----|-----------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |

## Request Description

**Table 7-183** Request header parameters

| No. | Parameter    | Type   | Mandatory or Not | Description                                                    |
|-----|--------------|--------|------------------|----------------------------------------------------------------|
| 1   | Content-Type | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> . |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-184** Request body parameters

| No. | Parameter              | Type    | Mandatory or Not | Description                                                                                                                                                                                                                                         |
|-----|------------------------|---------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | blocklist              | List    | Yes              | A maximum of 20 numbers can be added to the blacklist.<br>A number can contain a maximum of 24 characters, including only digits, asterisks (*), and number signs (#).                                                                              |
| 2   | validityExpirationTime | String  | No               | Expiration time. Expiration time = Time when the number is added + Validity period. For example, if two numbers are added to the blacklist at 2020-12-31 10:06:25 and the validity period is 120 hours, the expiration time is 2021-01-05 10:06:25. |
| 3   | validityTime           | Integer | No               | Validity period, in hours. The value ranges from 1 to 120.                                                                                                                                                                                          |
| 4   | restrictTimes          | Integer | No               | Maximum number of calls. This parameter must be set or left empty together with <b>restrictPeriod</b> . The value ranges from 1 to 100.                                                                                                             |

| No. | Parameter      | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----|----------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5   | restrictPeriod | String | No               | <p>Restriction period. The options are <b>0</b> (every hour) and <b>1</b> (every day).</p> <p>Example 1:<br/> <b>"restrictTimes":1,"restrictPeriod":"0"</b><br/> indicates that if an outbound call is made at 10:06:25 on December 30, 2020, another outbound call cannot be made until 11:00:00 on December 30, 2020.</p> <p>Example 2:<br/> <b>"restrictTimes":1,"restrictPeriod":"1"</b><br/> indicates that if an outbound call is made at 10:06:25 on December 30, 2020, another outbound call cannot be made until 00:00:00 on December 31, 2020.</p> |

## Response Description

**Table 7-185** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                                            |
|-----|------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | <p>Error code. The value <b>0200000</b> indicates success, and other values indicate failure.</p> <p>For details, see <a href="#">Table 7-186</a>.</p> |
| 2   | resultDesc | String | Description.                                                                                                                                           |
| 3   | returnCode | String | <p>Error code. The value <b>0200000</b> indicates success, and other values indicate failure.</p> <p>For details, see <a href="#">Table 7-186</a>.</p> |
| 4   | returnDesc | String | Description.                                                                                                                                           |

## Triggered Event

None

## Error Codes

**Table 7-186** Error code description

| No. | Error Code   | Description                                                                |
|-----|--------------|----------------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> .      |
| 2   | 020000<br>6  | Database operation error.                                                  |
| 3   | 020000<br>7  | The number already exists in the blacklist.                                |
| 4   | 020001<br>8  | Duplicate numbers exist.                                                   |
| 5   | 020002<br>9  | The maximum number of numbers that can be added each time is exceeded.     |
| 6   | 020000<br>01 | Empty parameter.                                                           |
| 7   | 020000<br>02 | The parameter contains invalid characters.                                 |
| 8   | 020000<br>03 | The parameter length cannot exceed the maximum length.                     |
| 9   | 020000<br>04 | The parameter length cannot be less than the minimum length.               |
| 10  | 020000<br>05 | The parameter length must be within the specified range.                   |
| 11  | 020000<br>06 | Incorrect parameter type.                                                  |
| 12  | 020000<br>07 | Incorrect parameter value.                                                 |
| 13  | 020000<br>08 | Parameter conversion error. Check the request parameters.                  |
| 14  | 020000<br>09 | Incorrect parameter combination. Check the request parameters.             |
| 15  | 020000<br>10 | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 16  | 020000<br>11 | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:

```
{
 "blocklist": [
 "13100000000",
 "13100000001",
 "13100000002",
 "13100000003"
],
 "validityExpirationTime": "2020-12-31 10:06:25",
 "restrictTimes": 3,
 "restrictPeriod": "0"
}
```

- The following provides an example of the response body of this interface:

```
{
 "resultCode": "0200000",
 "resultDesc": "The blacklist is added successfully"
}
```

## 7.3.2 Deleting an Outbound Number from the Blacklist

### Prerequisites

You have applied for a developer account.

### Scenario

This interface is invoked to delete a number from the blacklist.

### Method

This interface supports only the POST method.

### URI

<https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/blocklist/delete>

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-187** Parameters in the URL

| No. | Parameter | Type    | Mandatory or Not | Description                                                |
|-----|-----------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |

## Request Description

**Table 7-188** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-189** Request body parameters

| No. | Parameter   | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|-------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | blocklistNo | String | Yes              | Number to be deleted from the blacklist. The value can contain a maximum of 24 characters, including only digits, asterisks (*), and number signs (#). |

## Response Description

**Table 7-190** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                               |
|-----|------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-191</a> . |
| 2   | resultDesc | String | Description.                                                                                                                              |

| No. | Parameter  | Type   | Description                                                                                                                               |
|-----|------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | returnCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-191</a> . |
| 4   | returnDesc | String | Description.                                                                                                                              |

## Triggered Event

None

## Error Codes

**Table 7-191** Error code description

| No. | Error Code   | Description                                                           |
|-----|--------------|-----------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 020000<br>6  | Database operation error.                                             |
| 3   | 020000<br>01 | Empty parameter.                                                      |
| 4   | 020000<br>02 | The parameter contains invalid characters.                            |
| 5   | 020000<br>03 | The parameter length cannot exceed the maximum length.                |
| 6   | 020000<br>04 | The parameter length cannot be less than the minimum length.          |
| 7   | 020000<br>05 | The parameter length must be within the specified range.              |
| 8   | 020000<br>06 | Incorrect parameter type.                                             |
| 9   | 020000<br>07 | Incorrect parameter value.                                            |
| 10  | 020000<br>08 | Parameter conversion error. Check the request parameters.             |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 11  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 12  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 13  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:
 

```
{
 "blocklistNo": "13100000000"
}
```
- The following provides an example of the response body of this interface:
 

```
{
 "resultCode": "0200000",
 "resultDesc": ""
}
```

## 7.3.3 Deleting All Outbound Numbers from the Blacklist

### Prerequisites

You have applied for a developer account.

### Scenario

This interface is invoked to delete all outbound numbers from the blacklist for a specified VDN.

### Method

This interface supports only the DELETE method.

### URI

`https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/blocklist`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.



**Table 7-192** Parameters in the URL

| No. | Parameter | Type    | Mandatory or Not | Description                                                |
|-----|-----------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |

## Request Description

**Table 7-193** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

No request body exists.

## Response Description

**Table 7-194** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                               |
|-----|------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-195</a> . |
| 2   | resultDesc | String | Description.                                                                                                                              |

| No. | Parameter  | Type   | Description                                                                                                                               |
|-----|------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | returnCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-195</a> . |
| 4   | returnDesc | String | Description.                                                                                                                              |

## Triggered Event

None

## Error Codes

**Table 7-195** Error code description

| No. | Error Code   | Description                                                           |
|-----|--------------|-----------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 020000<br>6  | Database operation error.                                             |
| 3   | 020000<br>01 | Empty parameter.                                                      |
| 4   | 020000<br>02 | The parameter contains invalid characters.                            |
| 5   | 020000<br>03 | The parameter length cannot exceed the maximum length.                |
| 6   | 020000<br>04 | The parameter length cannot be less than the minimum length.          |
| 7   | 020000<br>05 | The parameter length must be within the specified range.              |
| 8   | 020000<br>06 | Incorrect parameter type.                                             |
| 9   | 020000<br>07 | Incorrect parameter value.                                            |
| 10  | 020000<br>08 | Parameter conversion error. Check the request parameters.             |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 11  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 12  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 13  | 02000011   | The number of parameters cannot exceed the specified number.               |

### Example

- The following provides an example of the request body of this interface:  
None
- The following provides an example of the response body of this interface:

```
{
 "resultCode": "0200000",
 "resultDesc": ""
}
```

## 7.3.4 Querying Blacklisted Outbound Numbers

### Scenario

This interface is invoked to query blacklisted numbers in a specified VDN.

### Usage Description

- Prerequisites
  - You have applied for a developer account.

### Method

This interface supports only the POST method.

### URI

`https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/blocklist/query`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-196** Parameters in the URL

| No. | Parameter | Type | Mandatory or Not | Description                                                |
|-----|-----------|------|------------------|------------------------------------------------------------|
| 1   | vdnId     | int  | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |

## Request Description

**Table 7-197** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-198** Request body parameters

| No. | Parameter | Type | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----|-----------|------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | blocklist | List | No               | <p>A maximum of 20 blacklisted numbers can be queried.</p> <p>A number can contain a maximum of 24 characters, including only digits, asterisks (*), and number signs (#).</p> <p><b>CAUTION</b></p> <p>If this parameter is transferred, only the transferred blacklisted numbers are returned. That is, the response is the information (such as the expiration time and validity period) about the transferred blacklisted numbers if the numbers are in the blacklist.</p> |

| No. | Parameter | Type    | Mandatory or Not | Description                                                                                                                                                                                       |
|-----|-----------|---------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | offset    | Integer | No               | Parameter for determining the start page of the query.<br>Value of <b>offset</b> = Value of <b>limit</b> x (Value of <b>page</b> - 1)<br><b>page</b> indicates the start page to be queried.      |
| 3   | limit     | Integer | No               | Number of query records on each page.<br>The value ranges from 1 to 100.<br><b>CAUTION</b><br>Either the <b>limit</b> and <b>offset</b> parameters or the <b>blocklist</b> parameter must be set. |

## Response Description

**Table 7-199** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                                  |
|-----|------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Error Codes</a> . |
| 2   | resultDesc | String | Description.                                                                                                                                 |
| 3   | returnCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Error Codes</a> . |
| 4   | returnDesc | String | Description.                                                                                                                                 |
| 5   | data       | Object | For details, see <a href="#">Table 7-200</a> .                                                                                               |

**Table 7-200** Parameter description of data

| No. | Parameter              | Type    | Description                                                                                                                                                                                          |
|-----|------------------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5.1 | validityExpirationTime | String  | Expiration time.                                                                                                                                                                                     |
| 5.2 | blockNum               | String  | Blacklisted number.                                                                                                                                                                                  |
| 5.3 | flag                   | Boolean | Whether a blacklisted number is valid. The options are <b>true</b> (valid) and <b>false</b> (invalid).<br><br><b>NOTICE</b><br>This parameter is returned only when <b>blocklist</b> is transferred. |

## Triggered Event

None

## Error Codes

**Table 7-201** Error code description

| No. | Error Code   | Description                                                           |
|-----|--------------|-----------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 020000<br>6  | Database operation error.                                             |
| 3   | 020000<br>01 | Empty parameter.                                                      |
| 4   | 020000<br>02 | The parameter contains invalid characters.                            |
| 5   | 020000<br>03 | The parameter length cannot exceed the maximum length.                |
| 6   | 020000<br>04 | The parameter length cannot be less than the minimum length.          |
| 7   | 020000<br>05 | The parameter length must be within the specified range.              |
| 8   | 020000<br>06 | Incorrect parameter type.                                             |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 9   | 02000007   | Incorrect parameter value.                                                 |
| 10  | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 11  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 12  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 13  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:  
`{"limit":10,"offset":0}`
- The following provides an example of the response body of this interface:

```
{
 "returnCode": "0200000",
 "data": [
 {
 "validityExpirationTime": "2022-02-18T17:56:14.000+00:00",
 "blockNum": "111"
 },
 {
 "validityExpirationTime": "2022-02-23T09:10:07.000+00:00",
 "blockNum": "34234"
 },
 {
 "validityExpirationTime": "2022-02-23T09:11:13.000+00:00",
 "blockNum": "321"
 },
 {
 "validityExpirationTime": "2022-03-03T02:01:40.000+00:00",
 "blockNum": "321"
 }
],
 "resultCode": "0200000",
 "resultDesc": "query BlockList Success",
 "returnDesc": "query BlockList Success"
}
```

## 7.3.5 Importing a Blacklist Data File from the Server

### Scenario

This interface is invoked to import a blacklist data file from the server.

### Blacklist Template

Create an Excel template based on [Table 7-202](#).

**Table 7-202** Blacklist template

| Blacklisted Number (Mandatory) | Expiration Time (Optional) | Validity Period (Hour) (Optional) | Maximum Number of Calls | Restriction Period |
|--------------------------------|----------------------------|-----------------------------------|-------------------------|--------------------|
| 65676950                       | -                          | -                                 | 1                       | 1                  |
| 88888888                       | 2022-05-27 23:06:25        | -                                 | -                       | -                  |
| 88888888                       | 2022-06-24 10:06:25        | -                                 | -                       | -                  |
| 12345678                       | 2022-06-24 10:06:25        | -                                 | -                       | -                  |

**Table 7-203** Parameters in the blacklist template

| No. | Parameter                         | Type    | Mandatory or Not | Description                                                                                                                                                                                                                                               |
|-----|-----------------------------------|---------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Blacklisted Number (Mandatory)    | String  | Yes              | A number can contain a maximum of 24 characters, including only digits, asterisks (*), and number signs (#).                                                                                                                                              |
| 2   | Expiration Time (Optional)        | String  | No               | Expiration time. The value is the time when the number is added plus the validity period. For example, if two numbers are added to the blacklist at 2020-12-31 10:06:25 and the validity period is 120 hours, the expiration time is 2021-01-05 10:06:25. |
| 3   | Validity Period (Hour) (Optional) | Integer | No               | Validity period, in hours. The value ranges from 1 to 120.                                                                                                                                                                                                |
| 4   | Maximum Number of Calls           | Integer | No               | Maximum number of calls. This parameter must be set or left empty together with <b>restrictPeriod</b> . The value ranges from 1 to 100.                                                                                                                   |



| No. | Parameter          | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----|--------------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5   | Restriction Period | String | No               | Restriction period. The options are <b>0</b> (every hour) and <b>1</b> (every day).<br>Example 1:<br><b>"restrictTimes":1,"restrictPeriod":"0"</b> indicates that if an outbound call is made at 10:06:25 on December 30, 2020, another outbound call cannot be made until 11:00:00 on December 30, 2020.<br>Example 2:<br><b>"restrictTimes":1,"restrictPeriod":"1"</b> indicates that if an outbound call is made at 10:06:25 on December 30, 2020, another outbound call cannot be made until 00:00:00 on December 31, 2020. |

## Usage Description

- Prerequisites
  - You have applied for a developer account.
  - A file server is available and supports SFTP.
- Restrictions
  - A maximum of 500,000 records can be imported using a file at a time.

## Method

This interface supports only the POST method.

## URI

<https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/blackfile/uploadFileServer>

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-204** Parameters in the URL

| No. | Parameter | Type    | Mandatory or Not | Description                                                |
|-----|-----------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |

## Request Description

**Table 7-205** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-206** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                  |
|-----|-----------|--------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | serverId  | String | Yes              | File server ID.                                                                                                                                                                                                                                                                                                                                                              |
| 2   | filePath  | String | No               | File storage path. This parameter is optional. If the blacklist data file is stored in the default path of the file server, you do not need to set this parameter. If the file is stored in a folder in the default path of the file server, set this parameter to the file path relative to the default path of the file server.<br>An example is <b>/isales/20220310</b> . |
| 3   | fileName  | String | Yes              | File name, for example, <b>demo.xlsx</b> .                                                                                                                                                                                                                                                                                                                                   |
| 4   | hour      | String | No               | Hour, in 24-hour format. This parameter is mandatory when a scheduled task is used for the import. The value ranges from 0 to 23. If <b>minute</b> is set, <b>hour</b> is mandatory.                                                                                                                                                                                         |
| 5   | minute    | String | No               | Minute. This parameter is mandatory when a scheduled task is used for the import. The options are <b>00</b> and <b>30</b> . If <b>hour</b> is set, <b>minute</b> is mandatory.                                                                                                                                                                                               |

## Response Description

**Table 7-207** Response body parameters

| No. | Parameter    | Type   | Description                                                                                                                               |
|-----|--------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode   | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-239</a> . |
| 2   | resultDesc   | String | Description.                                                                                                                              |
| 3   | importTaskId | String | File import task ID.                                                                                                                      |
| 4   | returnCode   | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-208</a> . |
| 5   | returnDesc   | String | Description.                                                                                                                              |

## Triggered Event

None

## Error Codes

**Table 7-208** Error code description

| No. | Error Code   | Description                                                           |
|-----|--------------|-----------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 020000<br>01 | Empty parameter.                                                      |
| 3   | 020000<br>02 | The parameter contains invalid characters.                            |
| 4   | 020000<br>03 | The parameter length cannot exceed the maximum length.                |
| 5   | 020000<br>04 | The parameter length cannot be less than the minimum length.          |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 6   | 02000005   | The parameter length must be within the specified range.                   |
| 7   | 02000006   | Incorrect parameter type.                                                  |
| 8   | 02000007   | Incorrect parameter value.                                                 |
| 9   | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 10  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 11  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 12  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:

```
{
 "serverId":"164690088271159234793429225848",
 "filePath":"/isales/upload",
 "fileName":"demoBlack.xlsx",
 "hour":"11",
 "minute":"00"
}
```

- The following provides an example of the response body of this interface:

```
{
 "returnCode": "0200000",
 "importTaskId": "164757251098048478018607266946",
 "resultCode": "0200000",
 "resultDesc": "Exporting data... View details in Import Result.",
 "returnDesc": "Exporting data... View details in Import Result."
}
```

## 7.3.6 Querying Blacklist Data File Import Results

### Scenario

This interface is invoked to query blacklist data import results, including the results of importing a local file and importing a file from the file server.

### Usage Description

- Prerequisites
  - You have applied for a developer account.

- A valid import task exists.

## Method

This interface supports only the POST method.

## URI

https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/blackfile/  
queryDataImportTask

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-209** Parameters in the URL

| No. | Parameter | Type    | Mandatory or Not | Description                                                |
|-----|-----------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |

## Request Description

**Table 7-210** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-211** Request body parameters

| No. | Parameter | Type    | Man<br>dato<br>ry or<br>Not | Description                                                                                                                                                                                  |
|-----|-----------|---------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | offset    | Integer | Yes                         | Parameter for determining the start page of the query.<br>Value of <b>offset</b> = Value of <b>limit</b> x (Value of <b>page</b> - 1)<br><b>page</b> indicates the start page to be queried. |
| 2   | limit     | Integer | Yes                         | Number of query records on each page.<br>The value ranges from 1 to 100.                                                                                                                     |

## Response Description

**Table 7-212** Response body parameters

| No. | Parameter  | Type                  | Description                                                                                                                                  |
|-----|------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String                | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-239</a> . |
| 2   | resultDesc | String                | Description.                                                                                                                                 |
| 3   | result     | List <DataImportTask> | File import tasks of the current outbound campaign.                                                                                          |
| 4   | count      | Integer               | Total number of results.                                                                                                                     |
| 5   | returnCode | String                | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-214</a> . |
| 6   | returnDesc | String                | Description.                                                                                                                                 |

**Table 7-213** File import task parameters

| No. | Parameter | Type    | Description                                                                                                                            |
|-----|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------|
| 1   | id        | String  | File import task ID.                                                                                                                   |
| 2   | beginTime | String  | Import start time.                                                                                                                     |
| 3   | endTime   | String  | Import end time.                                                                                                                       |
| 4   | status    | String  | Task status. The options are <b>0</b> (preparing for import), <b>1</b> (importing), <b>2</b> (imported), and <b>3</b> (import failed). |
| 5   | succNum   | Integer | Number of successful records.                                                                                                          |
| 6   | repeatNum | Integer | Number of duplicate records.                                                                                                           |
| 7   | failNum   | Integer | Number of failed records.                                                                                                              |
| 8   | errMsg    | Integer | Exception cause.                                                                                                                       |

## Triggered Event

None

## Error Codes

**Table 7-214** Error code description

| No. | Error Code   | Description                                                           |
|-----|--------------|-----------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 020000<br>6  | The parameter contains invalid characters.                            |
| 3   | 020000<br>01 | Empty parameter.                                                      |
| 4   | 020000<br>02 | The parameter contains invalid characters.                            |
| 5   | 020000<br>03 | The parameter length cannot exceed the maximum length.                |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 6   | 02000004   | The parameter length cannot be less than the minimum length.               |
| 7   | 02000005   | The parameter length must be within the specified range.                   |
| 8   | 02000006   | Incorrect parameter type.                                                  |
| 9   | 02000007   | Incorrect parameter value.                                                 |
| 10  | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 11  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 12  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 13  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:

```
{
 "limit":10,
 "offset":0,
 "importTaskIds":["164698362894300182038011895728"]
}
```

- The following provides an example of the response body of this interface:

```
{
 "result": [
 {
 "succNum": 0,
 "failNum": 0,
 "errMsg": "",
 "id": "164698362894300182038011895728",
 "beginTime": "2022-03-11T07:27:09.000+00:00",
 "endTime": "2022-03-11T07:27:09.000+00:00",
 "repeatNum": 0,
 "status": "2"
 }
],
 "returnCode": "0200000",
 "resultCode": "0200000",
 "resultDesc": "success",
 "returnDesc": "success"
}
```

## 7.4 Outbound Call Data Interfaces



## 7.4.1 Adding Outbound Numbers

### Scenario

This interface is invoked to add outbound numbers to an outbound campaign.

### Usage Description

- Prerequisites
  - You have applied for a developer account.
  - The outbound campaign has been created.
- Restrictions
  - The number of incomplete outbound calls in an outbound campaign cannot exceed 200,000.
  - A maximum of 20 numbers can be added to an outbound campaign task at a time, and the interface invoking time cannot be less than 1 second.
  - The called numbers added each time must be unique.
  - The called numbers added each time are not in the blacklist, or they are in the blacklist but the restriction period and maximum number of calls are set for them and not exceeded.
  - Outbound numbers cannot be added to complete tasks.
  - Outbound numbers cannot be added to ongoing tasks.

### Method

This interface supports only the POST method.

### URI

`https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/calldata/{campaignId}`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-215** Parameters in the URL

| No. | Parameter  | Type    | Mandatory or Not | Description                                                |
|-----|------------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId      | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | campaignId | Integer | Yes              | ID of an outbound campaign.                                |

## Request Description

**Table 7-216** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-217** Request body parameters

| No. | Parameter    | Type | Mandatory or Not | Description                                                                                                                                                 |
|-----|--------------|------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | callDataList | List | Yes              | List of data to be added. A maximum of 20 data records are supported.<br>For details about the parameters of this object, see <a href="#">Table 7-218</a> . |

**Table 7-218** Parameter description of callDataList

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                |
|-----|-----------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | sessionId | String | No               | ID of a subscriber, which is sent back to the subscriber in the outbound call result.<br>The value can contain a maximum of 32 characters. |
| 1.2 | called    | String | Yes              | Called number.<br>The value can contain a maximum of 24 characters, including only digits, asterisks (*), and number signs (#).            |
| 1.3 | caller    | String | No               | Calling number.<br>The number can contain a maximum of 24 characters.                                                                      |

| No. | Parameter   | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----|-------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.4 | customField | String | No               | User-defined field. The value can contain a maximum of 200 characters and cannot contain the following special characters: `~!@#%&*()+= {}";<>/?.\[]¥-,`                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 1.5 | recycleTime | String | No               | Recycling time, in <i>yyyy-mm-dd hh:mm:ss</i> format.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 1.6 | callData    | String | No               | <p>Call-associated data. The value can contain a maximum of 1024 characters.</p> <p><b>CAUTION</b></p> <ul style="list-style-type: none"> <li>If an automatic outbound call involves an intelligent IVR flow, the value of this parameter must be in JSON format. The intelligent IVR flow invokes the <b>JSON Data Invoking</b> diagram element to parse and assign values to the call-associated data in JSON format. For details about the implementation and usage of the diagram element, see <a href="#">JSON Data Invoking</a>.</li> <li>The following is a JSON format example. Customize the information in italics and retain other information.<br/> <pre>"callData": "{\n  \"fullName\": \"<i>Lin Zihang</i>\",\n  \"date\": \"<i>March 31, 2022</i>\",\n  \"riskName\": \"<i>Compulsory traffic insurance</i>\"}"</pre> </li> </ul> |

## Response Description

**Table 7-219** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                               |
|-----|------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-221</a> . |
| 2   | resultDesc | String | Description.                                                                                                                              |

| No. | Parameter    | Type   | Description                                                                                                                               |
|-----|--------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | returnCode   | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-221</a> . |
| 4   | returnDesc   | String | Description.                                                                                                                              |
| 5   | returnObject | Object | For details, see <a href="#">Table 7-220</a> .                                                                                            |

**Table 7-220** Parameter description of returnObject

| No. | Parameter | Type    | Description                                                   |
|-----|-----------|---------|---------------------------------------------------------------|
| 5.1 | totalSize | Integer | Total number of outbound calls that the system needs to make. |

## Triggered Event

None

## Error Codes

**Table 7-221** Error code description

| No. | Error Code  | Description                                                           |
|-----|-------------|-----------------------------------------------------------------------|
| 1   | 020000<br>1 | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 020000<br>6 | Database operation error.                                             |
| 3   | 020000<br>7 | The outbound campaign does not exist.                                 |
| 4   | 020001<br>8 | Duplicate numbers exist.                                              |
| 5   | 020001<br>9 | The number cannot be added in the current state.                      |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 6   | 0200020    | The number quantity exceeds the upper limit 200,000.                       |
| 7   | 0200022    | The interface invoking time is short.                                      |
| 8   | 0200024    | The number to be added is in the blacklist.                                |
| 9   | 0200029    | The maximum number of numbers that can be added each time is exceeded.     |
| 10  | 0200030    | The time format is incorrect.                                              |
| 11  | 02000001   | Empty parameter.                                                           |
| 12  | 02000002   | The parameter contains invalid characters.                                 |
| 13  | 02000003   | The parameter length cannot exceed the maximum length.                     |
| 14  | 02000004   | The parameter length cannot be less than the minimum length.               |
| 15  | 02000005   | The parameter length must be within the specified range.                   |
| 16  | 02000006   | Incorrect parameter type.                                                  |
| 17  | 02000007   | Incorrect parameter value.                                                 |
| 18  | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 19  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 20  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 21  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:

```
{
 "callDataList": [
 {
```

```
 "sessionId": "00750",
 "called": "80021"
 },
 {
 "sessionId": "00850",
 "called": "80022"
 },
 {
 "sessionId": "00950",
 "called": "80023"
 },
 {
 "sessionId": "01050",
 "called": "80024"
 }
]
}
```

- The following provides an example of the response body of this interface:

```
{
 "resultCode": "0200000",
 "resultDesc": "",
 "returnCode": "0200000",
 "returnDesc": "",
 "returnObject": {
 "totalSize": 46
 }
}
```

## 7.4.2 Adding Outbound Numbers (V2)

### Scenario

This interface is invoked to add outbound numbers to an outbound campaign.

### Usage Description

- Prerequisites
  - You have applied for a developer account.
  - The outbound campaign has been created.
- Restrictions
  - The number of incomplete outbound calls in an outbound campaign cannot exceed 200,000.
  - For the same outbound campaign task, 20 records are added each time by default. You can change the value of **isales.api.calldata.max** to change the number of records added each time. The interface invoking time cannot be less than 1 second. It is recommended that the value be less than or equal to 2000 and the value of **isales.api.uncomplate.count** be set to **false**. Otherwise, the interface invoking may take more than 1 second.
  - The called numbers to be added each time under the same session ID must be unique.
  - The called numbers added each time are not in the blacklist, or they are in the blacklist but the restriction period and maximum number of calls are set for them and not exceeded.
  - Outbound numbers cannot be added to complete tasks.
  - Outbound numbers cannot be added to ongoing tasks.

## Method

This interface supports only the POST method.

## URI

`https://ip:port/rest/isales/v2/openapi/campaigns/{vdnId}/calldata/{campaignId}`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-222** Parameters in the URL

| No. | Parameter  | Type    | Mandatory or Not | Description                                                |
|-----|------------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId      | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | campaignId | Integer | Yes              | ID of an outbound campaign.                                |

## Request Description

**Table 7-223** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-224** Request body parameters

| No. | Parameter    | Type | Man<br>dato<br>ry or<br>Not | Description                                                                                                                                                 |
|-----|--------------|------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | callDataList | List | Yes                         | List of data to be added. A maximum of 20 data records are supported.<br>For details about the parameters of this object, see <a href="#">Table 7-225</a> . |

**Table 7-225** Parameter description of callDataList

| No. | Parameter   | Type   | Man<br>dato<br>ry or<br>Not | Description                                                                                                                                                  |
|-----|-------------|--------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | sessionId   | String | No                          | ID of a subscriber, which is sent back to the subscriber in the outbound call result. The value can contain a maximum of 32 characters.                      |
| 1.2 | called      | List   | Yes                         | Customer number information.                                                                                                                                 |
| 1.3 | caller      | String | No                          | Calling number.<br>The number can contain a maximum of 24 characters.                                                                                        |
| 1.4 | customField | String | No                          | User-defined field. The value can contain a maximum of 200 characters and cannot contain the following special characters: `~!@#\$\$%^&*()+={}'";<>/?.\[]¥-, |
| 1.5 | recycleTime | String | No                          | Recycling time, in <i>yyyy-mm-dd hh:mm:ss</i> format.                                                                                                        |



| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----|-----------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.6 | callData  | String | No               | <p>Call-associated data. The value can contain a maximum number of 1024 characters. The JSON format is recommended.</p> <p><b>CAUTION</b></p> <ul style="list-style-type: none"> <li>If an automatic outbound call involves an intelligent IVR flow, the value of this parameter must be in JSON format. The intelligent IVR flow invokes the <b>JSON Data Invoking</b> diagram element to parse and assign values to the call-associated data in JSON format. For details about the implementation and usage of the diagram element, see <a href="#">JSON Data Invoking</a>.</li> <li>The following is a JSON format example. Customize the information in italics and retain other information.<br/> <pre>"callData": "{\n  \"fullName\": \"<i>Lin Zihang</i>\",\n  \"date\": \"<i>March 31, 2022</i>\",\n  \"riskName\": \"<i>Compulsory traffic insurance</i>\"}"</pre> </li> </ul> |

**Table 7-226** Parameter description of called

| No.   | Parameter | Type   | Mandatory or Not | Description                                                                                                                                              |
|-------|-----------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.2.1 | calledNo  | String | Yes              | <p>Called number of a customer.</p> <p>The value can contain a maximum of 24 characters, including only digits, asterisks (*), and number signs (#).</p> |
| 1.2.2 | delayTime | String | No               | <p>Call interval of each customer number, in seconds. The value ranges from 0 to 86400, and the default value is <b>0</b>.</p>                           |

| No.   | Parameter | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------|-----------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.2.3 | type      | String | No               | <p>Customer number type.</p> <ul style="list-style-type: none"> <li>This parameter is mandatory when <b>Policy Type</b> under <b>OUTBOUND CALL RESULT POLICY</b> is set to <b>Contact Policy</b> during outbound campaign addition.</li> <li>This parameter is mandatory when <b>Call Mode</b> under <b>CALL POLICY</b> is set to <b>By round</b> during outbound campaign addition.</li> </ul> <p>The value is customized and can contain a maximum of 20 characters, excluding special characters.</p> |

## Response Description

Table 7-227 Response body parameters

| No. | Parameter    | Type   | Description                                                                                                                               |
|-----|--------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode   | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-229</a> . |
| 2   | resultDesc   | String | Description.                                                                                                                              |
| 3   | returnCode   | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-229</a> . |
| 4   | returnDesc   | String | Description.                                                                                                                              |
| 5   | returnObject | Object | For details, see <a href="#">Table 7-228</a> .                                                                                            |

**Table 7-228** Parameter description of responseObject

| No. | Parameter | Type    | Description                                                   |
|-----|-----------|---------|---------------------------------------------------------------|
| 5.1 | totalSize | Integer | Total number of outbound calls that the system needs to make. |

## Triggered Event

None

## Error Codes

**Table 7-229** Error code description

| No. | Error Code   | Description                                                            |
|-----|--------------|------------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> .  |
| 2   | 020000<br>6  | Database operation error.                                              |
| 3   | 020000<br>7  | The outbound campaign does not exist.                                  |
| 4   | 020001<br>8  | Duplicate numbers exist.                                               |
| 5   | 020001<br>9  | The number cannot be added in the current state.                       |
| 6   | 020002<br>0  | The number quantity exceeds the upper limit 200,000.                   |
| 7   | 020002<br>2  | The interface invoking time is short.                                  |
| 8   | 020002<br>4  | The number to be added is in the blacklist.                            |
| 9   | 020002<br>9  | The maximum number of numbers that can be added each time is exceeded. |
| 10  | 020003<br>0  | The time format is incorrect.                                          |
| 11  | 020000<br>01 | Empty parameter.                                                       |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 12  | 02000002   | The parameter contains invalid characters.                                 |
| 13  | 02000003   | The parameter length cannot exceed the maximum length.                     |
| 14  | 02000004   | The parameter length cannot be less than the minimum length.               |
| 15  | 02000005   | The parameter length must be within the specified range.                   |
| 16  | 02000006   | Incorrect parameter type.                                                  |
| 17  | 02000007   | Incorrect parameter value.                                                 |
| 18  | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 19  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 20  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 21  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:

```
{
 "callDataList": [
 {
 "sessionId": "00750",
 "called": [
 {"calledNo": "88880088", "delayTime": "0", "type": "ST"},
 {"calledNo": "88880089", "delayTime": "1", "type": "SA"}
]
 },
 {
 "sessionId": "00850",
 "called": [
 {"calledNo": "88880080", "delayTime": "0", "type": "ST"}
]
 }
]
}
```

- The following provides an example of the response body of this interface:

```
{
 "resultCode": "02000000",
 "resultDesc": "",
 "returnCode": "02000000",
 "returnDesc": ""
}
```

```
"returnObject": {
 "totalSize": 46
}
```

## 7.4.3 Deleting an Outbound Number

### Scenario

This interface is invoked to delete an outbound number for an outbound campaign.

### Usage Description

- Prerequisites
  - You have applied for a developer account.
  - The ID of the outbound campaign has been obtained.
- Restrictions
  - An outbound number for which a call is ongoing cannot be deleted.
  - An outbound number for which a call has been completed cannot be deleted.
  - An outbound number in an ongoing task cannot be deleted.

### Method

This interface supports only the POST method.

### URI

<https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/calldata/{campaignId}/delete>

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-230** Parameters in the URL

| No. | Parameter  | Type    | Mandatory or Not | Description                                                |
|-----|------------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId      | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | campaignId | Integer | Yes              | ID of an outbound campaign.                                |

## Request Description

**Table 7-231** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-232** Request body parameters

| No. | Parameter   | Type   | Mandatory or Not | Description                                                                                                                          |
|-----|-------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 1   | sessionId   | String | No               | ID of a subscriber, which is sent back to the subscriber in the outbound call result. The ID can contain a maximum of 32 characters. |
| 2   | called      | String | No               | Called number. The value can contain a maximum of 24 characters, including only digits, asterisks (*), and number signs (#).         |
| 3   | customField | String | No               | User-defined field. You can delete numbers in batches based on this field. The value can contain a maximum of 200 characters.        |
| 4   | recycleTime | String | No               | Recycling time, in <i>yyyy-mm-dd hh:mm:ss</i> format.                                                                                |

| No. | Parameter      | Type    | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----|----------------|---------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5   | recycleType    | String  | No               | <p>Recycling type. This parameter is valid only when <b>recycleTime</b> is set.</p> <p>The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>1</b>: The system deletes the outbound numbers whose <b>recycleTime</b> is earlier than the time specified by <b>recycleTime</b> (accurate to day) in the request.<br/>For example, if <b>recycleTime</b> is set to <b>2020-12-04 17:57:00</b> in the request, the system deletes all outbound numbers whose <b>recycleTime</b> is on December 4 or earlier in a specified outbound campaign.</li> <li>• <b>2</b>: The system deletes the outbound numbers on the day specified by <b>recycleTime</b>.<br/>For example, if <b>recycleTime</b> is set to <b>2020-12-04 17:57:00</b> in the request, the system deletes the outbound numbers whose <b>recycleTime</b> is between 2020-12-04 00:00:00 and 2020-12-04 23:59:59 in a specified outbound campaign.</li> <li>• <b>3</b>: The system deletes the outbound numbers whose <b>recycleTime</b> is the same as the value of <b>recycleTime</b> in the request.</li> </ul> |
| 6   | archiveHistory | Integer | No               | <p>Whether to move outbound numbers to the history table.</p> <p>The options are <b>0</b> and <b>1</b>.</p> <p>The value <b>0</b> indicates that outbound numbers are deleted without being moving to the history table. The value <b>1</b> indicates that outbound numbers are moved to the history table. The default value is <b>0</b>.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## Response Description

**Table 7-233** Response body parameters

| No. | Parameter    | Type    | Description                                                                                                                               |
|-----|--------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode   | String  | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-234</a> . |
| 2   | resultDesc   | String  | Description.                                                                                                                              |
| 3   | returnCode   | String  | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-234</a> . |
| 4   | returnDesc   | String  | Description.                                                                                                                              |
| 5   | successCount | Integer | Number of successful operations.                                                                                                          |

## Triggered Event

None

## Error Codes

**Table 7-234** Error code description

| No. | Error Code | Description                                                           |
|-----|------------|-----------------------------------------------------------------------|
| 1   | 0200001    | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 0200006    | Database operation error.                                             |
| 3   | 0200007    | The outbound campaign does not exist.                                 |
| 4   | 0200028    | The number cannot be deleted in the current state.                    |
| 5   | 0200030    | The time format is incorrect.                                         |



| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 6   | 02000001   | Empty parameter.                                                           |
| 7   | 02000002   | The parameter contains invalid characters.                                 |
| 8   | 02000003   | The parameter length cannot exceed the maximum length.                     |
| 9   | 02000004   | The parameter length cannot be less than the minimum length.               |
| 10  | 02000005   | The parameter length must be within the specified range.                   |
| 11  | 02000006   | Incorrect parameter type.                                                  |
| 12  | 02000007   | Incorrect parameter value.                                                 |
| 13  | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 14  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 15  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 16  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:

```
{
 "sessionId": "1"
}
```

- The following provides an example of the response body of this interface:

```
{
 "resultCode": "0200000",
 "resultDesc": "",
 "returnCode": "0200000",
 "returnDesc": "",
 "successCount": 1
}
```

## 7.4.4 Adding Number Types

### Scenario

This interface is invoked to add number types for a specified VDN.

## Usage Description

- Prerequisites
  - You have applied for a developer account.
- Restrictions
  - To add multiple number types at a time, ensure that the names of the number types are unique.
  - A maximum of 20 number types can be added at a time.
  - The name of a number type cannot contain special characters.

## Method

This interface supports only the POST method.

## URI

`https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/callNoType/add`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-235** Parameters in the URL

| No. | Parameter | Type    | Mandatory or Not | Description                                                |
|-----|-----------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |

## Request Description

**Table 7-236** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-237** Request body parameters

| No. | Parameter   | Type | Mandatory or Not | Description                                                                                                                                                             |
|-----|-------------|------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | callNoTypes | List | Yes              | Number type set. A maximum of 20 number types are supported.<br>The value can contain a maximum of 20 characters.<br>Only digits, letters, and hyphens (-) are allowed. |

## Response Description

**Table 7-238** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                                  |
|-----|------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-239</a> . |
| 2   | resultDesc | String | Description.                                                                                                                                 |
| 3   | returnCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-239</a> . |
| 4   | returnDesc | String | Description.                                                                                                                                 |

## Triggered Event

None

## Error Codes

**Table 7-239** Error code description

| No. | Error Code   | Description                                                                |
|-----|--------------|----------------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> .      |
| 2   | 020000<br>01 | Empty parameter.                                                           |
| 3   | 020000<br>02 | The parameter contains invalid characters.                                 |
| 4   | 020000<br>03 | The parameter length cannot exceed the maximum length.                     |
| 5   | 020000<br>04 | The parameter length cannot be less than the minimum length.               |
| 6   | 020000<br>05 | The parameter length must be within the specified range.                   |
| 7   | 020000<br>06 | Incorrect parameter type.                                                  |
| 8   | 020000<br>07 | Incorrect parameter value.                                                 |
| 9   | 020000<br>08 | Parameter conversion error. Check the request parameters.                  |
| 10  | 020000<br>09 | Incorrect parameter combination. Check the request parameters.             |
| 11  | 020000<br>10 | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 12  | 020000<br>11 | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:

```
{
 "callNoTypes": [
 "ST",
 "SI",
]
}
```

- The following provides an example of the response body of this interface:

```
{
 "resultCode": 0,
 "resultDesc": ""
}
```

## 7.4.5 Querying Number Types

### Prerequisites

You have applied for a developer account.

### Scenario

This interface is invoked to query all number types in a specified VDN.

### Method

This interface supports only the GET method.

### URI

`https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/callNoType/query`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-240** Parameters in the URL

| No. | Parameter | Type    | Mandatory or Not | Description                                                |
|-----|-----------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |

### Request Description

**Table 7-241** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

No request body exists.

## Response Description

**Table 7-242** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                              |
|-----|------------|--------|------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>020000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-243</a> . |
| 2   | resultDesc | String | Description.                                                                                                                             |
| 3   | data       | List   | <b>callNoType</b> set added to the VDN.                                                                                                  |
| 4   | returnCode | String | Error code. The value <b>020000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-243</a> . |
| 5   | returnDesc | String | Description.                                                                                                                             |

## Triggered Event

None

## Error Codes

**Table 7-243** Error code description

| No. | Error Code   | Description                                                           |
|-----|--------------|-----------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 020000<br>01 | Empty parameter.                                                      |
| 3   | 020000<br>02 | The parameter contains invalid characters.                            |
| 4   | 020000<br>03 | The parameter length cannot exceed the maximum length.                |
| 5   | 020000<br>04 | The parameter length cannot be less than the minimum length.          |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 6   | 02000005   | The parameter length must be within the specified range.                   |
| 7   | 02000006   | Incorrect parameter type.                                                  |
| 8   | 02000007   | Incorrect parameter value.                                                 |
| 9   | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 10  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 11  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 12  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:  
None
- The following provides an example of the response body of this interface:

```
{
 "resultCode": "02000000",
 "resultDesc": "",
 "data": [
 "st",
 "OD"
]
}
```

## 7.4.6 Querying Outbound Numbers

### Prerequisites

You have applied for a developer account.

### Scenario

This interface is invoked to query numbers and their attributes in outbound call data of a specified task.

### Method

This interface supports only the GET method.

## URI

/rest/isales/v1/openapi/campaigns/{vdnId}/calldata/{campaignId}/{dataId}

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-244** Parameters in the URL

| No. | Parameter  | Type    | Mandatory or Not | Description                                                |
|-----|------------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId      | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | campaignId | Integer | Yes              | ID of an outbound campaign.                                |
| 3   | dataId     | Integer | Yes              | Outbound call data ID.                                     |

## Request Description

**Table 7-245** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

No request body exists.



## Response Description

**Table 7-246** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                               |
|-----|------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-250</a> . |
| 2   | resultDesc | String | Description.                                                                                                                              |
| 3   | returnCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-250</a> . |
| 4   | returnDesc | String | Description.                                                                                                                              |
| 5   | data       | Object | Numbers and attributes of the data record. For details, see <a href="#">Table 7-247</a> .                                                 |

**Table 7-247** Parameter description of data

| No. | Parameter  | Type   | Description                                                        |
|-----|------------|--------|--------------------------------------------------------------------|
| 5.1 | dataId     | String | Outbound call data ID.                                             |
| 5.2 | properties | List   | Business attribute. For details, see <a href="#">Table 7-248</a> . |
| 5.3 | calledNos  | List   | Outbound number. For details, see <a href="#">Table 7-249</a> .    |

**Table 7-248** Data description of properties

| No.   | Parameter | Type   | Description     |
|-------|-----------|--------|-----------------|
| 5.2.1 | propCode  | String | Attribute code. |

| No.   | Parameter | Type                                                  | Description      |
|-------|-----------|-------------------------------------------------------|------------------|
| 5.2.2 | propName  | String                                                | Attribute name.  |
| 5.2.3 | propValue | The data type depends on the specific attribute type. | Attribute value. |

**Table 7-249** Data description of calledNos

| No.   | Parameter | Type   | Description      |
|-------|-----------|--------|------------------|
| 5.3.1 | calledNo  | String | Outbound number. |
| 5.3.2 | type      | String | Number type.     |

## Triggered Event

None

## Error Codes

**Table 7-250** Error code description

| No. | Error Code | Description                                                           |
|-----|------------|-----------------------------------------------------------------------|
| 1   | 0200001    | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 0200007    | The outbound campaign does not exist.                                 |
| 3   | 0200001    | Empty parameter.                                                      |
| 4   | 0200002    | The parameter contains invalid characters.                            |
| 5   | 0200003    | The parameter length cannot exceed the maximum length.                |
| 6   | 0200004    | The parameter length cannot be less than the minimum length.          |
| 7   | 0200005    | The parameter length must be within the specified range.              |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 8   | 02000006   | Incorrect parameter type.                                                  |
| 9   | 02000007   | Incorrect parameter value.                                                 |
| 10  | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 11  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 12  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 13  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:  
None
- The following provides an example of the response body of this interface:

```
{
 "returnCode": "0200000",
 "data": {
 "dataId": "11330737561851183104",
 "calledNos": [
 {
 "calledNo": "88881951",
 "type": null
 }
],
 "properties": [
 {
 "propValue": "12312",
 "propName": "Attribute 1",
 "propCode": "1"
 },
 {
 "propValue": "123",
 "propName": "Attribute 2",
 "propCode": "12"
 },
 {
 "propValue": null,
 "propName": "Attribute 3",
 "propCode": "123"
 }
]
 },
 "resultCode": "0200000",
 "resultDesc": "query data success",
 "returnDesc": "query data success"
}
```

## 7.4.7 Collecting Outbound Call Statistics on the Current Day

### Prerequisites

You have applied for a developer account.

### Scenario

This interface is invoked to collect outbound call statistics on the current day.

### Method

This interface supports only the GET method.

### URI

`https://ip:port/rest/isales/v2/openapi/campaigns/{vdnId}/statistics?campaignId={campaignId}&batchId={batchId}`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-251** Parameters in the URL

| No. | Parameter  | Type    | Mandatory or Not                                               | Description                                                                                                                                                                                                                                                                                                  |
|-----|------------|---------|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | vdnId      | Integer | Yes                                                            | VDN ID.<br>The value is an integer ranging from 1 to 9999.                                                                                                                                                                                                                                                   |
| 2   | campaignId | String  | No                                                             | Outbound call data ID.<br><ul style="list-style-type: none"> <li>If this parameter is set, all statistics and the statistics in all batches of the current task are queried.</li> <li>If this parameter is left empty, all statistics and the statistics in all batches of all tasks are queried.</li> </ul> |
| 3   | batchId    | String  | No (If this parameter is set, <b>campaignId</b> is mandatory.) | Batch number. This parameter is mapped to <b>customField</b> in the <b>t_isl_data</b> table.<br>If this parameter is set, all statistics and the statistics in the specified batch of the current task are queried.                                                                                          |

## Request Description

**Table 7-252** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

## Response Description

**Table 7-253** Response body parameters

| No. | Parameter   | Type  | Description                                                                |
|-----|-------------|-------|----------------------------------------------------------------------------|
| 1   | countDetail | Array | Statistics of each task.<br>For details, see <a href="#">Table 7-254</a> . |

**Table 7-254** Parameter description of countDetail

| No. | Parameter        | Type    | Description                                                                                           |
|-----|------------------|---------|-------------------------------------------------------------------------------------------------------|
| 1.1 | campaignId       | String  | Outbound call data ID.                                                                                |
| 1.2 | unCallCount      | Integer | Total number of remaining unmade calls of the campaign ID.                                            |
| 1.3 | calledCount      | Integer | Number of made calls on the current day.                                                              |
| 1.4 | finishCount      | Integer | Total number of completed calls.                                                                      |
| 1.5 | batchDetail      | Array   | Statistics of each batch ID ( <b>customField</b> ).<br>For details, see <a href="#">Table 7-255</a> . |
| 1.6 | totalCalledCount | Integer | Total number of made calls in the campaign.                                                           |

| No.  | Parameter        | Type    | Description                                                                             |
|------|------------------|---------|-----------------------------------------------------------------------------------------|
| 1.7  | totalCallSucc    | Integer | Total number of connected calls in the campaign.                                        |
| 1.8  | totalFinishCount | Integer | Total number of completed calls in the campaign.                                        |
| 1.9  | totalCount       | Integer | Total number of calls in the campaign (including completed, ongoing, and unmade calls). |
| 1.10 | dailyCalledCount | Integer | Number of made calls on the current day.                                                |
| 1.11 | dailyCallSucc    | Integer | Total number of connected calls on the current day.                                     |
| 1.12 | dailyFinishCount | Integer | Total number of completed calls on the current day.                                     |
| 1.13 | dailyCount       | Integer | Number of calls on the current day (including completed, ongoing, and unmade calls).    |

**Table 7-255** Parameter description of batchDetail

| No.   | Parameter        | Type    | Description                                                                                           |
|-------|------------------|---------|-------------------------------------------------------------------------------------------------------|
| 1.5.1 | batchId          | String  | Batch ID of the outbound call data to be added. The value is the same as that of <b>customField</b> . |
| 1.5.2 | unCallCount      | Integer | Total number of remaining unmade calls of the campaign ID.                                            |
| 1.5.3 | calledCount      | Integer | Number of made calls on the current day.                                                              |
| 1.5.4 | finishCount      | Integer | Total number of completed calls.                                                                      |
| 1.5.5 | totalCalledCount | Integer | Total number of made calls in the campaign.                                                           |
| 1.5.6 | totalCallSucc    | Integer | Total number of connected calls in the campaign.                                                      |
| 1.5.7 | totalFinishCount | Integer | Total number of completed calls in the campaign.                                                      |

| No.    | Parameter        | Type    | Description                                                                             |
|--------|------------------|---------|-----------------------------------------------------------------------------------------|
| 1.5.8  | totalCount       | Integer | Total number of calls in the campaign (including completed, ongoing, and unmade calls). |
| 1.5.9  | dailyCalledCount | Integer | Number of made calls on the current day.                                                |
| 1.5.10 | dailyCallSucc    | Integer | Total number of connected calls on the current day.                                     |
| 1.5.11 | dailyFinishCount | Integer | Total number of completed calls on the current day.                                     |
| 1.5.12 | dailyCount       | Integer | Number of calls on the current day (including completed, ongoing, and unmade calls).    |

## Triggered Event

None

## Error Codes

**Table 7-256** Error code description

| No. | Error Code | Description                                                           |
|-----|------------|-----------------------------------------------------------------------|
| 1   | 0200001    | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 02000001   | Empty parameter.                                                      |
| 3   | 02000002   | The parameter contains invalid characters.                            |
| 4   | 02000003   | The parameter length cannot exceed the maximum length.                |
| 5   | 02000004   | The parameter length cannot be less than the minimum length.          |
| 6   | 02000005   | The parameter length must be within the specified range.              |
| 7   | 02000006   | Incorrect parameter type.                                             |
| 8   | 02000007   | Incorrect parameter value.                                            |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 9   | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 10  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 11  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 12  | 02000011   | The number of parameters cannot exceed the specified number.               |

 CAUTION

Flow control is configured for this interface and is performed every five minutes. If operations are frequently performed, the system reports the status code 429 and the message "Do not perform this operation frequently. Please try again later.". The ValidateExceptionHandler is handling the exception.

## Example

- The following provides an example of the request body of this interface:  
None
- The following provides an example of the response body of this interface:

```
{
 "countDetail": [
 {
 "calledCount": 0,
 "batchDetail": [],
 "campaignId": "1798316116",
 "finishCount": 0,
 "unCallCount": 0,
 "totalCount": 3,
 "totalCallSucc": 2,
 "totalCalledCount": 3,
 "totalFinishCount": 3,
 "dailyFinishCount": 3,
 "dailyCalledCount": 3,
 "dailyCallSucc": 2,
 "dailyCount": 3
 },
 {
 "calledCount": 0,
 "batchDetail": [
 {
 "calledCount": 0,
 "finishCount": 0,
 "unCallCount": 1,
 "batchId": "123456",
 "totalCount": 3,
 "totalCallSucc": 2,
 "totalCalledCount": 3,
 "totalFinishCount": 3,
 "dailyFinishCount": 3,
 "dailyCalledCount": 3,

```



```

 "dailyCallSucc": 2,
 "dailyCount": 3
 },
 {
 "calledCount": 0,
 "finishCount": 0,
 "unCallCount": 1,
 "batchId": "66666",
 "totalCount": 3,
 "totalCallSucc": 2,
 "totalCalledCount": 3,
 "totalFinishCount": 3,
 "dailyFinishCount": 3,
 "dailyCalledCount": 3,
 "dailyCallSucc": 2,
 "dailyCount": 3
 }
],
"campaignId": "1549589640",
"finishCount": 0,
"unCallCount": 3
}
]
}

```

## 7.4.8 Importing an Outbound Call Data File from the Server

### Scenario

This interface is invoked to import an outbound call data file from the server.

### Outbound Call Data Template

Create an Excel template based on [Table 7-257](#).

**Table 7-257** Outbound call data template

| sessionId (Optional) | called (Mandatory)    | caller (Optional) | callData (Optional) | customField (Optional) | recycleTime (Optional) |
|----------------------|-----------------------|-------------------|---------------------|------------------------|------------------------|
| -                    | ['calledNo':1234566}] | -                 | -                   | -                      | -                      |

**Table 7-258** Parameters in the outbound call data template

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                             |
|-----|-----------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | sessionId | String | No               | ID of a subscriber, which is sent back to the subscriber in the outbound call result. The value can contain a maximum of 32 characters. |

| No. | Parameter   | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----|-------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.2 | called      | String | Yes              | The value is a JSON array.<br>Customer number information.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 1.3 | caller      | String | No               | Calling number.<br>The value can contain a maximum of 24 characters.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 1.4 | customField | String | No               | User-defined field. The value can contain a maximum of 200 characters.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 1.5 | recycleTime | String | No               | Recycling time, in <i>yyyy-mm-dd hh:mm:ss</i> format.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 1.6 | callData    | String | No               | <p>Call-associated data. The value can contain a maximum number of 1024 characters. The JSON format is recommended.</p> <p><b>CAUTION</b></p> <p>If an automatic outbound call involves an intelligent IVR flow, the value of this parameter must be in JSON format.</p> <p>The intelligent IVR flow invokes the <b>JSON Data Invoking</b> diagram element to parse and assign values to the call-associated data in JSON format. For details about the implementation and usage of the diagram element, see <a href="#">JSON Data Invoking</a>.</p> <p>A JSON format example is as follows:</p> <pre>{\\"iSales\\":{\\"ServiceID\\":\\"1164541685\\",\\"fullName\\":\\"Lin Zihang\\",\\"date\\":\\"March 31, 2022\\",\\"riskName\\":\\"Compulsory traffic insurance\\"}}</pre> |

**Table 7-259** Parameter description of called

| No.   | Parameter | Type   | Mandatory or Not | Description                                                                                                                                   |
|-------|-----------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| 1.2.1 | calledNo  | String | Yes              | Called number of a customer.<br>The value can contain a maximum of 24 characters, including only digits, asterisks (*), and number signs (#). |

| No.   | Parameter | Type   | Mandatory or Not | Description                                                                                              |
|-------|-----------|--------|------------------|----------------------------------------------------------------------------------------------------------|
| 1.2.2 | delayTime | String | No               | Call interval of a customer number, in seconds. The value ranges from 0 to 7200. The default value is 0. |
| 1.2.3 | type      | String | No               | Type of a customer number.                                                                               |

## Usage Description

- Prerequisites
  - You have applied for a developer account.
  - An outbound campaign has been created.
  - A file server is available and supports SFTP.
- Restrictions
  - A maximum of 500,000 records can be imported using a file at a time.

## Method

This interface supports only the POST method.

## URI

`https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/calldatafile/uploadFileServer/{campaignId}`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-260** Parameters in the URL

| No. | Parameter  | Type    | Mandatory or Not | Description                                                |
|-----|------------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId      | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | campaignId | String  | Yes              | Outbound campaign task ID.                                 |

## Request Description

**Table 7-261** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-262** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                  |
|-----|-----------|--------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | serverId  | String | Yes              | File server ID.                                                                                                                                                                                                                                                                                                                                                              |
| 2   | filePath  | String | No               | File storage path. This parameter is optional. If the outbound call data file is stored in the default path of the file server, you do not need to set this parameter. If the file is stored in a folder in the default path of the file server, set this parameter to the file path relative to the default path of the file server. An example is <b>/sales/20220310</b> . |
| 3   | fileName  | String | Yes              | File name, for example, <b>demo.xlsx</b> .                                                                                                                                                                                                                                                                                                                                   |
| 4   | hour      | String | No               | Hour, in 24-hour format. This parameter is mandatory when a scheduled task is used for the import. The value ranges from 0 to 23. If <b>minute</b> is set, <b>hour</b> is mandatory.                                                                                                                                                                                         |
| 5   | minute    | String | No               | Minute. This parameter is mandatory when a scheduled task is used for the import. Examples are <b>00</b> and <b>30</b> . If <b>hour</b> is set, <b>minute</b> is mandatory.                                                                                                                                                                                                  |

## Response Description

**Table 7-263** Response body parameters

| No. | Parameter    | Type   | Description                                                                                                                               |
|-----|--------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode   | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-239</a> . |
| 2   | resultDesc   | String | Description.                                                                                                                              |
| 3   | importTaskId | String | File import task ID.                                                                                                                      |
| 4   | returnCode   | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-264</a> . |
| 5   | returnDesc   | String | Description.                                                                                                                              |

## Triggered Event

None

## Error Codes

**Table 7-264** Error code description

| No. | Error Code   | Description                                                           |
|-----|--------------|-----------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 020000<br>01 | Empty parameter.                                                      |
| 3   | 020000<br>02 | The parameter contains invalid characters.                            |
| 4   | 020000<br>03 | The parameter length cannot exceed the maximum length.                |
| 5   | 020000<br>04 | The parameter length cannot be less than the minimum length.          |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 6   | 02000005   | The parameter length must be within the specified range.                   |
| 7   | 02000006   | Incorrect parameter type.                                                  |
| 8   | 02000007   | Incorrect parameter value.                                                 |
| 9   | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 10  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 11  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 12  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:

```
{
 "serverId":"164690088271159234793429225848",
 "filePath":"/isales/upload",
 "fileName":"demogl50w.xlsx"
}
```

- The following provides an example of the response body of this interface:

```
{
 "returnCode": "0200000",
 "importTaskId": "164870990605164487770867067540",
 "resultCode": "0200000",
 "resultDesc": "Exporting data... View details in Import Result.",
 "returnDesc": "Exporting data... View details in Import Result."
}
```

## 7.4.9 Querying Outbound Call Data File Import Results

### Scenario

This interface is invoked to query outbound call data import results, including the results of importing a local file and importing a file from the file server.

### Usage Description

- Prerequisites
  - You have applied for a developer account.
  - A valid import task exists.

## Method

This interface supports only the POST method.

## URI

`https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/calldatafile/  
queryDataImportTask/{campaignId}`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-265** Parameters in the URL

| No. | Parameter  | Type    | Mandatory or Not | Description                                                |
|-----|------------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId      | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | campaignId | String  | Yes              | Outbound campaign task ID.                                 |

## Request Description

**Table 7-266** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-267** Request body parameters

| No. | Parameter | Type    | Man<br>dato<br>ry or<br>Not | Description                                                                                                                                                                                  |
|-----|-----------|---------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | offset    | Integer | Yes                         | Parameter for determining the start page of the query.<br>Value of <b>offset</b> = Value of <b>limit</b> x (Value of <b>page</b> - 1)<br><b>page</b> indicates the start page to be queried. |
| 2   | limit     | Integer | Yes                         | Number of query records on each page.<br>The value ranges from 1 to 100.                                                                                                                     |

## Response Description

**Table 7-268** Response body parameters

| No. | Parameter  | Type                                   | Description                                                                                                                                  |
|-----|------------|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String                                 | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-239</a> . |
| 2   | resultDesc | String                                 | Description.                                                                                                                                 |
| 3   | result     | List< <a href="#">DataImportTask</a> > | File import tasks of the current outbound campaign.                                                                                          |
| 4   | count      | Integer                                | Total number of results.                                                                                                                     |
| 5   | returnCode | String                                 | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-270</a> . |
| 6   | returnDesc | String                                 | Description.                                                                                                                                 |



**Table 7-269** Parameter description of DataImportTask

| No. | Parameter | Type    | Description                                                                                                                            |
|-----|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------|
| 1   | id        | String  | File import task ID.                                                                                                                   |
| 2   | beginTime | String  | Import start time.                                                                                                                     |
| 3   | endTime   | String  | Import end time.                                                                                                                       |
| 4   | status    | String  | Task status. The options are <b>0</b> (preparing for import), <b>1</b> (importing), <b>2</b> (imported), and <b>3</b> (import failed). |
| 5   | succNum   | Integer | Number of successful records.                                                                                                          |
| 6   | repeatNum | Integer | Number of duplicate records.                                                                                                           |
| 7   | failNum   | Integer | Number of failed records.                                                                                                              |
| 8   | errMsg    | Integer | Exception cause.                                                                                                                       |

## Triggered Event

None

## Error Codes

**Table 7-270** Error code description

| No. | Error Code   | Description                                                           |
|-----|--------------|-----------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 020000<br>6  | The parameter contains invalid characters.                            |
| 3   | 020000<br>01 | Empty parameter.                                                      |
| 4   | 020000<br>02 | The parameter contains invalid characters.                            |
| 5   | 020000<br>03 | The parameter length cannot exceed the maximum length.                |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 6   | 02000004   | The parameter length cannot be less than the minimum length.               |
| 7   | 02000005   | The parameter length must be within the specified range.                   |
| 8   | 02000006   | Incorrect parameter type.                                                  |
| 9   | 02000007   | Incorrect parameter value.                                                 |
| 10  | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 11  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 12  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 13  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:

```
{
 "limit":10,
 "offset":0,
 "importTaskIds":["164698362894300182038011895728"]
}
```

- The following provides an example of the response body of this interface:

```
{
 "result": [
 {
 "succNum": 0,
 "failNum": 0,
 "errMsg": "",
 "id": "164698362894300182038011895728",
 "beginTime": "2022-03-11T07:27:09.000+00:00",
 "endTime": "2022-03-11T07:27:09.000+00:00",
 "repeatNum": 0,
 "status": "2"
 }
],
 "returnCode": "0200000",
 "resultCode": "0200000",
 "resultDesc": "success",
 "returnDesc": "success"
}
```

## 7.5 Outbound Result Interface

## 7.5.1 Querying Outbound Call Results

### Scenario

This interface is invoked to query the result of a specified outbound campaign task in a specified VDN.

### Usage Description

- Prerequisites
  - You have applied for a developer account.
- Restrictions
  - **vdnId** must be correctly set for query.
  - The VDN ID (**vdnId**) is correctly associated with the outbound campaign task ID (**campaignId**).
  - Only the results of complete outbound calls can be queried.

---

 **CAUTION**

1. You are advised to preferentially use the interface for calling back outbound call results.
  2. It is recommended that the number of concurrent requests be less than or equal to 10 and the interval between concurrent batches be greater than 1 second.
- 

### Method

This interface supports only the POST method.

### URI

<https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/callresult/{campaignId}>

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-271** Parameters in the URL

| No. | Parameter  | Type    | Mandatory or Not | Description                                                |
|-----|------------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId      | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | campaignId | Integer | Yes              | ID of an outbound campaign task.                           |

## Request Description

**Table 7-272** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-273** Request body parameters

| No. | Parameter   | Type    | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                |
|-----|-------------|---------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | sessionId   | String  | No               | ID of a subscriber, which is sent back to the subscriber in the outbound call result. The value can contain a maximum of 32 characters.                                                                                                                                                                                                                    |
| 2   | customField | String  | No               | User-defined field.                                                                                                                                                                                                                                                                                                                                        |
| 3   | pageSize    | Integer | No               | Number of data records on each page in the pagination query result.<br>Value range: <ul style="list-style-type: none"> <li>When <b>showDetail</b> is set to <b>1</b>, the value of <b>pageSize</b> is less than or equal to 100.</li> <li>When <b>showDetail</b> is set to <b>0</b>, the value of <b>pageSize</b> is less than or equal to 500.</li> </ul> |
| 4   | pageNum     | Integer | No               | Current page number.                                                                                                                                                                                                                                                                                                                                       |

| No. | Parameter  | Type    | Mandatory or Not | Description                                                                                                                                                                                                                                                               |
|-----|------------|---------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5   | showDetail | Integer | No               | Whether to display details. <ul style="list-style-type: none"> <li>• <b>0</b>: The final call result of outbound call data is displayed.</li> <li>• <b>1</b>: The detailed call result of the outbound call data is displayed.</li> </ul> The default value is <b>0</b> . |
| 6   | beginTime  | String  | No               | Start time. The format is <i>YYYY-MM-DD</i> . The start time must be earlier than the end time, and the interval between the start time and end time cannot exceed 30 days.<br>When <b>beginTime</b> is specified, <b>endTime</b> must be specified.                      |
| 7   | endTime    | String  | No               | End time. The format is <i>YYYY-MM-DD</i> . The start time must be earlier than the end time, and the interval between the start time and end time cannot exceed 30 days.<br>When <b>endTime</b> is specified, <b>beginTime</b> must be specified.                        |

## Response Description

**Table 7-274** Response body parameters

| No. | Parameter  | Type    | Description                                                                                |
|-----|------------|---------|--------------------------------------------------------------------------------------------|
| 1   | resultCode | String  | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. |
| 2   | resultDesc | String  | Description.                                                                               |
| 3   | returnCode | String  | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. |
| 4   | returnDesc | String  | Description.                                                                               |
| 5   | totalCount | Integer | Total number of outbound call results.                                                     |

| No. | Parameter | Type      | Description                                                           |
|-----|-----------|-----------|-----------------------------------------------------------------------|
| 6   | data      | JSONArray | Result in JSON format. For details, see <a href="#">Table 7-275</a> . |

**Table 7-275** Parameter description of data

| No. | Parameter   | Type    | Description                                                                                                                                                                   |
|-----|-------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6.1 | campaignId  | String  | ID of an outbound campaign task.                                                                                                                                              |
| 6.2 | sessionId   | String  | ID of a subscriber.                                                                                                                                                           |
| 6.3 | called      | String  | Called number.                                                                                                                                                                |
| 6.4 | callTimeStr | String  | Call time, in <i>yyyy-mm-dd hh:mm:ss</i> format.                                                                                                                              |
| 6.5 | callStatus  | Integer | Call result. The value <b>5</b> indicates that the call fails, and the value <b>6</b> indicates that the call is successful.                                                  |
| 6.6 | failCode    | String  | Failure error code.                                                                                                                                                           |
| 6.7 | resultCode  | String  | External result code corresponding to the failure cause code. The external result code can be customized. The failure cause code is associated with the external result code. |
| 6.8 | vdnId       | Integer | ID of the VDN to which an outbound number belongs.                                                                                                                            |
| 6.9 | callId      | String  | Call record ID, which is used to associate with call data such as CDRs on the CTI platform.                                                                                   |

| No.  | Parameter  | Type   | Description                                                                                                                                                                          |
|------|------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6.10 | recordPath | String | Path of call recording files.<br><b>NOTE</b><br>The value of this field is returned only when the connection is used (in SaaS networking). In other cases, this field is left empty. |

## Triggered Event

None

## Error Codes

**Table 7-276** Error code description

| No. | Error Code | Description                                                                   |
|-----|------------|-------------------------------------------------------------------------------|
| 1   | 0200001    | Parameter error. For details about the error, see <b>resultDesc</b> .         |
| 2   | 0200007    | The outbound campaign does not exist.                                         |
| 3   | 0200008    | The start time and end time must be specified or left empty at the same time. |
| 4   | 0200009    | The format of the start time or end time is incorrect.                        |
| 5   | 0200010    | The start time is later than or equal to the end time.                        |
| 6   | 0200011    | The interval between the start time and end time exceeds 30 days.             |
| 7   | 0200001    | Empty parameter.                                                              |
| 8   | 0200002    | The parameter contains invalid characters.                                    |
| 9   | 0200003    | The parameter length cannot exceed the maximum length.                        |
| 10  | 0200004    | The parameter length cannot be less than the minimum length.                  |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 11  | 02000005   | The parameter length must be within the specified range.                   |
| 12  | 02000006   | Incorrect parameter type.                                                  |
| 13  | 02000007   | Incorrect parameter value.                                                 |
| 14  | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 15  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 16  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 17  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:

```
{
 "sessionId": "1202_test013",
 "pageSize": 500,
 "pageNum": 1
}
```

- The following provides an example of the response body of this interface:

```
{
 "resultCode": "0200000",
 "resultDesc": "Query Success!",
 "returnCode": "0200000",
 "returnDesc": "Query Success!",
 "totalCount": 2,
 "data": [
 {
 "campaignId": "3",
 "sessionId": "1202_test013",
 "called": "60584",
 "callTimeStr": "2020-08-30 20:00:00",
 "callStatus": 6,
 "failCode": "0",
 "resultCode": "OB99999",
 "vdnId": 11,
 "callId": "0023-134864174",
 "recordPath": "Y:/1/11/20200830/3408/0949218.V3"
 },
 {
 "campaignId": "3",
 "sessionId": "1202_test013",
 "called": "60584",
 "callTimeStr": "2020-08-30 20:05:00",
 "callStatus": 6,
 "failCode": "0",
 "resultCode": "OB99999",
 "vdnId": 11,
 }
]
}
```



```
"callId": "0023-134864893",
 "recordPath": "Y:/1/11/20200830/3408/0942113.V3"
}
]
}
```

## 7.5.2 Querying Details About a Single Outbound Call Result

### Function

This interface is invoked to query the outbound call result details of a specified call in a specified VDN.

### Usage Description

1. Prerequisites  
You have applied for a developer account.
2. Restrictions  
**vdnId** must be correctly set for query.  
The VDN ID (**vdnId**) is correctly associated with the call ID (**callId**).

### Request Method

This interface supports only the GET method.

### Request URL

`https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/callresultdetail/{callId}`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-277** Parameters in the URL

| Parameter | Type    | Mandatory or Not | Description                                                |
|-----------|---------|------------------|------------------------------------------------------------|
| vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |

| Parameter | Type   | Mandatory or Not | Description                                                                                                                                                                                                                  |
|-----------|--------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| callId    | String | Yes              | Call record ID. The value is obtained from the <b>callId</b> field returned by the interface described in <a href="#">7.5.1 Querying Outbound Call Results</a> or <a href="#">7.6.1 Calling Back Outbound Call Results</a> . |

## Request

**Table 7-278** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

No request body exists.

## Response

The following provides an example of the response body of this interface:

```
{
 "returnCode": "0200000",
 "data": {
 "callId": "1644464743-1388",
 "called": "88881955",
 "callEndTime": "2022-02-10 11:45:51",
 "vdnId": 8,
 "callStatus": "6",
 "failCode": "00000",
 "resultCode": "OB99999",
 "callBeginTime": "2022-02-10 11:45:47",
 "recordPath": "https://south-aicc-develop.obs.cn-
```

south-

1.myhuaweicloud.com:443/isales/

record/A68CA32800B9684811D698D1B61C1A0661511E7AD042DEE5304254DDB9DCE00/ec96a62d-

```
f56c-4f4e-8f5e-30e7a29f38e5?
AccessKeyId=ERUDXB5GOMYURMPLKBO&Expires=1644484560&Signature=uztQO
%2Fxl8GOSW2GZJWCBCm8AyAg%3D",
 "ackBeginTime": "2022-02-10 11:45:43"
},
"resultCode": "0200000",
"resultDesc": "Query Success!",
"returnDesc": "Query Success!"
}
```

**Table 7-279** describes the parameters in the response body of this interface.

**Table 7-279** Response body parameters

| Parameter  | Type        | Description                                                                                |
|------------|-------------|--------------------------------------------------------------------------------------------|
| resultCode | String      | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. |
| resultDesc | String      | Description.                                                                               |
| returnCode | String      | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. |
| returnDesc | String      | Description.                                                                               |
| data       | JSON object | Result in JSON format. For details, see <a href="#">Table 7-280</a> .                      |

**Table 7-280** Parameter description of data

| Parameter     | Type   | Description                                                                                                    |
|---------------|--------|----------------------------------------------------------------------------------------------------------------|
| called        | String | Called number.                                                                                                 |
| ackBeginTime  | String | Start time of an outbound call, which is the start time of ringing. The format is <i>yyyy-mm-dd hh:mm:ss</i> . |
| callBeginTime | String | Call start time, which is the time when the call is connected. The format is <i>yyyy-mm-dd hh:mm:ss</i> .      |
| callEndTime   | String | Call end time, which is the time when the call is released. The format is <i>yyyy-mm-dd hh:mm:ss</i> .         |

| Parameter  | Type    | Description                                                                                                                                                                                     |
|------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| callStatus | Integer | Call result. The value <b>5</b> indicates that the call fails, and the value <b>6</b> indicates that the call is successful.                                                                    |
| failCode   | String  | Failure cause code.                                                                                                                                                                             |
| resultCode | String  | External result code corresponding to the failure cause code. The external result code can be customized. The failure cause code is associated with the external result code.                   |
| vdnId      | Integer | ID of the VDN to which an outbound number belongs.                                                                                                                                              |
| callId     | String  | Call record ID, which is used to associate with call data such as CDRs on the CTI.                                                                                                              |
| recordPath | String  | URL of a call recording file in the OBS.<br><b>NOTE</b><br>The value of this field is returned only when the connection is used (in SaaS networking). In other cases, this field is left empty. |

**Table 7-281** Error code description

| No. | Error Code   | Description                                                           |
|-----|--------------|-----------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 020000<br>7  | The call record ID does not exist.                                    |
| 3   | 020000<br>01 | Empty parameter.                                                      |
| 4   | 020000<br>02 | The parameter contains invalid characters.                            |
| 5   | 020000<br>03 | The parameter length cannot exceed the maximum length.                |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 6   | 02000004   | The parameter length cannot be less than the minimum length.               |
| 7   | 02000005   | The parameter length must be within the specified range.                   |
| 8   | 02000006   | Incorrect parameter type.                                                  |
| 9   | 02000007   | Incorrect parameter value.                                                 |
| 10  | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 11  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 12  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 13  | 02000011   | The number of parameters cannot exceed the specified number.               |

## 7.5.3 Querying Call Records of Automatic and Intelligent Outbound Calls (V1.0.0)

### Scenario

This interface is invoked to query call records of automatic and intelligent outbound calls.

#### NOTE

This interface can be invoked to query only call records generated in AICC 22.100.0 and later versions.

### Method

POST

### URI

<https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/callRecord>

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-282** Parameters in the URL

| Parameter | Type    | Mandatory or Not | Description                                                |
|-----------|---------|------------------|------------------------------------------------------------|
| vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |

## Request Description

**Table 7-283** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |
| 2   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |

**Table 7-284** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                     |
|-----|-----------|--------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | callId    | String | Yes              | Call record ID, which is used to associate with call data such as CDRs on the CTI. The value is obtained from the <b>callId</b> field returned by the interface described in <a href="#">7.5.1 Querying Outbound Call Results</a> or <a href="#">7.6.1 Calling Back Outbound Call Results</a> . |

## Response Description

- Status code: 200

**Table 7-285** Response body parameters

| No. | Parameter       | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                       |
|-----|-----------------|--------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode      | String | Yes              | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br><br>For details about error codes, see <a href="#">Table 7-286</a> .                                                                                                                                                                                                |
| 2   | recordList      | List   | No               | Call records.                                                                                                                                                                                                                                                                                                                                                     |
| 2.1 | interNo         | String | Yes              | Internal number.                                                                                                                                                                                                                                                                                                                                                  |
| 2.2 | systemReply     | String | Yes              | System reply.<br><br>If the system reply is a voice file in an IVR flow or intelligent IVR flow and the voice file contains noise or music, the voice file cannot be converted into text information accurately.<br><br>Even if a voice or TTS file is interrupted during a call and is not completely played, the queried system reply is a complete voice file. |
| 2.3 | userSaying      | String | Yes              | Subscriber reply.                                                                                                                                                                                                                                                                                                                                                 |
| 2.4 | intention       | String | Yes              | Subscriber intention.                                                                                                                                                                                                                                                                                                                                             |
| 2.5 | systemReplyTime | String | Yes              | System reply time.                                                                                                                                                                                                                                                                                                                                                |
| 2.6 | requestTime     | String | Yes              | Subscriber request time.                                                                                                                                                                                                                                                                                                                                          |

| No. | Parameter      | Type   | Mandatory or Not | Description                                                                                                                    |
|-----|----------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 2.7 | responseSource | String | Yes              | Whether the reply comes from the chatbot or a silent agent.<br>The options are <b>0</b> (chatbot) and <b>1</b> (silent agent). |
| 3   | resultDesc     | String | Yes              | Returned description.                                                                                                          |

- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

**Table 7-286** Error code description

| No. | Error Code   | Description                                                           |
|-----|--------------|-----------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 020000<br>01 | Empty parameter.                                                      |
| 3   | 020000<br>02 | The parameter contains invalid characters.                            |
| 4   | 020000<br>03 | The parameter length cannot exceed the maximum length.                |
| 5   | 020000<br>04 | The parameter length cannot be less than the minimum length.          |
| 6   | 020000<br>05 | The parameter length must be within the specified range.              |
| 7   | 020000<br>06 | Incorrect parameter type.                                             |
| 8   | 020000<br>07 | Incorrect parameter value.                                            |
| 9   | 020000<br>08 | Parameter conversion error. Check the request parameters.             |



| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 10  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 11  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 12  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

Request header:

```
Content-Type:application/json;charset=UTF-8
Authorization:XXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

Request parameters:

```
{
 "callId": "1688028889-836",
}
```

Response parameters:

```
{
 "returnCode": "0200000",
 "recordList": [
 {
 "interNo": "1",
 "userSaying": null,
 "systemReply": "May I ask my colleague in charge to briefly introduce the highlights of the exhibition to you? Enterprises related to foreign trade will be interested in the exhibition.",
 "intention": null,
 "systemReplyTime": "2022-05-31 20:13:08",
 "requestTime": "2022-05-31 20:13:10",
 "responseSource": "0"
 },
 {
 "interNo": "2",
 "userSaying": "null",
 "systemReply": "Hello, welcome to use the intelligent chatbot.",
 "intention": null,
 "systemReplyTime": "2022-05-31 20:13:08",
 "requestTime": "2022-05-31 20:13:08",
 "responseSource": "0"
 }
],
 "resultCode": "0200000",
 "resultDesc": "success",
 "returnDesc": "success"
}
```

## 7.5.4 Querying Call Records of Automatic and Intelligent Outbound Calls (V2.0.0)

### Scenario

This interface is invoked to query call records of automatic and intelligent outbound calls. Compared with the V1 interface, the V2 interface has the mandatory parameters **page** and **limit** and supports pagination query.

#### NOTE

This interface can be invoked to query only call records generated in AICC 22.100.0 and later versions.

### Method

POST

### URI

https://ip:port/rest/isales/v2/openapi/campaigns/{vdnId}/callRecord

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-287** Parameters in the URL

| Parameter | Type    | Mandatory or Not | Description                                                |
|-----------|---------|------------------|------------------------------------------------------------|
| vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |

### Request Description

**Table 7-288** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

| No. | Parameter    | Type   | Mandatory or Not | Description                                                    |
|-----|--------------|--------|------------------|----------------------------------------------------------------|
| 2   | Content-Type | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> . |

**Table 7-289** Request body parameters

| No. | Parameter | Type    | Mandatory or Not | Description                                                                                                                                                                                                                                                                                     |
|-----|-----------|---------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | callId    | String  | Yes              | Call record ID, which is used to associate with call data such as CDRs on the CTI. The value is obtained from the <b>callId</b> field returned by the interface described in <a href="#">7.5.1 Querying Outbound Call Results</a> or <a href="#">7.6.1 Calling Back Outbound Call Results</a> . |
| 2   | page      | Integer | Yes              | <b>page</b> indicates the start page to be queried.<br>The value ranges from 1 to 1000.                                                                                                                                                                                                         |
| 3   | limit     | Integer | Yes              | Number of query records on each page.<br>The value ranges from 1 to 100.                                                                                                                                                                                                                        |

## Response Description

- Status code: 200

**Table 7-290** Response body parameters

| No. | Parameter       | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                       |
|-----|-----------------|--------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode      | String | Yes              | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br><br>For details about error codes, see <a href="#">Table 7-291</a> .                                                                                                                                                                                                |
| 2   | recordList      | List   | No               | Call records.                                                                                                                                                                                                                                                                                                                                                     |
| 2.1 | interNo         | String | Yes              | Internal number.                                                                                                                                                                                                                                                                                                                                                  |
| 2.2 | systemReply     | String | Yes              | System reply.<br><br>If the system reply is a voice file in an IVR flow or intelligent IVR flow and the voice file contains noise or music, the voice file cannot be converted into text information accurately.<br><br>Even if a voice or TTS file is interrupted during a call and is not completely played, the queried system reply is a complete voice file. |
| 2.3 | userSaying      | String | Yes              | Subscriber reply.                                                                                                                                                                                                                                                                                                                                                 |
| 2.4 | intention       | String | Yes              | Subscriber intention.                                                                                                                                                                                                                                                                                                                                             |
| 2.5 | systemReplyTime | String | Yes              | System reply time.                                                                                                                                                                                                                                                                                                                                                |
| 2.6 | requestTime     | String | Yes              | Subscriber request time.                                                                                                                                                                                                                                                                                                                                          |

| No. | Parameter      | Type   | Mandatory or Not | Description                                                                                                                    |
|-----|----------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 2.7 | responseSource | String | Yes              | Whether the reply comes from the chatbot or a silent agent.<br>The options are <b>0</b> (chatbot) and <b>1</b> (silent agent). |
| 3   | resultDesc     | String | Yes              | Returned description.                                                                                                          |

- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

**Table 7-291** Error code description

| No. | Error Code   | Description                                                           |
|-----|--------------|-----------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 020000<br>01 | Empty parameter.                                                      |
| 3   | 020000<br>02 | The parameter contains invalid characters.                            |
| 4   | 020000<br>03 | The parameter length cannot exceed the maximum length.                |
| 5   | 020000<br>04 | The parameter length cannot be less than the minimum length.          |
| 6   | 020000<br>05 | The parameter length must be within the specified range.              |
| 7   | 020000<br>06 | Incorrect parameter type.                                             |
| 8   | 020000<br>07 | Incorrect parameter value.                                            |
| 9   | 020000<br>08 | Parameter conversion error. Check the request parameters.             |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 10  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 11  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 12  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

Request header:

```
Content-Type:application/json;charset=UTF-8
Authorization:XXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

Request parameters:

```
{
 "callId": "1688028889-836",
 "page": 1,
 "limit": 10
}
```

Response parameters:

```
{
 "returnCode": "0200000",
 "recordList": [
 {
 "interNo": "1",
 "userSaying": null,
 "systemReply": "May I ask my colleague in charge to briefly introduce the highlights of the exhibition to you? Enterprises related to foreign trade will be interested in the exhibition.",
 "intention": null,
 "systemReplyTime": "2022-05-31 20:13:08",
 "requestTime": "2022-05-31 20:13:10",
 "responseSource": "0"
 },
 {
 "interNo": "2",
 "userSaying": "null",
 "systemReply": "Hello, welcome to use the intelligent chatbot.",
 "intention": null,
 "systemReplyTime": "2022-05-31 20:13:08",
 "requestTime": "2022-05-31 20:13:08",
 "responseSource": "0"
 }
],
 "resultCode": "0200000",
 "resultDesc": "success",
 "returnDesc": "success"
}
```

## 7.6 Outbound Callback

## 7.6.1 Calling Back Outbound Call Results

### Scenario

This interface is invoked to push outbound call results to a specified URL.

### Usage Description

- Prerequisites
  - You have applied for a developer account.
  - An outbound campaign has been created, and outbound call data has been added.
- Precautions
  - After a request is received, the server needs to return a 200 response. Other responses indicate that the push fails.
  - After a non-200 response is received, the server immediately pushes the result again. If a non-200 response is received again, the push fails.
- Restrictions
  - Each call data record can be pushed for a maximum of six times.
  - If the push fails, the system pushes the result again 10 minutes later.

### Method

This interface supports only the POST method.

### URI

When creating an outbound campaign, you can specify the value of **callBackUrl**.

### Request Description

There is no request header.

**Table 7-292** Request body parameters

| No. | Parameter      | Type | Description                                                                                                                                             |
|-----|----------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | callResultList | List | Outbound call result list. The entity object does not exist. The response directly returns <b>List</b> . For details, see <a href="#">Table 7-293</a> . |

**Table 7-293** Parameter description of callDataList

| No. | Parameter  | Type   | Description                 |
|-----|------------|--------|-----------------------------|
| 1   | campaignId | String | ID of an outbound campaign. |
| 2   | sessionId  | String | ID of a subscriber.         |

| No. | Parameter   | Type    | Description                                                                                                                                                                          |
|-----|-------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | called      | String  | Called number.                                                                                                                                                                       |
| 4   | callTimeStr | String  | Call time, in <i>yyyy-mm-dd hh:mm:ss</i> format.                                                                                                                                     |
| 5   | callStatus  | Integer | Call result. The value <b>5</b> indicates that the call fails, and the value <b>6</b> indicates that the call is successful.                                                         |
| 6   | failCode    | String  | Failure cause code. For details, see <a href="#">Table 7-295</a> .                                                                                                                   |
| 7   | vdnId       | Integer | ID of the VDN to which an outbound number belongs.                                                                                                                                   |
| 8   | callId      | String  | Call record ID, which is used to associate with call data such as CDRs on the CTI platform.                                                                                          |
| 9   | customField | String  | User-defined field.                                                                                                                                                                  |
| 10  | recordPath  | String  | Path of call recording files.<br><b>NOTE</b><br>The value of this field is returned only when the connection is used (in SaaS networking). In other cases, this field is left empty. |

## Response Description

Response code: 200

Table 7-294 Response parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                            |
|-----|-----------|--------|------------------|----------------------------------------------------------------------------------------|
| 1   | retCode   | string | True             | Result code. The value <b>0</b> indicates success, and other values indicates failure. |
| 2   | retMsg    | string | True             | Description of a failure cause.                                                        |

## Triggered Event

None



## Error Codes

**Table 7-295** Error codes of outbound call results

| Category                               | Error Code                                                                                                                                                                 | Description                                                                                                                             |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Successful outbound call               | 00000                                                                                                                                                                      | The outbound call is successful.                                                                                                        |
| Call released by a subscriber          | 00531                                                                                                                                                                      | The called party hangs up.                                                                                                              |
|                                        | 00537                                                                                                                                                                      | The called party is busy.                                                                                                               |
|                                        | 00538                                                                                                                                                                      | The outbound number is empty or incorrect.                                                                                              |
|                                        | 00548                                                                                                                                                                      | The mobile phone of the called party is powered off.                                                                                    |
|                                        | 00549                                                                                                                                                                      | The called number is out of service.                                                                                                    |
|                                        | 00551                                                                                                                                                                      | The called party hangs up.                                                                                                              |
|                                        | 00601                                                                                                                                                                      | The called party hangs up before the call is answered.                                                                                  |
|                                        | 00603                                                                                                                                                                      | The call is released because the called party does not answer the call.                                                                 |
|                                        | 00604                                                                                                                                                                      | The call is rejected.                                                                                                                   |
| Call normally released by the platform | 00701                                                                                                                                                                      | An outbound call is transferred to a queue, and the called party hangs up.                                                              |
|                                        | 00702                                                                                                                                                                      | An outbound call is transferred to a queue. The queue times out, and the platform releases the call.                                    |
|                                        | 01040                                                                                                                                                                      | The ringing times out, and the platform releases the call. (The called party does not answer the phone within the preset ringing time.) |
|                                        | 01043                                                                                                                                                                      | Waiting for outbound call results times out on the platform.                                                                            |
|                                        | 01046                                                                                                                                                                      | The agent fails to be occupied (not involved in IVR outbound call transfer).                                                            |
|                                        | 01049                                                                                                                                                                      | The outbound call check times out.                                                                                                      |
|                                        | 34601                                                                                                                                                                      | No outbound campaign task is available.                                                                                                 |
|                                        | 34605                                                                                                                                                                      | The outbound number is empty.                                                                                                           |
| 34606                                  | The call attempt fails. That is, the outbound call interface is not invoked. The common cause is that the number of concurrent outbound calls reaches the maximum allowed. |                                                                                                                                         |

| Category                                                           | Error Code | Description                                                                                    |
|--------------------------------------------------------------------|------------|------------------------------------------------------------------------------------------------|
|                                                                    | 34608      | Outbound call data is written back when no result is obtained after the call times out.        |
| Call released by the platform due to insufficient system resources | 00602      | System resources are insufficient. Contact the administrator to check resource configurations. |
|                                                                    | 00605      |                                                                                                |
|                                                                    | 01048      |                                                                                                |
|                                                                    | 34606      |                                                                                                |
| System error                                                       | 00606      | Contact the administrator.                                                                     |
|                                                                    | 34611      |                                                                                                |
|                                                                    | Others     |                                                                                                |

## Example

- The following provides an example of the request body of this interface:

```
[
 {
 "campaignId": "3",
 "sessionId": "1202_test013",
 "called": "60584",
 "callTimeStr": "2020-08-30 20:00:00",
 "callStatus": 6,
 "failCode": "0",
 "vdnId": 11,
 "callId": "0023-134864174",
 "recordPath": "Y:/1/11/20200830/3408/0949218.V3"
 }
]
```

- The following provides an example of the response body of this interface:

```
{
 "retCode": "0",
 "retMsg": "success"
}
```

## 7.7 Business Result Writeback

### 7.7.1 Writing Back Business Results

#### Scenario

This interface is invoked to write back business results to the outbound call data table **t\_isl\_data** and the outbound call data result table **t\_isl\_data\_result** to record the outbound call data and the business result. If the callback result matches the business result and the retry policy based on the business result set in the outbound campaign task, the system retries the call.

## Usage Description

- Prerequisites
  - The corresponding AK/SK authentication permission is available.
  - An outbound campaign has been created, and outbound call data has been added.
  - The outbound call is successful.
  - The result of the outbound call business is added.
- Precautions
  - After a request is received, the server needs to return a 200 response. Other responses indicate that the writeback fails.

## Method

This interface supports only the POST method.

## URI

`https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/callBusiResult/{dataId}`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-296** Parameters in the URL

| No. | Parameter | Type    | Mandatory or Not | Description                                                |
|-----|-----------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | dataId    | Integer | Yes              | Outbound call data ID.                                     |

## Request Description

**Table 7-297** Request header parameters

| No. | Parameter    | Type   | Mandatory or Not | Description                                                    |
|-----|--------------|--------|------------------|----------------------------------------------------------------|
| 1   | Content-Type | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> . |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-298** Request body parameters

| No. | Parameter       | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                 |
|-----|-----------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | busiResult      | String | Yes              | Business result code, which can contain a maximum of 50 characters.                                                                                                                                                                         |
| 2   | subStatus       | String | No               | Subbusiness status code, which can contain a maximum of 50 characters.                                                                                                                                                                      |
| 3   | busiResult Desc | String | No               | Business result description.                                                                                                                                                                                                                |
| 4   | workNo          | String | No               | Platform work ID of the agent who makes a call.<br>If the same outbound call data is required, the call is always routed to the same agent. This parameter is mandatory. If this parameter is not set, the call is routed to another agent. |

## Response Description

**Table 7-299** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                               |
|-----|------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-300</a> . |
| 2   | resultDesc | String | Description.                                                                                                                              |

## Triggered Event

None

## Error Codes

**Table 7-300** Error code description

| No. | Error Code   | Description                                                                |
|-----|--------------|----------------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> .      |
| 2   | 020003<br>3  | The outbound call data does not exist.                                     |
| 3   | 020003<br>4  | The substatus does not match the business result.                          |
| 4   | 020099<br>9  | Failed to write back the business result.                                  |
| 5   | 020000<br>01 | Empty parameter.                                                           |
| 6   | 020000<br>02 | The parameter contains invalid characters.                                 |
| 7   | 020000<br>03 | The parameter length cannot exceed the maximum length.                     |
| 8   | 020000<br>04 | The parameter length cannot be less than the minimum length.               |
| 9   | 020000<br>05 | The parameter length must be within the specified range.                   |
| 10  | 020000<br>06 | Incorrect parameter type.                                                  |
| 11  | 020000<br>07 | Incorrect parameter value.                                                 |
| 12  | 020000<br>08 | Parameter conversion error. Check the request parameters.                  |
| 13  | 020000<br>09 | Incorrect parameter combination. Check the request parameters.             |
| 14  | 020000<br>10 | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 15  | 020000<br>11 | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:

```
{
 "busiResult": "1621474513",
 "subStatus": "1048856206",
 "busiResultDesc": "1",
 "workNo": "2033"
}
```

- The following provides an example of the response body of this interface:

```
{
 "resultCode": "0200000",
 "resultDesc": "The business result is written back successfully."
}
```

## 7.8 File Server Management Interfaces

### 7.8.1 Adding a File Server

#### Scenario

This interface is invoked to add a file server. It can be used before importing an outbound call data file from the server.

#### Usage Description

- Prerequisites
  - The corresponding AK/SK authentication permission is available.
  - You have applied for a developer account.
- Precautions
  - After a request is received, the server needs to return a 200 response. Other responses indicate that the writeback fails.
  - The server information must be unique in the same tenant space.
  - The username can contain a maximum of 30 characters and cannot contain the following special characters: `~!@#\$%^&\*()+={}|'";<>/?.\[]!
  - The password must be a string of 8 to 80 characters.
  - Only the SFTP file server is supported.

#### Method

This interface supports only the POST method.

#### URI

<https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/file/addServer>

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-301** Parameters in the URL

| No. | Parameter | Type    | Mandatory or Not | Description                                                |
|-----|-----------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |

## Request Description

**Table 7-302** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-303** Request body parameters

| No. | Parameter  | Type        | Mandatory or Not | Description                                                                                  |
|-----|------------|-------------|------------------|----------------------------------------------------------------------------------------------|
| 1   | serverInfo | JSON object | Yes              | File server information.                                                                     |
| 2   | userName   | String      | Yes              | Username.                                                                                    |
| 3   | serverPwd  | String      | Yes              | Service password, which is transferred in plaintext and stored in ciphertext on the backend. |

serverInfo

| No. | Parameter | Type   | Mandatory or Not | Description                                                 |
|-----|-----------|--------|------------------|-------------------------------------------------------------|
| 1   | ip        | String | Yes              | File server IP address.                                     |
| 2   | port      | String | Yes              | port                                                        |
| 3   | filePath  | String | Yes              | Default file server path, for example, / <b>home/sftp</b> . |

## Response Description

**Table 7-304** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                               |
|-----|------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-300</a> . |
| 2   | resultDesc | String | Description.                                                                                                                              |
| 3   | serverId   | String | File service ID, which is globally unique.                                                                                                |
| 4   | returnCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-305</a> . |
| 5   | returnDesc | String | Description.                                                                                                                              |

## Triggered Event

None



## Error Codes

**Table 7-305** Error code description

| No. | Error Code   | Description                                                                |
|-----|--------------|----------------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> .      |
| 2   | 020003<br>3  | The outbound call data does not exist.                                     |
| 3   | 020003<br>4  | The substatus does not match the business result.                          |
| 4   | 020000<br>05 | The parameter value is not in the specified length range.                  |
| 5   | 020000<br>01 | Empty parameter.                                                           |
| 6   | 020000<br>02 | The parameter contains invalid characters.                                 |
| 7   | 020000<br>03 | The parameter length cannot exceed the maximum length.                     |
| 8   | 020000<br>04 | The parameter length cannot be less than the minimum length.               |
| 9   | 020000<br>05 | The parameter length must be within the specified range.                   |
| 10  | 020000<br>06 | Incorrect parameter type.                                                  |
| 11  | 020000<br>07 | Incorrect parameter value.                                                 |
| 12  | 020000<br>08 | Parameter conversion error. Check the request parameters.                  |
| 13  | 020000<br>09 | Incorrect parameter combination. Check the request parameters.             |
| 14  | 020000<br>10 | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |

## Example

- The following provides an example of the request body of this interface:

```
{
 "userName":"zhangsan",
 "serverInfo":{
 "ip":"1.2.3.4",
 "port":"22",
```

```
"filePath":"/home/sftp"
},
"serverPwd":"*****"
}
```

- The following provides an example of the response body of this interface:

```
{
 "resultCode": "02000005",
 "description": "The parameter value must be a string of 8 to 80 characters."
}
```

## 7.8.2 Deleting a File Server

### Scenario

This interface is invoked to delete a file server. It can be used before importing an outbound call data file from the server.

### Usage Description

- Prerequisites
  - The corresponding AK/SK authentication permission is available.
  - You have applied for a developer account.
  - A file server is available.
- Precautions
  - After a request is received, the server needs to return a 200 response. Other responses indicate that the writeback fails.

### Method

This interface supports only the POST method.

### URI

`https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/file/{serverId}/deleteServer`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-306** Parameters in the URL

| No. | Parameter | Type    | Mandatory or Not | Description                                                |
|-----|-----------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | serverId  | String  | Yes              | File server ID.                                            |

## Request Description

**Table 7-307** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

## Response Description

**Table 7-308** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                               |
|-----|------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-309</a> . |
| 2   | resultDesc | String | Description.                                                                                                                              |
| 3   | returnCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-309</a> . |
| 4   | returnDesc | String | Description.                                                                                                                              |

## Triggered Event

None

## Error Codes

**Table 7-309** Error code description

| No. | Error Code   | Description                                                                |
|-----|--------------|----------------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> .      |
| 2   | 020000<br>6  | The server configuration does not exist.                                   |
| 3   | 020003<br>3  | The outbound call data does not exist.                                     |
| 4   | 020003<br>4  | The substatus does not match the business result.                          |
| 5   | 020000<br>01 | Empty parameter.                                                           |
| 6   | 020000<br>02 | The parameter contains invalid characters.                                 |
| 7   | 020000<br>03 | The parameter length cannot exceed the maximum length.                     |
| 8   | 020000<br>04 | The parameter length cannot be less than the minimum length.               |
| 9   | 020000<br>05 | The parameter length must be within the specified range.                   |
| 10  | 020000<br>06 | Incorrect parameter type.                                                  |
| 11  | 020000<br>07 | Incorrect parameter value.                                                 |
| 12  | 020000<br>08 | Parameter conversion error. Check the request parameters.                  |
| 13  | 020000<br>09 | Incorrect parameter combination. Check the request parameters.             |
| 14  | 020000<br>10 | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 15  | 020000<br>11 | The number of parameters cannot exceed the specified number.               |

### Example

- The following provides an example of the response body of this interface:

```
{
 "returnCode": "0200000",
```

```
"resultCode": "0200000",
"resultDesc": "success",
"returnDesc": "success"
}
```

## 7.8.3 Modifying a File Server

### Scenario

This interface is invoked to modify a file server. It can be used before importing an outbound call data file from the server.

### Usage Description

- Prerequisites
  - The corresponding AK/SK authentication permission is available.
  - You have applied for a developer account.
  - A file server is available.
- Precautions
  - After a request is received, the server needs to return a 200 response. Other responses indicate that the writeback fails.
  - If the IP address needs to be changed, the password must be transferred.
  - The username can contain a maximum of 30 characters and cannot contain the following special characters: `~!@#\$%^&\*()+=|{}";<>/?.\[]!
  - The password must be a string of 8 to 80 characters.

### Method

This interface supports only the POST method.

### URI

`https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/file/{serverId}/updateServer`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-310** Parameters in the URL

| No. | Parameter | Type    | Mandatory or Not | Description                                                |
|-----|-----------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | serverId  | String  | Yes              | File server ID.                                            |

## Request Description

**Table 7-311** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-312** Request body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                                                                                                                 |
|-----|------------|--------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | serverInfo | Object | Yes              | File server information.                                                                                                                                                                                    |
| 2   | userName   | String | Yes              | Username.                                                                                                                                                                                                   |
| 3   | serverPwd  | String | No               | Service password, which is transferred in plaintext and stored in ciphertext on the backend. This parameter is mandatory when the value of <b>serviceInfo.IP</b> is different from the original IP address. |

### serverInfo

| No. | Parameter | Type   | Mandatory or Not | Description                                                 |
|-----|-----------|--------|------------------|-------------------------------------------------------------|
| 1   | ip        | String | Yes              | File server IP address.                                     |
| 2   | port      | String | Yes              | Port number.                                                |
| 3   | filePath  | String | Yes              | Default file server path, for example, / <b>home/sftp</b> . |

## Response Description

**Table 7-313** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                              |
|-----|------------|--------|------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>020000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-314</a> . |
| 2   | resultDesc | String | Description.                                                                                                                             |
| 3   | returnCode | String | Error code. The value <b>020000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-314</a> . |
| 4   | returnDesc | String | Description.                                                                                                                             |

## Triggered Event

None

## Error Codes

**Table 7-314** Error code description

| No. | Error Code   | Description                                                           |
|-----|--------------|-----------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 020000<br>6  | The server configuration does not exist.                              |
| 2   | 020003<br>3  | The outbound call data does not exist.                                |
| 3   | 020003<br>4  | The substatus does not match the business result.                     |
| 4   | 020000<br>01 | Empty parameter.                                                      |
| 5   | 020000<br>02 | The parameter contains invalid characters.                            |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 6   | 02000003   | The parameter length cannot exceed the maximum length.                     |
| 7   | 02000004   | The parameter length cannot be less than the minimum length.               |
| 8   | 02000005   | The parameter length must be within the specified range.                   |
| 9   | 02000006   | Incorrect parameter type.                                                  |
| 10  | 02000007   | Incorrect parameter value.                                                 |
| 11  | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 12  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 13  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 14  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:

```
{
 "userName": "WANGWU",
 "serverInfo": {
 "ip": "5.9.11.11",
 "port": "22",
 "filePath": "/home/sftp"
 },
 "serverPwd": "*****"
}
```

- The following provides an example of the response body of this interface:

```
{
 "returnCode": "0200000",
 "resultCode": "0200000",
 "resultDesc": "success",
 "returnDesc": "success"
}
```

## 7.8.4 Querying a File Server

### Scenario

This interface is invoked to query a file server. It can be used before importing an outbound call data file from the server.



## Usage Description

- Prerequisites
  - The corresponding AK/SK authentication permission is available.
  - You have applied for a developer account.
- Precautions
  - After a request is received, the server needs to return a 200 response. Other responses indicate that the writeback fails.

## Method

This interface supports only the POST method.

## URI

`https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/file/queryServer`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-315** Parameters in the URL

| No. | Parameter | Type    | Mandatory or Not | Description                                                |
|-----|-----------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |

## Request Description

**Table 7-316** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-317** Request body parameters

| No. | Parameter | Type             | Man<br>dato<br>ry or<br>Not | Description                                                                                                                                                                                  |
|-----|-----------|------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | offset    | Integer          | Yes                         | Parameter for determining the start page of the query.<br>Value of <b>offset</b> = Value of <b>limit</b> x (Value of <b>page</b> - 1)<br><b>page</b> indicates the start page to be queried. |
| 2   | limit     | Integer          | Yes                         | Number of query records on each page. The value ranges from 1 to 100.                                                                                                                        |
| 3   | serverIds | List<br><String> | No                          | File server IDs.                                                                                                                                                                             |

## Response Description

**Table 7-318** Response body parameters

| No. | Parameter  | Type          | Description                                                                                                                               |
|-----|------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String        | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-300</a> . |
| 2   | resultDesc | String        | Description.                                                                                                                              |
| 3   | server     | List <Server> | File server.                                                                                                                              |
| 4   | count      | Integer       | Total number of files.                                                                                                                    |
| 5   | returnCode | String        | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-319</a> . |
| 6   | returnDesc | String        | Description.                                                                                                                              |

Server

| No. | Parameter | Type   | Description               |
|-----|-----------|--------|---------------------------|
| 1   | port      | String | Port number.              |
| 2   | ip        | String | IP address.               |
| 3   | filePath  | String | Default file server path. |
| 4   | userName  | String | Username.                 |
| 5   | serverId  | String | File server ID.           |

## Triggered Event

None

## Error Codes

**Table 7-319** Error code description

| No. | Error Code   | Description                                                           |
|-----|--------------|-----------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 020003<br>3  | The outbound call data does not exist.                                |
| 3   | 020003<br>4  | The substatus does not match the business result.                     |
| 4   | 020000<br>01 | Empty parameter.                                                      |
| 5   | 020000<br>02 | The parameter contains invalid characters.                            |
| 6   | 020000<br>03 | The parameter length cannot exceed the maximum length.                |
| 7   | 020000<br>04 | The parameter length cannot be less than the minimum length.          |
| 8   | 020000<br>05 | The parameter length must be within the specified range.              |
| 9   | 020000<br>06 | Incorrect parameter type.                                             |
| 10  | 020000<br>07 | Incorrect parameter value.                                            |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 11  | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 12  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 13  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 14  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:

```
{
 "limit":10,
 "offset":0
}
```

- The following provides an example of the response body of this interface:

```
{
 "returnCode": "0200000",
 "server": [
 {
 "port": null,
 "ip": null,
 "filePath": null,
 "userName": "10",
 "serverId": "164681924997097701747271557174"
 },
 {
 "port": "22",
 "ip": "10.21.124.175",
 "filePath": "/home/sftp",
 "userName": "isales",
 "serverId": "164690088271159234793429225848"
 },
 {
 "port": "22",
 "ip": "192.168.0.1",
 "filePath": "/home/sftp",
 "userName": "huawei",
 "serverId": "164697340198671566909690908237"
 },
 {
 "port": "8888",
 "ip": "1.1.1.1",
 "filePath": "/sftp/file",
 "userName": "isales",
 "serverId": "164765479785832713595318363505"
 },
 {
 "port": "22",
 "ip": "10.1.1.1",
 "filePath": "/home/sftp",
 "userName": "zhangsang",
 "serverId": "164765490069279981932006087306"
 }
],
 "resultCode": "0200000",
}
```

```

"resultDesc": "success",
"returnDesc": "success"
}

```

## 7.9 Outbound Call External Result Definition Interfaces

### 7.9.1 Querying OBS Outbound Call Result Codes

#### Scenario

This interface is invoked to query result codes of the outbound server (OBS). It can be used to set outbound call result codes.

#### Usage Description

- Prerequisites
  - The corresponding AK/SK authentication permission is available.
  - You have applied for a developer account.

#### Method

This interface supports only the GET method.

#### URI

`https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/queryOBSResultCode?pageSize={pageSize}&pageNum={pageNum}`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-320** Parameters in the URL

| No. | Parameter | Type    | Mandatory or Not | Description                                                             |
|-----|-----------|---------|------------------|-------------------------------------------------------------------------|
| 1   | vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999.              |
| 2   | pageNum   | Integer | Yes              | Page number.<br>The value is greater than 0.                            |
| 3   | pageSize  | Integer | Yes              | Number of query records on each page.<br>The value ranges from 1 to 50. |

## Request Description

**Table 7-321** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

## Response Description

**Table 7-322** Response body parameters

| No. | Parameter  | Type    | Description                                                                                                                               |
|-----|------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String  | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-324</a> . |
| 2   | resultDesc | String  | Description.                                                                                                                              |
| 3   | totalCount | Integer | Total number of result codes of the OBS.                                                                                                  |
| 4   | obsCodes   | List    | Outbound call result code set.                                                                                                            |
| 5   | returnCode | String  | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-324</a> . |
| 6   | returnDesc | String  | Description.                                                                                                                              |

**Table 7-323** obsCodes

| No. | Parameter   | Type   | Description                                      |
|-----|-------------|--------|--------------------------------------------------|
| 1   | obsCodeDesc | String | Description of an OBS outbound call result code. |
| 2   | obsCode     | String | OBS outbound call result code.                   |

## Error Codes

**Table 7-324** Error code description

| No. | Error Code   | Description                                                                |
|-----|--------------|----------------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> .      |
| 2   | 020000<br>01 | Empty parameter.                                                           |
| 3   | 020000<br>02 | The parameter contains invalid characters.                                 |
| 4   | 020000<br>03 | The parameter length cannot exceed the maximum length.                     |
| 5   | 020000<br>04 | The parameter length cannot be less than the minimum length.               |
| 6   | 020000<br>05 | The parameter length must be within the specified range.                   |
| 7   | 020000<br>06 | Incorrect parameter type.                                                  |
| 8   | 020000<br>07 | Incorrect parameter value.                                                 |
| 9   | 020000<br>08 | Parameter conversion error. Check the request parameters.                  |
| 10  | 020000<br>09 | Incorrect parameter combination. Check the request parameters.             |
| 11  | 020000<br>10 | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 12  | 020000<br>11 | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the response body of this interface:

```
{
 "obsCodes": [
 {
 "obsCodeDesc": "The switch is busy.",
 "obsCode": "00605"
 },
 {
 "obsCodeDesc": "The call is rejected.",
 "obsCode": "00604"
 },
 {
 "obsCodeDesc": "The called party does not answer the call.",
 "obsCode": "00603"
 },
 {
 "obsCodeDesc": "No resource available on the ACD.",
 "obsCode": "00602"
 },
 {
 "obsCodeDesc": "The ACD times out.",
 "obsCode": "00606"
 }
],
 "returnCode": "0200000",
 "resultCode": "0200000",
 "resultDesc": "query queryOBSResultCode Success!",
 "totalCount": 120,
 "returnDesc": "query queryOBSResultCode Success!"
}
```

## 7.9.2 Creating an External Result

### Scenario

This interface is invoked to create an external result. It is provided for the retry policy interface to create non-retry policies.

### Usage Description

- Prerequisites
  - The corresponding AK/SK authentication permission is available.
  - You have applied for a developer account.

### Method

This interface supports only the POST method.

### URI

`https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/createObResult`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.



**Table 7-325** Parameters in the URL

| No. | Parameter | Type    | Mandatory or Not | Description                                                |
|-----|-----------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |

## Request Description

**Table 7-326** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-327** Request body parameters

| No. | Parameter     | Type          | Mandatory or Not | Description                                                                                                            |
|-----|---------------|---------------|------------------|------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode    | String        | No               | Result definition code. The value can contain fewer than eight characters.                                             |
| 2   | displayResult | String        | Yes              | External result code.                                                                                                  |
| 3   | obsCodes      | List <String> | Yes              | Result code definition list. The list can be obtained using the interface for querying OBS outbound call result codes. |

## Response Description

**Table 7-328** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                               |
|-----|------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-329</a> . |
| 2   | resultDesc | String | Description.                                                                                                                              |
| 3   | defId      | String | ID of the created external result.                                                                                                        |
| 4   | returnCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-329</a> . |
| 5   | returnDesc | String | Description.                                                                                                                              |

## Error Codes

**Table 7-329** Error code description

| No. | Error Code   | Description                                                           |
|-----|--------------|-----------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 020000<br>01 | Empty parameter.                                                      |
| 3   | 020000<br>02 | The parameter contains invalid characters.                            |
| 4   | 020000<br>03 | The parameter length cannot exceed the maximum length.                |
| 5   | 020000<br>04 | The parameter length cannot be less than the minimum length.          |
| 6   | 020000<br>05 | The parameter length must be within the specified range.              |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 7   | 02000006   | Incorrect parameter type.                                                  |
| 8   | 02000007   | Incorrect parameter value.                                                 |
| 9   | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 10  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 11  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 12  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:  

```
{"resultCode":"007", "displayResult":"7: The call is not answered.", "obsCodes":["00602","00606"]}
```
- The following provides an example of the response body of this interface:  

```
{
 "defId": "1645244637",
 "returnCode": "0200000",
 "resultCode": "0200000",
 "resultDesc": "createObResult Success!",
 "returnDesc": "createObResult Success!"
}
```

## 7.9.3 Modifying an External Result

### Scenario

This interface is invoked to modify an external result. It is provided for the retry policy interface to create non-retry policies.

### Usage Description

- Prerequisites
  - The corresponding AK/SK authentication permission is available.
  - You have applied for a developer account.

### Method

This interface supports only the POST method.

### URI

<https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/updateObResult>

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-330** Parameters in the URL

| No. | Parameter | Type    | Mandatory or Not | Description                                                |
|-----|-----------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |

## Request Description

**Table 7-331** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-332** Request body parameters

| No. | Parameter     | Type          | Mandatory or Not | Description                                                                                                            |
|-----|---------------|---------------|------------------|------------------------------------------------------------------------------------------------------------------------|
| 1   | obsCodes      | List <String> | Yes              | Result code definition list. The list can be obtained using the interface for querying OBS outbound call result codes. |
| 2   | displayResult | String        | Yes              | External result code.                                                                                                  |
| 3   | defId         | String        | Yes              | External result ID.                                                                                                    |

## Response Description

**Table 7-333** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                               |
|-----|------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-334</a> . |
| 2   | resultDesc | String | Description.                                                                                                                              |
| 3   | returnCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-334</a> . |
| 4   | returnDesc | String | Description.                                                                                                                              |

## Error Codes

**Table 7-334** Error code description

| No. | Error Code   | Description                                                           |
|-----|--------------|-----------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 020000<br>01 | Empty parameter.                                                      |
| 3   | 020000<br>02 | The parameter contains invalid characters.                            |
| 4   | 020000<br>03 | The parameter length cannot exceed the maximum length.                |
| 5   | 020000<br>04 | The parameter length cannot be less than the minimum length.          |
| 6   | 020000<br>05 | The parameter length must be within the specified range.              |
| 7   | 020000<br>06 | Incorrect parameter type.                                             |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 8   | 02000007   | Incorrect parameter value.                                                 |
| 9   | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 10  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 11  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 12  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:  

```
{"defId":"1645244637", "displayResult":"8: The call is not answered.", "obsCodes":["00605","00604"]}
```
- The following provides an example of the response body of this interface:  

```
{
 "returnCode": "0200000",
 "resultCode": "0200000",
 "resultDesc": "updateObsResult Success!",
 "returnDesc": "updateObsResult Success!"
}
```

## 7.9.4 Deleting an External Result

### Scenario

This interface is invoked to delete an external result. It is provided for the retry policy interface to create non-retry policies.

### Usage Description

- Prerequisites
  - The corresponding AK/SK authentication permission is available.
  - You have applied for a developer account.

### Method

This interface supports only the DELETE method.

### URI

<https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/{defId}/deleteObsResult>

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-335** Parameters in the URL

| No. | Parameter | Type    | Mandatory or Not | Description                                                |
|-----|-----------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | defId     | String  | Yes              | External result ID to be deleted.                          |

## Request Description

**Table 7-336** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

## Response Description

**Table 7-337** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                                  |
|-----|------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-338</a> . |
| 2   | resultDesc | String | Description.                                                                                                                                 |

| No. | Parameter  | Type   | Description                                                                                                                               |
|-----|------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | returnCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-338</a> . |
| 4   | returnDesc | String | Description.                                                                                                                              |

## Error Codes

**Table 7-338** Error code description

| No. | Error Code   | Description                                                                |
|-----|--------------|----------------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> .      |
| 2   | 020000<br>01 | Empty parameter.                                                           |
| 3   | 020000<br>02 | The parameter contains invalid characters.                                 |
| 4   | 020000<br>03 | The parameter length cannot exceed the maximum length.                     |
| 5   | 020000<br>04 | The parameter length cannot be less than the minimum length.               |
| 6   | 020000<br>05 | The parameter length must be within the specified range.                   |
| 7   | 020000<br>06 | Incorrect parameter type.                                                  |
| 8   | 020000<br>07 | Incorrect parameter value.                                                 |
| 9   | 020000<br>08 | Parameter conversion error. Check the request parameters.                  |
| 10  | 020000<br>09 | Incorrect parameter combination. Check the request parameters.             |
| 11  | 020000<br>10 | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 12  | 020000<br>11 | The number of parameters cannot exceed the specified number.               |



## Example

- The following provides an example of the response body of this interface:

```
{
 "returnCode": "0200000",
 "resultCode": "0200000",
 "resultDesc": "delete ObResult success",
 "returnDesc": "delete ObResult success"
}
```

## 7.9.5 Querying the External Result List

### Scenario

This interface is invoked to query external results. It is provided for the retry policy interface to create non-retry policies.

### Usage Description

- Prerequisites
  - The corresponding AK/SK authentication permission is available.
  - You have applied for a developer account.

### Method

This interface supports only the GET method.

### URI

`https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/queryOBSResults?pageSize={pageSize}&pageNum={pageNum}`

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-339** Parameters in the URL

| No. | Parameter | Type    | Mandatory or Not | Description                                                 |
|-----|-----------|---------|------------------|-------------------------------------------------------------|
| 1   | vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999.  |
| 2   | pageSize  | Integer | Yes              | Number of records on a page. The value ranges from 1 to 50. |

| No. | Parameter | Type    | Mandatory or Not | Description                               |
|-----|-----------|---------|------------------|-------------------------------------------|
| 3   | pageNum   | Integer | Yes              | Page number. The value is greater than 0. |

## Request Description

**Table 7-340** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

## Response Description

**Table 7-341** Response body parameters

| No. | Parameter  | Type    | Description                                                                                                                               |
|-----|------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String  | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-343</a> . |
| 2   | resultDesc | String  | Description.                                                                                                                              |
| 3   | totalCount | Integer | Total number of external results.                                                                                                         |
| 4   | data       | List    | List of external results.                                                                                                                 |

| No. | Parameter  | Type   | Description                                                                                                                               |
|-----|------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 5   | returnCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-343</a> . |
| 6   | returnDesc | String | Description.                                                                                                                              |

**Table 7-342** data

| No. | Parameter     | Type   | Description           |
|-----|---------------|--------|-----------------------|
| 1   | displayResult | String | External result.      |
| 2   | resultCode    | String | External result code. |
| 3   | defld         | String | External result ID.   |

## Error Codes

**Table 7-343** Error code description

| No. | Error Code   | Description                                                           |
|-----|--------------|-----------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> . |
| 2   | 020000<br>01 | Empty parameter.                                                      |
| 3   | 020000<br>02 | The parameter contains invalid characters.                            |
| 4   | 020000<br>03 | The parameter length cannot exceed the maximum length.                |
| 5   | 020000<br>04 | The parameter length cannot be less than the minimum length.          |
| 6   | 020000<br>05 | The parameter length must be within the specified range.              |
| 7   | 020000<br>06 | Incorrect parameter type.                                             |
| 8   | 020000<br>07 | Incorrect parameter value.                                            |

| No. | Error Code | Description                                                                |
|-----|------------|----------------------------------------------------------------------------|
| 9   | 02000008   | Parameter conversion error. Check the request parameters.                  |
| 10  | 02000009   | Incorrect parameter combination. Check the request parameters.             |
| 11  | 02000010   | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 12  | 02000011   | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the response body of this interface:

```
{
 "returnCode": "0200000",
 "data": [
 {
 "displayResult": "6: The call is not answered.",
 "resultCode": "002",
 "defId": "12345"
 }
],
 "resultCode": "0200000",
 "resultDesc": "query outboundResult success",
 "totalCount": 1,
 "returnDesc": "query outboundResult success"
}
```

## 7.9.6 Querying a Single External Result

### Scenario

This interface is invoked to query a single outbound call external result. It is provided for the retry policy interface to create non-retry policies.

### Usage Description

- Prerequisites
  - The corresponding AK/SK authentication permission is available.
  - You have applied for a developer account.

### Method

This interface supports only the GET method.

### URI

<https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/{defId}/queryObsResultDetail>

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-344** Parameters in the URL

| No. | Parameter | Type    | Mandatory or Not | Description                                                |
|-----|-----------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |
| 2   | defId     | Integer | Yes              | External result ID to be queried.                          |

## Request Description

**Table 7-345** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

## Response Description

**Table 7-346** Response body parameters

| No. | Parameter  | Type        | Description                                                                                                                                  |
|-----|------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String      | Error code. The value <b>0200000</b> indicates success, and other values indicate failure.<br>For details, see <a href="#">Table 7-349</a> . |
| 2   | resultDesc | String      | Description.                                                                                                                                 |
| 3   | obResult   | JSON object | External result data.                                                                                                                        |

| No. | Parameter  | Type   | Description                                                                                                                               |
|-----|------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | returnCode | String | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-349</a> . |
| 5   | returnDesc | String | Description.                                                                                                                              |

**Table 7-347** obResult

| No. | Parameter     | Type               | Description                                               |
|-----|---------------|--------------------|-----------------------------------------------------------|
| 1   | defId         | String             | External result ID.                                       |
| 2   | displayResult | String             | External result.                                          |
| 3   | vdnId         | Integer            | vdnId                                                     |
| 4   | resultCode    | String             | External result code.                                     |
| 5   | resultMapList | List <JSON object> | OBS result code corresponding to an external result code. |

**Table 7-348** resultMapList

| No. | Parameter | Type    | Description                                                        |
|-----|-----------|---------|--------------------------------------------------------------------|
| 1   | mapId     | String  | ID of the mapping between the external result and OBS result code. |
| 2   | defId     | String  | External result ID.                                                |
| 3   | failCode  | String  | OBS result code.                                                   |
| 4   | vdnId     | Integer | vdnId                                                              |

## Error Codes

**Table 7-349** Error code description

| No. | Error Code   | Description                                                                |
|-----|--------------|----------------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> .      |
| 2   | 020000<br>01 | Empty parameter.                                                           |
| 3   | 020000<br>02 | The parameter contains invalid characters.                                 |
| 4   | 020000<br>03 | The parameter length cannot exceed the maximum length.                     |
| 5   | 020000<br>04 | The parameter length cannot be less than the minimum length.               |
| 6   | 020000<br>05 | The parameter length must be within the specified range.                   |
| 7   | 020000<br>06 | Incorrect parameter type.                                                  |
| 8   | 020000<br>07 | Incorrect parameter value.                                                 |
| 9   | 020000<br>08 | Parameter conversion error. Check the request parameters.                  |
| 10  | 020000<br>09 | Incorrect parameter combination. Check the request parameters.             |
| 11  | 020000<br>10 | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 12  | 020000<br>11 | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the response body of this interface:

```
{
 "returnCode": "0200000",
 "obResult": {
 "defId": "1402245659",
 "displayResult": "6: The call is not answered.",
 "vdnId": 40,
 "resultCode": "002",
 "resultMapList": [
 {
 "mapId": "1059886898",
 "defId": "1402245659",
 "failCode": "34609",

```

```
 "vdnId": "40"
 },
 {
 "mapId": "1162133679",
 "defId": "1402245659",
 "failCode": "00008",
 "vdnId": "40"
 }
]
},
"resultCode": "0200000",
"resultDesc": "queryObsResultDetail success",
"returnDesc": "queryObsResultDetail success"
}
```

## 7.10 Querying Interface Invocation Records

### Scenario

This interface is invoked to query third-party interface invocation details and provided for the scenario where interface invocation records need to be queried.

### Usage Description

- Prerequisites
  - The corresponding AK/SK authentication permission is available.
  - You have applied for a developer account.

### Method

This interface supports only the POST method.

### URI

<https://ip:port/rest/isales/v1/openapi/campaigns/{vdnId}/calllogs>

In the URL, *ip* indicates the IP address of the CC-iSales server, and *port* indicates the HTTPS port number of the CC-iSales server.

**Table 7-350** Parameters in the URL

| No. | Parameter | Type    | Mandatory or Not | Description                                                |
|-----|-----------|---------|------------------|------------------------------------------------------------|
| 1   | vdnId     | Integer | Yes              | VDN ID.<br>The value is an integer ranging from 1 to 9999. |



## Request Description

**Table 7-351** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                            |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes              | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 7-352** Request body parameters

| No. | Parameter | Type    | Mandatory or Not | Description                                                                                                                                                                                  |
|-----|-----------|---------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | offset    | Integer | Yes              | Parameter for determining the start page of the query.<br>Value of <b>offset</b> = Value of <b>limit</b> x (Value of <b>page</b> - 1)<br><b>page</b> indicates the start page to be queried. |
| 2   | limit     | Integer | Yes              | Number of query records on each page. The value ranges from 1 to 100.                                                                                                                        |
| 3   | url       | String  | No               | Invocation URL.<br>If this parameter is set, the URL invocation records are queried.<br>If this parameter is left empty, all interface invocation records are queried.                       |
| 4   | beginTime | String  | Yes              | Start time.<br>The format is <i>yyyy-MM-dd HH:mm:ss</i> .                                                                                                                                    |
| 5   | endTime   | String  | Yes              | End time.<br>The format is <i>yyyy-MM-dd HH:mm:ss</i> .<br>The interval between the start time and end time cannot exceed seven days.                                                        |

## Response Description

**Table 7-353** Response body parameters

| No. | Parameter  | Type       | Description                                                                                                                                      |
|-----|------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String     | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see error code description in "Table 6." |
| 2   | resultDesc | String     | Description.                                                                                                                                     |
| 3   | result     | OpenapiLog | Scenario type list.                                                                                                                              |
| 4   | returnCode | String     | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-355</a> .        |
| 5   | returnDesc | String     | Description.                                                                                                                                     |

**Table 7-354** OpenapiLog

| No. | Parameter  | Type     | Description                                                                                                                               |
|-----|------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | id         | String   | Log ID.                                                                                                                                   |
| 2   | operTime   | Datetime | Log time.                                                                                                                                 |
| 3   | url        | String   | Invocation URL.                                                                                                                           |
| 4   | request    | Object   | Input parameter.                                                                                                                          |
| 5   | resultCode | String   | Error code. The value <b>0200000</b> indicates success, and other values indicate failure. For details, see <a href="#">Table 7-355</a> . |
| 6   | resultDesc | String   | Description.                                                                                                                              |
| 7   | httpStatus | Integer  | Interface invocation status code.                                                                                                         |
| 8   | type       | String   | Request type.                                                                                                                             |

## Error Codes

**Table 7-355** Error code description

| No. | Error Code   | Description                                                                |
|-----|--------------|----------------------------------------------------------------------------|
| 1   | 020000<br>1  | Parameter error. For details about the error, see <b>resultDesc</b> .      |
| 2   | 020000<br>01 | Empty parameter.                                                           |
| 3   | 020000<br>02 | The parameter contains invalid characters.                                 |
| 4   | 020000<br>03 | The parameter length cannot exceed the maximum length.                     |
| 5   | 020000<br>04 | The parameter length cannot be less than the minimum length.               |
| 6   | 020000<br>05 | The parameter length must be within the specified range.                   |
| 7   | 020000<br>06 | Incorrect parameter type.                                                  |
| 8   | 020000<br>07 | Incorrect parameter value.                                                 |
| 9   | 020000<br>08 | Parameter conversion error. Check the request parameters.                  |
| 10  | 020000<br>09 | Incorrect parameter combination. Check the request parameters.             |
| 11  | 020000<br>10 | The <b>hour</b> and <b>minute</b> parameters must be set at the same time. |
| 12  | 020000<br>11 | The number of parameters cannot exceed the specified number.               |

## Example

- The following provides an example of the request body of this interface:  

```
{"limit": 10,"offset": 0,"beginTime": "2022-08-20 15:55:55","endTime": "2022-08-23 15:55:55","url":""}
```
- The following provides an example of the response body of this interface:  

```
{
 "result": [
 {
 "request": "{\"defld\":\"456\", \"vdnld\":\"2\"}",
 "httpStatus": 200,
 "resultCode": "0200000",
 "id": "166088991109059950708365448582",
 "resultDesc": "queryObsResultDetail success",
 "url": "/rest/isales/v1/openapi/campaigns/2/456/queryObsResultDetail",
 }
]
}
```

```
"operTime": "2022-08-19T14:18:31.000+00:00",
"type": "GET"
}
],
"returnCode": "0200000",
"resultCode": "0200000",
"count": 1,
"resultDesc": "queryCalllogs success",
"returnDesc": "queryCalllogs success"
}
```

# 8 Survey Interface Reference

---

- [8.1 Creating Answers \(createScriptAnswer\)](#)
- [8.2 Obtaining the Next Question \(getNextQuestionInfo\)](#)
- [8.3 Creating Answers to Questions \(createQuestionAnswer\)](#)
- [8.4 Updating Answers to Questions \(updateQuestionAnswer\)](#)
- [8.5 Updating Surveys \(updateScriptAnswer\)](#)
- [8.6 Updating Ratings \(updateScore\)](#)

## 8.1 Creating Answers (createScriptAnswer)

### Scenario

This interface is invoked to create answers for a survey.

### Method

POST

### URI

<https://Domain name/apiaccess/v1/scriptAnswer/createScriptAnswer> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 8-1** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                             |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <code>tokenByAkSk</code> interface}</i> . (A space is required after <b>Bearer</b> .) |
| 2   | x-app-key     | String | Yes              | App key, which is the user ID. Contact operations personnel to obtain the app key.                                                                                                      |

**Table 8-2** Request body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                |
|-----|------------|--------|------------------|------------------------------------------------------------------------------------------------------------|
| 1   | moduleId   | String | Yes              | Module ID.<br>Manual outbound call: 80031<br>Automatic outbound call: 80081<br>Intelligent training: 80083 |
| 2   | result     | String | Yes              | Operation performed on answers.<br><b>save</b> : Save (create) answers.<br><b>submit</b> : Submit answers. |
| 3   | surveyId   | String | Yes              | Survey ID.                                                                                                 |
| 4   | custId     | String | No               | User ID.                                                                                                   |
| 5   | serviceId1 | String | No               | Task ID corresponding to the survey.                                                                       |

## Response Description

- **Status code: 200**

**Table 8-3** Response body parameters

| No. | Parameter      | Type   | Mandat<br>ory or<br>Not | Description                                           |
|-----|----------------|--------|-------------------------|-------------------------------------------------------|
| 1   | resultCode     | String | Yes                     | Return code.                                          |
| 2   | resultDesc     | String | Yes                     | Description of the message returned by the interface. |
| 3   | surveyAnswerId | String | Yes                     | Answer ID.                                            |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 403**  
Authentication fails.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

- None

## Example

Request header:

```
{
 "x-app-key": "*****",
 "Authorization": "Bearer *****"
}
```

Request parameters:

```
{
 "moduleId": "80031",
 "result": "save",
 "surveyId": "987654321",
 "custId": "123456789",
 "serviceId1": "987654321"
}
```

Response parameters:

```
{
 "resultCode": "1203000",
```

```
"surveyAnswerId": "123456789",
"resultDesc": "Opration Successful."
}
```

## 8.2 Obtaining the Next Question (getNextQuestionInfo)

### Scenario

This interface is invoked to obtain the content of the next question in a survey.

### Method

POST

### URI

<https://Domain name/apiaccess/v1/scriptAnswer/getNextQuestionInfo>, for example, [service.besclouds.com](https://service.besclouds.com).

### Request Description

Table 8-4 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                |
|-----|---------------|--------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Authorization | String | Yes              | Authentication field. The format is <i>Bearer +AccessToken</i> returned by the <i>tokenByAKSK</i> interface. (A space is required next to <b>Bearer</b> .) |
| 2   | x-app-key     | String | Yes              | App key field, which is the user ID. Contact the operation personnel to obtain the app key.                                                                |

Table 8-5 Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description |
|-----|-----------|--------|------------------|-------------|
| 1   | surveyId  | String | Yes              | Survey ID.  |



| No. | Parameter        | Type         | Mandatory or Not | Description                                                                                                                                                                                                    |
|-----|------------------|--------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | questionId       | String       | No               | Current question ID. For example, to obtain the second question, set this parameter to the first question ID. To obtain the first question, do not transfer this parameter or transfer an empty string.        |
| 3   | isAnswered       | boolean      | Yes              | Whether the question is mandatory. The value is fixed to <b>true</b> .                                                                                                                                         |
| 4   | questionType     | String       | No               | Question type.<br><b>essay</b> : short-answer question<br><b>single</b> : single-answer question<br><b>multi</b> : multiple-answer question<br><b>voice</b> : voice<br><b>voiceOperation</b> : voice+operation |
| 5   | answerOptionList | List<String> | No               | List of answer option IDs, for example, ["optionId1"].                                                                                                                                                         |

## Response Description

- **Status code: 200**

**Table 8-6** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                           |
|-----|------------|--------|------------------|-------------------------------------------------------|
| 1   | resultCode | String | Yes              | Return code.                                          |
| 2   | resultDesc | String | Yes              | Description of the message returned by the interface. |
| 3   | questionId | String | Yes              | Question ID.                                          |

| No. | Parameter    | Type           | Mandatory or Not | Description                                                                                                                                                                                                    |
|-----|--------------|----------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | answerNo     | Integer        | Yes              | Question No.                                                                                                                                                                                                   |
| 5   | optionIdList | Array[Object ] | Yes              | Question option. This parameter has a value when the question type is a multiple choice question.                                                                                                              |
| 6   | questionType | String         | Yes              | Question type.<br><b>single</b> : single-answer question<br><b>multi</b> : multiple-answer question<br><b>essay</b> : short-answer question<br><b>voice</b> : voice<br><b>voiceOperation</b> : voice+operation |
| 7   | content      | String         | Yes              | Question content.                                                                                                                                                                                              |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 403**  
Authentication fails.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

- None

## Example

Request header:

```
{
 "x-app-key": *****
 "Authorization": Bearer *****
}
```

Request parameters:

```
{
 "surveyId": "987654321",
 "questionId": "123456789",
 "isAnswered": true
}
```

Response parameters:

```
{
 "score": 70,
 "oprRule": {},
 "questionId": "123456789",
 "answerNo": 1,
 "resultCode": "1203000",
 "optionIdList": [],
 "resultDesc": "Opration Successful.",
 "questionType": "voice",
 "content": "Why cannot I recharge part of the call fee through WeChat?"
}
```

## 8.3 Creating Answers to Questions (createQuestionAnswer)

### Scenario

This interface is invoked to create an answer data record.

### Method

POST

### URI

<https://Domain name/apiaccess/v1/scriptAnswer/createQuestionAnswer>, for example, service.besclouds.com.

### Request Description

Table 8-7 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                |
|-----|---------------|--------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Authorization | String | Yes              | Authentication field. The format is <i>Bearer +AccessToken</i> returned by the <i>tokenByAKSK</i> interface. (A space is required next to <b>Bearer.</b> ) |

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                 |
|-----|-----------|--------|------------------|---------------------------------------------------------------------------------------------|
| 3   | x-app-key | String | Yes              | App key field, which is the user ID. Contact the operation personnel to obtain the app key. |

**Table 8-8** Request body parameters

| No. | Parameter      | Type           | Mandatory or Not | Description      |
|-----|----------------|----------------|------------------|------------------|
| 1   | questionId     | String         | Yes              | Question ID.     |
| 2   | surveyAnswerId | String         | Yes              | Answer ID.       |
| 3   | surveyId       | String         | Yes              | Survey ID.       |
| 4   | answerText     | String         | No               | Answer content.  |
| 5   | voiceScore     | DECIMAL (11,2) | No               | Voice score.     |
| 6   | operScore      | DECIMAL (11,2) | No               | Operation score. |
| 7   | optionId       | String         | No               | Option ID.       |

## Response Description

- **Status code: 200**

**Table 8-9** Response body parameters

| No. | Parameter        | Type   | Mandatory or Not | Description                                           |
|-----|------------------|--------|------------------|-------------------------------------------------------|
| 1   | resultCode       | String | Yes              | Return code.                                          |
| 2   | resultDesc       | String | Yes              | Description of the message returned by the interface. |
| 2   | questionAnswerId | String | Yes              | ID of an answer to a question.                        |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.

- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 403**  
Authentication fails.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

- None

## Example

Request header:

```
{
 "x-app-key": "*****",
 "Authorization": "Bearer *****"
}
```

Request parameters:

```
{
 "surveyId": "123456789",
 "questionId": "987654321",
 "answerNo": 1,
 "surveyAnswerId": "123456666"
}
```

Response parameters:

```
{
 "resultCode": "1203000",
 "questionAnswerId": "123456789",
 "resultDesc": "Opration Successful."
}
```

## 8.4 Updating Answers to Questions (updateQuestionAnswer)

### Scenario

This Interface is invoked to update answers to questions.

### Method

POST

### URI

<https://Domain name/apiaccess/v1/scriptAnswer/updateQuestionAnswer>, for example, service.besclouds.com.

## Request Description

**Table 8-10** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                         |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Authorization | String | Yes              | Authentication field. The format is <i>Bearer +AccessToken returned by the tokenByAKSK interface.</i> (A space is required next to <b>Bearer.</b> ) |
| 3   | x-app-key     | String | Yes              | App key field, which is the user ID. Contact the operation personnel to obtain the app key.                                                         |

**Table 8-11** Request body parameters

| No. | Parameter        | Type           | Mandatory or Not | Description                               |
|-----|------------------|----------------|------------------|-------------------------------------------|
| 1   | questionAnswerId | String         | Yes              | ID of an answer to a question.            |
| 2   | answerText       | String         | No               | Answer content.                           |
| 3   | voiceScore       | DECIMAL (11,2) | No               | Voice score.                              |
| 4   | operScore        | DECIMAL (11,2) | No               | Operation score.                          |
| 5   | costTime         | Integer        | No               | Answer duration to questions, in seconds. |

## Response Description

- **Status code: 200**

**Table 8-12** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                           |
|-----|------------|--------|------------------|-------------------------------------------------------|
| 1   | resultCode | String | Yes              | Return code.                                          |
| 2   | resultDesc | String | Yes              | Description of the message returned by the interface. |

- Status code: 400**  
Incorrect request. Check the request path and parameters.
- Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- Status code: 403**  
Authentication fails.
- Status code: 404**  
The requested content is not found. Check the request path.
- Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

- None

## Example

Request header:

```
{
 "x-app-key": "*****",
 "Authorization": "Bearer *****"
}
```

Request parameters:

```
{
 "questionAnswerId": "123456789",
 "answerText": "Hello",
 "voiceScore": 50.00,
 "operScore": 20.52,
 "costTime": 12
}
```

Response parameters:

```
{
 "resultCode": "1203000",
 "resultDesc": "Opration Successful."
}
```

## 8.5 Updating Surveys (updateScriptAnswer)

### Scenario

This interface is invoked to update the answer status and submit answers.

### Method

POST

### URI

<https://Domain name/apiaccess/v1/scriptAnswer/updateScriptAnswer>, for example, [service.besclouds.com](https://service.besclouds.com).

### Request Description

**Table 8-13** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                |
|-----|---------------|--------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Authorization | String | Yes              | Authentication field. The format is <i>Bearer +AccessToken</i> returned by the <i>tokenByAKSK</i> interface. (A space is required next to <b>Bearer</b> .) |
| 3   | x-app-key     | String | Yes              | App key field, which is the user ID. Contact the operation personnel to obtain the app key.                                                                |

**Table 8-14** Request body parameters

| No. | Parameter      | Type   | Mandatory or Not | Description |
|-----|----------------|--------|------------------|-------------|
| 1   | surveyAnswerId | String | Yes              | Answer ID.  |



| No. | Parameter | Type   | Mandatory or Not | Description                                                                                              |
|-----|-----------|--------|------------------|----------------------------------------------------------------------------------------------------------|
| 2   | result    | String | Yes              | Operation performed on answers.<br><b>save:</b> Save (create) answers.<br><b>submit:</b> Submit answers. |

## Response Description

- **Status code: 200**

**Table 8-15** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                           |
|-----|------------|--------|------------------|-------------------------------------------------------|
| 1   | resultCode | String | Yes              | Return code.                                          |
| 2   | resultDesc | String | Yes              | Description of the message returned by the interface. |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 403**  
Authentication fails.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

- None

## Example

Request header:

```
{
 "x-app-key": *****
}
```

```
"Authorization": Bearer *****
}
```

Request parameters:

```
{
 "surveyAnswerId": "123456789",
 "result": "submit"
}
```

Response parameters:

```
{
 "resultCode": "1203000",
 "resultDesc": "Opration Successful."
}
```

## 8.6 Updating Ratings (updateScore)

### Scenario

This interface is invoked to update the operation score of the questionnaire module by the UEBA.

### Method

This interface supports only the POST method.

### URI

[https://domain\\_name/apiaccess/ngcrmpfcore\\_js/csf/exam/sorcresult](https://domain_name/apiaccess/ngcrmpfcore_js/csf/exam/sorcresult), for example, **service.besclouds.com**.

### Request Description

**Table 8-16** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                          |
|-----|---------------|--------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes              | The value is fixed at <b>application/json</b> .                                                                                                      |
| 2   | Authorization | String | Yes              | Authentication field. The format is <i>Bearer +AccessToken returned by the tokenByAKSK interface</i> . (A space is required next to <b>Bearer</b> .) |

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                 |
|-----|------------|--------|------------------|---------------------------------------------------------------------------------------------|
| 3   | x-app-key  | String | Yes              | App key field, which is the user ID. Contact the operation personnel to obtain the app key. |
| 4   | quotiety   | String | No               | Weight of the operation score.<br>A positive integer less than 100.                         |
| 5   | totalScore | String | No               | Total score of the questionnaire module.                                                    |

**Table 8-17** Request body parameters

| No.   | Parameter | Type         | Mandatory or Not | Description                                                                                                                           |
|-------|-----------|--------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| 1     | params    | object       | Yes              | -                                                                                                                                     |
| 1.1   | exam_id   | String (32)  | Yes              | Unique exam ID.                                                                                                                       |
| 1.2   | param     | object       | Yes              | -                                                                                                                                     |
| 1.2.1 | code      | String (16)  | Yes              | Result codes of the UEBA interface for ending an exam.<br>The value <b>0</b> indicates success, and other values indicate exceptions. |
| 1.2.2 | msg       | String (256) | No               | Description of the processing result of the UEBA interface for ending an exam.                                                        |

| No.   | Parameter | Type       | Mandatory or Not | Description                                                                                                                                                                                                                           |
|-------|-----------|------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.2.3 | result    | String (8) | Yes              | This parameter is used to calculate the score. A maximum of eight digits before the decimal point, and two decimal places are allowed.<br><br>Score = Weight of the operation score x Question score/100 x UEBA score (100-point)/100 |

## Response Description

- **Status code: 200**

**Table 8-18** Response body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                              |
|-----|-----------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------|
| 1   | rtnCode   | String | Yes              | Return code. The value <b>0</b> indicates that the interface is invoked successfully, and other values indicate failure. |
| 2   | rtnMsg    | String | Yes              | Description of the message returned by the interface.                                                                    |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 403**  
Authentication fails.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

- None

## Example

Request header:

```
{
 "Content-Type": application/json
 "x-app-key": *****
 "Authorization": Bearer *****
 "totalScore": 90
 "quotiety": 80
}
```

Request parameters:

```
{
 "params": {
 "exam_id": "1247589060755793923",
 "param": {
 "code": "0",
 "result": "100.0",
 "msg": "Processing succeeded"
 }
 }
}
```

Response parameters:

```
{
 "rtnMsg": "query success!",
 "rtnCode": "0"
}
```

# 9 iKBS Interface Reference

---

[9.1 Authentication](#)

[9.2 Interface Description](#)

## 9.1 Authentication

### 9.1.1 SIA Authentication

SIA authentication is to call the SIA interface to obtain a token and add the token to the message header when the CC-iKBS interface is requested for identity authentication.

#### Scenario

When this interface is invoked, the authentication token and token expiration time are generated based on the JWT and domain in request parameters. The token must be carried when the CC-iKBS interface is invoked to pass the identity authentication.

#### Usage Description

- Prerequisites
  - SIA information has been configured in the developer environment.

**In `servicecloud.base.properties`:**

```
restapi.sia.tokenDeliveryServer=
restapi.sia.serviceName=
```

**In `servicecloud.security.properties`:**

```
restapi.sia.encJwtContent=
restapi.sia.encKey4JwtContent=
```

#### Method

POST

## URI

**Table 9-1** URI description

|                    |                                            |                                                                                       |
|--------------------|--------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Request URI</b> | https://ip:port/rest/sia/v1/tokens/jwt/sia | In the URL, <i>ip</i> and <i>port</i> indicate the access address of the SIA service. |
|--------------------|--------------------------------------------|---------------------------------------------------------------------------------------|

## Request Description

**Table 9-2** Parameters in request headers

| No. | Parameter    | Type   | Mandatory or Not | Default Value | Description                                                    |
|-----|--------------|--------|------------------|---------------|----------------------------------------------------------------|
| 1   | Content-Type | String | Yes              | None          | The value is fixed to <b>application/json; charset=UTF-8</b> . |

**Table 9-3** Parameters in the request body

| No. | Parameter | Type   | Mandatory or Not | Description                                                      |
|-----|-----------|--------|------------------|------------------------------------------------------------------|
| 1   | jwt       | String | Yes              | JWT password. Contact O&M personnel to obtain the password.      |
| 2   | domain    | String | Yes              | SIA service name. Contact the O&M personnel to obtain the value. |

## Response Description

**Table 9-4** Parameters in a response message

| No. | Parameter | Type   | Description           |
|-----|-----------|--------|-----------------------|
| 1   | token     | String | Authentication token. |
| 2   | expiredAt | String | Expiration time.      |

## Example

- Request  
POST https://ip:port/rest/sia/v1/tokens/jwt/sia  
Content-Type: application/json;charset=UTF-8  
{  
 "jwt": "\*\*\*\*\*",  
 "domain": "ccfsAppService"  
}
- Response  
{"token": "\*\*\*\*\*",  
 "expiredAt": "2021-03-04T03:25:57.327+0000"}

## 9.1.2 Authentication Mode of Knowledge Base Interfaces

### Obtaining an AK/SK

#### AK/SK Authentication

In AK/SK-based authentication, an AK/SK is used to sign requests and the signature is then added to the requests for authentication.

- AK: ID of the access key. It is a unique identifier that is associated with a secret access key. The AK and SK are used together to sign requests cryptographically.
- SK: secret access key that works with an AK to obtain an encrypted signature for a request, identify the sender, and prevent the request from being modified.

In AK/SK-based authentication, you can use an AK/SK to sign requests based on the signature algorithm.

#### Obtaining the Private AK/SK

- Integrated environment: Contact operations personnel to obtain it.

#### NOTE

If the interface authentication is successful, the HTTP response code 200 is returned. If the authentication fails, the HTTP response code 401 is returned.

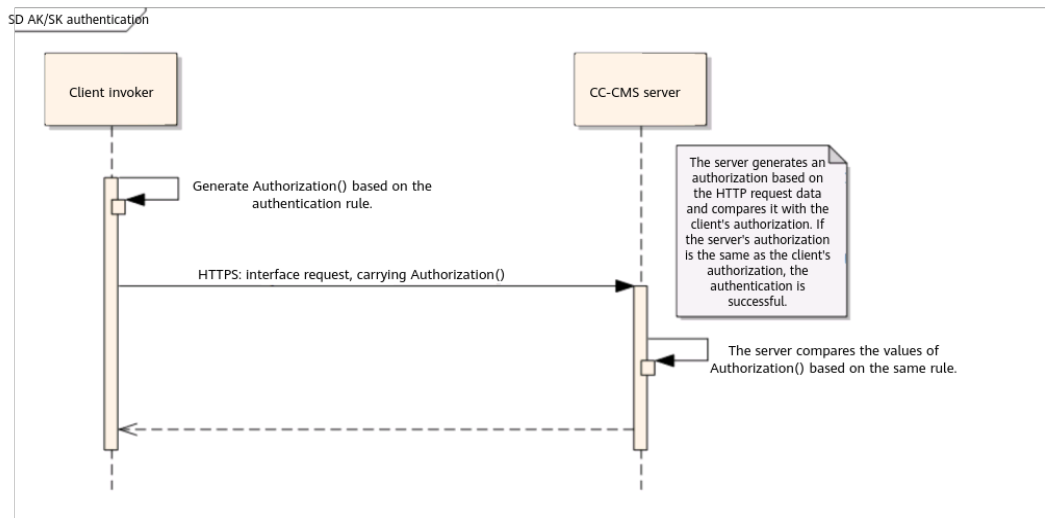
## Authentication Algorithm

### NOTICE

Assume that the CC-CMS interface is used as an example to describe the authentication algorithm. The authentication algorithms of the CC-iKBS, CC-FS, and CC-iSales are similar.

All interface servers authenticate the signature of the request data sent from the client. The authentication process is as follows.





The following is the rule for the invoker to generate **Authorization**.

### CanonicalRequest

```
$HttpMethod + "\n" +
$HttpURI + "\n" +
$HttpParameters + "\n" +
SignedHeaders($HttpHeaders) + "\n" +
CanonicalHeaders($HttpHeaders) + "\n" +
Normalize($HttpBody)
```

### SignedHeaders

Records are sorted by dictionary.

```
lowerCase($HeadName)+";"
lowerCase($HeadName)+";"
.....
lowerCase($HeadName)
```

### CanonicalHeaders

Records are sorted by dictionary.

```
Normalize (lowerCase($HeadName)+";"+Normalize($HeadValue)+"\n"
Normalize (lowerCase($HeadName)+";"+Normalize($HeadValue)+"\n"
.....
Normalize (lowerCase($HeadName)+";"+Normalize($HeadValue)
```

### Signature

```
SigningKey=Sha256Hex($SecreKey, "auth-v2/$AccessKey/$Timestamp/$SignedHeaders")
Signature=Sha256Hex($SigningKey, $CanonicalRequest)
```

***Authorization:auth-v2/\$AccessKey/\$Timestamp/\$SignedHeaders/\$Signature***

Algorithm and Rule of Each Content Segment

- **SignInfo**

 **NOTE**

This class contains some fixed **HEAD** definitions and some basic functions used to construct **CanonicalRequest** and **Signature**.

```
package com.huawei.client.rest.v2.demo.sign;

import java.io.UnsupportedEncodingException;
import java.security.InvalidKeyException;
import java.security.NoSuchAlgorithmException;
import java.text.SimpleDateFormat;
import java.util.Date;
import java.util.HashMap;
import java.util.Locale;
import java.util.Map;
import java.util.Map.Entry;
import java.util.Set;
import java.util.TimeZone;
import java.util.TreeSet;

@Setter
@Getter
public class SignInfo
{
 public static final String HEAD_AUTHORIZATION = "authorization";
 public static final String HEAD_HOST = "host";
 public static final String HEAD_CONTENT_LENGTH = "Content-Length";
 public static final String HEAD_CONTENT_TYPE = "Content-Type";
 public static final String TIMESTAMP_FORMAT = "yyyy-MM-dd'T'HH:mm:ss'Z'";

 //Retain the default setting.
 private String authVersion = "auth-v2";

 private String httpMethod;
 private String uri;

 //GET is not supported on the service side.
 private Map<String, String> queryParameters;

 private Map<String, String> signedHeaders;
 private String payload;
 private String accessKey;
 private String secretKey;
 private Date timestamp;

 public String authString() throws NoSuchAlgorithmException, InvalidKeyException,
 UnsupportedEncodingException
 {
 String authStringPrefix = this.authStringPrefix();
 String signingKey = SignerUtils.sha256Hex(this.getSecretKey(), authStringPrefix);
 String canonicalRequest = this.canonicalRequest();
 String signature = SignerUtils.sha256Hex(signingKey, canonicalRequest);
 String authString = authStringPrefix + '/' + signature;

 return authString;
 }

 public String authStringPrefix()
 {
 StringBuilder buffer = new StringBuilder();
 buffer.append(this.authVersion);
 buffer.append('/').append(this.accessKey);
 buffer.append('/').append(this.formatTimestamp());
 buffer.append('/');
 this.appendSignedHeaders(buffer);

 return buffer.toString();
 }
}
```

```
public String canonicalRequest()
{
 StringBuilder buffer = new StringBuilder();
 buffer.append(this.httpMethod).append('\n');
 buffer.append(this.uri).append('\n');

 if (this.isNotEmpty(this.queryParameters))
 {
 this.appendCanonicalQueryString(buffer);
 buffer.append('\n');
 }

 this.appendSignedHeaders(buffer);
 buffer.append('\n');

 this.appendCanonicalHeaders(buffer);
 buffer.append('\n');

 if (this.isNotEmpty(this.payload))
 {
 buffer.append(PathUtils.normalize(this.payload));
 }

 return buffer.toString();
}

private String appendSignedHeaders(StringBuilder buffer)
{
 int start = buffer.length();

 Set<String> headerNames = new TreeSet<>(this.signedHeaders.keySet());
 for (String name : headerNames)
 {
 buffer.append(name.toLowerCase(Locale.ENGLISH)).append(';');
 }
 buffer.deleteCharAt(buffer.length() - 1);

 int end = buffer.length();
 String signedHeadersStr = buffer.substring(start, end);
 return signedHeadersStr;
}

private String appendCanonicalHeaders(StringBuilder buffer)
{
 int start = buffer.length();

 Set<String> headers = new TreeSet<>();
 for (Map.Entry<String, String> entry : this.signedHeaders.entrySet())
 {
 String header = PathUtils.normalize(entry.getKey()) + ':'
 + PathUtils.normalize(entry.getValue());
 headers.add(header);
 }
 for (String header : headers)
 {
 buffer.append(header).append('\n');
 }
 buffer.deleteCharAt(buffer.length() - 1);

 int end = buffer.length();
 String canonicalHeadersStr = buffer.substring(start, end);
 return canonicalHeadersStr;
}

private void appendCanonicalQueryString(StringBuilder buffer)
{
 //Encode and sort the data.
 Set<String> sortedSet = new TreeSet<>();
 for (Map.Entry<String, String> e : this.queryParameters.entrySet())
```

```
{
 String uriEncodeKey = PathUtils.normalize(e.getKey());
 String uriEncodeValue = this.isNotEmpty(e.getValue()) ? PathUtils.normalize(e.getValue()) : "";
 sortedSet.add(uriEncodeKey + "=" + uriEncodeValue);
}

for (String e : sortedSet)
{
 buffer.append(e).append('&');
}
buffer.deleteCharAt(buffer.length() - 1);
}

private String formatTimestamp()
{
 SimpleDateFormat format = new SimpleDateFormat(SignInfo.TIMESTAMP_FORMAT);
 format.setTimeZone(TimeZone.getTimeZone("UTC"));
 return format.format(this.timestamp);
}

private boolean isEmpty(String str)
{
 if ((null == str) || str.isEmpty())
 {
 return false;
 }
 return true;
}

private <K, V> boolean isEmpty(Map<K, V> map)
{
 if ((null == map) || map.isEmpty())
 {
 return false;
 }
 return true;
}
}
```

The PathUtils tool class used by **SignInfo** is as follows:

```
package com.huawei.client.rest.v2.demo.utils;

import java.io.UnsupportedEncodingException;
import java.net.URI;
import java.net.URISyntaxException;
import java.net.URLDecoder;
import java.util.BitSet;

public class PathUtils {

 private static final String CHARSET = "UTF-8";

 private static BitSet URI_UNRESERVED_CHARACTERS = new BitSet();

 private static String[] PERCENT_ENCODED_STRINGS = new String[256];

 static {
 for (int i = 97; i <= 122; i++) {
 PathUtils.URI_UNRESERVED_CHARACTERS.set(i);
 }
 for (int i = 65; i <= 90; i++) {
 PathUtils.URI_UNRESERVED_CHARACTERS.set(i);
 }
 for (int i = 48; i <= 57; i++) {
 PathUtils.URI_UNRESERVED_CHARACTERS.set(i);
 }
 PathUtils.URI_UNRESERVED_CHARACTERS.set(45);
 PathUtils.URI_UNRESERVED_CHARACTERS.set(46);
 PathUtils.URI_UNRESERVED_CHARACTERS.set(95);
 }
}
```

```
PathUtils.URI_UNRESERVED_CHARACTERS.set(126);

for (int i = 0; i < PathUtils.PERCENT_ENCODED_STRINGS.length; i++) {
 PathUtils.PERCENT_ENCODED_STRINGS[i] = String.format("%%%%02X", new Object[]
{Integer.valueOf(i)});
}

}

public static String normalizePath(String path) {
 return PathUtils.normalize(path).replace("%2F", "/");
}

public static String normalize(String value) {
 try {
 StringBuilder builder = new StringBuilder();
 for (byte b : value.getBytes(PathUtils.CHARSET)) {
 if (PathUtils.URI_UNRESERVED_CHARACTERS.get(b & 0xFF)) {
 builder.append((char) b);
 } else {
 builder.append(PathUtils.PERCENT_ENCODED_STRINGS[(b & 0xFF)]);
 }
 }
 return builder.toString();
 } catch (UnsupportedEncodingException e) {
 throw new RuntimeException(e);
 }
}

}

/**
 * URL normalization
 *
 * @param url
 * @return
 */
public static String normalizeURL(String url) {
 try {
 return URLDecoder.decode(new URI(url).normalize().toString(), PathUtils.CHARSET);
 } catch (URISyntaxException | UnsupportedEncodingException e) {
 return url;
 }
}

}

public static void main(String[] args)
{
 System.out.println(PathUtils.normalize("123%456"));
}
}
```

- **SignedHeaders**

 **NOTE**

The invoker can selectively encode the header part in an HTTP request. The only requirement is that the **Host** field must be encoded. However, the head whose **headname** is **Authorization** cannot be involved in the encoding calculation because **Authorization** is the final authentication head field.

Note: The value of **Host** is the value of *ip:port* in the HTTPS URL of the corresponding service.

In most cases, you are advised to encode the following headers:

```
Host="10.22.26.181:28080"
Content-Length="22"
Content-Type="application/json;charset=UTF-8"
```

- Content calculation rule:

Traverse the header names in the **HttpHead** involved in encoding.

- i. Invoke the `lowerCase()` function to convert a header name to lowercase letters.
  - ii. Add a separator (;) to the end of the characters converted from the header name. A record is generated. Note that the last field is not appended with semicolons (;).
  - iii. Sort all the preceding records in alphabetical order, and then concatenate the records into a character string in sequence.
- Code implementation:

- i. Construct the map of **signedHeaders**, fill in the required field information, and invoke the `lowerCaseSignedHeaders` function to process characters.

```
//Head field for signature authentication. The host field is mandatory.
Map<String, String> signedHeaders = new HashMap<>();
signedHeaders.put(SignInfo.HEAD_HOST, CmsParameters.host);
signedHeaders.put(SignInfo.HEAD_CONTENT_LENGTH,
String.valueOf(bodyJson.getBytes("UTF-8").length));
signedHeaders.put(SignInfo.HEAD_CONTENT_TYPE, "application/json;charset=UTF-8");

//Set the authentication data interface.
SignInfo signInfo = new SignInfo();
signInfo.setAccessKey(CmsParameters.accessKey);
signInfo.setSecretKey(CmsParameters.secretKey);
signInfo.setPayload(bodyJson);
signInfo.setTimestamp(new Date());
signInfo.setHttpMethod(HttpProxyHelper.HTTP_METHOD_POST);
signInfo.setUri(httpPath);
signInfo.setSignedHeaders(lowerCaseSignedHeaders(signedHeaders));
```

For details about the complete code of the preceding function, see [a](#).

- ii. Function: `lowerCaseSignedHeaders`

```
/**
 * The signedHeaders involved in the calculation are converted.
 * @param
 * @return Map<String, String>
 */
private Map<String, String> lowerCaseSignedHeaders(Map<String, String> signedHeaders)
{
 if ((null == signedHeaders) || signedHeaders.isEmpty())
 {
 throw new IllegalArgumentException("signedHeaders can't be null.");
 }
 Map<String, String> headers = new HashMap<>();
 for (Entry<String, String> e : signedHeaders.entrySet())
 {
 String name = e.getKey();
 String value = e.getValue();
 headers.put(name.toLowerCase(Locale.ENGLISH), value.trim());
 }
 if (!signedHeaders.containsKey(SignInfo.HEAD_HOST))
 {
 throw new IllegalArgumentException("signedHeaders must has host.");
 }
 return headers;
}
```

- Example:

Example: The **HttpHead** involved in encoding are as follows:

```
Host="10.22.26.181:28080"
```

```
Content-Length="22"
```

```
Content-Type="application/json;charset=UTF-8"
```

After the processing based on the preceding rules, the result is as follows:

```
SignedHeaders=content-length;content-type;host
```

- **CanonicalHeaders**

 NOTE

The encoding rule is the same as that of **SignedHeaders**, but head value encoding is added.

- Content calculation rule:  
Traverse the header names in the **HttpHead** involved in encoding.
  - i. Invoke the `toLowerCase()` function to convert a header name to lowercase letters.
  - ii. Invoke the `NormalizePath` function to format the converted lowercase character string.
  - iii. Generate a record character string in the formatted character string `+": "+NormalizePath((Header value).trim())`.
  - iv. Sort the preceding records in alphabetical order.
  - v. Traverse the sorted records and add the character string `\n` to connect them to a long character string.

Note that `\n` is not added to the last record.

HTTP headers involved in encoding are as follows:

```
Host="10.22.26.181:28080"
```

```
Content-Length="22"
```

```
Content-Type="application/json;charset=UTF-8"
```

After the processing based on the preceding rules, **CanonicalHeaders** is as follows:

```
content-length:22\n
```

```
content-type:application%2Fjson%3Bcharset%3DUTF-8\n
```

```
host:10.22.26.181%3A28080
```

- **CanonicalRequest**

- Content calculation rule:  

```
CanonicalRequest = $HttpMethod + "\n" + $HttpURI + "\n" + $HttpParameters + "\n" +
SignedHeaders($HttpHeaders) + "\n" + CanonicalHeaders ($HttpHeaders) + "\n" +
NormalizePath($HttpBody)
```

Parameter description:

  - i. **\$HttpMethod**: GET, PUT, and POST requests defined in the HTTP protocol. The value must be in uppercase. The involved HTTP methods include GET, POST, PUT, DELETE, and HEAD. However, the CC-CMS service supports only POST.
  - ii. **\$HttpURI**: HTTP URI of the interface request. For example, if the complete URL is `https://10.22.26.181:28080/rest/cmsapp/v1/ping`, the HTTP URI is `/rest/cmsapp/v1/ping`. The HTTP URI must start with a slash (/). If the HTTP URI does not start with a slash (/), add it. If the URL is left blank, the value is a slash (/).
  - iii. **\$HttpParameters**: request parameter following the request URI. For example, if the request URI is `https://10.22.26.181:28080/rest/cmsapp/v1/ping?id=123&name=test`, the value of **\$HttpParameters** is `id=123&name=test`. Currently, this parameter does not exist in the CC-CMS interface.
  - iv. **\$HttpBody**: character string submitted to the server through the HTTP body. The character string is a standard JSON string. For details about the fields, see the definition of each interface.
- Code implementation:  
For details, see the `canonicalRequest()` function in [•SignInfo](#).

- **Generating the Character String Authorization**

- Content calculation rule:

- i. Generate **authStringPrefix** and **SigningKey**.

- 1) The rules for generating **authStringPrefix** and **SigningKey** are as follows:

```
authStringPrefix="auth-v2/{accessKey}/{timestamp}/{SignedHeaders}";
SigningKey = sha256Hex(secretKey, authStringPrefix);
```

Note:

**auth-v2**: authentication version number. In the current version, the value is fixed to **auth-v2**.

**accessKey**: authentication ID of the invoker, that is, the AK.

**secretKey**: authentication key of the invoker, that is, the SK.

**timestamp**: UTC time generated by the invoker. The time is in *yyyy-MM-dd'T'HH:mm:ss'Z'* format.

- 2) Code implementation: **authStringPrefix**

The function for generating `authStringPrefix` is implemented in the following functions of the **SignInfo** class:

```
authStringPrefix()
appendSignedHeaders(StringBuilder buffer)
```

- 3) Code implementation: **SigningKey**

For details, see `authString()` in the **SignInfo** class.

```
String signingKey = SignerUtils.sha256Hex(this.getSecretKey(), authStringPrefix);
```

For details about the **sha256Hex()** encryption algorithm, see the following tool class:

```
package com.huawei.client.rest.v2.demo.utils;

import java.io.UnsupportedEncodingException;
import java.security.InvalidKeyException;
import java.security.NoSuchAlgorithmException;

import javax.crypto.Mac;
import javax.crypto.spec.SecretKeySpec;

/**
 * Tool class for the authentication digest algorithm of RESTful interfaces
 */
public class SignerUtils {

 private static final String CHARSET = "UTF-8";
 private static final char[] DIGITS_LOWER = {'0', '1', '2', '3', '4', '5', '6', '7', '8', '9', 'a',
 'b', 'c', 'd', 'e', 'f'};

 /**
 * Digest algorithm
 * @param key
 * @param toSigned
 * @return String
 * @throws NoSuchAlgorithmException
 * @throws InvalidKeyException
 * @throws UnsupportedEncodingException
 */
 public static String sha256Hex(String key, String toSigned) throws
 NoSuchAlgorithmException, InvalidKeyException, UnsupportedEncodingException {
 Mac mac = Mac.getInstance("HmacSHA256");
 mac.init(new SecretKeySpec(key.getBytes(SignerUtils.CHARSET),
 "HmacSHA256"));
```



```
String digit = new
String(SignerUtils.encodeHex(mac.doFinal(toSigned.getBytes(SignerUtils.CHARSET))
);
return digit;
}

private static char[] encodeHex(final byte[] data) {
final int l = data.length;
final char[] out = new char[l << 1];
for (int i = 0, j = 0; i < l; i++) {
out[j++] = SignerUtils.DIGITS_LOWER[(0xF0 & data[i]) >>> 4];
out[j++] = SignerUtils.DIGITS_LOWER[0x0F & data[i]];
}
return out;
}
}
```

ii. Generate a signature.

1) Signature generation rule:

```
Signature = sha256Hex(SigningKey, CanonicalRequest)
```

2) Code implementation: The encryption function sha256Hex is included.

For details, see the implementation method of sha256Hex() in SigningKey of [c. Code implementation: SigningKey](#).

iii. Authentication character string

1) Rule for generating an authentication string:

```
Authorization:$authStringPrefix/$Signature
```

2) Code implementation: **signedHeaders** is the map constructed in the signedHeaders module.

```
//Generate a signature.
String signature = signInfo.authString();
Map<String, String> httpHeads = new HashMap<>(signedHeaders);
//Append to HTTPHEAD and send it to the server.
httpHeads.put(SignInfo.HEAD_AUTHORIZATION, signature);
```

• Example

a. Commission the first interface:

 NOTE

Authentication is necessary for commissioning an interface.

In this project, the authentication entry is the buildSignHttpHead() function. This function constructs the map of signedHeaders and transfers the map to **SignInfo**.

The authString() function in the **SignInfo** class reveals the main process of constructing the authentication character string and generates the signature.

The key component of the authentication string is the signature. Other information concatenation functions are also included in the **SignInfo** class.

Define **BaseRequest**.

```
package com.huawei.client.rest.v2.demo.base;

@Setter
@Getter
public class BaseRequest
{
private RequestHeader request;

private Object msgBody;

public BaseRequest(Object body)
```

```
{
 this.request = new RequestHeader();
 this.msgBody = body;
}

public BaseRequest(RequestHeader head, Object body)
{
 this.request = head;
 this.msgBody = body;
}

public RequestHeader getRequest()
{
 return this.request;
}

public void setRequest(RequestHeader request)
{
 this.request = request;
}

public Object getMsgBody()
{
 return this.msgBody;
}

public void setMsgBody(Object msgBody)
{
 this.msgBody = msgBody;
}
}
```

**RequestHeader** is as follows:

```
package com.huawei.client.rest.v2.demo.base;

public class RequestHeader
{
 /**
 * Version
 */
 private String version = "2.0";

 public String getVersion()
 {
 return this.version;
 }

 public void setVersion(String version)
 {
 this.version = version;
 }
}
```

Define **BaseResponse**.

```
package com.huawei.client.rest.v2.demo.base;

@Setter
@Getter
public class BaseResponse
{
 final static int SUCCESS = 0;

 private ResponseHead resultHead;

 private Object resultData;
}
```

```
public BaseResponse()
{
}

public BaseResponse(String resultCode, String resultMsg, Object resultData)
{
 this.resultHead = new ResponseHead(resultCode, resultMsg);
 this.resultData = resultData;
}

public BaseResponse(ResponseHead resultHead, Object resultData)
{
 this.resultHead = resultHead;
 this.resultData = resultData;
}
}
```

**ResponseHead** is as follows:

```
package com.huawei.client.rest.v2.demo.base;

public class ResponseHead
{
 private String resultCode;

 /**
 * Response result
 */
 private String resultMsg;

 public ResponseHead()
 {
 }

 public ResponseHead(String resultCode, String resultMsg)
 {
 this.resultCode = resultCode;
 this.resultMsg = resultMsg;
 }

 public String getResultCode()
 {
 return this.resultCode;
 }

 public void setResultCode(String resultCode)
 {
 this.resultCode = resultCode;
 }

 public String getResultMsg()
 {
 return this.resultMsg;
 }

 public void setResultMsg(String resultMsg)
 {
 this.resultMsg = resultMsg;
 }
}
```

For details about the implementation of the `buildSignHttpHead()` function, see **ToolUtils**.

```
package com.huawei.client.rest.v2.demo.utils;

import java.io.BufferedReader;
import java.io.File;
import java.io.FileOutputStream;
```

```
import java.io.FileReader;
import java.io.InputStream;
import java.io.UnsupportedEncodingException;
import java.security.InvalidKeyException;
import java.security.NoSuchAlgorithmException;
import java.text.SimpleDateFormat;
import java.util.ArrayList;
import java.util.Date;
import java.util.HashMap;
import java.util.List;
import java.util.Locale;
import java.util.Map;
import com.alibaba.fastjson.JSONObject;

import com.huawei.client.rest.v2.demo.HttpProxyHelper;
import com.huawei.client.rest.v2.demo.base.BaseRequest;
import com.huawei.client.rest.v2.demo.config.CmsParameters;
import com.huawei.client.rest.v2.demo.sign.SignInfo;

/**
 * Tool class for the authentication digest algorithm of RESTful interfaces
 */
public class ToolUtils {
 /**
 * Convert character strings to files.
 * @param in
 * @param filePath
 * @param fileName
 * @return
 */
 public static boolean saveToFileByStr(InputStream in, String filePath, String fileName){
 boolean flag = true;
 if(in != null){
 try {
 //Restore the character string fileStr in the generated file to a file.

 File file=new File(filePath,fileName);
 FileOutputStream fos=new FileOutputStream(file);
 try{
 byte[] buffer = new byte[1024];
 int reader = 0;
 while ((reader = in.read(buffer)) != -1) {
 fos.write(buffer, 0, reader);
 }
 fos.flush();
 }
 finally {
 fos.close();
 in.close();
 }
 } catch (Exception e) {
 flag = false;
 e.printStackTrace();
 }
 }
 return flag;
 }

 /**
 * Enter the path of the .csv file.
 * Return the address of the original recording file that is read.
 * @param filePath
 * @return
 */
 public static List<String> readFile(String filePath){
 List<String> originalFileList = new ArrayList<String>();
 try {
 BufferedReader reader = new BufferedReader(new FileReader(filePath));
```

```
//The first line is the table header information.
reader.readLine();

String line = null;
while((line=reader.readLine())!=null){
 String item[] = line.split(",");//The CSV file is a comma-separated file.
 originalFileList.add(item[item.length-4]);
}
} catch (Exception e) {
 e.printStackTrace();
}

return originalFileList;
}

/**
 * During actual client development, BaseRequest is directly converted into a JSON string
 * based on the JSON framework.
 * @param request
 * @return String
 * @throws Exception
 */
public static String toJsonString(BaseRequest request) throws Exception
{
 JSONObject jsonObject = new JSONObject();
 StringBuilder buffer = new StringBuilder();
 buffer.append("{}");
 buffer.append("\"request\":");
 buffer.append(jsonObject.toJSONString(request.getRequest()));
 buffer.append(",");
 buffer.append("\"msgBody\":");
 buffer.append(jsonObject.toJSONString(request.getMsgBody()));
 buffer.append("{}");

 return buffer.toString();
}

/**
 * Construct authentication fields.
 * @param httpPath
 * @param bodyJson
 * @return
 * @throws InvalidKeyException
 * @throws NoSuchAlgorithmException
 * @throws UnsupportedEncodingException
 */
public Map<String, String> buildSignHttpHead(String httpPath, String bodyJson)
 throws InvalidKeyException, NoSuchAlgorithmException, UnsupportedEncodingException
{
 //Head field for signature authentication. The host field is mandatory.
 Map<String, String> signedHeaders = new HashMap<>();
 signedHeaders.put(SignInfo.HEAD_HOST, CmsParameters.host);
 signedHeaders.put(SignInfo.HEAD_CONTENT_LENGTH,
String.valueOf(bodyJson.getBytes("UTF-8").length));
 signedHeaders.put(SignInfo.HEAD_CONTENT_TYPE, "application/json;charset=UTF-8");

 //Set the authentication data interface.
 SignInfo signInfo = new SignInfo();
 signInfo.setAccessKey(CmsParameters.accessKey);
 signInfo.setSecretKey(CmsParameters.secretKey);
 signInfo.setPayload(bodyJson);
 signInfo.setTimestamp(new Date());
 signInfo.setHttpMethod(HttpProxyHelper.HTTP_METHOD_POST);
 signInfo.setUri(httpPath);
 signInfo.setSignedHeaders(this.lowerCaseSignedHeaders(signedHeaders));

 //Generate a signature.
 String signature = signInfo.authString();
 Map<String, String> httpHeads = new HashMap<>(signedHeaders);
```

```
//Append to HTTPHEAD and send it to the server.
httpHeads.put(SignInfo.HEAD_AUTHORIZATION, signature);

return httpHeads;
}

/**
 * The signedHeaders involved in the calculation are converted.
 * @param
 * @return Map<String, String>
 */
private Map<String, String> lowerCaseSignedHeaders(Map<String, String> signedHeaders)
{
 if ((null == signedHeaders) || signedHeaders.isEmpty())
 {
 throw new IllegalArgumentException("signedHeaders can't be null.");
 }
 Map<String, String> headers = new HashMap<>();
 for (Entry<String, String> e : signedHeaders.entrySet())
 {
 String name = e.getKey();
 String value = e.getValue();
 headers.put(name.toLowerCase(Locale.ENGLISH), value.trim());
 }
 if (!signedHeaders.containsKey(SignInfo.HEAD_HOST))
 {
 throw new IllegalArgumentException("signedHeaders must has host.");
 }
 return headers;
}
}
```

b. Code implementation:

■ Main function for creating a project:

```
public static void main(String[] args)
{
 HttpClientMain demo = new HttpClientMain();

 try
 {
 demo.cmsPingTest();
 }
 catch (Exception e)
 {
 e.printStackTrace();
 }
}
```

■ Main function for implementing the POST request of the interface (including authentication):

```
public void cmsPingTest() throws Exception
{
 HttpProxyHelper httpProxy = new HttpProxyHelper();
 //URL of the request interface.
 final String httpPath = "/rest/cmsapp/v1/ping";
 final String postUrl = CmsParameters.url + httpPath;
 //Construct bodyJson in the request interface.
 JSONObject jsonBody = new JSONObject();
 jsonBody.put("say", "Hello world!");
 String jsonBodyStr = JSONObject.toJSONString(jsonBody);

 //Construct authentication information.
 Map<String, String> httpHeads = ToolUtils.buildSignHttpHead(httpPath, jsonBodyStr);
 //Execute the HTTP request and obtain the returned JSON character string.
 String response = httpProxy.doPost(postUrl, httpHeads, jsonBodyStr);
 //If the interface is successfully invoked, information containing responseId is
 returned.
}
```

```
 System.out.println(response);
 }
}
```

- Main function for implementing the GET request of the interface (including authentication) (compared with the POST request, other code of the get request remains unchanged):

```
public void cmsPingTest() throws Exception
{
 HttpProxyHelper httpProxy = new HttpProxyHelper();
 //URL of the request interface.
 final String httpPath = "/rest/cmsapp/v1/ping";
 final String postUrl = CmsParameters.url + httpPath;
 //GET request parameters
 Map<String, String> queryParameters = new HashMap<>();
 //Authentication information constructed in a GET request
 Map<String, String> httpHeads = ToolUtils.buildSignHttpHead(httpPath, null,
queryParameters, HttpProxyHelper.HTTP_METHOD_GET);
 System.out.println("httpHeads:" + httpHeads);
 //Execute the HTTP request and obtain the returned JSON character string.
 String response = httpProxy.doGet(postUrl, httpHeads, queryParameters);
 //If the interface is successfully invoked, information containing responseId is
returned.
 System.out.println(response);
}
}
```

- For the implementation of the ToolUtils.toJsonString() function, the actual invoker needs to convert **BaseRequest** into a JSON string based on the JSON framework. The following is an example:

```
/**
 *During actual client development, BaseRequest is directly converted into a JSON string
based on the JSON framework.
 * @param request
 * @return String
 * @throws Exception
 */
public static String toJsonString(BaseRequest request) throws Exception
{
 JSONObject jsonObject = new JSONObject();
 StringBuilder buffer = new StringBuilder();
 buffer.append("{");
 buffer.append("\"request\":");
 buffer.append(jsonObject.toJsonString(request.getRequest()));
 buffer.append(",");
 buffer.append("\"msgBody\":");
 buffer.append(jsonObject.toJsonString(request.getMsgBody()));
 buffer.append("}");

 return buffer.toString();
}
}
```

- To implement the POST method of the HTTP request, the actual invoker can select a framework and use the POST method of its own framework.

```
package com.huawei.client.rest.v2.demo;

import java.io.BufferedInputStream;
import java.io.ByteArrayOutputStream;
import java.io.Closeable;
import java.io.IOException;
import java.io.InputStream;
import java.io.OutputStream;
import java.net.HttpURLConnection;
import java.net.URL;
import java.security.KeyManagementException;
import java.security.NoSuchAlgorithmException;
import java.security.cert.CertificateException;
import java.security.cert.X509Certificate;
import java.util.Map;
```

```
import java.util.Map.Entry;

import javax.net.ssl.HostnameVerifier;
import javax.net.ssl.HttpURLConnection;
import javax.net.ssl.SSLContext;
import javax.net.ssl.SSLSession;
import javax.net.ssl.TrustManager;
import javax.net.ssl.X509TrustManager;

public class HttpProxyHelper
{
 public static final String HTTP_METHOD_POST = "POST";

 public String doPost(String urlAddress, Map<String, String> httpHeads, String
bodyJson) throws IOException, NoSuchAlgorithmException, KeyManagementException
 {
 byte[] byteData = bodyJson.getBytes("UTF-8");
 OutputStream out = null;
 InputStream in = null;

 //Set up a connection.
 this.initHttpsURLConnection();
 URL url = new URL(urlAddress);
 HttpURLConnection httpConn = (HttpURLConnection) url.openConnection();

 //Set parameters.
 httpConn.setRequestMethod(HttpProxyHelper.HTTP_METHOD_POST);
 httpConn.setRequestProperty("Charset", "UTF-8");
 //httpConn.setRequestProperty("Content-Type", "application/json; charset=UTF-8");
 httpConn.setRequestProperty("accept", "application/json");
 //httpConn.setRequestProperty("Content-Length", String.valueOf(byteData.length));
 httpConn.setDoOutput(true);
 httpConn.setDoInput(true);
 httpConn.setUseCaches(false);
 httpConn.setConnectTimeout(20 * 1000);
 httpConn.setReadTimeout(30 * 1000);
 //Set the parameters carried by the business.
 if ((null != httpHeads) && !httpHeads.isEmpty())
 {
 for (Entry<String, String> e : httpHeads.entrySet())
 {
 httpConn.setRequestProperty(e.getKey(), e.getValue());
 }
 }

 try
 {
 //Send data.
 out = httpConn.getOutputStream();
 out.write(byteData);
 out.flush();

 //Receive data.
 int responseCode = httpConn.getResponseCode();
 if (responseCode != HttpURLConnection.HTTP_OK)
 {
 throw new RuntimeException("Failed responseCode " + responseCode);
 }

 in = httpConn.getInputStream();
 String reponseJson = this.getStreamAsString(in, "UTF-8");
 return reponseJson;
 }
 finally
 {
 this.closeStream(out);
 this.closeStream(in);
 }
 }
}
```



```
}

/**
 * Obtain a character string from a stream.
 * @param in
 * @param charset
 * @return String
 * @throws IOException
 */
private String getStreamAsString(InputStream in, String charset) throws IOException
{
 BufferedInputStream buffer = new BufferedInputStream(in);
 ByteArrayOutputStream out = new ByteArrayOutputStream();
 try
 {
 byte[] cache = new byte[512];
 int count = 0;
 while ((count = buffer.read(cache)) > 0)
 {
 out.write(cache, 0, count);
 }
 }
 finally
 {
 if (buffer != null)
 {
 buffer.close();
 }
 }

 return new String(out.toByteArray(), charset);
}

/**
 * Close a stream.
 * @param stream
 */
private void closeStream(Closeable stream)
{
 if (null != stream)
 {
 try
 {
 stream.close();
 }
 catch (Exception e)
 {
 e.printStackTrace();
 }
 }
}

private void initHttpsURLConnection() throws NoSuchAlgorithmException,
KeyManagementException
{
 SSLContext sslcontext = SSLContext.getInstance("SSL");
 HostnameVerifier hnv = new HttpsHostnameVerifier();
 sslcontext.init(null, new TrustManager[] { new HttpsTrustAnyTrustManager() }, new
java.security.SecureRandom());

 HttpsURLConnection.setDefaultSSLSocketFactory(sslcontext.getSocketFactory());
 HttpsURLConnection.setDefaultHostnameVerifier(hnv);
}

private class HttpsTrustAnyTrustManager implements X509TrustManager
{
 @Override
 public void checkClientTrusted(X509Certificate[] chain, String authType) throws
CertificateException
```

```

 {
 }

 @Override
 public void checkServerTrusted(X509Certificate[] chain, String authType) throws
CertificateException
 {
 }

 @Override
 public X509Certificate[] getAcceptedIssuers()
 {
 return new X509Certificate[] {};
 }
}

private class HttpsHostnameVerifier implements HostnameVerifier
{
 @Override
 public boolean verify(String hostname, SSLSession session)
 {
 return true;
 }
}
}

```

c. Variables:

| Variable             | Value                                                                                                   |
|----------------------|---------------------------------------------------------------------------------------------------------|
| HttpHead             | Host="10.22.26.181:28080"<br>Content-Length="22"<br>Content-Type="application/json;charset=UTF-8"       |
| accessKey            | globalaktest                                                                                            |
| secretKey            | 1qaz*****20                                                                                             |
| HttpURI              | /rest/cmsapp/v1/ping                                                                                    |
| HttpMethod           | POST                                                                                                    |
| timestamp            | 2018-10-17T11:48:24Z                                                                                    |
| HttpBody             | {"say": "Hello world!"}                                                                                 |
| SignedHeader<br>s    | content-length;content-type;host                                                                        |
| CanonicalHea<br>ders | content-length:22\n<br>content-type:application%2Fjson%3Bcharset%3DUTF-8\n<br>host:10.22.26.181%3A28080 |

| Variable         | Value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CanonicalRequest | POST\n<br>/rest/cmsapp/v1/ping\n<br>content-length;content-type;host\n<br>content-length:22\n<br>content-type:application%2Fjson%3Bcharset%3DUTF-8\n<br>host:10.22.26.181%3A28080\n<br>%7B%22request%22%3A%7B%22version%22%3A%222.0%22%7D%2C%22msgBody%22%3A%7B%22accountId%22%3A%22%22%2C%22beginTime%22%3A%222018-06-29%2010%3A42%3A49%22%2C%22endTime%22%3A%222018-07-02%2010%3A42%3A49%22%2C%22agentId%22%3A%22%22%2C%22callId%22%3A%22%22%2C%22dataType%22%3A%22call_record%22%2C%22callBackURL%22%3A%22http%3A%2F%2F10.57.118.171%3A8080%22%7D%7D |
| SigningKey       | b25b*****40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Signature        | d5a8*****2f                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Authorization    | auth-v2/globalak/2018-10-17T11:48:24Z/content-length;content-type;host/<br>d5a8*****2f                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## 9.2 Interface Description

### 9.2.1 Querying Knowledge Details

#### Scenario

This interface is invoked to query knowledge details.

#### Method

This interface supports only the POST method.

#### URI

SIA authentication: <https://ip:port/rest/ccikbs/v1/columnkngapi/queryKngDetail>

AK/SK authentication: <https://ip:port/rest/ccikbs/v1/columnkngapi/queryKngDetailByAKSK>

In the URL, *ip* and *port* indicate the machine-machine interface access address of the NSLB server.

## Request Description

**Table 9-5** Request header parameters

| No. | Parameter       | Type   | Mandatory or Not | Default Value | Description                                                                                                                                              |
|-----|-----------------|--------|------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type    | String | Yes              | None          | The value is fixed at <b>application/json; charset=UTF-8</b> (both authentication modes).                                                                |
| 2   | X-TenantSpaceID | String | Yes              | None          | Tenant ID (required for SIA authentication).                                                                                                             |
| 3   | X-Access-Token  | String | Yes              | None          | For details about the generation mode, see <a href="#">9.1.1 SIA Authentication</a> (required for SIA authentication).                                   |
| 4   | Authorization   | String | Yes              | None          | For details about the generation method, see <a href="#">9.1.2 Authentication Mode of Knowledge Base Interfaces</a> (required for AK/SK authentication). |

**Table 9-6** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Default Value | Description                                                                                                                                                                                                                                                                    |
|-----|-----------|--------|------------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | coluKngld | String | Yes              | None          | Category knowledge ID.                                                                                                                                                                                                                                                         |
| 2   | openType  | String | Yes              | None          | Ways to open a knowledge base. The options are as follows: <ul style="list-style-type: none"> <li>• <b>1</b>: quick entry</li> <li>• <b>2</b>: search</li> <li>• <b>3</b>: category</li> <li>• <b>4</b>: favorites folder</li> <li>• <b>5</b>: associated knowledge</li> </ul> |
| 3   | openKng   | String | No               | None          | Associated knowledge ID. This parameter is mandatory when <b>openType</b> is set to <b>5</b> .                                                                                                                                                                                 |

| No. | Parameter      | Type   | Mandatory or Not | Default Value | Description                                                                                                                                                                                                                                                                                                                                     |
|-----|----------------|--------|------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | searchRank     | String | No               | 1             | Sequence number of a search result. This parameter is mandatory when <b>openType</b> is set to <b>2</b> .                                                                                                                                                                                                                                       |
| 5   | searchSortType | String | No               | None          | Sorting mode of search results. This parameter is mandatory when <b>openType</b> is set to <b>2</b> . The options are as follows: <ul style="list-style-type: none"> <li>• <b>hit</b>: hit ratio</li> <li>• <b>modifyTime</b>: update time</li> <li>• <b>clickNum</b>: number of clicks</li> <li>• <b>bidRankId</b>: bidding ranking</li> </ul> |
| 6   | searchWord     | String | No               | None          | Keyword. This parameter is mandatory when <b>openType</b> is set to <b>2</b> .                                                                                                                                                                                                                                                                  |
| 7   | cclid          | Number | No               | None          | Call center ID. This parameter is mandatory for AK/SK authentication.                                                                                                                                                                                                                                                                           |
| 8   | vdn            | Number | No               | None          | VDN ID. This parameter is mandatory for AK/SK authentication.                                                                                                                                                                                                                                                                                   |

## Response Description

If this interface fails to be invoked, an error code is returned. For details about the error code data structure, see [Table 9-7](#).

**Table 9-7** Response body parameters

| No. | Parameter   | Type   | Description                                                                                                                                 |
|-----|-------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode  | String | Result code. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• <b>1</b>: failure</li> </ul> |
| 2   | description | String | Request result description.                                                                                                                 |
| 3   | data        | Object | Request result object. For details, see <a href="#">Table 9-8</a> .                                                                         |

**Table 9-8** Object parameters of data

| No.  | Parameter      | Type   | Description                                                                                                                                                                                                      |
|------|----------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.1  | relVersionNum  | String | Released version.                                                                                                                                                                                                |
| 4.2  | coluType       | String | Category type. The options are as follows: <ul style="list-style-type: none"> <li>• 1: normal category</li> <li>• 2: history category (This value is valid only when <b>coluKngType</b> is set to 1).</li> </ul> |
| 4.3  | code           | String | Node code of the category or knowledge in the category knowledge tree.                                                                                                                                           |
| 4.4  | coluKngType    | Number | Category knowledge type. The options are as follows: <ul style="list-style-type: none"> <li>• 1: category</li> <li>• 2: common knowledge</li> <li>• 3: Q&amp;A knowledge</li> </ul>                              |
| 4.5  | creationTime   | Number | Creation time.                                                                                                                                                                                                   |
| 4.6  | releaseTimes   | Number | Number of knowledge release times.                                                                                                                                                                               |
| 4.7  | orderId        | Number | Sequence number.                                                                                                                                                                                                 |
| 4.8  | kngStatus      | Number | Knowledge status. The options are as follows: <ul style="list-style-type: none"> <li>• 1: new</li> <li>• 2: reviewed</li> <li>• 3: released</li> <li>• 4: updated</li> <li>• 5: rejected</li> </ul>              |
| 4.9  | kngSize        | Number | Size of the knowledge content. The unit is KB.                                                                                                                                                                   |
| 4.10 | creatorId      | String | Creator employee ID.                                                                                                                                                                                             |
| 4.11 | modifierId     | String | Modifier employee ID.                                                                                                                                                                                            |
| 4.12 | beyondColuPath | String | Path of the category. The path of the first-level category is /.                                                                                                                                                 |
| 4.13 | coluKngName    | String | Category knowledge name.                                                                                                                                                                                         |
| 4.14 | modifyTime     | Number | Modification time.                                                                                                                                                                                               |

| No.  | Parameter         | Type   | Description                                                                                                                                                                              |
|------|-------------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.15 | validEndTime      | Number | End time of the validity period.                                                                                                                                                         |
| 4.16 | summaryInfo       | String | Summary.                                                                                                                                                                                 |
| 4.17 | serviceStatus     | Number | Business status. The options are as follows: <ul style="list-style-type: none"><li>• 1: common</li><li>• 2: hotspot</li><li>• 3: new</li><li>• 4: updated</li><li>• 5: expired</li></ul> |
| 4.18 | clickNum          | Number | Number of clicks.                                                                                                                                                                        |
| 4.19 | servicesEndTime   | Number | End time of the business validity period.                                                                                                                                                |
| 4.20 | keyword           | String | Keyword.                                                                                                                                                                                 |
| 4.21 | coluKngId         | String | Category knowledge ID.                                                                                                                                                                   |
| 4.22 | curVersionNum     | Number | Current system version.                                                                                                                                                                  |
| 4.23 | validStartTime    | Number | Start time of the validity period.                                                                                                                                                       |
| 4.24 | displayFlag       | Number | Category knowledge flag. The options are as follows: <ul style="list-style-type: none"><li>• 0: not display</li><li>• 1: display</li></ul>                                               |
| 4.25 | kngPath           | String | Knowledge path.                                                                                                                                                                          |
| 4.26 | superCode         | String | Upper-level category code.                                                                                                                                                               |
| 4.27 | beyondCoulid      | String | Category ID. The ID of the first-level category is 0.                                                                                                                                    |
| 4.28 | servicesStartTime | Number | Start time of the business validity period.                                                                                                                                              |
| 4.29 | partdbId          | String | Partition ID.                                                                                                                                                                            |

| No.  | Parameter   | Type   | Description                                                                                                        |
|------|-------------|--------|--------------------------------------------------------------------------------------------------------------------|
| 4.30 | tenantId    | String | Tenant ID.                                                                                                         |
| 4.31 | creatorName | String | Creator name.                                                                                                      |
| 4.32 | pre         | Object | Previous knowledge. For details about object parameters of this parameter, see <a href="#">Table 9-9</a> .         |
| 4.33 | next        | Object | Next knowledge. For details about object parameters of this parameter, see <a href="#">Table 9-9</a> .             |
| 4.34 | kngContent  | String | Knowledge content.                                                                                                 |
| 4.35 | kngFiles    | List   | Attachment list. For details about object parameters of this parameter, see <a href="#">Table 9-10</a> .           |
| 4.36 | relaKngs    | List   | Associated knowledge list. For details about object parameters of this parameter, see <a href="#">Table 9-11</a> . |

**Table 9-9** Object parameters of pre/next

| No. | Parameter   | Type   | Description                                                                                                                                                                         |
|-----|-------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | coluKngId   | String | Category knowledge ID.                                                                                                                                                              |
| 2   | coluKngName | String | Category knowledge name.                                                                                                                                                            |
| 3   | coluKngType | Number | Category knowledge type. The options are as follows: <ul style="list-style-type: none"> <li>• 1: category</li> <li>• 2: common knowledge</li> <li>• 3: Q&amp;A knowledge</li> </ul> |

**Table 9-10** Object parameters of kngFiles

| No. | Parameter    | Type   | Description         |
|-----|--------------|--------|---------------------|
| 1   | adjKey       | String | Attachment key.     |
| 2   | creationTime | String | Creation timestamp. |



| No. | Parameter  | Type   | Description                                                                                                                                                                                                                                             |
|-----|------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | orderId    | String | Sequence number.                                                                                                                                                                                                                                        |
| 4   | versionNum | Number | Version number.                                                                                                                                                                                                                                         |
| 5   | adjId      | String | Attachment ID.                                                                                                                                                                                                                                          |
| 6   | knId       | String | Knowledge ID.                                                                                                                                                                                                                                           |
| 7   | creatorId  | String | Creator ID.                                                                                                                                                                                                                                             |
| 8   | adjName    | String | Attachment name.                                                                                                                                                                                                                                        |
| 9   | adjClass   | Number | Attachment type. The options are as follows: <ul style="list-style-type: none"> <li>• 1: built-in (part of knowledge, such as images and flash files inserted into knowledge content)</li> <li>• 2: external (uploaded knowledge attachment)</li> </ul> |
| 10  | adjSize    | Number | File size.                                                                                                                                                                                                                                              |
| 11  | partDbId   | Number | Partition ID.                                                                                                                                                                                                                                           |
| 12  | tenantId   | String | Tenant ID.                                                                                                                                                                                                                                              |
| 13  | adjType    | String | Attachment type.                                                                                                                                                                                                                                        |

**Table 9-11** Object parameters of relaKngs

| No. | Parameter     | Type   | Description                                                                                                                                                                                    |
|-----|---------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | coluKngId     | String | Category knowledge ID.                                                                                                                                                                         |
| 2   | coluKngName   | String | Category knowledge name.                                                                                                                                                                       |
| 3   | coluKngType   | Number | Category knowledge type. The options are as follows: <ul style="list-style-type: none"> <li>• 1: category</li> <li>• 2: common knowledge</li> <li>• 3: Q&amp;A knowledge</li> </ul>            |
| 4   | serviceStatus | Number | Business status. The options are as follows: <ul style="list-style-type: none"> <li>• 1: common</li> <li>• 2: hotspot</li> <li>• 3: new</li> <li>• 4: updated</li> <li>• 5: expired</li> </ul> |

## Example

- Request header

```
Content-Type: application/json;charset=UTF-8
X-TenantSpaceID: *****
Authorization: *****
```

- Request parameters

```
{
 "coluKngId": "1286316841328705539",
 "openType": "1",
 "openKng": "1286999404577816579"
}
```

- Response parameters

```
{
 "returnCode": "0",
 "description": "success",
 "data": {
 "coluType": 1,
 "coluKngType": 2,
 "orderId": 7,
 "modifierId": "1659333863849146111",
 "modifyRemark": "",
 "modifyTime": 1659426736000,
 "recycleBinFlag": 0,
 "summaryInfo": "Summary",
 "servicesEndTime": 1662025222000,
 "keyword": "hotspot",
 "coluKngId": "1291062494307024899",
 "superCode": "001",
 "beyondColuId": "1290527839128387593",
 "indexNeedUpdate": "1",
 "relVersionNum": 1,
 "code": "001007",
 "creationTime": 1659426503000,
 "releaseTimes": 1,
 "kngStatus": 3,
 "kngSize": 1,
 "creatorId": "1659333863849146111",
 "passProcecWay": 1,
 "beyondColuPath": "/Level-1 category",
 "coluKngName": "All common knowledge",
 "validEndTime": 1662025227000,
 "serviceStatus": 2,
 "kngContent": "<p>1. Product Description > AICC Product Description Chinese and English
2. Feature Description > AICC Feature Description Chinese and English
3. AICC-Operation Guide (General) Chinese and English
4. Operation Configuration Guide Chinese and English
5. Configuration File Chinese
6. Data File Reference Chinese and English
7. AICC CC-CMS Interface Reference Chinese and English</p>",
 "clickNum": 2,
 "curVersionNum": 1,
 "validStartTime": 1659346816000,
 "displayFlag": 1,
 "kngReleaseWay": 1,
 "servicesStartTime": 1659346820000,
 "partdbId": 0,
 "tenantId": "202208016593",
 "creatorName": "caoyun0802",
 "pre": {
 "coluKngId": "1290628927894585391",
 "coluKngName": "1123",
 "coluKngType": 2
 },
 "next": {
 "coluKngId": "1291066079866519597",
 "coluKngName": "34567",
 }
 }
}
```

```
 "coluKngType": 2
 },
 "kngFiles": [
 {
 "adjKey": "ccikbs/file/202208016593/5c105100-a8fe-4244-8920-02185bab58e8",
 "creationTime": 1659426504000,
 "orderId": 1,
 "versionNum": 1,
 "adjId": "1291062496118964228",
 "kngId": "1291062494307024899",
 "creatorId": "1659333863849146111",
 "adjName": "Content20220729 (1).xlsx",
 "adjClass": 2,
 "adjSize": 9146,
 "partdbld": 0,
 "tenantId": "202208016593",
 "adjType": "xlsx"
 }
],
 "relaKngs": [
 {
 "coluKngId": "1290612589302120476",
 "coluKngName": "Collected Q&A",
 "coluKngType": 3,
 "serviceStatus": 2
 },
 {
 "coluKngId": "1290628927894585391",
 "coluKngName": "1123",
 "coluKngType": 2,
 "serviceStatus": 1
 }
]
}
```

## 9.2.2 Querying a Category

### Scenario

This interface is invoked to query category information.

### Method

This interface supports only the POST method.

### URI

SIA authentication: [https://ip:port/rest/ccikbs/v1/columnkngapi/  
queryColumnsBySuperCode](https://ip:port/rest/ccikbs/v1/columnkngapi/queryColumnsBySuperCode)

AK/SK authentication: [https://ip:port/rest/ccikbs/v1/columnkngapi/  
queryColumnsBySuperCodeByAKSK](https://ip:port/rest/ccikbs/v1/columnkngapi/queryColumnsBySuperCodeByAKSK)

In the URL, *ip* and *port* indicate the machine-machine interface access address of the NSLB server.

## Request Description

**Table 9-12** Request header parameters

| No. | Parameter       | Type   | Mandatory or Not | Default Value | Description                                                                                                                                              |
|-----|-----------------|--------|------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type    | String | Yes              | None          | The value is fixed at <b>application/json;charset=UTF-8</b> (both authentication modes).                                                                 |
| 2   | X-TenantSpaceID | String | Yes              | None          | Tenant ID (required for SIA authentication).                                                                                                             |
| 3   | X-Access-Token  | String | Yes              | None          | For details about the generation mode, see <a href="#">9.1.1 SIA Authentication</a> (required for SIA authentication).                                   |
| 4   | Authorization   | String | Yes              | None          | For details about the generation method, see <a href="#">9.1.2 Authentication Mode of Knowledge Base Interfaces</a> (required for AK/SK authentication). |

**Table 9-13** Request body parameters

| No. | Parameter    | Type   | Mandatory or Not | Default Value | Description                                                           |
|-----|--------------|--------|------------------|---------------|-----------------------------------------------------------------------|
| 1   | beyondCoulid | String | Yes              | None          | Category ID. The ID of the first-level category is <b>0</b> .         |
| 2   | cclid        | Number | No               | None          | Call center ID. This parameter is mandatory for AK/SK authentication. |
| 3   | vdn          | Number | No               | None          | VDN ID. This parameter is mandatory for AK/SK authentication.         |

## Response Description

If this interface fails to be called, the corresponding error code is returned. For details about the error code data structure, see [Table 9-14](#).

**Table 9-14** Response body parameters

| No. | Parameter   | Type   | Description                                                                                                               |
|-----|-------------|--------|---------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode  | String | Result code. The options are as follows: <ul style="list-style-type: none"> <li>0: success</li> <li>1: failure</li> </ul> |
| 2   | description | String | Request result description.                                                                                               |
| 3   | datas       | List   | Request result object. For details, see <a href="#">Table 9-15</a> .                                                      |

**Table 9-15** Object parameters of datas

| No. | Parameter      | Type   | Description                                                                         |
|-----|----------------|--------|-------------------------------------------------------------------------------------|
| 1   | coluKngId      | String | Category knowledge ID.                                                              |
| 2   | coluKngName    | String | Category knowledge name.                                                            |
| 3   | coluKngType    | String | Category knowledge type.                                                            |
| 4   | beyondColuld   | Number | Category ID. The ID of the first-level category is 0.                               |
| 5   | beyondColuPath | Number | Path of the category. The path of the first-level category is /.                    |
| 6   | coluType       | Number | Category type.                                                                      |
| 7   | code           | Number | Category code. Code of a category or knowledge node in the category knowledge tree. |
| 8   | superCode      | Number | Upper-level category code.                                                          |
| 9   | id             | String | AppCube ID.                                                                         |

## Example

- Request header  
Content-Type: application/json;charset=UTF-8  
X-TenantSpaceID: \*\*\*\*\*  
Authorization: \*\*\*\*\*
- Request parameters  
{  
  "beyondColuld": "0"  
}
- Response parameters  
{  
  "returnCode": "0",

```

"description": "success",
"datas": [
 {
 "coluKngName": "lzd0916 parent category",
 "code": "001",
 "coluType": 1,
 "coluKngType": 1,
 "superCode": "-1",
 "id": "caBE00000wqY7oYeYPA",
 "beyondColuId": "0",
 "beyondColuPath": "/",
 "coluKngId": "63e3e4b42c94482b95e04e911f497fbb"
 }
]
}

```

## 9.2.3 Querying the Knowledge List

### Scenario

This interface is invoked to query the knowledge list.

### Method

This interface supports only the POST method.

### URI

SIA authentication: <https://ip:port/rest/ccikbs/v1/columnkngapi/advancedSearch>

AK/SK authentication: <https://ip:port/rest/ccikbs/v1/columnkngapi/advancedSearchByAKSK>

In the URL, *ip* and *port* indicate the machine-machine interface access address of the NSLB server.

### Request Description

**Table 9-16** Request header parameters

| No. | Parameter       | Type   | Mandatory or Not | Default Value | Description                                                                                                            |
|-----|-----------------|--------|------------------|---------------|------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type    | String | Yes              | None          | The value is fixed at <b>application/json; charset=UTF-8</b> (both authentication modes).                              |
| 2   | X-TenantSpaceID | String | Yes              | None          | Tenant ID (required for SIA authentication).                                                                           |
| 3   | X-Access-Token  | String | Yes              | None          | For details about the generation mode, see <a href="#">9.1.1 SIA Authentication</a> (required for SIA authentication). |

| No. | Parameter     | Type   | Mandatory or Not | Default Value | Description                                                                                                                                              |
|-----|---------------|--------|------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | Authorization | String | Yes              | None          | For details about the generation method, see <a href="#">9.1.2 Authentication Mode of Knowledge Base Interfaces</a> (required for AK/SK authentication). |

**Table 9-17** Request body parameters

| No. | Parameter   | Type   | Mandatory or Not | Default Value | Description                                                                                                                                                                                              |
|-----|-------------|--------|------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | keyword     | String | Yes              | None          | Keyword.                                                                                                                                                                                                 |
| 2   | offset      | Number | Yes              | None          | Pagination query offset. The default value is <b>0</b> , indicating no offset.                                                                                                                           |
| 3   | limit       | Number | Yes              | None          | Maximum number of records on a page during pagination query.                                                                                                                                             |
| 4   | code        | String | No               | None          | Code of a category or knowledge node in the category knowledge tree.                                                                                                                                     |
| 5   | coluKngType | String | No               | None          | Category knowledge type. The options are as follows: <ul style="list-style-type: none"> <li>• <b>1</b>: category</li> <li>• <b>2</b>: common knowledge</li> <li>• <b>3</b>: Q&amp;A knowledge</li> </ul> |
| 6   | startTime   | Number | No               | None          | Start time (timestamp).                                                                                                                                                                                  |
| 7   | endTime     | Number | No               | None          | End time (timestamp).                                                                                                                                                                                    |
| 8   | cclId       | Number | No               | None          | Call center ID. This parameter is mandatory for AK/SK authentication.                                                                                                                                    |

| No. | Parameter | Type   | Mandatory or Not | Default Value | Description                                                   |
|-----|-----------|--------|------------------|---------------|---------------------------------------------------------------|
| 9   | vdn       | Number | No               | None          | VDN ID. This parameter is mandatory for AK/SK authentication. |

## Response Description

If this interface fails to be called, the corresponding error code is returned. For details about the error code response data structure, see [Table 9-18](#).

**Table 9-18** Response body parameters

| No. | Parameter   | Type   | Description                                                                                                               |
|-----|-------------|--------|---------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode  | String | Result code. The options are as follows: <ul style="list-style-type: none"> <li>0: success</li> <li>1: failure</li> </ul> |
| 2   | description | String | Request result description.                                                                                               |
| 3   | data        | Object | Request result object. For details, see <a href="#">Table 9-19</a> .                                                      |

**Table 9-19** Object parameters of data

| No. | Parameter | Type   | Description                                                                             |
|-----|-----------|--------|-----------------------------------------------------------------------------------------|
| 1   | total     | String | Number of query records.                                                                |
| 2   | results   | List   | For details about object parameters of this parameter, see <a href="#">Table 9-20</a> . |

**Table 9-20** Object parameters of results

| No. | Parameter | Type   | Description                                                          |
|-----|-----------|--------|----------------------------------------------------------------------|
| 1   | adjs      | String | Category knowledge attachment.                                       |
| 2   | code      | String | Code of a category or knowledge node in the category knowledge tree. |



| No. | Parameter      | Type   | Description                                                                                                                                                                                    |
|-----|----------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | coluKngType    | String | Category knowledge type. The options are as follows: <ul style="list-style-type: none"> <li>• 1: category</li> <li>• 2: common knowledge</li> <li>• 3: Q&amp;A knowledge</li> </ul>            |
| 4   | orderId        | String | Sequence number.                                                                                                                                                                               |
| 5   | creatorId      | String | Creator employee ID.                                                                                                                                                                           |
| 6   | modifierId     | String | Modifier employee ID.                                                                                                                                                                          |
| 7   | creatorName    | String | Creator name.                                                                                                                                                                                  |
| 8   | beyondColuPath | String | Path of the category. The path of the first-level category is /.                                                                                                                               |
| 9   | contentInfo    | String | Knowledge content.                                                                                                                                                                             |
| 10  | coluKngName    | String | Category knowledge name.                                                                                                                                                                       |
| 11  | modifyTime     | Number | Modification time.                                                                                                                                                                             |
| 12  | validEndTime   | Number | End time of the validity period.                                                                                                                                                               |
| 13  | summaryInfo    | String | Summary.                                                                                                                                                                                       |
| 14  | serviceStatus  | Number | Business status. The options are as follows: <ul style="list-style-type: none"> <li>• 1: common</li> <li>• 2: hotspot</li> <li>• 3: new</li> <li>• 4: updated</li> <li>• 5: expired</li> </ul> |
| 15  | clickNum       | Number | Number of clicks.                                                                                                                                                                              |
| 16  | keyword        | String | Keyword.                                                                                                                                                                                       |
| 17  | coluKngId      | String | Category knowledge ID.                                                                                                                                                                         |
| 18  | curVersionNum  | Number | Current system version.                                                                                                                                                                        |
| 19  | validStartTime | Number | Start time of the validity period.                                                                                                                                                             |

| No. | Parameter    | Type   | Description                    |
|-----|--------------|--------|--------------------------------|
| 20  | kngPath      | String | Knowledge path.                |
| 21  | superCode    | String | Upper-level category code.     |
| 22  | beyondColuld | String | Parent category ID.            |
| 23  | createTime   | Number | Creation time.                 |
| 24  | kngAdj       | String | Category knowledge attachment. |
| 25  | tenantId     | String | Tenant space ID.               |

## Example

- Request header**  
 Content-Type: application/json;charset=UTF-8  
 X-TenantSpaceID: \*\*\*\*\*  
 Authorization: \*\*\*\*\*
- Request parameters**

```
{
 "keyword": "001",
 "offset": 0,
 "limit": 10,
 "code": "001",
 "coluKngType": "2",
 "startTime": 1658474893000,
 "endTime": 1658820502000
}
```
- Response parameters**

```
{
 "returnCode": "0",
 "description": "success",
 "data": {
 "total": 1,
 "results": [
 {
 "adjs": null,
 "code": "001004",
 "coluKngType": 2,
 "orderId": 3,
 "creatorId": "1662469040313943431",
 "modifierId": "1662469040313943431",
 "creatorName": "lzd0906003",
 "beyondColuPath": "/lzd0916 parent category",
 "contentInfo": "Business knowledge",
 "coluKngName": "Knowledge in the lzd parent category 0916005001",
 "modifyTime": "20220916153223",
 "validEndTime": "2022-12-16 14:22:34",
 "summaryInfo": "",
 "serviceStatus": 1,
 "clickNum": 0,
 "keyword": "",
 "coluKngId": "342ffe28003147f28b47da7d729d10e5",
 "curVersionNum": 1,
 "validStartTime": "2022-09-16 14:22:34",
 "kngPath": null,

```

```
"superCode": "001",
"beyondColuld": "63e3e4b42c94482b95e04e911f497fbb",
"createTime": "2022-09-16 15:32:00",
"kngAdj": null,
"tenantId": "202209065604"
 }
] }
}
```

## 9.2.4 Querying an Attachment Download Address

### Scenario

This interface is invoked to query an attachment download address.

### Method

This interface supports only the POST method.

### URI

SIA authentication: `https://ip:port/rest/ccikbs/v1/knowledge/download`

AK/SK authentication: `https://ip:port/rest/ccikbs/v1/knowledge/downloadByAKSK`

In the URL, *ip* and *port* indicate the machine-machine interface access address of the NSLB server.

### Request Description

Table 9-21 Request header parameters

| No. | Parameter       | Type   | Mandatory or Not | Default Value | Description                                                                                                                                              |
|-----|-----------------|--------|------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type    | String | Yes              | None          | The value is fixed at <b>application/json;charset=UTF-8</b> (both authentication modes).                                                                 |
| 2   | X-TenantSpacelD | String | Yes              | None          | Tenant ID (required for SIA authentication).                                                                                                             |
| 3   | X-Access-Token  | String | Yes              | None          | For details about the generation mode, see <a href="#">9.1.1 SIA Authentication</a> (required for SIA authentication).                                   |
| 4   | Authorization   | String | Yes              | None          | For details about the generation method, see <a href="#">9.1.2 Authentication Mode of Knowledge Base Interfaces</a> (required for AK/SK authentication). |

**Table 9-22** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Default Value | Description                                                                                                                                                                                                                                                          |
|-----|-----------|--------|------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | kngld     | String | Yes              | None          | Knowledge ID. The value is the same as that of <b>AICC_kngld_CST</b> in a data table of the AppCube database. Query the <b>AICC_Ikbs_Kngadjedit_CST</b> , <b>AICC_Ikbs_Columnknghis_CST</b> , or <b>AICC_Ikbs_Kngadjpre_CST</b> table based on the knowledge status. |
| 2   | fileKey   | String | Yes              | None          | File ID. The value is the same as that of <b>AICC_adjKey_CST</b> in a data table of the AppCube database. Query the <b>AICC_Ikbs_Kngadjedit_CST</b> , <b>AICC_Ikbs_Columnknghis_CST</b> , or <b>AICC_Ikbs_Kngadjpre_CST</b> table based on the knowledge status.     |
| 3   | cclid     | Number | No               | None          | Call center ID. This parameter is mandatory for AK/SK authentication.                                                                                                                                                                                                |
| 4   | vdn       | Number | No               | None          | VDN ID. This parameter is mandatory for AK/SK authentication.                                                                                                                                                                                                        |

## Response Description

If this interface fails to be called, the corresponding error code is returned. For details about the error code response data structure, see [Table 9-23](#).

**Table 9-23** Response body parameters

| No. | Parameter   | Type   | Description                                                                                                               |
|-----|-------------|--------|---------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode  | String | Result code. The options are as follows: <ul style="list-style-type: none"> <li>0: success</li> <li>1: failure</li> </ul> |
| 2   | description | String | Request result description.                                                                                               |
| 3   | data        | Object | Request result object. For details, see <a href="#">Table 9-19</a> .                                                      |

**Table 9-24** Object parameters of data

| No. | Parameter | Type   | Description                                                                |
|-----|-----------|--------|----------------------------------------------------------------------------|
| 1   | url       | String | OBS address from which the current knowledge attachment can be downloaded. |

## Example

- Request header  
Content-Type: application/json;charset=UTF-8  
X-TenantSpaceID: \*\*\*\*\*  
Authorization: \*\*\*\*\*
- Request parameters  
{  
  "fileKey": "1286999405181796356",  
  "kngld": "1286999404577816579"  
}
- Response parameters  
{  
  "returnCode": "0",  
  "description": "success",  
  "url": "https://aicc-develop-lab.obs.cn-north-1.myhuaweicloud.com:443/ccikbs/file/202209065604/9bda03e5-a538-404a-b719-869575b56edd?AccessKeyId=22QW\*\*\*\*\*B0GF&Expires=1665650432&Signature=tQMT\*\*\*\*\*pE%3D"  
}

# 10 Chatbot Management Interface Reference

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- [10.1 Overview](#)
- [10.2 Domain Query Interface](#)
- [10.3 Dialog ID Binding Interfaces](#)
- [10.4 Flow Query Interface](#)
- [10.5 Dialog Interfaces](#)
- [10.6 Dialog Interfaces \(V2\)](#)
- [10.7 Interaction Record Query Interface](#)
- [10.8 Session Record Query Interface](#)
- [10.9 FAQ Configuration Interface](#)
- [10.10 Intention List Query Interface](#)
- [10.11 Dedicated Interfaces for Silent Agents](#)
- [10.12 Interface for Pushing Packet Capture Recording Request Results](#)
- [10.13 Spelling Check Interface](#)
- [10.14 Specifications of the Interface for Connecting the ODFS to a Third-Party Robot System](#)
- [10.15 Statistics Report](#)
- [10.16 Querying the Offline Analysis of Outbound Call Failure Causes](#)
- [10.17 Intelligent Case Interface](#)
- [10.18 Interface for Querying the Recordings of Calls Transferred to a Third Party](#)
- [10.19 Semantic Recognition Interface](#)
- [10.20 GTS RPA Integration Interfaces](#)
- [10.21 Interface for Generating TTS Voices Based on Texts](#)

[10.22 Offline Conversion Callback Interface](#)[10.23 Health Check Interface](#)

## 10.1 Overview

The Online Intelligent Assistant Platform (OIAP) provides interfaces for the interactive voice response (IVR), chat app, CSP, or CEC to meet the requirements of intelligent interaction scenarios.

### NOTE

*IP:PORT* in all URLs indicates the IP address and port number of the OIAP on the NSLB.

### Typical Interaction Sequence

- Step 1 Obtain the token.  
Check whether the OIAP needs to interconnect with an internal system (such as the CEC or CSP) or a tenant (third-party system).  
If a third-party system needs to be interconnected, obtain a token using the tenant ID ([4.4 C3 OIAP Interface Authentication](#)) and invoke the interface within the token validity period. The obtained token must be transferred for each interface invocation.  
If an internal system (the CEC or CSP) needs to be interconnected, obtain a token using the default user specified for system interconnection ([4.4 C3 OIAP Interface Authentication](#)) and invoke the interface within the token validity period. The obtained token must be transferred for each interface invocation.
- Step 2 Establish the binding relationship with the OIAP.
- After a token is obtained, a third-party system can query activated domains ([10.2 Domain Query Interface](#)) based on the tenant and language information and bind third-party access codes to domains ([10.3.1 Interface for Querying Dialog ID Binding Relationships](#)).
- Step 3 Complete the dialog interaction.  
After the access codes are bound to domains in the OIAP, the dialog interfaces ([10.5 Dialog Interfaces](#)) of the OIAP can be invoked for dialog interaction, for example, initialization, voice playing, call transfer, and hang-up.

### Common Error Codes

**Table 10-1** Common error codes

| Error Code | Description                                                             |
|------------|-------------------------------------------------------------------------|
| 900001     | No token information exists or the token has expired.                   |
| 900002     | Failed to check the token information.                                  |
| 10000001   | Internal error, which is usually caused by an application system fault. |

| Error Code | Description                                                                               |
|------------|-------------------------------------------------------------------------------------------|
| 10000002   | The parameter is incorrect. Generally, the request does not provide all mandatory fields. |
| 10000006   | The interface input parameter with the same name already exists.                          |
| 10000007   | The interface output parameter with the same name already exists.                         |
| 10000008   | The interface header parameter with the same name already exists.                         |
| 10000003   | The parameter does not exist. You must enter the parameter.                               |
| 10000004   | The parameter already exists in the system and cannot be used again.                      |
| 20000001   | The flow in the released state cannot be modified.                                        |
| 20000002   | The flow name already exists.                                                             |
| 20000003   | Failed to delete the node. The node is referenced by another flow.                        |
| 20000004   | Failed to delete the variable. The variable is referenced by a flow or template.          |
| 20000005   | Failed to modify the variable. The original variable is referenced by a flow or template. |
| 20000006   | The file path does not exist.                                                             |
| 20000007   | An I/O exception occurred. Failed to read the file stream.                                |
| 20000008   | An error occurred when updating data.                                                     |
| 200900002  | Internal error, which is usually caused by an application system fault.                   |
| 200900003  | The parameter is incorrect. Generally, the request does not provide all mandatory fields. |
| 200800001  | The key does not exist.                                                                   |
| 200800002  | The key is incorrect.                                                                     |
| 200800003  | The account is locked.                                                                    |



## 10.2 Domain Query Interface

### Description

The OIAP provides an interface for third-party systems to query activated domain information in the intelligent interaction system.

### Interface Method

POST

### URL

https://IP:PORT/oifde/rest/api/querydomaininfo

### Request

**Table 10-2** Parameter in the request header

| No. | Parameter    | Type   | Mandatory | Description                                                    |
|-----|--------------|--------|-----------|----------------------------------------------------------------|
| 1   | Content-Type | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> . |

**Table 10-3** Parameters in the request body

| Parameter | Type   | Position | Mandatory | Description |
|-----------|--------|----------|-----------|-------------|
| tenantId  | String | Body     | Yes       | Tenant ID.  |

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------|--------|----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| language  | String | Body     | No        | <p>Language. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>zh_CN</b>: Chinese</li> <li>• <b>en_US</b>: English</li> <li>• <b>es_ES</b>: Spanish</li> <li>• <b>ar</b>: Arabic</li> <li>• <b>fr_FR</b>: French</li> </ul> <p>If this parameter is left blank or set to "", domains in all languages are returned. If a language is specified, only domains in the specified language are returned.</p> |
| authToken | String | Body     | Yes       | <p>Authentication token.</p> <p>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a>.</p>                                                                                                                                                                                                                                                                                                                         |

## Response

| Parameter | Type     | Position | Mandatory | Description                                                                                                                                                                                        |
|-----------|----------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| errorCode | Integer  | Body     | Yes       | <p>Error code.</p> <ul style="list-style-type: none"> <li>• <b>0</b> or <b>null</b>: success</li> <li>• Other values: failure</li> </ul> <p>The status code <b>200</b> also indicates success.</p> |
| errorMsg  | String   | Body     | No        | Error description.                                                                                                                                                                                 |
| domains   | domain[] | Body     | Yes       | Domain information, which is generated in array format.                                                                                                                                            |

**Table 10-4** domain

| Parameter  | Type    | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------|---------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| tenantId   | String  | Body     | Yes       | Tenant ID.                                                                                                                                                                                                                                                                                                                                                                                                           |
| domainId   | Integer | Body     | Yes       | Domain ID.                                                                                                                                                                                                                                                                                                                                                                                                           |
| domainName | String  | Body     | Yes       | Domain name.                                                                                                                                                                                                                                                                                                                                                                                                         |
| language   | String  | Body     | Yes       | <p>Language. The options are as follows:</p> <ul style="list-style-type: none"> <li>● <b>zh_CN</b>: Chinese</li> <li>● <b>en_US</b>: English</li> <li>● <b>es_ES</b>: Spanish</li> <li>● <b>ar</b>: Arabic</li> <li>● <b>fr_FR</b>: French</li> </ul> <p>If this parameter does not exist, domains in all languages are returned. If this parameter exists, only domains in the specified language are returned.</p> |

## Example

- Request

```
{
 "tenantId":"202104237142",
 "language":"en_US",
 "authToken":"w*****"
}
```

- Response

```
{
 "errorCode" : 0, // Error code, which is an integer. If no error is reported, the value is 0.
 "errorMsg" : "", // Error message, which is a string. If no error is reported, this parameter is left blank.
 "domains" : [{ // Domain list, which is an object array.
 "tenantId":"tenant0001", // Tenant ID, which is a string.
 "domainId": 10079, // Domain ID, which is an integer.
 "domainName":"Shanxi flow" // Domain name, which is a string.
 "language" : "en_US"// Language, which is a string. (Currently, zh_CN, en_US, es_ES, and ar are supported.)
 }, {

 }]
}
```

## 10.3 Dialog ID Binding Interfaces

The IVN provides interfaces for third-party systems to add, delete, modify, and query binding relationships between dialog IDs and tenants and domains.

### 10.3.1 Interface for Querying Dialog ID Binding Relationships

#### Description

This interface is used to query the session ID binding relationships.

#### Interface Method

POST

#### URL

https://IP:PORT/oifde/rest/api/querynavigationinfo

#### Request

**Table 10-5** Parameters in the message body

| Parameter  | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                          |
|------------|--------|----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| tenantId   | String | Body     | Yes       | Tenant ID.                                                                                                                                                                                                                                           |
| accessCode | String | Body     | No        | Access ID. If this parameter is not passed, all binding relationships of the tenant are queried. If this parameter is passed, the <b>pageNum</b> and <b>pageSize</b> parameters need to be passed. The value can contain a maximum of 20 characters. |
| pageNum    | String | Body     | Yes       | Page number. Number of the page to be queried. The value <b>1</b> is for the first page.                                                                                                                                                             |

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                   |
|-----------|--------|----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| pageSize  | String | Body     | Yes       | Number of records on each page.<br>The value can be <b>5, 10, 20, 50, or 100</b> .                                                                                                                                                                                                                            |
| authToken | String | Body     | Yes       | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> .                                                                                                                                                                                                              |
| source    | String | Body     | No        | Source device that initiates a dialog. <ul style="list-style-type: none"> <li>• <b>IVR</b>: IVR flow</li> <li>• <b>OIFDE</b>: intelligent flow configured by the ODFS</li> <li>• If this parameter is not passed, the IVR is queried by default.</li> </ul> The value can contain a maximum of 64 characters. |

## Response

| Parameter      | Type         | Position | Mandatory | Description                                                                                                                                   |
|----------------|--------------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| errorCode      | Integer      | Body     | No        | Error code.<br>If the operation is successful, no error code is returned.<br>If the operation fails, see <a href="#">Common Error Codes</a> . |
| errorMsg       | String       | Body     | No        | Error description.                                                                                                                            |
| total          | Long         | Body     | Yes       | Total number of records.                                                                                                                      |
| accessInfoList | accessInfo[] | Body     | Yes       | Dialog binding relationship list in an array.                                                                                                 |

**Table 10-6** accessInfo

| Parameter          | Type    | Position | Mandatory | Description                                                                                                                                                                                           |
|--------------------|---------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| accessId           | String  | Body     | Yes       | Internal sequence number.                                                                                                                                                                             |
| tenantId           | String  | Body     | Yes       | Tenant ID.                                                                                                                                                                                            |
| accessCode         | String  | Body     | Yes       | Access code (called number).                                                                                                                                                                          |
| domainId           | Integer | Body     | No        | Domain ID.                                                                                                                                                                                            |
| dialogType         | Integer | Body     | Yes       | Dialog type. <ul style="list-style-type: none"> <li>• <b>1</b>: voice navigation</li> <li>• <b>2</b>: intelligent outbound call</li> <li>• <b>3</b>: chatbot</li> <li>• <b>4</b>: IVR flow</li> </ul> |
| flowCode           | String  | Body     | No        | Flow code.                                                                                                                                                                                            |
| flowName           | String  | Body     | No        | Flow name.                                                                                                                                                                                            |
| description        | String  | Body     | No        | Description.                                                                                                                                                                                          |
| source             | String  | Body     | No        | Source device that initiates a dialog. <ul style="list-style-type: none"> <li>• <b>IVR</b>: IVR flow</li> <li>• <b>OIFDE</b>: intelligent flow configured by the ODFS</li> </ul>                      |
| chatBotName        | String  | Body     | No        | Chatbot name.                                                                                                                                                                                         |
| usingRecordService | Integer | Body     | No        | Whether to use VoiceCyber for recording. <ul style="list-style-type: none"> <li>• <b>0</b>: VoiceCyber recording is disabled.</li> <li>• Other values: VoiceCyber recording is enabled.</li> </ul>    |

## Example

- Request

```
{
 "tenantId": "tenant001",
```

```
"accessCode": "10086" ,
"pageNum": "1" ,
"pageSize": "10" ,
"authToken": "Odbe1*****b505de" ,
"source": "OIFDE"
}
```

- Response

```
{
 "total": 2, // Total number of records, which is of the long type.
 "accessInfoList" : [{ // Dialog binding relationship list, which is an object array.
 "accessId": "100001", // Internal sequence number, which is a string.
 "tenantId": "tenantId001", // Tenant ID, which is a string.
 "accessCode": "10086", // Access ID, which is a string.
 "domainId": 10001, // Domain ID, which is an integer.
 "dialogType": 1, // Dialog type, which is an integer.
 "flowCode": "flowxxxxx", // Flow code, which is a string.
 "description": "", // Source device that initiates a dialog, which is a string.
 "source": "OIFDE", // Description, which is a string.
 "chatBotName": "10086", // Robot name, which is a string.
 "usingRecordService": 0 // VoiceCyber recording is disabled. The value is an integer.
 }],
 ...
}]
}
```

## 10.3.2 Interface for Adding Dialog ID Binding Relationships

### Description

This interface is used to add dialog ID binding.

### Interface Method

POST

### URL

https://IP:PORT/oifde/rest/api/createnavigationinfo

### Request

**Table 10-7** Parameters in the request body

| Parameter | Type   | Position | Mandatory | Description |
|-----------|--------|----------|-----------|-------------|
| tenantId  | String | Body     | Yes       | Tenant ID.  |

| Parameter  | Type    | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------|---------|----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| accessCode | String  | Body     | No        | <p>Access ID. If this parameter is not passed, the system automatically generates an access ID.</p> <ul style="list-style-type: none"> <li>In the OP scenario, if <b>source</b> is left empty or set to <b>IVR</b>, this parameter is mandatory, and the value can contain a maximum of 20 characters.</li> <li>In the SaaS scenario, if <b>createFlag</b> is not empty, the access code generated by the system is used, and this parameter is optional.</li> <li>In the SaaS scenario, if <b>createFlag</b> is empty, this parameter is mandatory, and the value is a string of 9 to 24 characters.</li> </ul> |
| domainId   | Integer | Body     | No        | Domain ID.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| dialogType | Integer | Body     | Yes       | <p>Dialog type.</p> <ul style="list-style-type: none"> <li><b>1</b>: voice navigation</li> <li><b>2</b>: intelligent outbound call</li> <li><b>3</b>: chatbot</li> <li><b>4</b>: IVR flow</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                             |
| flowCode   | String  | Body     | Yes       | Flow code.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |



| Parameter   | Type   | Position | Mandator<br>y | Description                                                                                                                                                                                                                                       |
|-------------|--------|----------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| description | String | Body     | No            | Description.<br>Either <b>description</b> or <b>createFlag</b> must be set.<br>The value is used as the flow description in the SaaS scenario. It must be globally unique and can contain a maximum of 50 characters.                             |
| authToken   | String | Body     | Yes           | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> .                                                                                                                                                  |
| source      | String | Body     | No            | Source device that initiates a dialog. <ul style="list-style-type: none"><li>● <b>IVR</b>: IVR flow</li><li>● <b>OIFDE</b>: intelligent flow configured by the ODFS</li><li>● If this parameter is not set, the IVR is used by default.</li></ul> |

| Parameter  | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| createFlag | String | Body     | No        | <p>Creation flag.</p> <p>Either <b>description</b> or <b>createFlag</b> must be set.</p> <ul style="list-style-type: none"> <li>• <b>0</b>: In the scenario where a chatbot is added, add the binding relationship between the chatbot and flow.</li> <li>• <b>1</b>: In the scenario where flows (duplicate names are allowed) and access codes are imported, if the binding relationship is found, delete the binding relationship, and then add the binding relationship.</li> </ul> |

## Response

| Parameter | Type    | Position | Mandatory | Description                                                                                                                                                 |
|-----------|---------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| errorCode | Integer | Body     | No        | <p>Error code.</p> <p>If the operation is successful, no error code is returned.</p> <p>If the operation fails, see <a href="#">Common Error Codes</a>.</p> |
| errorMsg  | String  | Body     | No        | Error description.                                                                                                                                          |

## Example

- Request

```
{
 "tenantId": "tenant001",
```

```
"accessCode": "10086",
"domainId": 10001,
"dialogType":1,
"flowCode": "flowxxxxx",
"description": "",
"authToken": "0dbe*****b505de"
}
```

- Response  
Addition succeeded:  
No response body.  
Addition failed:

```
{
 "errorCode" : 10000, // Error code, which is an integer. The status code 200 indicates success.
 "errorMsg" : ""
}
```

### 10.3.3 Interface for Modifying Dialog ID Binding Relationships

#### Description

This interface is used to modify dialog ID binding.

#### Interface Method

POST

#### URL

<https://IP:PORT/oifde/rest/api/updatenavigationinfo>

#### Request

**Table 10-8** Parameters in the request body

| Parameter  | Type    | Position | Mandator<br>y | Description                                                     |
|------------|---------|----------|---------------|-----------------------------------------------------------------|
| tenantId   | String  | Body     | Yes           | Tenant ID.                                                      |
| accessId   | String  | Body     | Yes           | Internal sequence number of a dialog ID binding relationship.   |
| accessCode | String  | Body     | No            | Access ID.<br>The value can contain a maximum of 20 characters. |
| domainId   | Integer | Body     | No            | Domain ID.                                                      |

| Parameter   | Type    | Position | Mandatory | Description                                                                                                                                                                      |
|-------------|---------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| dialogType  | Integer | Body     | Yes       | Dialog type. <ul style="list-style-type: none"> <li>• 1: voice navigation</li> <li>• 2: intelligent outbound call</li> <li>• 3: chatbot</li> <li>• 4: IVR flow</li> </ul>        |
| flowCode    | String  | Body     | No        | Flow code.                                                                                                                                                                       |
| description | String  | Body     | Yes       | Description.                                                                                                                                                                     |
| authToken   | String  | Body     | Yes       | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> .                                                                                 |
| source      | String  | Body     | No        | Source device that initiates a dialog. <ul style="list-style-type: none"> <li>• <b>IVR</b>: IVR flow</li> <li>• <b>OIFDE</b>: intelligent flow configured by the ODFS</li> </ul> |

## Response

**Table 10-9** Parameters in the response body

| Parameter | Type    | Position | Mandatory | Description                                                                                                                                   |
|-----------|---------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| errorCode | Integer | Body     | No        | Error code.<br>If the operation is successful, no error code is returned.<br>If the operation fails, see <a href="#">Common Error Codes</a> . |
| errorMsg  | String  | Body     | No        | Error description.                                                                                                                            |

## Example

- Request

```
{
 "tenantId": "tenant001",
 "accessCode": "10086",
 "accessId": "100001",
 "domainId": 10001,
 "dialogType": 1,
 "flowCode": "flowxxxxx",
 "description": "",
 "authToken": "Odbe11*****b505de"
}
```

- Response  
Modification succeeded:  
No response body.  
Modification failed:

```
{
 "errorCode": 100000, // Error code, which is an integer. The status code 200 indicates success.
 "errorMsg": ""
}
```

### 10.3.4 Interface for Deleting Dialog ID Binding Relationships

#### Description

This interface is used to delete a dialog ID binding.

#### Interface Method

The request method must be set to POST.

#### URL

<https://IP:PORT/oifde/rest/api/deletenavigationinfo>

#### Request

**Table 10-10** Parameters in the request body

| Parameter      | Type     | Position | Mandator<br>y | Description                                                               |
|----------------|----------|----------|---------------|---------------------------------------------------------------------------|
| tenantId       | String   | body     | Yes           | Tenant ID.                                                                |
| accessIdList   | String[] | body     | Yes           | List of dialog binding relationship IDs in an array. Each ID is a string. |
| accessCodeList | String[] | body     | No            | List of dialog binding relationship codes.                                |

| Parameter | Type   | Position | Mandatory | Description                                                                                      |
|-----------|--------|----------|-----------|--------------------------------------------------------------------------------------------------|
| authToken | String | body     | Yes       | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> . |

## Response

| Parameter | Type    | Position | Mandatory | Description                                                                                                                                   |
|-----------|---------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| errorCode | Integer | body     | No        | Error code.<br>If the operation is successful, no error code is returned.<br>If the operation fails, see <a href="#">Common Error Codes</a> . |
| errorMsg  | String  | body     | No        | Error description.                                                                                                                            |

## Example

- Request

```
{
 "tenantId": "tenant001",
 "accessIdList": ["10001", "..."],
 "accessCodeList": ["10086", "..."],
 "authToken": "0*****"
}
```

- Response

Deletion succeeded.

No response body

Deletion failed.

```
{
 "errorCode": 100000, // Error code, which is an integer. The status code 200 indicates success.
 "errorMsg": ""
}
```

## 10.4 Flow Query Interface

### Description

The OIAP provides an interface for third-party systems to query flow information in the intelligent interaction system.

## Interface Method

The request method must be set to POST.

## URL

https://IP:PORT/oifde/rest/api/queryflows

## Request

**Table 10-11** Parameters in the request body

| Parameter | Type    | Position | Mandatory | Description                                                                                                                                                                                                               |
|-----------|---------|----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| tenantId  | String  | body     | Yes       | Tenant ID.                                                                                                                                                                                                                |
| flowId    | String  | body     | No        | Flow ID.                                                                                                                                                                                                                  |
| flowName  | String  | body     | No        | Flow name.                                                                                                                                                                                                                |
| flowCode  | String  | body     | No        | Flow code.                                                                                                                                                                                                                |
| source    | String  | body     | No        | Flow source. <ul style="list-style-type: none"><li>● <b>IVR</b>: traditional IVR flow</li><li>● <b>OIFDE</b>: intelligent flow configured by the ODFS</li></ul> If this parameter is not set, the IVR is used by default. |
| pageNum   | Integer | body     | No        | Page number.<br>Number of the page to be queried. The value is <b>1</b> for the first page.                                                                                                                               |
| pageSize  | Integer | body     | No        | Number of records on each page.                                                                                                                                                                                           |
| authToken | String  | body     | Yes       | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> .                                                                                                                          |

## Response

| Parameter | Type    | Position | Mandatory | Description                                                                                                                                   |
|-----------|---------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| errorCode | Integer | body     | No        | Error code.<br>If the operation is successful, no error code is returned.<br>If the operation fails, see <a href="#">Common Error Codes</a> . |
| errorMsg  | String  | body     | No        | Error description.                                                                                                                            |
| total     | long    | body     | M         | Total number of records.                                                                                                                      |
| flowList  | Flow[]  | body     | Yes       | Array.                                                                                                                                        |

**Table 10-12** Flow

| Parameter    | Type    | Position | Mandatory | Description                                                                                                                 |
|--------------|---------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------|
| tenantId     | String  | body     | Yes       | Tenant ID.                                                                                                                  |
| flowId       | Integer | body     | Yes       | Flow ID.                                                                                                                    |
| flowCode     | String  | body     | Yes       | Flow code.                                                                                                                  |
| flowName     | String  | body     | Yes       | Flow name.                                                                                                                  |
| flowDesc     | String  | body     | No        | Flow description.                                                                                                           |
| scenarioType | String  | body     | Yes       | Scenario type.<br><b>Default:</b> default (main flow)<br><b>subFlow:</b> subflow<br><b>SYS_ERROR_DEFAULT:</b> abnormal flow |
| createDate   | Date    | body     | No        | Creation date.<br>The format is timestamp.                                                                                  |
| status       | String  | body     | No        | Status.<br><b>INITIAL:</b> initial status<br><b>VALID:</b> valid status                                                     |



| Parameter     | Type   | Position | Mandatory | Description                                                                      |
|---------------|--------|----------|-----------|----------------------------------------------------------------------------------|
| statusDate    | Date   | body     | No        | Modification time.<br>The format is timestamp.                                   |
| flowStartNode | String | body     | No        | Start node.                                                                      |
| flowEndNode   | String | body     | No        | End node.                                                                        |
| ext01         | String | body     | No        | Dynamic field.                                                                   |
| logSwitch     | String | body     | No        | Log switch.<br><b>0</b> : disabled<br><b>1</b> : enabled                         |
| isDefault     | String | body     | No        | Whether the current flow is the default flow.<br><b>0</b> : no<br><b>1</b> : yes |
| version       | String | body     | No        | Flow version.                                                                    |
| ruleId        | String | body     | No        | Gray rule ID.                                                                    |
| ruleName      | String | body     | No        | Gray rule name.                                                                  |
| source        | String | body     | Yes       | Flow source.<br><b>IVR</b> : traditional flow<br><b>OIFDE</b> : intelligent flow |

| Parameter | Type    | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------|---------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| workMode  | Integer | body     | No        | <p>Release mode.</p> <ul style="list-style-type: none"> <li>• <b>0</b>: common mode</li> <li>• <b>1</b>: monitoring mode</li> <li>• <b>2</b>: insert mode</li> </ul> <p>Currently, the flow of the silent agent system can be connected. When the silent agent system is connected, you can set <b>Work Mode</b> to <b>Monitor</b> (silent agents only view the replies of the chatbot), <b>Insert</b> (silent agents assist the chatbot in reply), or <b>Common</b> (default).</p> |

## Example

- Request

```
{
 "tenantId": "tenant001",
 "flowId": "??",
 "flowName": "??",
 "flowCode": "??",
 "pageNum": 5,
 "pageSize": 10,
 "authToken": "0*****"
}
```

- Response

```
{
 "total": 1,
 "flowList": [
 {
 "flowId": "201904151183171584",
 "flowCode": "flow_ivr_5d06dad92731499abbe6cc6ebcb9d29d",
 "flowName": "Key test",
 "flowDesc": null,
 "scenarioType": "subFlow",
 "tenantId": "NJ_001",
 "createDate": 1555293043000,
 "status": "VALID",
 "statusDate": 1555401640000,
 "flowStartNode": "node_view_c157d73a1b5640d280ee1cb4dcb239e2",
 "flowEndNode": "node_end_97dda8c5a62541c5b44b184a4645f6e8",
 "ext01": null,
 "logSwitch": null,
 }
]
}
```

```

 "isDefault": "1",
 "version": "v1",
 "ruleId": null,
 "ruleName": null,
 "source": "IVR",
 "flowVariableList": []
 }
}
}

```

## 10.5 Dialog Interfaces

### Description

The OIAP provides interfaces for third-party systems to perform real-time dialog operations such as initialization, dialog interaction, dialog transfer, and hangup so that third-party systems can complete multi-round dialog interactions with customers as well as business handling and query.

### Interface Method

POST

### URL

<https://IP:PORT/oifde/rest/crs/process>

### Request

**Table 10-13** Parameters in the request body

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                             |
|-----------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| userid    | String | Body     | Yes       | The ODFS establishes call instances internally based on this parameter. The ODFS may have multiple call instances at the same time. Subsequent interactions are associated with the same call based on the parameter. The value can contain a maximum of 64 characters. |

| Parameter | Type    | Position | Mandator<br>y | Description                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------|---------|----------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| inaction  | Integer | Body     | Yes           | Type of the request that the access party executes this time.<br><b>8</b> : dialog initialization request (for the first invoking)<br><b>9</b> : request after dialog interaction<br><b>11</b> : request after dialog transfer<br>Note: This parameter is set to <b>8</b> for the first interface invoking. In subsequent interactions, the parameter is set to the value of <b>outaction</b> received in the previous interaction.      |
| seat      | String  | Body     | No            | Agent type. The default value is <b>vir</b> .<br><ul style="list-style-type: none"> <li>• <b>vir</b>: virtual agent</li> <li>• <b>ass</b>: agent assistant</li> </ul>                                                                                                                                                                                                                                                                    |
| inparams  | Object  | Body     | Yes           | Parameters that are sent to the ODFS to inform the ODFS of the detailed information about the operation result. The value of <b>inparams</b> varies depending on the value of <b>inaction</b> . The parameters are described by scenario.<br><ul style="list-style-type: none"> <li>• <b>inaction=8</b></li> <li>• <b>inaction=9</b></li> <li>• <b>inaction=11</b></li> <li>• <b>inaction=7</b></li> <li>• <b>inaction=13</b></li> </ul> |

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------|--------|----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| extparams | Object | Body     | No        | <p>Optional dynamic parameters that are sent to the ODFS, which are used only in the initialization scenario.</p> <p>The value of <b>extparams</b> varies depending on the value of <b>inaction</b>. The parameters are described by scenario.</p> <ul style="list-style-type: none"> <li>• <b>inaction=8</b></li> <li>• <b>inaction=9</b></li> <li>• <b>inaction=11</b></li> <li>• <b>inaction=7</b></li> <li>• <b>inaction=13</b></li> </ul> |

## Response

| Parameter | Type    | Position | Mandatory | Description                                                                                                                                                                                                                  |
|-----------|---------|----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ret       | Integer | Body     | Yes       | <p>Execution result.</p> <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul>                                                                                              |
| userid    | String  | Body     | Yes       | <p>The ODFS establishes call instances internally based on this parameter. The ODFS may have multiple call instances at the same time. Subsequent interactions are associated with the same call based on the parameter.</p> |

| Parameter | Type    | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------|---------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| outaction | Integer | Body     | Yes       | Type of the operation performed by the access party. <ul style="list-style-type: none"> <li>● <b>9</b>: dialog interaction</li> <li>● <b>11</b>: dialog transfer</li> <li>● <b>10</b>: hangup</li> <li>● <b>12</b>: query</li> <li>● <b>7</b>: packet capture and recording enabled in the dialog</li> <li>● <b>13</b>: recognition result requesting</li> </ul>                                            |
| outparams | Object  | Body     | Yes       | Detailed information required for the access party to complete the operation. The parameters are described by scenario. <ul style="list-style-type: none"> <li>● <a href="#">Table 1 outparams (outaction=9: Dialog Interaction)</a></li> <li>● <a href="#">Table 10-17</a></li> <li>● <a href="#">Table 10-16</a></li> <li>● <a href="#">Table 10-15</a></li> <li>● <a href="#">Table 10-30</a></li> </ul> |

## Return Code

### NOTICE

If the response body does not contain the return code and description, use the native return code of HTTPS.

| Return Code | Description                              | Possible Cause                                                                                                                                    | Solution                                            |
|-------------|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| 200         | This operation is successful.            | The processing is successful.                                                                                                                     | -                                                   |
| 400         | The request is incorrect.                | The request URL is incorrect.                                                                                                                     | Use a correct request URL.                          |
| 500         | The business fails.                      | The value of a parameter in the request does not exist in the system. For example, the case type code that you send does not exist in the system. | Verify the values of the parameters in the request. |
| Others      | Refer to the standard HTTPS status code. | -                                                                                                                                                 | -                                                   |

### 10.5.1 Dialog Initialization Interface (inaction=8)

When the access party sends a request to the ODFS for the first time, the access party needs to send a request whose **inaction** is **8** to notify the ODFS of initialization. The ODFS returns the next operation of the access party in **outparams**. This section describes the **inparams** parameter structure and request example and the return parameter structure and message examples in different scenarios.

#### inparams

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                   |
|-----------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| call_id   | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow.<br>The value can contain a maximum of 64 characters. |

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                           |
|-------------|--------|----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| call_sor_id | String | Body     | Yes       | User ID. (In the voice navigation and voice outbound call scenarios, the value is a user number. In other interaction scenarios, the value is a user ID.)<br>The value can contain a maximum of 64 characters.                                                                                                                        |
| call_dst_id | String | Body     | Yes       | Access ID.<br>1. In the voice navigation scenario, this parameter is set to the flow access code.<br>2. In the voice outbound call survey scenario, this parameter is set to the flow access code.<br>3. In other interaction scenarios, this parameter is set to the access ID.<br>The value can contain a maximum of 20 characters. |
| real_callee | String | Body     | No        | Called number for accessing the IVR. This parameter is valid in the voice navigation scenario.<br>The value can contain a maximum of 32 characters.                                                                                                                                                                                   |



| Parameter       | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                 |
|-----------------|--------|----------|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cti_callid      | String | Body     | No (special field in the voice navigation scenario) | Call ID of the CTI to which a call is connected, which is transferred by Huawei IVR. In other scenarios, this parameter is left empty.<br>The value can contain a maximum of 32 characters. |
| auth_token      | String | Body     | Yes                                                 | Authorization information, which is the token value returned by the access control system.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> .                       |
| suilu_region_id | String | Body     | No (special field in the voice navigation scenario) | Region where the calling party is located.<br>The value can contain a maximum of 64 characters.                                                                                             |

| Parameter   | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------|--------|----------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| entrance_id | String | Body     | No (special field in the voice navigation scenario) | Navigation entrance. <ul style="list-style-type: none"><li>● <b>01</b>: advertising message</li><li>● <b>02</b>: greeting</li><li>● <b>03</b>: main menu of the first layer</li><li>● <b>04</b>: manual interception</li><li>● <b>05</b>: agent</li><li>● <b>06</b>: access through short numbers</li><li>● <b>07</b>: full-voice portal</li><li>● <b>08</b>: night navigation mode. Customers can access the mode by pressing <b>0</b>.</li><li>● <b>09</b>: full-voice portal at night</li><li>● <b>10</b>: access through self-service short numbers</li><li>● <b>11</b>: service mode accessed by the customer when all agents are in busy state</li><li>● <b>98</b>: others</li><li>● <b>99</b>: unidentified</li></ul> |
| mediaType   | String | Body     | No                                                  | Media type (text, audio, video, and so on).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| Parameter     | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                               |
|---------------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| channelType   | String | Body     | No        | Channel type. <ul style="list-style-type: none"> <li>• WEB</li> <li>• INSTAGRAM</li> <li>• TELEGRAM</li> <li>• WECHAT</li> <li>• FACEBOOK</li> <li>• TWITTER</li> <li>• EMAIL</li> <li>• LINE</li> <li>• WHATSAPP</li> <li>• 5G</li> <li>• SMS</li> </ul> |
| responseStyle | String | Body     | No        | Response style.                                                                                                                                                                                                                                           |

## ExtParams

| Parameter    | Type   | Position | Mandatory | Description                                                                                                                         |
|--------------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------|
| transin_data | String | Body     | No        | Call-associated data parameter agreed by the access party and the OIAP, for example, data packet parameters transferred by the IVR. |
| locationid   | String | Body     | No        | Call recording node ID.                                                                                                             |
| mediaability | String | Body     | No        | Media capability. <ul style="list-style-type: none"> <li>• 1: audio</li> <li>• 2: video</li> <li>• 3: audio and video</li> </ul>    |

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                              |
|-----------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ieValue   | String | Body     | No        | Call-associated data parameter agreed by the access party and the OIAP. This parameter is used to carry call information if a call is transferred from a third-party platform during interconnection to another platform.<br><br>Note: In the OIAP flow, the value of this parameter will be anonymized. |

### Request Example 1

```
{
 "userid": "1528780879-9581",
 "inaction": 8,
 "inparams": {
 "call_id": "1528780879-9581",
 "call_sor_id": "13500000001",
 "call_dst_id": "10086",
 "auth_token": "eyJhbGciOiJSUzI1NiJ9.eyJpYXQiOiJlMzgwMzg5MzUzUzUzODAwMjUzNSwian",
 "suilu_region_id": "025",
 "entrance_id": "03"
 },
 "extparams": {
 "transin_data": "95,22714,0,,1,1,,test_gdj_01005"
 }
}
```

After receiving a request whose **inaction** is **8**, **9**, or **11**, the ODFS may send different responses based on the TUC configuration, that is, the value of **outaction** may be **9**, **10**, **11**, or **12**.

**Table 10-14** outparams (outaction=9: Dialog Interaction)

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| prompt_type | String | Body     | Yes       | Interaction type. <ul style="list-style-type: none"> <li>• <b>0:</b> Plays a specified voice for voice interaction (full path).</li> <li>• <b>1:</b> Plays a specified voice for voice interaction.</li> <li>• <b>2:</b> Plays TTS content for voice interaction.</li> <li>• <b>3:</b> text interaction.</li> <li>• <b>4:</b> Records the voice of the calling party.</li> <li>• <b>5:</b> Plays a video.</li> <li>• <b>6:</b> multimedia interaction.</li> <li>• <b>7:</b> card interaction.</li> </ul> |

| Parameter   | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                                                                                                                                                           |
|-------------|--------|----------|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| prompt_wav  | String | Body     | No (special field in the voice navigation scenario) | <p>When <b>prompt_type</b> is set to <b>0</b>, <b>4</b>, or <b>5</b>, enter the full name of the path for storing the file to be played or recorded. (The path must be readable by the UAP.)</p> <p>When <b>prompt_type</b> is set to <b>1</b>, enter the name of the voice file (excluding the path header, which is assembled by the IVR during voice playing).</p> |
| prompt_text | String | Body     | Yes                                                 | <p>TTS dynamic text content or text dialog content.</p> <p>This parameter is mandatory when <b>prompt_type</b> is set to <b>2</b>, <b>3</b>, <b>6</b>, or <b>7</b>.</p>                                                                                                                                                                                               |
| language    | String | Body     | Yes                                                 | <p>Language ID. (This parameter is mandatory for TTS voice playing and ASR.)</p> <p><b>0</b>: Chinese<br/><b>1</b>: English</p>                                                                                                                                                                                                                                       |

| Parameter | Type   | Position | Mandatory                                           | Description                                                 |
|-----------|--------|----------|-----------------------------------------------------|-------------------------------------------------------------|
| inter_idx | String | Body     | No (special field in the voice navigation scenario) | Number of consecutive interactions with a user in the ODFS. |

| Parameter  | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------|--------|----------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| model_type | String | Body     | No (special field in the voice navigation scenario) | <p>Template type. The value is a number of seven digits. The first three digits indicate whether voice playback, recognition, and key pressing are supported, respectively.</p> <ul style="list-style-type: none"> <li>• <b>100:</b> Only playback is supported.</li> <li>• <b>101:</b> Playback is interrupted during key pressing, and recognition is not supported.</li> <li>• <b>110:</b> Playback is interrupted during recognition, and key pressing is not supported.</li> <li>• <b>120:</b> Playback is not interrupted during recognition, and key pressing is not supported.</li> <li>• <b>122:</b> Playback is not interrupted</li> </ul> |



| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------|------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |      |          |           | <p>during key pressing and recognition .</p> <ul style="list-style-type: none"> <li>• <b>111:</b> Playback is interrupted during key pressing and recognition .</li> <li>• <b>102:</b> Playback is not interrupted during key pressing, and recognition is not supported.</li> </ul> <p>The following two digits indicate the maximum number of pressed keys. The last two digits indicate whether the asterisk key (*) and pound key (#) are used as function keys, respectively. The value <b>1</b> indicates that the key is used as a function key. The pound key (#) is used as the confirm key, and the asterisk (*) is used as the</p> |

| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------|------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |      |          |           | <p>cancel key.<br/>The value <b>0</b> indicates that the key is used as a common key rather than a function key. For example, <b>1011201</b> indicates that voice playback and key pressing are supported but recognition is not supported, the maximum number of pressed keys is 12, and the pound key (#) is used as the confirm key. <b>1101200</b> indicates that voice playback and recognition are supported but key pressing is not supported. In this case, the last four digits <b>1200</b> are invalid.</p> |

| Parameter | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                 |
|-----------|--------|----------|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| timeout   | String | Body     | No (special field in the voice navigation scenario) | Voice playing timeout interval, in seconds. The parameter specifies the timeout interval for the system to wait for customer input after the voice playing ends.                                                            |
| tone      | String | Body     | No (special field in the voice navigation scenario) | This parameter is mandatory for recording when <b>prompt_type</b> is set to <b>4</b> .<br><b>true</b> : A beep tone is played before recording starts.<br><b>false</b> : A beep tone is not played before recording starts. |
| vendor    | String | Body     | No (special field in the voice navigation scenario) | ASR extended parameter.                                                                                                                                                                                                     |
| grammar   | String | Body     | No (special field in the voice navigation scenario) | Syntax file name (including the path and suffix).                                                                                                                                                                           |

| Parameter     | Type   | Position | Mandatory                                                     | Description                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------|--------|----------|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| question_id   | String | Body     | No (special field in the voice outbound call survey scenario) | Question sequence number in the outbound call scenario, for example, <b>Q1</b> and <b>Q2</b> . (This parameter is discarded.)                                                                                                                                                                                                                                                                         |
| question_name | String | Body     | No (special field in the voice outbound call survey scenario) | Question name in the outbound call scenario. (This parameter is discarded.)                                                                                                                                                                                                                                                                                                                           |
| answer_id     | String | Body     | No (special field in the voice outbound call survey scenario) | <p>Answer to the question in the outbound call scenario.</p> <ul style="list-style-type: none"> <li>• <b>Y</b>: yes</li> <li>• <b>N</b>: no</li> <li>• <b>TIMEOUT</b>: timeout</li> <li>• <b>NOMATCH</b>: unidentified</li> <li>• <b>ERROR</b>: other exceptions</li> </ul> <p>If the answer is not <b>Y</b> or <b>N</b>, the actual configuration result is used. (This parameter is discarded.)</p> |

| Parameter      | Type   | Position | Mandatory | Description                                                                                                                                                                              |
|----------------|--------|----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| flowRecordFlag | String | Body     | No        | Whether to record voices.<br><ul style="list-style-type: none"> <li>• <b>0</b>: yes</li> <li>• <b>1</b>: no</li> </ul> If this parameter is not set, the default value <b>1</b> is used. |
| flowRecordPath | String | Body     | No        | Path of the recording file returned when recording is required.                                                                                                                          |
| ttsGroupId     | String | Body     | No        | Group ID of the TTS server configured on the UAP.                                                                                                                                        |
| ttsSoundEffect | String | Body     | No        | Sound effect of TTS voice playing.<br><b>0</b> : male voice<br><b>1</b> : female voice                                                                                                   |
| ttsSoundSpeed  | String | Body     | No        | Speed of TTS voice playing.<br><b>0</b> : low speed<br><b>1</b> : medium speed<br><b>8</b> : high speed                                                                                  |
| ttsMRCPVendor  | String | Body     | No        | TTS extended parameter, that is, the <b>mrcp vendor</b> parameter. The value contains a maximum of 40 characters.                                                                        |

| Parameter                | Type    | Position | Mandatory | Description                                                                                                               |
|--------------------------|---------|----------|-----------|---------------------------------------------------------------------------------------------------------------------------|
| asrMRCPIId               | String  | Body     | No        | MRCP ID of the ASR server configured on the UAP.                                                                          |
| asrSlotName              | String  | Body     | No        | Keyword used for parsing the ASR slots.                                                                                   |
| asrRecognizeType         | String  | Body     | No        | ASR recognition type.<br><b>0</b> : common recognition<br><b>1</b> : intelligent recognition                              |
| asrNoInputTimeout        | String  | Body     | No        | Timeout period when a user remains silent, in seconds. The default value is <b>100</b> .                                  |
| asrRecognitionTimeout    | String  | Body     | No        | Interval when the recognition times out, in seconds. The default value is <b>200</b> .                                    |
| asrSpeechCompleteTimeout | String  | Body     | No        | Timeout period when a user pauses, in seconds. The default value is <b>500</b> .                                          |
| responseSource           | Integer | Body     | No        | Whether the reply comes from a chatbot or a silent agent. The options are <b>0</b> (chatbot) and <b>1</b> (silent agent). |

| Parameter        | Type    | Position | Mandatory | Description                                                                                                                                                                    |
|------------------|---------|----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| specialRecognize | Integer | Body     | No        | Whether to use recognition by packet capture and recording.<br><br>The options are <b>0</b> (original recognition) and <b>1</b> (recognition by packet capture and recording). |

**Prompt\_text** format description (for intelligent information matching businesses)

| Parameter      | Type        | Position | Mandatory | Description                                                       | Source                           |
|----------------|-------------|----------|-----------|-------------------------------------------------------------------|----------------------------------|
| sensitive_word | JSON object | Body     | No        | Sensitive word notification.<br>{"Prohibited word": ["Password"]} | TUC sensitive word configuration |
| Intend         | String      | Body     | Yes       | Customer intention.<br>It is a description text.                  | TUC intention                    |
| recomand_KP    | List        | Body     | No        | Recommended knowledge points.                                     | Business knowledge base          |

| Parameter   | Type        | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Source                               |
|-------------|-------------|----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| call_script | JSON string | Body     | Yes       | <p>Recommended script.</p> <p>Note:<br/>The <b>intentcode</b> parameter indicates the TUC intention code and can be empty. The <b>intentDsp</b> parameter indicates the intention description and cannot be empty.</p> <pre>{   {intentcode:   "",   intentDsp:   "",   "status":"","   childintent[   {intentcode:   "",   intentDsp:   "",   "status":""},   {intentcode:   "",   intentDsp:   "",   "status":""}..   .]}   { intentcode   :"",   intentDsp:""   ,   "status":""} }</pre> | ODFS resource template configuration |



| Parameter               | Type   | Position | Mandatory | Description                                                                                                                         | Source        |
|-------------------------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------|---------------|
| call_script_matchedstep | String | Body     | No        | Intention code.<br>It corresponds to the intention code in <b>call_script</b> .<br>It indicates the script progress (matched step). | TUC intention |

**Prompt\_text** format description (for intelligent case filling businesses)

| Parameter  | Type   | Position | Mandatory | Description                                  | Usage Method                                                                    |
|------------|--------|----------|-----------|----------------------------------------------|---------------------------------------------------------------------------------|
| beginIndex | String | Body     | Yes       | Start index of an entity in a text file.     | Start index of an entity in a text file.                                        |
| endIndex   | String | Body     | Yes       | End index of an entity in a text file.       | End index of an entity in a text file.                                          |
| type       | String | Body     | Yes       | Extracted entity type.                       | Recognition type of the entity. You do not need to enter the value in the form. |
| entity     | String | Body     | Yes       | Entity content, which has been standardized. | Used to fill in the corresponding fields in the form.                           |

| Parameter | Type   | Position | Mandatory | Description                                 | Usage Method                   |
|-----------|--------|----------|-----------|---------------------------------------------|--------------------------------|
| tag       | String | Body     | Yes       | Name of the field to be filled in the form. | Example: <b>object level 2</b> |

## Response Example 2

```
{
 "userid": "1528780879-9581",
 "outaction": 9,
 "outparams": {
 "call_id": "1528780879-9581",
 "prompt_type": "1",
 "prompt_wav": "welcome",
 "prompt_text": "Query the call fee.",
 "language": "0",
 "inter_idx": "1",
 "model_type": "1011201"
 "timeout": "10",
 "tone": "",
 "grammar": "",
 "question_id": "Q1",
 "question_name": "Question 1",
 "answer_id": "Y"
 }
}
```

**Table 10-15** outparams (outaction=12: Query Operation, Used in the Common IVR Flow)

| Parameter | Type   | Position | Mandatory | Description                                                                              |
|-----------|--------|----------|-----------|------------------------------------------------------------------------------------------|
| call_id   | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow. |

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| prompt_type | String | Body     | Yes       | <p>Query type.</p> <ul style="list-style-type: none"> <li>• <b>1:</b> Query the queuing information about the current skill queue when a call is queuing in a skill queue.</li> <li>• <b>2:</b> Query the queuing information by skill queue ID before a call enters a skill queue.</li> <li>• <b>3:</b> Query the information about the skill queue where an agent belongs by agent ID.</li> <li>• <b>5:</b> Switch between audio and video calls.</li> </ul> |
| skill_id    | String | String   | No        | <p>Skill queue ID.</p> <p>This parameter is mandatory only when <b>prompt_type</b> is set to <b>2</b>.</p>                                                                                                                                                                                                                                                                                                                                                     |

| Parameter  | Type   | Position | Mandatory                                           | Description                                                 |
|------------|--------|----------|-----------------------------------------------------|-------------------------------------------------------------|
| moduleName | String | Body     | No                                                  | Module name, that is, name of a diagram element.            |
| inter_idx  | String | Body     | No (special field in the voice navigation scenario) | Number of consecutive interactions with a user in the ODFS. |

### Response Example 3

```
{
 "outaction": 12,
 "outparams": {
 "call_id": "1528780879-9581",
 "prompt_type": "1",
 "inter_idx": "1",
 "moduleName": "Query",
 "xxx": "xxx" //Extend
 }
}
```

**Table 10-16** outparams (outaction=11: Dialog Transfer)

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                               |
|-------------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| call_id     | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow.                                                                  |
| call_sor_id | String | Body     | Yes       | User ID. (In the voice navigation and voice outbound call scenarios, the value is a user number. In other interaction scenarios, the value is a user ID.) |

| Parameter  | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| trans_type | String | Body     | Yes       | <p>Dialog transfer type.</p> <ul style="list-style-type: none"> <li>• <b>1:</b> transfer to the manual service (to a skill queue based on the routing number)</li> <li>• <b>2:</b> transfer to an IVR</li> <li>• <b>3:</b> transfer to the manual service (to a skill queue based on the skill name)</li> <li>• <b>4:</b> transfer to the manual service (to an agent ID)</li> <li>• <b>5:</b> transfer to a third-party number</li> <li>• <b>6:</b> online digital assistance</li> <li>• <b>7:</b> transfer to the manual service (to the last agent. Currently, only multimedia is supported.)</li> </ul> |

| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------|------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |      |          |           | <ul style="list-style-type: none"> <li>● <b>8:</b> transfer to the manual service (to the skill queue to which an agent belongs. Currently, only multimedia is supported.)</li> <li>● <b>31:</b> transfer to a multimedia message (to the last agent)</li> <li>● <b>32:</b> transfer to a multimedia message (to a skill queue)</li> <li>● <b>33:</b> transfer to a multimedia message (to an agent)</li> </ul> |

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| route_value | String | Body     | Yes       | <p>Route value information, which depends on the value of <b>trans_type</b>.</p> <p>When the value of <b>trans_type</b> is <b>1</b>, <b>route_value</b> is set to the subsequent access code of the skill queue.</p> <p>When the value of <b>trans_type</b> is <b>2</b>, <b>route_value</b> is set to the access code of the IVR flow.</p> <p>When the value of <b>trans_type</b> is <b>3</b>, <b>route_value</b> is set to the name of the skill queue.</p> <p>When the value of <b>trans_type</b> is <b>4</b>, <b>route_value</b> is set to an agent ID.</p> <p>When the value of <b>trans_type</b> is <b>5</b>, <b>route_value</b> is set to a third-party number.</p> <p>When the value of</p> |

| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------|------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |      |          |           | <p><b>trans_type</b> is <b>6</b>, <b>route_value</b> is set to a flow route code.</p> <p>When the value of <b>trans_type</b> is <b>7</b>, <b>route_value</b> is left empty.</p> <p>When the value of <b>trans_type</b> is <b>8</b>, <b>route_value</b> is set to an agent ID.</p> <p>When the value of <b>trans_type</b> is <b>31</b>, <b>route_value</b> is left empty.</p> <p>When the value of <b>trans_type</b> is <b>32</b>, <b>route_value</b> is set to a skill queue name or access code.</p> <p>When the value of <b>trans_type</b> is <b>33</b>, <b>route_value</b> is set to an agent ID.</p> |



| Parameter   | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                     |
|-------------|--------|----------|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| trans_data  | String | Body     | No                                                  | Call-associated data (transferred when the call is transferred to the manual service).                                                                                                                                          |
| calling_num | String | Body     | No                                                  | Number preferentially used as the calling number when a call is forwarded to a third-party.                                                                                                                                     |
| record_path | String | Body     | No                                                  | Full recording path name. (This parameter is valid and conference recording starts only when <b>route_value</b> is set to a third-party number. If this parameter is left empty or does not exist, recording is not performed.) |
| inter_idx   | String | Body     | No (special field in the voice navigation scenario) | Number of consecutive interactions with a user in the ODFS.                                                                                                                                                                     |
| trans_idx   | String | Body     | No (special field in the voice navigation scenario) | Jump sequence number.                                                                                                                                                                                                           |

| Parameter     | Type   | Position | Mandatory                                                     | Description                                                                          |
|---------------|--------|----------|---------------------------------------------------------------|--------------------------------------------------------------------------------------|
| question_id   | String | Body     | No (special field in the voice outbound call survey scenario) | Question ID in the outbound call scenario. (This parameter is discarded.)            |
| question_name | String | Body     | No (special field in the voice outbound call survey scenario) | Question name in the outbound call scenario. (This parameter is discarded.)          |
| answer_id     | String | Body     | No (special field in the voice outbound call survey scenario) | Answer to the question in the outbound call scenario. (This parameter is discarded.) |

### Response Example 4

```
{
 "userid": "1528780879-9581",
 "outaction": 11,
 "outparams": {
 "call_id": "1528780879-9581",
 "call_sor_id": "13500000001",
 "calling_num": "1234567890",
 "trans_type": "1",
 "route_value": "123456789",
 "inter_idx": "1",
 "trans_idx": "1",
 "question_id": "Q1",
 "question_name": "Question 1",
 "answer_id": "Y"
 }
}
```

**Table 10-17** outparams (outaction=10: Dialog Hangup)

| Parameter | Type   | Position | Mandatory | Description                                                                              |
|-----------|--------|----------|-----------|------------------------------------------------------------------------------------------|
| call_id   | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow. |

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                 |
|-------------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| call_sor_id | String | Body     | Yes       | User ID. (In the voice navigation and voice outbound call scenarios, the value is a user number. In other interaction scenarios, the value is a user ID.)                                                                                                                   |
| call_dst_id | String | Body     | Yes       | Access ID.<br>1. In the voice navigation scenario, this parameter is set to the called number.<br>2. In the voice outbound call survey scenario, this parameter is set to the survey type ID.<br>3. In other interaction scenarios, this parameter is set to the access ID. |
| start_time  | String | Body     | Yes       | Dialog interaction start time.                                                                                                                                                                                                                                              |
| end_time    | String | Body     | Yes       | Dialog interaction end time.                                                                                                                                                                                                                                                |

| Parameter      | Type   | Position | Mandator<br>y                                          | Description                                                                                                                                                                                                                                                                                       |
|----------------|--------|----------|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| release_reason | String | Body     | No                                                     | Whether the ODFS flow enters the <b>End</b> diagram element properly.<br><b>0</b> : The flow enters the <b>End</b> diagram element properly.<br><b>1</b> : The flow enters the <b>End</b> diagram element when an exception or timeout occurs and no error tolerance business logic is processed. |
| region_id      | String | Body     | No<br>(special field in the voice navigation scenario) | Region of a user.                                                                                                                                                                                                                                                                                 |
| entrance_id    | String | Body     | No<br>(special field in the voice navigation scenario) | Entrance ID.                                                                                                                                                                                                                                                                                      |
| exit_id        | String | Body     | No<br>(special field in the voice navigation scenario) | Exit ID. The value is the same as that of <b>entrance_id</b> .                                                                                                                                                                                                                                    |
| user_type_id   | String | Body     | No<br>(special field in the voice navigation scenario) | User type.                                                                                                                                                                                                                                                                                        |

| Parameter       | Type   | Position | Mandatory                                              | Description            |
|-----------------|--------|----------|--------------------------------------------------------|------------------------|
| suilu_region_id | String | Body     | No<br>(special field in the voice navigation scenario) | Call access region ID. |

 NOTE

Note: After a session ends, if the IVR initiates a request whose **inaction** is **9** or **11** and **input** is **hangup**, the ODFS triggers the hangup response and sends the response to the IVR as the end flag. The IVR does not invoke the ODFS interface anymore.

### Response Example 5

```
{
 "userid": "1528780879-9581",
 "outaction": 10,
 "outparams": {
 "call_id": "1528780879-9581",
 "call_sor_id": "13500000001",
 "call_dst_id": "10086",
 "start_time": "2018090407:16:24",
 "end_time": "2018090407:30:24",
 "release_reason": "0",
 "region_id": "025",
 "entrance_id": "03",
 "exit_id": "05",
 "user_type_id": "01",
 "suilu_region_id": "025"
 }
}
```

## 10.5.2 Interface Invoked After Dialog Interaction (inaction=9)

After performing operations such as voice playing and text chat, the access party uses the current operation result as the input parameter to send a request to the ODFS for the next operation. The following describes the request parameter structure.

### inparams

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                   |
|-----------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| call_id   | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow.<br>The value can contain a maximum of 64 characters. |

| Parameter        | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------|--------|----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| call_dst_id      | String | Body     | Yes       | <p>Access ID.</p> <ol style="list-style-type: none"> <li>1. In the voice navigation scenario, this parameter is set to the called number.</li> <li>2. In the voice outbound call survey scenario, this parameter is set to the survey type ID.</li> <li>3. In other interaction scenarios, this parameter is set to the access ID.</li> </ol> <p>The value can contain a maximum of 20 characters.</p> |
| flow_result_type | String | Body     | Yes       | <p>Result type.</p> <ul style="list-style-type: none"> <li>● <b>1</b>: voice recognition input or text input</li> <li>● <b>2</b>: voice key input</li> <li>● <b>3</b>: no input (playing only)</li> <li>● <b>4</b>: recording ended</li> <li>● <b>-1</b>: others</li> </ul>                                                                                                                            |

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------|--------|----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| input     | String | Body     | Yes       | <p>Dialog interaction result.</p> <ul style="list-style-type: none"> <li>• Voice recognition result or text input. The voice recognition result is the ID in <i>Redis value key +@+inter_no</i> format. The text input result is the text content.</li> <li>• Voice key result, which is the key value, for example, <b>1</b> and <b>201801</b>.</li> <li>• <b>playover</b>: voice playing completed</li> <li>• <b>timeout</b>: timeout</li> <li>• <b>nomatch</b>: recognition failure or key pressing failure</li> <li>• <b>sys_err</b>: system exception</li> <li>• <b>hangup</b>: hangup</li> <li>• <b>recordend</b>: recording ended</li> </ul> <p>If the result is <b>hangup</b>, the hangup response of the ODFS can be triggered.</p> <p>The value can contain a maximum of 1024 characters.</p> |

| Parameter      | Type   | Position | Mandatory                                                                             | Description                                                                                                                                                               |
|----------------|--------|----------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| auth_token     | String | Body     | Yes                                                                                   | Authorization information, which is the token value returned by the access control system.<br><br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> . |
| recordFileName | String | Body     | No (special field in the voice navigation scenario that supports full-flow recording) | Full-flow recording path and file name, for example, <b>Y:/record/1/20200421/xxxxxx.wav</b> .                                                                             |
| inter_idx      | String | Body     | No (special field in the voice navigation scenario)                                   | Number of interaction times. The value is the same as that of <b>inter_idx</b> returned by the ODFS in the previous time.                                                 |
| begin_play     | String | Body     | No (special field in the voice navigation scenario)                                   | Voice playing start time.                                                                                                                                                 |
| end_play       | String | Body     | No (special field in the voice navigation scenario)                                   | Voice playing end time.                                                                                                                                                   |
| result_time    | String | Body     | No (special field in the voice navigation scenario)                                   | Time when the result is generated.                                                                                                                                        |
| inter_no       | String | Body     | No (special field in the voice navigation scenario)                                   | Recognition ID.                                                                                                                                                           |



| Parameter | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------|--------|----------|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IACmd     | String | Body     | No (special field in the voice navigation scenario) | <p>Field dedicated for intelligent match and intelligent case filling.</p> <p>This parameter must be set to <b>match</b> when intelligent match is used.</p> <p>This parameter can be set to any of the following values when intelligent case filling is used:</p> <p><b>match:</b> A case filling request is submitted.</p> <p><b>rematch:</b> An event is re-identified when the classification of the identified event is incorrect.</p> <p><b>confirm:</b> When an agent selects a field, the system notifies the ODFS that the field has been confirmed.</p> |

| Parameter       | Type    | Position | Mandatory                                           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------|---------|----------|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TextSource      | String  | Body     | No (special field in the voice navigation scenario) | <p>Whether the input text is from an agent or a user when <b>IACmd</b> is set to <b>match</b> (same for intelligent matching and intelligent case filling). The options are <b>staff</b> and <b>customer</b>.</p> <p><b>staff</b>: agent<br/><b>customer</b>: user</p> <p>The name of the field selected by the agent is transferred when <b>IACmd</b> is set to <b>confirm</b>, for example, object level 2.</p> <p>This parameter is optional when <b>IACmd</b> is set to <b>rematch</b>.</p> |
| feedback        | Integer | Body     | No                                                  | Satisfaction. The options are <b>1</b> (satisfactory) and <b>0</b> (unsatisfactory).                                                                                                                                                                                                                                                                                                                                                                                                            |
| feedbackContent | String  | Body     | No                                                  | Dissatisfaction reason. If the feedback is satisfactory, leave this parameter empty.                                                                                                                                                                                                                                                                                                                                                                                                            |
| mediaType       | String  | Body     | No                                                  | Media type (text, audio, video, and so on).<br>Example: <b>audio</b> or <b>video</b>                                                                                                                                                                                                                                                                                                                                                                                                            |

| Parameter                     | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                   |
|-------------------------------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| channelType                   | String | Body     | No        | Channel type. <ul style="list-style-type: none"><li>• WEB</li><li>• INSTAGRAM</li><li>• TELEGRAM</li><li>• WECHAT</li><li>• FACEBOOK</li><li>• TWITTER</li><li>• EMAIL</li><li>• LINE</li><li>• WHATSAPP</li><li>• 5G</li><li>• SMS</li></ul> |
| refeedbackContentcordFileName | String | Body     | No        | Name of a voice recording file.                                                                                                                                                                                                               |
| call_media_type               | String | Body     | No        | Type of an inbound IVR call. The options are <b>1</b> (audio) and <b>3</b> (video).                                                                                                                                                           |

## ExtParams

| Parameter    | Type   | Position | Mandatory | Description                                                                                                                          |
|--------------|--------|----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------|
| transin_data | String | Body     | No        | Call-associated data parameters agreed by the access party and the OIAP, for example, data packet parameters transferred by the IVR. |

| Parameter      | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                        |
|----------------|--------|----------|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| release_reason | String | Body     | No (special field in the voice navigation scenario) | Reason code reported by the IVR to the ODFS for call release.<br><b>0:</b> The call is released in a business flow.<br><b>1:</b> The system releases the call abnormally.<br><b>2:</b> The user releases the call. |
| queueIndex     | String | Body     | No (only in the queuing information query scenario) | Queuing position of a skill queue.                                                                                                                                                                                 |
| agentCount     | String | Body     | No (only in the queuing information query scenario) | Number of online agents in a skill queue.                                                                                                                                                                          |
| estimateTime   | String | Body     | No (only in the queuing information query scenario) | Estimated wait time of a skill queue.                                                                                                                                                                              |
| idleAgentCount | String | Body     | No (only in the queuing information query scenario) | Number of idle agents in a skill queue.                                                                                                                                                                            |

## Request Example

```
{
 "userid": "1528780879-9581",
 "inaction": 9,
 "inparams": {
 "call_id": "1528780879-9581",
 "call_dst_id": "10086",
 "flow_result_type": "1",
 "input": "Help me query the call fee."
 }
}
```

```
"inter_idx": "1",
"begin_play": "2018090407:16:24",
"end_play": "2018090407:16:30",
"result_time": "2018090407:16:3",
"inter_no": "0"
},
"extparams": {
 "transin_data": "95,22714,0,,1,1,,test_gdj_01005",
 "queueIndex": "2",
 "agentCount": "5"
}
}
```

If the ODFS determines that **flow\_result\_type** is set to **1** and **input** is set to the recognition result ID, the ODFS invokes the Redis to obtain the converted text in which **key** is set to the Redis value key in the recognition result ID. The obtained recognition text is a non-JSON character string.

The following is an example of the code for the Lua script to obtain the Redis result. In the example, the key value is **msg**.

```
local red = redis:new()

red:set_timeout(1000)

local ip = "192.168.77.193"
local port = 22122
local ok, err = red:connect(ip, port)
- if not ok then
 ngx.say("connect to redis error : ", err)
 return close_redis(red)
end

local resp, err = red:get("msg")
- if not resp then
 ngx.say("get msg error : ", err)
 return close_redis(red)
end
```

After receiving a request whose **inaction** is **8**, **9**, or **11**, the ODFS may send different responses based on the TUC configuration, that is, the value of **outaction** may be **9**, **10**, **11**, or **12**.

**Table 10-18** outparams (outaction=9: Dialog Interaction)

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| call_id     | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow.                                                                                                                                                                                                                                                                                                                                                                                                                 |
| prompt_type | String | Body     | Yes       | Interaction type. <ul style="list-style-type: none"> <li>• <b>0</b>: Plays a specified voice for voice interaction (full path).</li> <li>• <b>1</b>: Plays a specified voice for voice interaction.</li> <li>• <b>2</b>: Plays TTS content for voice interaction.</li> <li>• <b>3</b>: text interaction.</li> <li>• <b>4</b>: Records the voice of the calling party.</li> <li>• <b>5</b>: Plays a video.</li> <li>• <b>6</b>: multimedia interaction.</li> <li>• <b>7</b>: card interaction.</li> </ul> |

| Parameter   | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                                                                                                                                                    |
|-------------|--------|----------|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| prompt_wav  | String | Body     | No (special field in the voice navigation scenario) | <p>When <b>prompt_type</b> is set to <b>0</b>, <b>4</b>, or <b>5</b>, enter the full path name for storing the file to be played or recorded. (The path must be readable by the UAP.)</p> <p>When <b>prompt_type</b> is set to <b>1</b>, enter the name of the voice file (excluding the path header, which is assembled by the IVR during voice playing).</p> |
| prompt_text | String | Body     | Yes                                                 | <p>TTS dynamic text content or text dialog content.</p> <p>This parameter is mandatory when <b>prompt_type</b> is set to <b>2</b>, <b>3</b>, <b>6</b>, or <b>7</b>.</p>                                                                                                                                                                                        |
| language    | String | Body     | Yes                                                 | <p>Language ID. (This parameter is mandatory for TTS voice playing and ASR.)</p> <p><b>0</b>: Chinese<br/><b>1</b>: English</p>                                                                                                                                                                                                                                |

| Parameter | Type   | Position | Mandatory                                           | Description                                                 |
|-----------|--------|----------|-----------------------------------------------------|-------------------------------------------------------------|
| inter_idx | String | Body     | No (special field in the voice navigation scenario) | Number of consecutive interactions with a user in the ODFS. |



| Parameter  | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------|--------|----------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| model_type | String | Body     | No (special field in the voice navigation scenario) | <p>Template type. The value is a number of seven digits. The first three digits indicate whether voice playback, recognition, and key pressing are supported, respectively.</p> <ul style="list-style-type: none"> <li>• <b>100:</b> Only playback is supported.</li> <li>• <b>101:</b> Playback is interrupted during key pressing, and recognition is not supported.</li> <li>• <b>110:</b> Playback is interrupted during recognition, and key pressing is not supported.</li> <li>• <b>120:</b> Playback is not interrupted during recognition, and key pressing is not supported.</li> <li>• <b>122:</b> Playback is not interrupted</li> </ul> |

| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------|------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |      |          |           | <p>during key pressing and recognition .</p> <p><b>111:</b> Playback is interrupted during key pressing and recognition .</p> <p><b>102:</b> Playback is not interrupted during key pressing, and recognition is not supported. The following two digits indicate the maximum number of pressed keys. The last two digits indicate whether the asterisk key (*) and pound key (#) are used as function keys, respectively. The value <b>1</b> indicates that the</p> |

| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------|------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |      |          |           | <p>key is used as a function key. The pound key (#) is used as the confirm key, and the asterisk (*) is used as the cancel key. The value <b>0</b> indicates that the key is used as a common key rather than a function key. For example, <b>1011201</b> indicates that voice playback and key pressing are supported but recognition is not supported, the maximum number of pressed keys is 12, and the pound key (#) is used as the confirm key. <b>1101200</b> indicates</p> |

| Parameter | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                 |
|-----------|--------|----------|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |        |          |                                                     | that voice playback and recognition are supported but key pressing is not supported. In this case, the last four digits <b>1200</b> are invalid.                                                                            |
| timeout   | String | Body     | No (special field in the voice navigation scenario) | Voice playing timeout interval, in seconds. The parameter specifies the timeout interval for the system to wait for customer input after the voice playing ends.                                                            |
| tone      | String | Body     | No (special field in the voice navigation scenario) | This parameter is mandatory for recording when <b>prompt_type</b> is set to <b>4</b> .<br><b>true</b> : A beep tone is played before recording starts.<br><b>false</b> : A beep tone is not played before recording starts. |

| Parameter     | Type   | Position | Mandatory                                                     | Description                                                                                                                   |
|---------------|--------|----------|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| vendor        | String | Body     | No (special field in the voice navigation scenario)           | ASR extended parameter.                                                                                                       |
| grammar       | String | Body     | No (special field in the voice navigation scenario)           | ASR syntax file name (including the path and suffix).                                                                         |
| question_id   | String | Body     | No (special field in the voice outbound call survey scenario) | Question sequence number in the outbound call scenario, for example, <b>Q1</b> and <b>Q2</b> . (This parameter is discarded.) |
| question_name | String | Body     | No (special field in the voice outbound call survey scenario) | Question name in the outbound call scenario. (This parameter is discarded.)                                                   |

| Parameter      | Type   | Position | Mandatory                                                     | Description                                                                                                                                                                                                                                                                                                                                                                        |
|----------------|--------|----------|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| answer_id      | String | Body     | No (special field in the voice outbound call survey scenario) | Answer to the question in the outbound call scenario. <ul style="list-style-type: none"><li>• <b>Y</b>: yes</li><li>• <b>N</b>: no</li><li>• <b>TIMEOUT</b>: timeout</li><li>• <b>NOMATCH</b>: unidentified</li><li>• <b>ERROR</b>: other exceptions</li></ul> If the answer is not <b>Y</b> or <b>N</b> , the actual configuration result is used. (This parameter is discarded.) |
| flowRecordFlag | String | Body     | No                                                            | Whether to record voices. <ul style="list-style-type: none"><li>• <b>0</b>: yes</li><li>• <b>1</b>: no</li></ul>                                                                                                                                                                                                                                                                   |
| flowRecordPath | String | Body     | No                                                            | Path of the recording file returned when recording is required.                                                                                                                                                                                                                                                                                                                    |
| ttsGroupId     | String | Body     | No                                                            | Group ID of the TTS server configured on the UAP.                                                                                                                                                                                                                                                                                                                                  |
| ttsSoundEffect | String | Body     | No                                                            | Sound effect of TTS voice playing. <ul style="list-style-type: none"><li><b>0</b>: male voice</li><li><b>1</b>: female voice</li></ul>                                                                                                                                                                                                                                             |

| Parameter             | Type   | Position | Mandatory | Description                                                                                                       |
|-----------------------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------|
| ttsSoundSpeed         | String | Body     | No        | Speed of TTS voice playing.<br><b>0</b> : low speed<br><b>1</b> : medium speed<br><b>8</b> : high speed           |
| ttsMRCPEndor          | String | Body     | No        | TTS extended parameter, that is, the <b>mrcp vendor</b> parameter. The value contains a maximum of 40 characters. |
| asrMRCPIID            | String | Body     | No        | MRCP ID of the ASR server configured on the UAP.                                                                  |
| asrSlotName           | String | Body     | No        | Keyword used for parsing the ASR slots.                                                                           |
| asrRecognizeType      | String | Body     | No        | ASR recognition type.<br><b>0</b> : common recognition<br><b>1</b> : intelligent recognition                      |
| asrNoInputTimeout     | String | Body     | No        | Timeout period when a user remains silent, in seconds. The default value is <b>100</b> .                          |
| asrRecognitionTimeout | String | Body     | No        | Interval when the recognition times out, in seconds. The default value is <b>200</b> .                            |

| Parameter                | Type    | Position | Mandatory | Description                                                                                                                                                             |
|--------------------------|---------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| asrSpeechCompleteTimeout | String  | Body     | No        | Timeout period when a user pauses, in seconds. The default value is <b>500</b> .                                                                                        |
| responseSource           | Integer | Body     | No        | Whether the reply comes from a chatbot or a silent agent. The options are <b>0</b> (chatbot) and <b>1</b> (silent agent).                                               |
| specialRecognize         | Integer | Body     | No        | Whether to use recognition by packet capture and recording. The options are <b>0</b> (original recognition) and <b>1</b> (recognition by packet capture and recording). |

**Prompt\_text** format description (for intelligent information matching businesses)

| Parameter          | Type   | Position | Mandatory | Description                                                                                                    | Source                   |
|--------------------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------|--------------------------|
| sentiment_analysis | String | Body     | No        | Emotion detection type. The options are as follows:<br><b>negative</b><br><b>positive</b><br><b>neutrality</b> | TUC real-time inspection |



| Parameter                | Type        | Position | Mandatory | Description                                                                                        | Source                           |
|--------------------------|-------------|----------|-----------|----------------------------------------------------------------------------------------------------|----------------------------------|
| sentiment_analysis_score | Integer     | Body     | No        | Emotion detection score.<br>0-100                                                                  | TUC real-time inspection         |
| role                     | String      | Body     | No        | User type.<br><b>staff:</b> agent<br><b>customer:</b> user<br>Other values: empty character string | TUC real-time inspection         |
| sensitive_word           | JSON object | Body     | No        | Sensitive word notification.<br>{<br>"Prohibited word":<br>["Password"]<br>}                       | TUC sensitive word configuration |
| Intend                   | String      | Body     | Yes       | Customer intention.<br>It is a description text.                                                   | TUC intention                    |
| recomand_KP              | List        | Body     | No        | Recommended knowledge points.                                                                      | Business knowledge base          |

| Parameter   | Type        | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Source                               |
|-------------|-------------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| call_script | JSON string | Body     | Yes       | <p>Recommended script.</p> <p>Note:<br/>The <b>intentcode</b> parameter indicates the TUC intention code and can be empty. The <b>intentDsp</b> parameter indicates the intention description and cannot be empty.</p> <pre>{   {intentcode:     "",     intentDsp:""     ,"status":""     ,childintent[       {intentcode:         "",         intentDsp:""         ,"status":""         },       {intentcode:         "",         intentDsp:""         ,"status":""         }..     ]}   { intentcode   :""   ,intentDsp:""   ,   "status":""} }</pre> | ODFS resource template configuration |

| Parameter               | Type   | Position | Mandatory | Description                                                                                                                         | Source        |
|-------------------------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------|---------------|
| call_script_matchedstep | String | Body     | No        | Intention code.<br>It corresponds to the intention code in <b>call_script</b> .<br>It indicates the script progress (matched step). | TUC intention |

**Prompt\_text** format description (for intelligent case filling businesses)

| Parameter  | Type   | Position | Mandatory | Description                                  | Usage Method                                                                    |
|------------|--------|----------|-----------|----------------------------------------------|---------------------------------------------------------------------------------|
| beginIndex | String | Body     | Yes       | Start index of an entity in a text file.     | Start index of an entity in a text file.                                        |
| endIndex   | String | Body     | Yes       | End index of an entity in a text file.       | End index of an entity in a text file.                                          |
| type       | String | Body     | Yes       | Extracted entity type.                       | Recognition type of the entity. You do not need to enter the value in the form. |
| entity     | String | Body     | Yes       | Entity content, which has been standardized. | Used to fill in the corresponding fields in the form.                           |

| Parameter | Type   | Position | Mandatory | Description                                 | Usage Method            |
|-----------|--------|----------|-----------|---------------------------------------------|-------------------------|
| tag       | String | Body     | Yes       | Name of the field to be filled in the form. | Example: object level 2 |

### Response Example 1

```
{
 "userid": "1528780879-9581",
 "outaction": 9,
 "outparams": {
 "call_id": "1528780879-9581",
 "prompt_type": "1",
 "prompt_wav": "welcome",
 "prompt_text": "Query the call fee.",
 "language": "0",
 "inter_idx": "1",
 "model_type": "1011201"
 "timeout": "10",
 "tone": "",
 "grammar": "",
 "question_id": "Q1",
 "question_name": "Question 1",
 "answer_id": "Y"
 }
}
```

**Table 10-19** outparams (outaction=12: Query Operation)

| Parameter | Type   | Position | Mandatory | Description                                                                              |
|-----------|--------|----------|-----------|------------------------------------------------------------------------------------------|
| call_id   | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow. |

| Parameter   | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------|--------|----------|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| prompt_type | String | Body     | Yes                                                 | <p>Query type.</p> <ul style="list-style-type: none"> <li>• <b>1:</b> Query the queuing information about the current skill queue when a call is queuing in a skill queue.</li> <li>• <b>2:</b> Query the queuing information by skill queue ID before a call enters a skill queue.</li> <li>• <b>3:</b> Query the information about the skill queue where an agent belongs by agent ID.</li> <li>• <b>5:</b> Switch between audio and video calls.</li> </ul> |
| moduleName  | String | Body     | No                                                  | Module name, that is, name of a diagram element.                                                                                                                                                                                                                                                                                                                                                                                                               |
| inter_idx   | String | Body     | No (special field in the voice navigation scenario) | Number of consecutive interactions with a user in the ODFS.                                                                                                                                                                                                                                                                                                                                                                                                    |

| Parameter  | Type   | Position | Mandatory | Description                                                             |
|------------|--------|----------|-----------|-------------------------------------------------------------------------|
| changeType | String | Body     | Yes       | Switching type.<br>1. <b>1</b> : audio<br>2. <b>3</b> : audio and video |

## Response Example

```
{
 "outaction": 12,
 "outparams": {
 "call_id": "1528780879-9581",
 "prompt_type": "1",
 "inter_idx": "1",
 "moduleName": "Query",
 "xxx": "xxx" //Extend
 }
}
```

**Table 10-20** outparams (outaction=11: Dialog Transfer)

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                               |
|-------------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| call_id     | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow.                                                                  |
| call_sor_id | String | Body     | Yes       | User ID. (In the voice navigation and voice outbound call scenarios, the value is a user number. In other interaction scenarios, the value is a user ID.) |

| Parameter  | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------|--------|----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| trans_type | String | Body     | Yes       | <p>Dialog transfer type.</p> <ul style="list-style-type: none"> <li>• <b>1:</b> transfer to the manual service (to a skill queue based on the routing number)</li> <li>• <b>2:</b> transfer to the IVR</li> <li>• <b>3:</b> transfer to the manual service (to a skill queue based on the skill name)</li> <li>• <b>4:</b> transfer to the manual service (to an agent ID)</li> <li>• <b>5:</b> transfer to a third-party number</li> <li>• <b>6:</b> online digital assistance</li> <li>• <b>7:</b> transfer to the manual service (to the last agent. Currently, only multimedia is supported.)</li> </ul> |

| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------|------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |      |          |           | <ul style="list-style-type: none"> <li>● <b>8:</b> transfer to the manual service (to the skill queue to which an agent belongs. Currently, only multimedia is supported.)</li> <li>● <b>31:</b> transfer to a multimedia message (to the last agent)</li> <li>● <b>32:</b> transfer to a multimedia message (to a skill queue)</li> <li>● <b>33:</b> transfer to a multimedia message (to an agent)</li> </ul> |



| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| route_value | String | Body     | Yes       | <p>Route value information, which depends on the value of <b>trans_type</b>.</p> <p>When the value of <b>trans_type</b> is <b>1</b>, <b>route_value</b> is set to the subsequent access code of the skill queue.</p> <p>When the value of <b>trans_type</b> is <b>2</b>, <b>route_value</b> is set to the access code of the IVR flow.</p> <p>When the value of <b>trans_type</b> is <b>3</b>, <b>route_value</b> is set to the name of the skill queue.</p> <p>When the value of <b>trans_type</b> is <b>4</b>, <b>route_value</b> is set to an agent ID.</p> <p>When the value of <b>trans_type</b> is <b>5</b>, <b>route_value</b> is set to a third-party number.</p> <p>When the value of</p> |

| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------|------|----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |      |          |           | <p><b>trans_type</b> is 6, <b>route_value</b> is set to a flow route number.</p> <p>When the value of <b>trans_type</b> is 7, <b>route_value</b> is left empty.</p> <p>When the value of <b>trans_type</b> is 8, <b>route_value</b> is set to an agent ID.</p> <p>When the value of <b>trans_type</b> is 31, <b>route_value</b> is left empty.</p> <p>When the value of <b>trans_type</b> is 32, <b>route_value</b> is set to a skill queue name or access code.</p> <p>When the value of <b>trans_type</b> is 33, <b>route_value</b> is set to an agent ID.</p> |

| Parameter   | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                     |
|-------------|--------|----------|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| trans_data  | String | Body     | No                                                  | Call-associated data (transferred when the call is transferred to the manual service).                                                                                                                                          |
| calling_num | String | Body     | No                                                  | When a call is forwarded to a third-party number, this number is preferentially used as the calling number.                                                                                                                     |
| record_path | String | Body     | No                                                  | Full recording path name. (This parameter is valid and conference recording starts only when <b>route_value</b> is set to a third-party number. If this parameter is left empty or does not exist, recording is not performed.) |
| inter_idx   | String | Body     | No (special field in the voice navigation scenario) | Number of consecutive interactions with a user in the ODFS.                                                                                                                                                                     |
| trans_idx   | String | Body     | No (special field in the voice navigation scenario) | Jump sequence number.                                                                                                                                                                                                           |

| Parameter     | Type   | Position | Mandatory                                                     | Description                                                                          |
|---------------|--------|----------|---------------------------------------------------------------|--------------------------------------------------------------------------------------|
| question_id   | String | Body     | No (special field in the voice outbound call survey scenario) | Question ID in the outbound call scenario. (This parameter is discarded.)            |
| question_name | String | Body     | No (special field in the voice outbound call survey scenario) | Question name in the outbound call scenario. (This parameter is discarded.)          |
| answer_id     | String | Body     | No (special field in the voice outbound call survey scenario) | Answer to the question in the outbound call scenario. (This parameter is discarded.) |

## Response Example 2

```
{
 "userid": "1528780879-9581",
 "outaction": 11,
 "outparams": {
 "call_id": "1528780879-9581",
 "call_sor_id": "13500000001",
 "calling_num": "1234567890",
 "trans_type": "1",
 "route_value": "123456789",
 "inter_idx": "1",
 "trans_idx": "1",
 "question_id": "Q1",
 "question_name": "Question 1",
 "answer_id": "Y"
 }
}
```

**Table 10-21** outparams (outaction=10: Dialog Hangup)

| Parameter | Type   | Position | Mandatory | Description                                                                              |
|-----------|--------|----------|-----------|------------------------------------------------------------------------------------------|
| call_id   | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow. |

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                 |
|-------------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| call_sor_id | String | Body     | Yes       | User ID. (In the voice navigation and voice outbound call scenarios, the value is a user number. In other interaction scenarios, the value is a user ID.)                                                                                                                   |
| call_dst_id | String | Body     | Yes       | Access ID.<br>1. In the voice navigation scenario, this parameter is set to the called number.<br>2. In the voice outbound call survey scenario, this parameter is set to the survey type ID.<br>3. In other interaction scenarios, this parameter is set to the access ID. |
| start_time  | String | Body     | Yes       | Dialog interaction start time.                                                                                                                                                                                                                                              |
| end_time    | String | Body     | Yes       | Dialog interaction end time.                                                                                                                                                                                                                                                |

| Parameter      | Type   | Position | Mandator<br>y                                          | Description                                                                                                                                                                                                                                                                                       |
|----------------|--------|----------|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| release_reason | String | Body     | No                                                     | Whether the ODFS flow enters the <b>End</b> diagram element properly.<br><b>0</b> : The flow enters the <b>End</b> diagram element properly.<br><b>1</b> : The flow enters the <b>End</b> diagram element when an exception or timeout occurs and no error tolerance business logic is processed. |
| region_id      | String | Body     | No<br>(special field in the voice navigation scenario) | Region of a user.                                                                                                                                                                                                                                                                                 |
| entrance_id    | String | Body     | No<br>(special field in the voice navigation scenario) | Entrance ID.                                                                                                                                                                                                                                                                                      |
| exit_id        | String | Body     | No<br>(special field in the voice navigation scenario) | Exit ID. The value is the same as that of <b>entrance_id</b> .                                                                                                                                                                                                                                    |
| user_type_id   | String | Body     | No<br>(special field in the voice navigation scenario) | User type.                                                                                                                                                                                                                                                                                        |

| Parameter       | Type   | Position | Mandatory                                              | Description            |
|-----------------|--------|----------|--------------------------------------------------------|------------------------|
| suilu_region_id | String | Body     | No<br>(special field in the voice navigation scenario) | Call access region ID. |

 NOTE

After a session ends, if the IVR initiates a request whose **inaction** is **9** or **11** and **input** is **hangup**, the ODFS triggers the hangup response and sends the response to the IVR as the end flag. The IVR does not invoke the ODFS interface.

### Response Example 3

```
{
 "userid": "1528780879-9581",
 "outaction": 10,
 "outparams": {
 "call_id": "1528780879-9581",
 "call_sor_id": "13500000001",
 "call_dst_id": "10086",
 "start_time": "2018090407:16:24",
 "end_time": "2018090407:30:24",
 "release_reason": "0",
 "region_id": "025",
 "entrance_id": "03",
 "exit_id": "05",
 "user_type_id": "01",
 "suilu_region_id": "025"
 }
}
```

## 10.5.3 Interface Invoked After Dialog Transfer (inaction=11)

After completing the dialog transfer operation, the access party uses the current operation result as the input parameter to send a request to the ODFS for the next operation. The following describes the request parameter structure.

### inparams

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                       |
|-----------|--------|----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| call_id   | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow.<br><br>The value can contain a maximum of 64 characters. |

| Parameter     | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| call_dst_id   | String | Body     | Yes       | <p>Access ID.</p> <ol style="list-style-type: none"> <li>In the voice navigation scenario, this parameter is set to the flow access code.</li> <li>In the voice outbound call survey scenario, this parameter is set to the flow access code.</li> <li>In other interaction scenarios, this parameter is set to the access ID.</li> </ol> <p>The value can contain a maximum of 20 characters.</p> |
| begin_trans   | String | Body     | Yes       | Transfer start time.                                                                                                                                                                                                                                                                                                                                                                               |
| end_trans     | String | Body     | Yes       | Transfer end time.                                                                                                                                                                                                                                                                                                                                                                                 |
| trans_result  | String | Body     | Yes       | <p>Transfer result.</p> <ul style="list-style-type: none"> <li>0: success</li> <li>Other values: failure</li> </ul>                                                                                                                                                                                                                                                                                |
| auth_token    | String | Body     | Yes       | <p>Authorization information, which is the token value returned by the access control system.</p> <p>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a>.</p>                                                                                                                                                                                                                    |
| record_result | String | Body     | No        | <p>Recording result (valid only when the call is successfully transferred to a third-party number.)</p> <ul style="list-style-type: none"> <li>0: success</li> <li>Other values: failure</li> </ul>                                                                                                                                                                                                |



| Parameter | Type   | Position | Mandatory                                              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------|--------|----------|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| input     | String | Body     | No                                                     | <p>Interaction result. (For details about this parameter, see the following scenarios.)</p> <p>After the transfer is successful, the <b>trans_result</b> parameter that is set to <b>0</b> is added to the request, and the <b>input</b> parameter is not required. Then, the access party receives the hangup response (in which <b>outaction</b> is set to <b>10</b>) of the ODFS, and the access party needs to send the request again. The request needs to obtain the <b>input</b> parameter that is set to <b>hangup</b>.</p> <ul style="list-style-type: none"> <li>• <b>hangup</b>: hangup</li> </ul> <p>The value can contain a maximum of 1024 characters.</p> |
| inter_idx | String | Body     | No<br>(special field in the voice navigation scenario) | <p>Number of interaction times. The value is the same as that of <b>inter_idx</b> returned by the ODFS in the previous time.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| mediaType | String | Body     | No                                                     | <p>Media type (text, audio, video, and so on).</p> <p>Example: <b>audio</b> or <b>video</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                               |
|-------------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| channelType | String | Body     | No        | Channel type. <ul style="list-style-type: none"> <li>• WEB</li> <li>• INSTAGRAM</li> <li>• TELEGRAM</li> <li>• WECHAT</li> <li>• FACEBOOK</li> <li>• TWITTER</li> <li>• EMAIL</li> <li>• LINE</li> <li>• WHATSAPP</li> <li>• 5G</li> <li>• SMS</li> </ul> |

### ExtParams

| Parameter    | Type   | Position | Mandatory | Description                                                                                                                          |
|--------------|--------|----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------|
| transin_data | String | Body     | No        | Call-associated data parameters agreed by the access party and the OIAP, for example, data packet parameters transferred by the IVR. |

### Request

- If the call is transferred successfully, the access party sends the following request:

```
{
 "userid": "1528780879-9581",
 "inaction": 11,
 "inparams": {
 "call_id": "1528780879-9581",
 "call_dst_id": "10086",
 "begin_trans": "2018090407:16:24",
 "end_trans": "2018090407:20:24",
 "trans_result": "0",
 "input": "",
 "inter_idx": "1"
 },
 "extparams": {
```

```
 "transin_data": "95,22714,0,,1,1,,test_gdj_01005"
 }
}
```

After receiving a response from the ODFS, the access party sends the following request again:

```
{
 "userid": "1528780879-9581",
 "inaction": 11,
 "inparams": {
 "call_id": "1528780879-9581",
 "call_dst_id": "10086",
 "begin_trans": "2018090407:16:24",
 "end_trans": "2018090407:20:24",
 "trans_result": "0",
 "input": "hangup",
 "inter_idx": "1"
 },
 "extparams": {
 "transin_data": "95,22714,0,,1,1,,test_gdj_01005"
 }
}
```

After receiving the request, the ODFS sends a hangup response again. The access party does not need to invoke the ODFS interface. The call transfer is complete.

- If the call fails to be transferred:  
After the preceding parameters are transferred, the access party may receive the response containing the value of **outaction** from the ODFS. The options are **9**, **10**, and **11**, and the actual value is determined by the business logic.

After receiving a request whose **inaction** is **8**, **9**, or **11**, the ODFS may send different responses based on the TUC configuration, that is, the value of **outaction** may be **9**, **10**, **11**, or **12**.

**Table 10-22** outparams (outaction=9: Dialog Interaction)

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| prompt_type | String | Body     | Yes       | Interaction type. <ul style="list-style-type: none"> <li>• <b>0:</b> Plays a specified voice for voice interaction (full path).</li> <li>• <b>1:</b> Plays a specified voice for voice interaction.</li> <li>• <b>2:</b> Plays TTS content for voice interaction.</li> <li>• <b>3:</b> text interaction.</li> <li>• <b>4:</b> Records the voice of the calling party.</li> <li>• <b>5:</b> Plays a video.</li> <li>• <b>6:</b> multimedia interaction.</li> <li>• <b>7:</b> card interaction.</li> </ul> |

| Parameter   | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                                                                                                                                                    |
|-------------|--------|----------|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| prompt_wav  | String | Body     | No (special field in the voice navigation scenario) | <p>When <b>prompt_type</b> is set to <b>0</b>, <b>4</b>, or <b>5</b>, enter the full path name for storing the file to be played or recorded. (The path must be readable by the UAP.)</p> <p>When <b>prompt_type</b> is set to <b>1</b>, enter the name of the voice file (excluding the path header, which is assembled by the IVR during voice playing).</p> |
| prompt_text | String | Body     | Yes                                                 | <p>TTS dynamic text content or text dialog content.</p> <p>This parameter is mandatory when <b>prompt_type</b> is set to <b>2</b>, <b>3</b>, <b>6</b>, or <b>7</b>.</p>                                                                                                                                                                                        |
| language    | String | Body     | Yes                                                 | <p>Language ID. (This parameter is mandatory for TTS voice playing and ASR.)</p> <p><b>0</b>: Chinese<br/><b>1</b>: English</p>                                                                                                                                                                                                                                |

| Parameter | Type   | Position | Mandatory                                           | Description                                                 |
|-----------|--------|----------|-----------------------------------------------------|-------------------------------------------------------------|
| inter_idx | String | Body     | No (special field in the voice navigation scenario) | Number of consecutive interactions with a user in the ODFS. |

| Parameter  | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------|--------|----------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| model_type | String | Body     | No (special field in the voice navigation scenario) | <p>Template type. The value is a number of seven digits. The first three digits indicate whether voice playback, recognition, and key pressing are supported, respectively.</p> <ul style="list-style-type: none"> <li>• <b>100:</b> Only playback is supported.</li> <li>• <b>101:</b> Playback is interrupted during key pressing, and recognition is not supported.</li> <li>• <b>110:</b> Playback is interrupted during recognition, and key pressing is not supported.</li> <li>• <b>120:</b> Playback is not interrupted during recognition, and key pressing is not supported.</li> <li>• <b>122:</b> Playback is not interrupted</li> </ul> |

| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------|------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |      |          |           | <p>during key pressing and recognition .</p> <ul style="list-style-type: none"> <li>• <b>111:</b> Playback is interrupted during key pressing and recognition .</li> <li>• <b>102:</b> Playback is not interrupted during key pressing, and recognition is not supported. The following two digits indicate the maximum number of pressed keys. The last two digits indicate whether the asterisk key (*) and pound key (#) are used as function keys, respectively. The value <b>1</b> indicates that the</li> </ul> |



| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------|------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |      |          |           | <p>key is used as a function key. The pound key (#) is used as the confirm key, and the asterisk (*) is used as the cancel key. The value <b>0</b> indicates that the key is used as a common key rather than a function key. For example, <b>1011201</b> indicates that voice playback and key pressing are supported but recognition is not supported, the maximum number of pressed keys is 12, and the pound key (#) is used as the confirm key. <b>1101200</b> indicates</p> |

| Parameter | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                 |
|-----------|--------|----------|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |        |          |                                                     | that voice playback and recognition are supported but key pressing is not supported. In this case, the last four digits <b>1200</b> are invalid.                                                                            |
| timeout   | String | Body     | No (special field in the voice navigation scenario) | Voice playing timeout interval, in seconds. The parameter specifies the timeout interval for the system to wait for customer input after the voice playing ends.                                                            |
| tone      | String | Body     | No (special field in the voice navigation scenario) | This parameter is mandatory for recording when <b>prompt_type</b> is set to <b>4</b> .<br><b>true</b> : A beep tone is played before recording starts.<br><b>false</b> : A beep tone is not played before recording starts. |

| Parameter     | Type   | Position | Mandatory                                                     | Description                                                                                                                   |
|---------------|--------|----------|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| vendor        | String | Body     | No (special field in the voice navigation scenario)           | ASR extended parameter.                                                                                                       |
| grammar       | String | Body     | No (special field in the voice navigation scenario)           | Syntax file name (including the path and suffix).                                                                             |
| question_id   | String | Body     | No (special field in the voice outbound call survey scenario) | Question sequence number in the outbound call scenario, for example, <b>Q1</b> and <b>Q2</b> . (This parameter is discarded.) |
| question_name | String | Body     | No (special field in the voice outbound call survey scenario) | Question name in the outbound call scenario. (This parameter is discarded.)                                                   |

| Parameter      | Type   | Position | Mandatory                                                     | Description                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------|--------|----------|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| answer_id      | String | Body     | No (special field in the voice outbound call survey scenario) | <p>Answer to the question in the outbound call scenario.</p> <ul style="list-style-type: none"> <li>• <b>Y</b>: yes</li> <li>• <b>N</b>: no</li> <li>• <b>TIMEOUT</b>: timeout</li> <li>• <b>NOMATCH</b>: unidentified</li> <li>• <b>ERROR</b>: other exceptions</li> </ul> <p>If the answer is not <b>Y</b> or <b>N</b>, the actual configuration result is used. (This parameter is discarded.)</p> |
| flowRecordFlag | String | Body     | No                                                            | <p>Whether to record voices.</p> <ul style="list-style-type: none"> <li>• <b>0</b>: yes</li> <li>• <b>1</b>: no</li> </ul> <p>If this parameter is not set, the default value is <b>1</b>.</p>                                                                                                                                                                                                        |
| flowRecordPath | String | Body     | No                                                            | <p>Path of the recording file returned when recording is required.</p>                                                                                                                                                                                                                                                                                                                                |
| ttsGroupid     | String | Body     | No                                                            | <p>Group ID of the TTS server configured on the UAP.</p>                                                                                                                                                                                                                                                                                                                                              |

| Parameter         | Type   | Position | Mandatory | Description                                                                                                       |
|-------------------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------|
| ttsSoundEffect    | String | Body     | No        | Sound effect of TTS-based voice playing.<br><b>0</b> : male voice<br><b>1</b> : female voice                      |
| ttsSoundSpeed     | String | Body     | No        | Speed of TTS voice playing.<br><b>0</b> : low speed<br><b>1</b> : medium speed<br><b>8</b> : high speed           |
| ttsMRCPVendor     | String | Body     | No        | TTS extended parameter, that is, the <b>mrCP vendor</b> parameter. The value contains a maximum of 40 characters. |
| asrMRCPId         | String | Body     | No        | MRCP ID of the ASR server configured on the UAP.                                                                  |
| asrSlotName       | String | Body     | No        | Keyword used for parsing the ASR slots.                                                                           |
| asrRecognizeType  | String | Body     | No        | ASR recognition type.<br><b>0</b> : common recognition<br><b>1</b> : intelligent recognition                      |
| asrNoInputTimeout | String | Body     | No        | Timeout period when a user remains silent, in seconds. The default value is <b>100</b> .                          |

| Parameter                | Type    | Position | Mandatory | Description                                                                                                                                                             |
|--------------------------|---------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| asrRecognitionTimeout    | String  | Body     | No        | Interval when the recognition times out, in seconds. The default value is <b>200</b> .                                                                                  |
| asrSpeechCompleteTimeout | String  | Body     | No        | Timeout period when a user pauses, in seconds. The default value is <b>500</b> .                                                                                        |
| responseSource           | Integer | Body     | No        | Whether the reply comes from a chatbot or a silent agent. The options are <b>0</b> (chatbot) and <b>1</b> (silent agent).                                               |
| specialRecognize         | Integer | Body     | No        | Whether to use recognition by packet capture and recording. The options are <b>0</b> (original recognition) and <b>1</b> (recognition by packet capture and recording). |

**Table 10-23 Prompt\_text** format description (for intelligent information matching businesses)

| Parameter      | Type        | Position | Mandatory | Description                                                       | Source                           |
|----------------|-------------|----------|-----------|-------------------------------------------------------------------|----------------------------------|
| sensitive_word | JSON object | Body     | No        | Sensitive word notification.<br>{"Prohibited word": ["Password"]} | TUC sensitive word configuration |
| Intend         | String      | Body     | Yes       | Customer intention.<br>It is a description text.                  | TUC intention                    |
| recomand_KP    | List        | Body     | No        | Recommended knowledge points.                                     | Business knowledge base          |

| Parameter   | Type        | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Source                               |
|-------------|-------------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| call_script | JSON string | Body     | Yes       | <p>Recommended script.</p> <p>Note:<br/>The <b>intentcode</b> parameter indicates the TUC intention code and can be empty. The <b>intentDsp</b> parameter indicates the intention description and cannot be empty.</p> <pre>{   {intentcode:     "",     intentDsp:""     ,"status":""     ,childintent[       {intentcode:         "",         intentDsp:""         ,"status":""         },       {intentcode:         "",         intentDsp:""         ,"status":""         }..     ]}   { intentcode   :""   ,intentDsp:""   ,   "status":""} }</pre> | ODFS resource template configuration |



| Parameter               | Type   | Position | Mandatory | Description                                                                                                                         | Source        |
|-------------------------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------|---------------|
| call_script_matchedstep | String | Body     | No        | Intention code.<br>It corresponds to the intention code in <b>call_script</b> .<br>It indicates the script progress (matched step). | TUC intention |

**Table 10-24 Prompt\_text** format description (for intelligent case filling businesses)

| Parameter  | Type   | Position | Mandatory | Description                                  | Usage Method                                                                    |
|------------|--------|----------|-----------|----------------------------------------------|---------------------------------------------------------------------------------|
| beginIndex | String | Body     | Yes       | Start index of an entity in a text file.     | Start index of an entity in a text file.                                        |
| endIndex   | String | Body     | Yes       | End index of an entity in a text file.       | End index of an entity in a text file.                                          |
| type       | String | Body     | Yes       | Extracted entity type.                       | Recognition type of the entity. You do not need to enter the value in the form. |
| entity     | String | Body     | Yes       | Entity content, which has been standardized. | Used to fill in the corresponding fields in the form.                           |

| Parameter | Type   | Position | Mandatory | Description                                 | Usage Method            |
|-----------|--------|----------|-----------|---------------------------------------------|-------------------------|
| tag       | String | Body     | Yes       | Name of the field to be filled in the form. | Example: object level 2 |

### Response Example 1

```
{
 "userid": "1528780879-9581",
 "outaction": 9,
 "outparams": {
 "call_id": "1528780879-9581",
 "prompt_type": "1",
 "prompt_wav": "welcome",
 "prompt_text": "Query the call fee.",
 "language": "0",
 "inter_idx": "1",
 "model_type": "1011201"
 "timeout": "10",
 "tone": "",
 "grammar": "",
 "question_id": "Q1",
 "question_name": "Question 1",
 "answer_id": "Y"
 }
}
```

**Table 10-25** outparams (outaction=12: Query Operation, Used in the Common IVR Flow)

| Parameter | Type   | Position | Mandatory | Description                                                                              |
|-----------|--------|----------|-----------|------------------------------------------------------------------------------------------|
| call_id   | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow. |

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| prompt_type | String | Body     | Yes       | <p>Query type.</p> <ul style="list-style-type: none"> <li>• <b>1:</b> Query the queuing information about the current skill queue when a call is queuing in a skill queue.</li> <li>• <b>2:</b> Query the queuing information by skill queue ID before a call enters a skill queue.</li> <li>• <b>3:</b> Query the information about the skill queue where an agent belongs by agent ID.</li> <li>• <b>5:</b> Switch between audio and video calls.</li> </ul> |
| skill_id    | String | String   | No        | <p>Skill queue ID.<br/>This parameter is mandatory only when <b>prompt_type</b> is set to <b>2</b>.</p>                                                                                                                                                                                                                                                                                                                                                        |

| Parameter  | Type   | Position | Mandatory                                           | Description                                                 |
|------------|--------|----------|-----------------------------------------------------|-------------------------------------------------------------|
| moduleName | String | Body     | No                                                  | Module name, that is, name of a diagram element.            |
| inter_idx  | String | Body     | No (special field in the voice navigation scenario) | Number of consecutive interactions with a user in the ODFS. |

## Response Example

```
{
 "outaction": 12,
 "outparams": {
 "call_id": "1528780879-9581",
 "prompt_type": "1",
 "inter_idx": "1",
 "moduleName": "Query",
 "xxx": "xxx" //Extend
 }
}
```

**Table 10-26** outparams (outaction=11: Dialog Transfer)

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                               |
|-------------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| call_id     | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow.                                                                  |
| call_sor_id | String | Body     | Yes       | User ID. (In the voice navigation and voice outbound call scenarios, the value is a user number. In other interaction scenarios, the value is a user ID.) |

| Parameter  | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------|--------|----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| trans_type | String | Body     | Yes       | <p>Dialog transfer type.</p> <ul style="list-style-type: none"> <li>• <b>1:</b> transfer to the manual service (to a skill queue based on the routing number)</li> <li>• <b>2:</b> transfer to the IVR</li> <li>• <b>3:</b> transfer to the manual service (to a skill queue based on the skill name)</li> <li>• <b>4:</b> transfer to the manual service (to an agent ID)</li> <li>• <b>5:</b> transfer to a third-party number</li> <li>• <b>6:</b> online digital assistance</li> <li>• <b>7:</b> transfer to the manual service (to the last agent. Currently, only multimedia is supported.)</li> </ul> |

| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------|------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |      |          |           | <ul style="list-style-type: none"> <li>• <b>8:</b> transfer to the manual service (to the skill queue to which an agent belongs. Currently, only multimedia is supported.)</li> <li>• <b>31:</b> transfer to a multimedia message (to the last agent)</li> <li>• <b>32:</b> transfer to a multimedia message (to a skill queue)</li> <li>• <b>33:</b> transfer to a multimedia message (to an agent)</li> </ul> |

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| route_value | String | Body     | Yes       | <p>Route value information, which depends on the value of <b>trans_type</b>.</p> <p>When the value of <b>trans_type</b> is <b>1</b>, <b>route_value</b> is set to the subsequent access code of the skill queue.</p> <p>When the value of <b>trans_type</b> is <b>2</b>, <b>route_value</b> is set to the access code of the IVR flow.</p> <p>When the value of <b>trans_type</b> is <b>3</b>, <b>route_value</b> is set to the name of the skill queue.</p> <p>When the value of <b>trans_type</b> is <b>4</b>, <b>route_value</b> is set to an agent ID.</p> <p>When the value of <b>trans_type</b> is <b>5</b>, <b>route_value</b> is set to a third-party number.</p> <p>When the value of</p> |

| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------|------|----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |      |          |           | <p><b>trans_type</b> is 6, <b>route_value</b> is set to a flow route number.</p> <p>When the value of <b>trans_type</b> is 7, <b>route_value</b> is left empty.</p> <p>When the value of <b>trans_type</b> is 8, <b>route_value</b> is set to an agent ID.</p> <p>When the value of <b>trans_type</b> is 31, <b>route_value</b> is left empty.</p> <p>When the value of <b>trans_type</b> is 32, <b>route_value</b> is set to a skill queue name or access code.</p> <p>When the value of <b>trans_type</b> is 33, <b>route_value</b> is set to an agent ID.</p> |



| Parameter   | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                     |
|-------------|--------|----------|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| trans_data  | String | Body     | No                                                  | Call-associated data (transferred when the call is transferred to the manual service).                                                                                                                                          |
| calling_num | String | Body     | No                                                  | When a call is forwarded to a third-party number, this number is preferentially used as the calling number.                                                                                                                     |
| record_path | String | Body     | No                                                  | Full recording path name. (This parameter is valid and conference recording starts only when <b>route_value</b> is set to a third-party number. If this parameter is left empty or does not exist, recording is not performed.) |
| inter_idx   | String | Body     | No (special field in the voice navigation scenario) | Number of consecutive interactions with a user in the ODFS.                                                                                                                                                                     |
| trans_idx   | String | Body     | No (special field in the voice navigation scenario) | Jump sequence number.                                                                                                                                                                                                           |

| Parameter     | Type   | Position | Mandatory                                                     | Description                                                                          |
|---------------|--------|----------|---------------------------------------------------------------|--------------------------------------------------------------------------------------|
| question_id   | String | Body     | No (special field in the voice outbound call survey scenario) | Question ID in the outbound call scenario. (This parameter is discarded.)            |
| question_name | String | Body     | No (special field in the voice outbound call survey scenario) | Question name in the outbound call scenario. (This parameter is discarded.)          |
| answer_id     | String | Body     | No (special field in the voice outbound call survey scenario) | Answer to the question in the outbound call scenario. (This parameter is discarded.) |

## Response Example 2

```
{
 "userid": "1528780879-9581",
 "outaction": 11,
 "outparams": {
 "call_id": "1528780879-9581",
 "call_sor_id": "13500000001",
 "calling_num": "1234567890",
 "trans_type": "1",
 "route_value": "123456789",
 "inter_idx": "1",
 "trans_idx": "1",
 "question_id": "Q1",
 "question_name": "Question 1",
 "answer_id": "Y"
 }
}
```

**Table 10-27** outparams (outaction=10: Dialog Hangup)

| Parameter | Type   | Position | Mandatory | Description                                                                              |
|-----------|--------|----------|-----------|------------------------------------------------------------------------------------------|
| call_id   | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow. |

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                 |
|-------------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| call_sor_id | String | Body     | Yes       | User ID. (In the voice navigation and voice outbound call scenarios, the value is a user number. In other interaction scenarios, the value is a user ID.)                                                                                                                   |
| call_dst_id | String | Body     | Yes       | Access ID.<br>1. In the voice navigation scenario, this parameter is set to the called number.<br>2. In the voice outbound call survey scenario, this parameter is set to the survey type ID.<br>3. In other interaction scenarios, this parameter is set to the access ID. |
| start_time  | String | Body     | Yes       | Dialog interaction start time.                                                                                                                                                                                                                                              |
| end_time    | String | Body     | Yes       | Dialog interaction end time.                                                                                                                                                                                                                                                |

| Parameter      | Type   | Position | Mandator<br>y                                          | Description                                                                                                                                                                                                                                                                                       |
|----------------|--------|----------|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| release_reason | String | Body     | No                                                     | Whether the ODFS flow enters the <b>End</b> diagram element properly.<br><b>0</b> : The flow enters the <b>End</b> diagram element properly.<br><b>1</b> : The flow enters the <b>End</b> diagram element when an exception or timeout occurs and no error tolerance business logic is processed. |
| region_id      | String | Body     | No<br>(special field in the voice navigation scenario) | Region of a user.                                                                                                                                                                                                                                                                                 |
| entrance_id    | String | Body     | No<br>(special field in the voice navigation scenario) | Entrance ID.                                                                                                                                                                                                                                                                                      |
| exit_id        | String | Body     | No<br>(special field in the voice navigation scenario) | Exit ID. The value is the same as that of <b>entrance_id</b> .                                                                                                                                                                                                                                    |
| user_type_id   | String | Body     | No<br>(special field in the voice navigation scenario) | User type.                                                                                                                                                                                                                                                                                        |

| Parameter       | Type   | Position | Mandator y                                          | Description            |
|-----------------|--------|----------|-----------------------------------------------------|------------------------|
| suilu_region_id | String | Body     | No (special field in the voice navigation scenario) | Call access region ID. |

 NOTE

After a session ends, if the IVR initiates a request whose **inaction** is **9** or **11** and **input** is **hangup**, the ODFS triggers the hangup response and sends the response to the IVR as the end flag. The IVR does not invoke the ODFS interface.

### Response Example 3

```
{
 "userid": "1528780879-9581",
 "outaction": 10,
 "outparams": {
 "call_id": "1528780879-9581",
 "call_sor_id": "13500000001",
 "call_dst_id": "10086",
 "start_time": "2018090407:16:24",
 "end_time": "2018090407:30:24",
 "release_reason": "0",
 "region_id": "025",
 "entrance_id": "03",
 "exit_id": "05",
 "user_type_id": "01",
 "suilu_region_id": "025"
 }
}
```

## 10.5.4 Packet Capture and Recording Interface Invoked in the Dialog (inaction=7)

When sending a request to the ODFS for the first time, the access party first requests the ODFS to enable VoiceCyber recording. Whether the ODFS sends an enabling request to VoiceCyber is determined during the flow release. This interface is applicable only to the intelligent IVR service on the network where the packet capture system (for example, VoiceCyber) is interconnected.

**Table 10-28** inparams

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                           |
|-------------|--------|----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| call_id     | String | Body     | No        | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow.<br>The value can contain a maximum of 64 characters.                                                                                                                                                                                         |
| call_sor_id | String | Body     | No        | User ID. (In the voice navigation and voice outbound call scenarios, the user number is transferred. In other interaction scenarios, the user ID is transferred.)<br>The value can contain a maximum of 64 characters.                                                                                                                |
| call_dst_id | String | Body     | Yes       | Access ID.<br>1. In the voice navigation scenario, this parameter is set to the flow access code.<br>2. In the voice outbound call survey scenario, this parameter is set to the flow access code.<br>3. In other interaction scenarios, this parameter is set to the access ID.<br>The value can contain a maximum of 20 characters. |
| real_callee | String | Body     | No        | Called number for accessing the IVR. This parameter is valid in the voice navigation scenario.<br>The value can contain a maximum of 32 characters.                                                                                                                                                                                   |

| Parameter  | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                     |
|------------|--------|----------|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cti_callid | String | Body     | No (special field in the voice navigation scenario) | Call ID of the CTI to which a call is connected, which is transferred by Huawei IVR. In other scenarios, this parameter is left empty.<br><br>The value can contain a maximum of 32 characters. |
| auth_token | String | Body     | Yes                                                 | Authorization information, which is the token value returned by the access control system.                                                                                                      |

## Request

```
{
 "userid": "1528780879-9581",
 "inaction": 7,
 "inparams": {
 "call_id": "1528780879-9581",
 "call_sor_id": "13500000001",
 "call_dst_id": "10086",
 "auth_token": "eyJhbG*****UzNSwian"
 }
}
```

After receiving the request in which the value of **inaction** is **7**, the ODFS determines whether to send a request for starting recording or a packet capture session to the packet capture and recording system (for example, VoiceCyber) based on the flow configuration. Then, the ODFS sends a response to the IVR.

## outparams (outaction=7: Successfully Starting and Interconnecting with the Packet Capture System)

Response Example

```
{
 "ret": "0",
 "userid": "16128422559300717ed3bf958dca2d0cda6c1",
 "outaction": "7",
 "outparams": {}
}
```

## 10.5.5 Recognition Result Requesting Interface (inaction=13)

The access party requests the ODFS to return the voice recognition result so that the voice playing can be interrupted. This interface is applicable only to the intelligent IVR service on the network where the packet capture system (for example, VoiceCyber) is interconnected.

**Table 10-29** inparams

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                           |
|-------------|--------|----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| call_id     | String | Body     | No        | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow.<br>The value can contain a maximum of 64 characters.                                                                                                                                                                                         |
| call_sor_id | String | Body     | No        | User ID. (In the voice navigation and voice outbound call scenarios, the user number is transferred. In other interaction scenarios, the user ID is transferred.)<br>The value can contain a maximum of 64 characters.                                                                                                                |
| call_dst_id | String | Body     | Yes       | Access ID.<br>1. In the voice navigation scenario, this parameter is set to the flow access code.<br>2. In the voice outbound call survey scenario, this parameter is set to the flow access code.<br>3. In other interaction scenarios, this parameter is set to the access ID.<br>The value can contain a maximum of 20 characters. |
| real_callee | String | Body     | No        | Called number for accessing the IVR. This parameter is valid in the voice navigation scenario.<br>The value can contain a maximum of 32 characters.                                                                                                                                                                                   |



| Parameter  | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                     |
|------------|--------|----------|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cti_callid | String | Body     | No (special field in the voice navigation scenario) | Call ID of the CTI to which a call is connected, which is transferred by Huawei IVR. In other scenarios, this parameter is left empty.<br><br>The value can contain a maximum of 32 characters. |
| auth_token | String | Body     | Yes                                                 | Authorization information, which is the token value returned by the access control system.                                                                                                      |

## Request

```
{
 "userid": "1528780879-9581",
 "inaction": 13,
 "inparams": {
 "call_id": "1528780879-9581",
 "call_sor_id": "13500000001",
 "call_dst_id": "10086",
 "auth_token": "eyJhbG*****jUzNSwian"
 }
}
```

After receiving the request in which the value of **inaction** is **13**, the ODFS checks whether the call recognition result queue reported by VoiceCyber contains data. If yes, the ODFS returns **1** to the IVR. If no, the ODFS returns **0**.

**Table 10-30** outparams (outaction=13: Recognition Result Feedback)

| Parameter | Type   | Position | Mandatory | Description                                                                              |
|-----------|--------|----------|-----------|------------------------------------------------------------------------------------------|
| call_id   | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow. |

| Parameter      | Type   | Position | Mandatory | Description                                                                                                                |
|----------------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------|
| recognize_type | String | Body     | Yes       | Whether the recognition result has been obtained. <ul style="list-style-type: none"><li>• 0: no</li><li>• 1: yes</li></ul> |

## Response Example

```
{
 "ret": "0",
 "userid": "1528780879-9581",
 "outaction": "13",
 "outparams": {
 "call_id": "1528780879-9581",
 "recognize_type": "0"
 }
}
```

## 10.6 Dialog Interfaces (V2)

### Description

The OIAP provides interfaces for third-party systems to perform real-time dialog operations such as initialization, dialog interaction, dialog transfer, and hangup so that third-party systems can complete multi-round dialog interactions with customers as well as business handling and query.

Compared with the original dialog interfaces, the dialog interfaces (V2) support gray routing based on **vdnid** (carried in the interface URL). The interface parameters and logic are the same as those of the original dialog interfaces.

### Interface Method

The request method must be set to POST.

### URL

<https://IP:PORT/oifde/rest/v2/crs/process/{vdnid}>

## Request

**Table 10-31** Parameters in the request body

| Parameter | Type    | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------|---------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| userid    | String  | Body     | Yes       | The ODFS establishes call instances internally based on this parameter. The ODFS may have multiple call instances at the same time. Subsequent interactions are associated with the same call based on the parameter. The value can contain a maximum of 64 characters.                                                                                                                                                             |
| inaction  | Integer | Body     | Yes       | Type of the request that the access party executes this time.<br><b>8</b> : dialog initialization request (for the first invoking)<br><b>9</b> : request after dialog interaction<br><b>11</b> : request after dialog transfer<br>Note: This parameter is set to <b>8</b> for the first interface invoking. In subsequent interactions, the parameter is set to the value of <b>outaction</b> received in the previous interaction. |

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                                                                                                               |
|-----------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| seat      | String | Body     | No        | Agent type. The default value is <b>vir</b> . <ul style="list-style-type: none"> <li>• <b>vir</b>: virtual agent</li> <li>• <b>ass</b>: agent assistant</li> </ul>                                                                        |
| inparams  | Object | Body     | Yes       | Parameters that are sent to the ODFS to inform the ODFS of the detailed information about the operation result. The value of <b>inparams</b> varies depending on the value of <b>inaction</b> . The parameters are described by scenario. |
| extparams | Object | Body     | No        | Optional dynamic parameters that are sent to the ODFS, which are used only in the initialization scenario.                                                                                                                                |

## Response

| Parameter | Type    | Position | Mandatory | Description                                                                                                              |
|-----------|---------|----------|-----------|--------------------------------------------------------------------------------------------------------------------------|
| ret       | Integer | Body     | Yes       | Execution result. <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> |

| Parameter | Type    | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                      |
|-----------|---------|----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| userid    | String  | Body     | Yes       | The ODFS establishes call instances internally based on this parameter. The ODFS may have multiple call instances at the same time. Subsequent interactions are associated with the same call based on the parameter.                                                                                                                                            |
| outaction | Integer | Body     | Yes       | Type of the operation performed by the access party. <ul style="list-style-type: none"> <li>● <b>9</b>: dialog interaction</li> <li>● <b>11</b>: dialog transfer</li> <li>● <b>10</b>: hangup</li> <li>● <b>12</b>: query</li> <li>● <b>7</b>: packet capture and recording enabled in the dialog</li> <li>● <b>13</b>: recognition result requesting</li> </ul> |
| outparams | Object  | Body     | Yes       | Detailed information required for the access party to complete the operation. The parameters are described by scenario. <ul style="list-style-type: none"> <li>● <a href="#">Table 10-32</a></li> <li>● <a href="#">Table 10-38</a></li> <li>● <a href="#">Table 10-37</a></li> <li>● <a href="#">Table 10-36</a></li> </ul>                                     |

## Return Code

### NOTICE

If the response body does not contain the return code and description, use the native return code of HTTPS.

| Return Code | Description                              | Possible Cause                                                                                                                                    | Solution                                            |
|-------------|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| 200         | This operation is successful.            | The processing is successful.                                                                                                                     | -                                                   |
| 400         | The request is incorrect.                | The request URL is incorrect.                                                                                                                     | Use a correct request URL.                          |
| 500         | The business fails.                      | The value of a parameter in the request does not exist in the system. For example, the case type code that you send does not exist in the system. | Verify the values of the parameters in the request. |
| Others      | Refer to the standard HTTPS status code. | -                                                                                                                                                 | -                                                   |

### 10.6.1 Dialog Initialization Interface (inaction=8)

When the access party sends a request to the ODFS for the first time, the access party needs to send a request whose **inaction** is **8** to notify the ODFS of initialization. The ODFS returns the next operation of the access party in **outparams**. This section describes the **inparams** parameter structure and request example and the return parameter structure and message examples in different scenarios.

## inparams

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| call_id     | String | Body     | Yes       | <p>Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow.</p> <p>The value can contain a maximum of 64 characters.</p>                                                                                                                                                                                                                                           |
| call_sor_id | String | Body     | Yes       | <p>User ID. (In the voice navigation and voice outbound call scenarios, the value is a user number. In other interaction scenarios, the value is a user ID.)</p> <p>The value can contain a maximum of 64 characters.</p>                                                                                                                                                                          |
| call_dst_id | String | Body     | Yes       | <p>Access ID.</p> <ol style="list-style-type: none"> <li>In the voice navigation scenario, this parameter is set to the flow access code.</li> <li>In the voice outbound call survey scenario, this parameter is set to the flow access code.</li> <li>In other interaction scenarios, this parameter is set to the access ID.</li> </ol> <p>The value can contain a maximum of 20 characters.</p> |
| real_callee | String | Body     | No        | <p>Called number for accessing the IVR. This parameter is valid in the voice navigation scenario.</p> <p>The value can contain a maximum of 32 characters.</p>                                                                                                                                                                                                                                     |

| Parameter       | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                 |
|-----------------|--------|----------|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cti_callid      | String | Body     | No (special field in the voice navigation scenario) | Call ID of the CTI to which a call is connected, which is transferred by Huawei IVR. In other scenarios, this parameter is left empty.<br>The value can contain a maximum of 32 characters. |
| auth_token      | String | Body     | Yes                                                 | Authorization information, which is the token value returned by the access control system.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> .                       |
| suilu_region_id | String | Body     | No (special field in the voice navigation scenario) | Region where the calling party is located.<br>The value can contain a maximum of 64 characters.                                                                                             |



| Parameter   | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------|--------|----------|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| entrance_id | String | Body     | No (special field in the voice navigation scenario) | Navigation entrance. <ul style="list-style-type: none"> <li>● <b>01</b>: advertising message</li> <li>● <b>02</b>: greeting</li> <li>● <b>03</b>: main menu of the first layer</li> <li>● <b>04</b>: manual interception</li> <li>● <b>05</b>: agent</li> <li>● <b>06</b>: access through short numbers</li> <li>● <b>07</b>: full-voice portal</li> <li>● <b>08</b>: night navigation mode. Customers can access the mode by pressing <b>0</b>.</li> <li>● <b>09</b>: full-voice portal at night</li> <li>● <b>10</b>: access through self-service short numbers</li> <li>● <b>11</b>: service mode accessed by the customer when all agents are in busy state</li> <li>● <b>98</b>: others</li> <li>● <b>99</b>: unidentified</li> </ul> |
| mediaType   | String | Body     | No                                                  | Media type (text, audio, video, and so on).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| Parameter     | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                   |
|---------------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| channelType   | String | Body     | No        | Channel type. <ul style="list-style-type: none"><li>• WEB</li><li>• INSTAGRAM</li><li>• TELEGRAM</li><li>• WECHAT</li><li>• FACEBOOK</li><li>• TWITTER</li><li>• EMAIL</li><li>• LINE</li><li>• WHATSAPP</li><li>• 5G</li><li>• SMS</li></ul> |
| responseStyle | String | Body     | No        | Response style.                                                                                                                                                                                                                               |

## ExtParams

| Parameter    | Type   | Position | Mandatory | Description                                                                                                                         |
|--------------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------|
| transin_data | String | Body     | No        | Call-associated data parameter agreed by the access party and the OIAP, for example, data packet parameters transferred by the IVR. |
| locationid   | String | Body     | No        | Call recording node ID.                                                                                                             |
| mediaability | String | Body     | No        | Media capability. <ul style="list-style-type: none"><li>• 1: audio</li><li>• 2: video</li><li>• 3: audio and video</li></ul>        |

| Parameter | Type   | Position | Mandator<br>y | Description                                                                                                                                                                                                                                                                                              |
|-----------|--------|----------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ieValue   | String | Body     | No            | Call-associated data parameter agreed by the access party and the OIAP. This parameter is used to carry call information if a call is transferred from a third-party platform during interconnection to another platform.<br><br>Note: In the OIAP flow, the value of this parameter will be anonymized. |

### Request Example 1

```
{
 "userid": "1528780879-9581",
 "inaction": 8,
 "inparams": {
 "call_id": "1528780879-9581",
 "call_sor_id": "13500000001",
 "call_dst_id": "10086",
 "auth_token": "eyJhbGc*****MjUzNSwian",
 "suilu_region_id": "025",
 "entrance_id": "03"
 },
 "extparams": {
 "transin_data": "95,22714,0,,1,1,,test_gdj_01005"
 }
}
```

After receiving a request whose **inaction** is **8**, **9**, or **11**, the ODFS may send different responses based on the TUC configuration, that is, the value of **outaction** may be **9**, **10**, **11**, or **12**.

**Table 10-32** outparams (outaction=9: Dialog Interaction)

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| prompt_type | String | Body     | Yes       | <p>Interaction type.</p> <ul style="list-style-type: none"> <li>• <b>0:</b> Plays a specified voice for voice interaction (full path).</li> <li>• <b>1:</b> Plays a specified voice for voice interaction.</li> <li>• <b>2:</b> Plays TTS content for voice interaction.</li> <li>• <b>3:</b> text interaction.</li> <li>• <b>4:</b> Records the voice of the calling party.</li> <li>• <b>5:</b> Plays a video.</li> <li>• <b>6:</b> multimedia interaction.</li> <li>• <b>7:</b> card interaction.</li> </ul> |

| Parameter   | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                                                                                                                                                    |
|-------------|--------|----------|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| prompt_wav  | String | Body     | No (special field in the voice navigation scenario) | <p>When <b>prompt_type</b> is set to <b>0</b>, <b>4</b>, or <b>5</b>, enter the full path name for storing the file to be played or recorded. (The path must be readable by the UAP.)</p> <p>When <b>prompt_type</b> is set to <b>1</b>, enter the name of the voice file (excluding the path header, which is assembled by the IVR during voice playing).</p> |
| prompt_text | String | Body     | Yes                                                 | <p>TTS dynamic text content or text dialog content.</p> <p>This parameter is mandatory when <b>prompt_type</b> is set to <b>2</b>, <b>3</b>, <b>6</b>, or <b>7</b>.</p>                                                                                                                                                                                        |
| language    | String | Body     | Yes                                                 | <p>Language ID. (This parameter is mandatory for TTS voice playing and ASR.)</p> <p><b>0</b>: Chinese<br/><b>1</b>: English</p>                                                                                                                                                                                                                                |

| Parameter | Type   | Position | Mandatory                                           | Description                                                 |
|-----------|--------|----------|-----------------------------------------------------|-------------------------------------------------------------|
| inter_idx | String | Body     | No (special field in the voice navigation scenario) | Number of consecutive interactions with a user in the ODFS. |

| Parameter  | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------|--------|----------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| model_type | String | Body     | No (special field in the voice navigation scenario) | <p>Template type. The value is a number of seven digits. The first three digits indicate whether voice playback, recognition, and key pressing are supported, respectively.</p> <ul style="list-style-type: none"> <li>• <b>100:</b> Only playback is supported.</li> <li>• <b>101:</b> Playback is interrupted during key pressing, and recognition is not supported.</li> <li>• <b>110:</b> Playback is interrupted during recognition, and key pressing is not supported.</li> <li>• <b>120:</b> Playback is not interrupted during recognition, and key pressing is not supported.</li> <li>• <b>122:</b> Playback is not interrupted</li> </ul> |

| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------|------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |      |          |           | <p>during key pressing and recognition .</p> <ul style="list-style-type: none"> <li>• <b>111:</b> Playback is interrupted during key pressing and recognition .</li> <li>• <b>102:</b> Playback is not interrupted during key pressing, and recognition is not supported. The following two digits indicate the maximum number of pressed keys. The last two digits indicate whether the asterisk key (*) and pound key (#) are used as function keys, respectively. The value <b>1</b> indicates that the</li> </ul> |



| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------|------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |      |          |           | <p>key is used as a function key. The pound key (#) is used as the confirm key, and the asterisk (*) is used as the cancel key. The value <b>0</b> indicates that the key is used as a common key rather than a function key. For example, <b>1011201</b> indicates that voice playback and key pressing are supported but recognition is not supported, the maximum number of pressed keys is 12, and the pound key (#) is used as the confirm key. <b>1101200</b> indicates</p> |

| Parameter | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                 |
|-----------|--------|----------|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |        |          |                                                     | that voice playback and recognition are supported but key pressing is not supported. In this case, the last four digits <b>1200</b> are invalid.                                                                            |
| timeout   | String | Body     | No (special field in the voice navigation scenario) | Voice playing timeout interval, in seconds. The parameter specifies the timeout interval for the system to wait for customer input after the voice playing ends.                                                            |
| tone      | String | Body     | No (special field in the voice navigation scenario) | This parameter is mandatory for recording when <b>prompt_type</b> is set to <b>4</b> .<br><b>true</b> : A beep tone is played before recording starts.<br><b>false</b> : A beep tone is not played before recording starts. |

| Parameter     | Type   | Position | Mandatory                                                     | Description                                                                                                                   |
|---------------|--------|----------|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| vendor        | String | Body     | No (special field in the voice navigation scenario)           | ASR extended parameter.                                                                                                       |
| grammar       | String | Body     | No (special field in the voice navigation scenario)           | Syntax file name (including the path and suffix).                                                                             |
| question_id   | String | Body     | No (special field in the voice outbound call survey scenario) | Question sequence number in the outbound call scenario, for example, <b>Q1</b> and <b>Q2</b> . (This parameter is discarded.) |
| question_name | String | Body     | No (special field in the voice outbound call survey scenario) | Question name in the outbound call scenario. (This parameter is discarded.)                                                   |

| Parameter      | Type   | Position | Mandatory                                                     | Description                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------|--------|----------|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| answer_id      | String | Body     | No (special field in the voice outbound call survey scenario) | <p>Answer to the question in the outbound call scenario.</p> <ul style="list-style-type: none"> <li>• <b>Y</b>: yes</li> <li>• <b>N</b>: no</li> <li>• <b>TIMEOUT</b>: timeout</li> <li>• <b>NOMATCH</b>: unidentified</li> <li>• <b>ERROR</b>: other exceptions</li> </ul> <p>If the answer is not <b>Y</b> or <b>N</b>, the actual configuration result is used.<br/>(This parameter is discarded.)</p> |
| flowRecordFlag | String | Body     | No                                                            | <p>Whether to record voices.</p> <ul style="list-style-type: none"> <li>• <b>0</b>: yes</li> <li>• <b>1</b>: no</li> </ul> <p>If this parameter is not set, the default value <b>1</b> is used.</p>                                                                                                                                                                                                       |
| flowRecordPath | String | Body     | No                                                            | <p>Path of the recording file returned when recording is required.</p>                                                                                                                                                                                                                                                                                                                                    |
| ttsGroupid     | String | Body     | No                                                            | <p>Group ID of the TTS server configured on the UAP.</p>                                                                                                                                                                                                                                                                                                                                                  |

| Parameter         | Type   | Position | Mandatory | Description                                                                                                       |
|-------------------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------|
| ttsSoundEffect    | String | Body     | No        | Sound effect of TTS voice playing.<br><b>0</b> : male voice<br><b>1</b> : female voice                            |
| ttsSoundSpeed     | String | Body     | No        | Speed of TTS voice playing.<br><b>0</b> : low speed<br><b>1</b> : medium speed<br><b>8</b> : high speed           |
| ttsMRCPVendor     | String | Body     | No        | TTS extended parameter, that is, the <b>mrCP vendor</b> parameter. The value contains a maximum of 40 characters. |
| asrMRCPId         | String | Body     | No        | MRCP ID of the ASR server configured on the UAP.                                                                  |
| asrSlotName       | String | Body     | No        | Keyword used for parsing the ASR slots.                                                                           |
| asrRecognizeType  | String | Body     | No        | ASR recognition type.<br><b>0</b> : common recognition<br><b>1</b> : intelligent recognition                      |
| asrNoInputTimeout | String | Body     | No        | Timeout period when a user remains silent, in seconds. The default value is <b>100</b> .                          |

| Parameter                | Type    | Position | Mandatory | Description                                                                                                                                                             |
|--------------------------|---------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| asrRecognitionTimeout    | String  | Body     | No        | Interval when the recognition times out, in seconds. The default value is <b>200</b> .                                                                                  |
| asrSpeechCompleteTimeout | String  | Body     | No        | Timeout period when a user pauses, in seconds. The default value is <b>500</b> .                                                                                        |
| responseSource           | Integer | Body     | No        | Whether the reply comes from a chatbot or a silent agent. The options are <b>0</b> (chatbot) and <b>1</b> (silent agent).                                               |
| specialRecognize         | Integer | Body     | No        | Whether to use recognition by packet capture and recording. The options are <b>0</b> (original recognition) and <b>1</b> (recognition by packet capture and recording). |

**Prompt\_text** format description (for intelligent information matching businesses)

| Parameter      | Type        | Position | Mandatory | Description                                                       | Source                           |
|----------------|-------------|----------|-----------|-------------------------------------------------------------------|----------------------------------|
| sensitive_word | JSON object | Body     | No        | Sensitive word notification.<br>{"Prohibited word": ["Password"]} | TUC sensitive word configuration |
| Intend         | String      | Body     | Yes       | Customer intention.<br>It is a description text.                  | TUC intention                    |
| recomand_KP    | List        | Body     | No        | Recommended knowledge points.                                     | Business knowledge base          |

| Parameter   | Type        | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Source                               |
|-------------|-------------|----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| call_script | JSON string | Body     | Yes       | <p>Recommended script.</p> <p>Note:<br/>The <b>intentcode</b> parameter indicates the TUC intention code and can be empty. The <b>intentDsp</b> parameter indicates the intention description and cannot be empty.</p> <pre>{   {intentcode:     "",     intentDsp:""     ,"status":""     ,childintent[       {intentcode:         "",         intentDsp:""         ,"status":""}       ,       {intentcode:         "",         intentDsp:""         ,"status":""}     ]}   { intentcode   :""   ,intentDsp:""   ,   "status":""} }</pre> | ODFS resource template configuration |



| Parameter               | Type   | Position | Mandatory | Description                                                                                                                         | Source        |
|-------------------------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------|---------------|
| call_script_matchedstep | String | Body     | No        | Intention code.<br>It corresponds to the intention code in <b>call_script</b> .<br>It indicates the script progress (matched step). | TUC intention |

**Prompt\_text** format description (for intelligent case filling businesses)

| Parameter  | Type   | Position | Mandatory | Description                                  | Usage Method                                                                    |
|------------|--------|----------|-----------|----------------------------------------------|---------------------------------------------------------------------------------|
| beginIndex | String | Body     | Yes       | Start index of an entity in a text file.     | Start index of an entity in a text file.                                        |
| endIndex   | String | Body     | Yes       | End index of an entity in a text file.       | End index of an entity in a text file.                                          |
| type       | String | Body     | Yes       | Extracted entity type.                       | Recognition type of the entity. You do not need to enter the value in the form. |
| entity     | String | Body     | Yes       | Entity content, which has been standardized. | Used to fill in the corresponding fields in the form.                           |

| Parameter | Type   | Position | Mandatory | Description                                 | Usage Method             |
|-----------|--------|----------|-----------|---------------------------------------------|--------------------------|
| tag       | String | Body     | Yes       | Name of the field to be filled in the form. | Example: object level 2. |

## Response Example 2

```
{
 "userid": "1528780879-9581",
 "outaction": 9,
 "outparams": {
 "call_id": "1528780879-9581",
 "prompt_type": "1",
 "prompt_wav": "welcome",
 "prompt_text": "Query the call fee.",
 "language": "0",
 "inter_idx": "1",
 "model_type": "1011201"
 "timeout": "10",
 "tone": "",
 "grammar": "",
 "question_id": "Q1",
 "question_name": "Question 1",
 "answer_id": "Y"
 }
}
```

## outparams (outaction=12: Query Operation, Used in the Common IVR Flow)

| Parameter | Type   | Position | Mandatory | Description                                                                              |
|-----------|--------|----------|-----------|------------------------------------------------------------------------------------------|
| call_id   | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow. |

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| prompt_type | String | Body     | Yes       | <p>Query type.</p> <ul style="list-style-type: none"> <li>• <b>1:</b> Query the queuing information about the current skill queue when a call is queuing in a skill queue.</li> <li>• <b>2:</b> Query the queuing information by skill queue ID before a call enters a skill queue.</li> <li>• <b>3:</b> Query the information about the skill queue where an agent belongs by agent ID.</li> <li>• <b>5:</b> Switch between audio and video calls.</li> </ul> |
| skill_id    | String | String   | No        | <p>Skill queue ID.</p> <p>This parameter is mandatory only when <b>prompt_type</b> is set to <b>2</b>.</p>                                                                                                                                                                                                                                                                                                                                                     |

| Parameter  | Type   | Position | Mandatory                                           | Description                                                 |
|------------|--------|----------|-----------------------------------------------------|-------------------------------------------------------------|
| moduleName | String | Body     | No                                                  | Module name, that is, name of a diagram element.            |
| inter_idx  | String | Body     | No (special field in the voice navigation scenario) | Number of consecutive interactions with a user in the ODFS. |

### Response Example 3

```
{
 "outaction": 12,
 "outparams": {
 "call_id": "1528780879-9581",
 "prompt_type": "1",
 "inter_idx": "1",
 "moduleName": "Query",
 "xxx": "xxx" //Extend
 }
}
```

### outparams (outaction=11: Dialog Transfer)

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                               |
|-------------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| call_id     | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow.                                                                  |
| call_sor_id | String | Body     | Yes       | User ID. (In the voice navigation and voice outbound call scenarios, the value is a user number. In other interaction scenarios, the value is a user ID.) |

| Parameter  | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| trans_type | String | Body     | Yes       | <p>Dialog transfer type.</p> <ul style="list-style-type: none"> <li>• <b>1:</b> transfer to the manual service (to a skill queue based on the routing number)</li> <li>• <b>2:</b> transfer to an IVR</li> <li>• <b>3:</b> transfer to the manual service (to a skill queue based on the skill name)</li> <li>• <b>4:</b> transfer to the manual service (to an agent ID)</li> <li>• <b>5:</b> transfer to a third-party number</li> <li>• <b>6:</b> online digital assistance</li> <li>• <b>7:</b> transfer to the manual service (to the last agent. Currently, only multimedia is supported.)</li> </ul> |

| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------|------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |      |          |           | <ul style="list-style-type: none"> <li>● <b>8:</b> transfer to the manual service (to the skill queue to which an agent belongs. Currently, only multimedia is supported.)</li> <li>● <b>31:</b> transfer to a multimedia message (to the last agent)</li> <li>● <b>32:</b> transfer to a multimedia message (to a skill queue)</li> <li>● <b>33:</b> transfer to a multimedia message (to an agent)</li> </ul> |

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| route_value | String | Body     | Yes       | <p>Route value information, which depends on the value of <b>trans_type</b>.</p> <p>When the value of <b>trans_type</b> is <b>1</b>, <b>route_value</b> is set to the subsequent access code of the skill queue.</p> <p>When the value of <b>trans_type</b> is <b>2</b>, <b>route_value</b> is set to the access code of the IVR flow.</p> <p>When the value of <b>trans_type</b> is <b>3</b>, <b>route_value</b> is set to the name of the skill queue.</p> <p>When the value of <b>trans_type</b> is <b>4</b>, <b>route_value</b> is set to an agent ID.</p> <p>When the value of <b>trans_type</b> is <b>5</b>, <b>route_value</b> is set to a third-party number.</p> <p>When the value of</p> |

| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------|------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |      |          |           | <p><b>trans_type</b> is 6, <b>route_value</b> is set to a flow route code.</p> <p>When the value of <b>trans_type</b> is 7, <b>route_value</b> is left empty.</p> <p>When the value of <b>trans_type</b> is 8, <b>route_value</b> is set to an agent ID.</p> <p>When the value of <b>trans_type</b> is 31, <b>route_value</b> is left empty.</p> <p>When the value of <b>trans_type</b> is 32, <b>route_value</b> is set to a skill queue name or access code.</p> <p>When the value of <b>trans_type</b> is 33, <b>route_value</b> is set to an agent ID.</p> |



| Parameter   | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                     |
|-------------|--------|----------|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| trans_data  | String | Body     | No                                                  | Call-associated data (transferred when the call is transferred to the manual service).                                                                                                                                          |
| calling_num | String | Body     | No                                                  | Number preferentially used as the calling number when a call is forwarded to a third-party.                                                                                                                                     |
| record_path | String | Body     | No                                                  | Full recording path name. (This parameter is valid and conference recording starts only when <b>route_value</b> is set to a third-party number. If this parameter is left empty or does not exist, recording is not performed.) |
| inter_idx   | String | Body     | No (special field in the voice navigation scenario) | Number of consecutive interactions with a user in the ODFS.                                                                                                                                                                     |
| trans_idx   | String | Body     | No (special field in the voice navigation scenario) | Jump sequence number.                                                                                                                                                                                                           |

| Parameter     | Type   | Position | Mandatory                                                     | Description                                                                          |
|---------------|--------|----------|---------------------------------------------------------------|--------------------------------------------------------------------------------------|
| question_id   | String | Body     | No (special field in the voice outbound call survey scenario) | Question ID in the outbound call scenario. (This parameter is discarded.)            |
| question_name | String | Body     | No (special field in the voice outbound call survey scenario) | Question name in the outbound call scenario. (This parameter is discarded.)          |
| answer_id     | String | Body     | No (special field in the voice outbound call survey scenario) | Answer to the question in the outbound call scenario. (This parameter is discarded.) |

### Response Example 4

```
{
 "userid": "1528780879-9581",
 "outaction": 11,
 "outparams": {
 "call_id": "1528780879-9581",
 "call_sor_id": "13500000001",
 "calling_num": "1234567890",
 "trans_type": "1",
 "route_value": "123456789",
 "inter_idx": "1",
 "trans_idx": "1",
 "question_id": "Q1",
 "question_name": "Question 1",
 "answer_id": "Y"
 }
}
```

### outparams (outaction=10: Dialog Hangup)

After a session ends, if the IVR initiates a request whose **inaction** is **9** or **11** and **input** is **hangup**, the ODFS triggers the hangup response and sends the response to the IVR as the end flag. The IVR does not invoke the ODFS interface anymore.

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                 |
|-------------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| call_id     | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow.                                                                                                                                                                                    |
| call_sor_id | String | Body     | Yes       | User ID. (In the voice navigation and voice outbound call scenarios, the value is a user number. In other interaction scenarios, the value is a user ID.)                                                                                                                   |
| call_dst_id | String | Body     | Yes       | Access ID.<br>1. In the voice navigation scenario, this parameter is set to the called number.<br>2. In the voice outbound call survey scenario, this parameter is set to the survey type ID.<br>3. In other interaction scenarios, this parameter is set to the access ID. |
| start_time  | String | Body     | Yes       | Dialog interaction start time.                                                                                                                                                                                                                                              |
| end_time    | String | Body     | Yes       | Dialog interaction end time.                                                                                                                                                                                                                                                |

| Parameter      | Type   | Position | Mandator<br>y                                       | Description                                                                                                                                                                                                                                                                                       |
|----------------|--------|----------|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| release_reason | String | Body     | No                                                  | Whether the ODFS flow enters the <b>End</b> diagram element properly.<br><b>0</b> : The flow enters the <b>End</b> diagram element properly.<br><b>1</b> : The flow enters the <b>End</b> diagram element when an exception or timeout occurs and no error tolerance business logic is processed. |
| region_id      | String | Body     | No (special field in the voice navigation scenario) | Region of a user.                                                                                                                                                                                                                                                                                 |
| entrance_id    | String | Body     | No (special field in the voice navigation scenario) | Entrance ID.                                                                                                                                                                                                                                                                                      |
| exit_id        | String | Body     | No (special field in the voice navigation scenario) | Exit ID. The value is the same as that of <b>entrance_id</b> .                                                                                                                                                                                                                                    |
| user_type_id   | String | Body     | No (special field in the voice navigation scenario) | User type.                                                                                                                                                                                                                                                                                        |

| Parameter       | Type   | Position | Mandatory                                              | Description            |
|-----------------|--------|----------|--------------------------------------------------------|------------------------|
| suilu_region_id | String | Body     | No<br>(special field in the voice navigation scenario) | Call access region ID. |

### Response Example 5

```
{
 "userid": "1528780879-9581",
 "outaction": 10,
 "outparams": {
 "call_id": "1528780879-9581",
 "call_sor_id": "13500000001",
 "call_dst_id": "10086",
 "start_time": "2018090407:16:24",
 "end_time": "2018090407:30:24",
 "release_reason": "0",
 "region_id": "025",
 "entrance_id": "03",
 "exit_id": "05",
 "user_type_id": "01",
 "suilu_region_id": "025"
 }
}
```

## 10.6.2 Interface Invoked After Dialog Interaction (inaction=9)

After performing operations such as voice playing and text chat, the access party uses the current operation result as the input parameter to send a request to the ODFS for the next operation. The following describes the request parameter structure.

### inparams

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                   |
|-----------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| call_id   | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow.<br>The value can contain a maximum of 64 characters. |

| Parameter        | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                      |
|------------------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| call_dst_id      | String | Body     | Yes       | Access ID.<br>1. In the voice navigation scenario, this parameter is set to the called number.<br>2. In the voice outbound call survey scenario, this parameter is set to the survey type ID.<br>3. In other interaction scenarios, this parameter is set to the access ID.<br>The value can contain a maximum of 20 characters. |
| flow_result_type | String | Body     | Yes       | Result type. <ul style="list-style-type: none"><li>● 1: voice recognition input or text input</li><li>● 2: voice key input</li><li>● 3: no input (playing only)</li><li>● 4: recording ended</li><li>● -1: others</li></ul>                                                                                                      |

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------|--------|----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| input     | String | Body     | Yes       | <p>Dialog interaction result.</p> <ul style="list-style-type: none"> <li>• Voice recognition result or text input. The voice recognition result is the ID in <i>Redis value key +@+inter_no</i> format. The text input result is the text content.</li> <li>• Voice key result, which is the key value, for example, <b>1</b> and <b>201801</b>.</li> <li>• <b>playover</b>: voice playing completed</li> <li>• <b>timeout</b>: timeout</li> <li>• <b>nomatch</b>: recognition failure or key pressing failure</li> <li>• <b>sys_err</b>: system exception</li> <li>• <b>hangup</b>: hangup</li> <li>• <b>recordend</b>: recording ended</li> </ul> <p>If the result is <b>hangup</b>, the hangup response of the ODFS can be triggered.</p> <p>The value can contain a maximum of 1024 characters.</p> |

| Parameter      | Type   | Position | Mandatory                                                                             | Description                                                                                                                                                               |
|----------------|--------|----------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| auth_token     | String | Body     | Yes                                                                                   | Authorization information, which is the token value returned by the access control system.<br><br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> . |
| recordFileName | String | Body     | No (special field in the voice navigation scenario that supports full-flow recording) | Full-flow recording path and file name, for example, <b>Y:/record/1/20200421/xxxxxx.wav</b> .                                                                             |
| inter_idx      | String | Body     | No (special field in the voice navigation scenario)                                   | Number of interaction times. The value is the same as that of <b>inter_idx</b> returned by the ODFS in the previous time.                                                 |
| begin_play     | String | Body     | No (special field in the voice navigation scenario)                                   | Voice playing start time.                                                                                                                                                 |
| end_play       | String | Body     | No (special field in the voice navigation scenario)                                   | Voice playing end time.                                                                                                                                                   |
| result_time    | String | Body     | No (special field in the voice navigation scenario)                                   | Time when the result is generated.                                                                                                                                        |
| inter_no       | String | Body     | No (special field in the voice navigation scenario)                                   | Recognition ID.                                                                                                                                                           |



| Parameter | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------|--------|----------|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IACmd     | String | Body     | No (special field in the voice navigation scenario) | <p>Field dedicated for intelligent match and intelligent case filling.</p> <p>This parameter must be set to <b>match</b> when intelligent match is used.</p> <p>This parameter can be set to any of the following values when intelligent case filling is used:</p> <p><b>match:</b> A case filling request is submitted.</p> <p><b>rematch:</b> An event is re-identified when the classification of the identified event is incorrect.</p> <p><b>confirm:</b> When an agent selects a field, the system notifies the ODFS that the field has been confirmed.</p> |

| Parameter       | Type    | Position | Mandatory                                           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------|---------|----------|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TextSource      | String  | Body     | No (special field in the voice navigation scenario) | <p>Whether the input text is from an agent or a user when <b>IACmd</b> is set to <b>match</b> (same for intelligent matching and intelligent case filling). The options are <b>staff</b> and <b>customer</b>.</p> <p><b>staff</b>: agent<br/><b>customer</b>: user</p> <p>The name of the field selected by the agent is transferred when <b>IACmd</b> is set to <b>confirm</b>, for example, object level 2.</p> <p>This parameter is optional when <b>IACmd</b> is set to <b>rematch</b>.</p> |
| feedback        | Integer | Body     | No                                                  | Satisfaction. The options are <b>1</b> (satisfactory) and <b>0</b> (unsatisfactory).                                                                                                                                                                                                                                                                                                                                                                                                            |
| feedbackContent | String  | Body     | No                                                  | Dissatisfaction reason. If the feedback is satisfactory, leave this parameter empty.                                                                                                                                                                                                                                                                                                                                                                                                            |
| mediaType       | String  | Body     | No                                                  | Media type (text, audio, video, and so on).<br>Example: <b>audio</b> or <b>video</b>                                                                                                                                                                                                                                                                                                                                                                                                            |

| Parameter                     | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                   |
|-------------------------------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| channelType                   | String | Body     | No        | Channel type. <ul style="list-style-type: none"><li>• WEB</li><li>• INSTAGRAM</li><li>• TELEGRAM</li><li>• WECHAT</li><li>• FACEBOOK</li><li>• TWITTER</li><li>• EMAIL</li><li>• LINE</li><li>• WHATSAPP</li><li>• 5G</li><li>• SMS</li></ul> |
| refeedbackContentcordFileName | String | Body     | No        | Name of a voice recording file.                                                                                                                                                                                                               |
| call_media_type               | String | Body     | No        | Type of an inbound IVR call. The options are <b>1</b> (audio) and <b>3</b> (video).                                                                                                                                                           |

## ExtParams

| Parameter    | Type   | Position | Mandatory | Description                                                                                                                          |
|--------------|--------|----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------|
| transin_data | String | Body     | No        | Call-associated data parameters agreed by the access party and the OIAP, for example, data packet parameters transferred by the IVR. |

| Parameter      | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                        |
|----------------|--------|----------|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| release_reason | String | Body     | No (special field in the voice navigation scenario) | Reason code reported by the IVR to the ODFS for call release.<br><b>0:</b> The call is released in a business flow.<br><b>1:</b> The system releases the call abnormally.<br><b>2:</b> The user releases the call. |
| queueIndex     | String | Body     | No (only in the queuing information query scenario) | Queuing position of a skill queue.                                                                                                                                                                                 |
| agentCount     | String | Body     | No (only in the queuing information query scenario) | Number of online agents in a skill queue.                                                                                                                                                                          |
| estimateTime   | String | Body     | No (only in the queuing information query scenario) | Estimated wait time of a skill queue.                                                                                                                                                                              |
| idleAgentCount | String | Body     | No (only in the queuing information query scenario) | Number of idle agents in a skill queue.                                                                                                                                                                            |

## Request Example

```
{
 "userid": "1528780879-9581",
 "inaction": 9,
 "inparams": {
 "call_id": "1528780879-9581",
 "call_dst_id": "10086",
 "flow_result_type": "1",
 "input": "Help me query the call fee."
 }
}
```

```
"inter_idx": "1",
"begin_play": "2018090407:16:24",
"end_play": "2018090407:16:30",
"result_time": "2018090407:16:3",
"inter_no": "0"
},
"extparams": {
 "transin_data": "95,22714,0,,1,1,,test_gdj_01005",
 "queueIndex": "2",
 "agentCount": "5",
 "estimateTime": "10",
 "idleAgentCount": "1"
}
}
```

If the ODFS determines that **flow\_result\_type** is set to **1** and **input** is set to the recognition result ID, the ODFS invokes the Redis to obtain the converted text in which **key** is set to the Redis value key in the recognition result ID. The obtained recognition text is a non-JSON character string.

The following is an example of the code for the Lua script to obtain the Redis result. In the example, the key value is **msg**.

```
local red = redis:new()
red:set_timeout(1000)
local ip = "192.168.77.193"
local port = 22122
local ok, err = red:connect(ip, port)
- if not ok then
 ngx.say("connect to redis error : ", err)
 return close_redis(red)
end
local resp, err = red:get("msg")
- if not resp then
 ngx.say("get msg error : ", err)
 return close_redis(red)
end
```

After receiving a request whose **inaction** is **8**, **9**, or **11**, the ODFS may send different responses based on the TUC configuration, that is, the value of **outaction** may be **9**, **10**, **11**, or **12**.

**Table 10-33** outparams (outaction=9: Dialog Interaction)

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| call_id     | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow.                                                                                                                                                                                                                                                                                                                                                                                                                 |
| prompt_type | String | Body     | Yes       | Interaction type. <ul style="list-style-type: none"> <li>• <b>0</b>: Plays a specified voice for voice interaction (full path).</li> <li>• <b>1</b>: Plays a specified voice for voice interaction.</li> <li>• <b>2</b>: Plays TTS content for voice interaction.</li> <li>• <b>3</b>: text interaction.</li> <li>• <b>4</b>: Records the voice of the calling party.</li> <li>• <b>5</b>: Plays a video.</li> <li>• <b>6</b>: multimedia interaction.</li> <li>• <b>7</b>: card interaction.</li> </ul> |

| Parameter   | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                                                                                                                                                    |
|-------------|--------|----------|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| prompt_wav  | String | Body     | No (special field in the voice navigation scenario) | <p>When <b>prompt_type</b> is set to <b>0</b>, <b>4</b>, or <b>5</b>, enter the full path name for storing the file to be played or recorded. (The path must be readable by the UAP.)</p> <p>When <b>prompt_type</b> is set to <b>1</b>, enter the name of the voice file (excluding the path header, which is assembled by the IVR during voice playing).</p> |
| prompt_text | String | Body     | Yes                                                 | <p>TTS dynamic text content or text dialog content.</p> <p>This parameter is mandatory when <b>prompt_type</b> is set to <b>2</b>, <b>3</b>, <b>6</b>, or <b>7</b>.</p>                                                                                                                                                                                        |
| language    | String | Body     | Yes                                                 | <p>Language ID. (This parameter is mandatory for TTS voice playing and ASR.)</p> <p><b>0</b>: Chinese<br/><b>1</b>: English</p>                                                                                                                                                                                                                                |

| Parameter | Type   | Position | Mandatory                                           | Description                                                 |
|-----------|--------|----------|-----------------------------------------------------|-------------------------------------------------------------|
| inter_idx | String | Body     | No (special field in the voice navigation scenario) | Number of consecutive interactions with a user in the ODFS. |



| Parameter  | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------|--------|----------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| model_type | String | Body     | No (special field in the voice navigation scenario) | <p>Template type. The value is a number of seven digits. The first three digits indicate whether voice playback, recognition, and key pressing are supported, respectively.</p> <ul style="list-style-type: none"> <li>• <b>100:</b> Only playback is supported.</li> <li>• <b>101:</b> Playback is interrupted during key pressing, and recognition is not supported.</li> <li>• <b>110:</b> Playback is interrupted during recognition, and key pressing is not supported.</li> <li>• <b>120:</b> Playback is not interrupted during recognition, and key pressing is not supported.</li> <li>• <b>122:</b> Playback is not interrupted</li> </ul> |

| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------|------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |      |          |           | <p>during key pressing and recognition .</p> <ul style="list-style-type: none"> <li>• <b>111:</b> Playback is interrupted during key pressing and recognition .</li> <li>• <b>102:</b> Playback is not interrupted during key pressing, and recognition is not supported. The following two digits indicate the maximum number of pressed keys. The last two digits indicate whether the asterisk key (*) and pound key (#) are used as function keys, respectively. The value <b>1</b> indicates that the</li> </ul> |

| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------|------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |      |          |           | <p>key is used as a function key. The pound key (#) is used as the confirm key, and the asterisk (*) is used as the cancel key. The value <b>0</b> indicates that the key is used as a common key rather than a function key. For example, <b>1011201</b> indicates that voice playback and key pressing are supported but recognition is not supported, the maximum number of pressed keys is 12, and the pound key (#) is used as the confirm key. <b>1101200</b> indicates</p> |

| Parameter | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                 |
|-----------|--------|----------|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |        |          |                                                     | that voice playback and recognition are supported but key pressing is not supported. In this case, the last four digits <b>1200</b> are invalid.                                                                            |
| timeout   | String | Body     | No (special field in the voice navigation scenario) | Voice playing timeout interval, in seconds. The parameter specifies the timeout interval for the system to wait for customer input after the voice playing ends.                                                            |
| tone      | String | Body     | No (special field in the voice navigation scenario) | This parameter is mandatory for recording when <b>prompt_type</b> is set to <b>4</b> .<br><b>true</b> : A beep tone is played before recording starts.<br><b>false</b> : A beep tone is not played before recording starts. |

| Parameter     | Type   | Position | Mandatory                                                     | Description                                                                                                                   |
|---------------|--------|----------|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| vendor        | String | Body     | No (special field in the voice navigation scenario)           | ASR extended parameter.                                                                                                       |
| grammar       | String | Body     | No (special field in the voice navigation scenario)           | ASR syntax file name (including the path and suffix).                                                                         |
| question_id   | String | Body     | No (special field in the voice outbound call survey scenario) | Question sequence number in the outbound call scenario, for example, <b>Q1</b> and <b>Q2</b> . (This parameter is discarded.) |
| question_name | String | Body     | No (special field in the voice outbound call survey scenario) | Question name in the outbound call scenario. (This parameter is discarded.)                                                   |

| Parameter      | Type   | Position | Mandatory                                                     | Description                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------|--------|----------|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| answer_id      | String | Body     | No (special field in the voice outbound call survey scenario) | <p>Answer to the question in the outbound call scenario.</p> <ul style="list-style-type: none"> <li>• <b>Y</b>: yes</li> <li>• <b>N</b>: no</li> <li>• <b>TIMEOUT</b>: timeout</li> <li>• <b>NOMATCH</b>: unidentified</li> <li>• <b>ERROR</b>: other exceptions</li> </ul> <p>If the answer is not <b>Y</b> or <b>N</b>, the actual configuration result is used.<br/>(This parameter is discarded.)</p> |
| flowRecordFlag | String | Body     | No                                                            | <p>Whether to record voices.</p> <ul style="list-style-type: none"> <li>• <b>0</b>: yes</li> <li>• <b>1</b>: no</li> </ul>                                                                                                                                                                                                                                                                                |
| flowRecordPath | String | Body     | No                                                            | <p>Path of the recording file returned when recording is required.</p>                                                                                                                                                                                                                                                                                                                                    |
| ttsGroupId     | String | Body     | No                                                            | <p>Group ID of the TTS server configured on the UAP.</p>                                                                                                                                                                                                                                                                                                                                                  |
| ttsSoundEffect | String | Body     | No                                                            | <p>Sound effect of TTS voice playing.</p> <p><b>0</b>: male voice<br/><b>1</b>: female voice</p>                                                                                                                                                                                                                                                                                                          |

| Parameter             | Type   | Position | Mandatory | Description                                                                                                       |
|-----------------------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------|
| ttsSoundSpeed         | String | Body     | No        | Speed of TTS voice playing.<br><b>0</b> : low speed<br><b>1</b> : medium speed<br><b>8</b> : high speed           |
| ttsMRCPEndor          | String | Body     | No        | TTS extended parameter, that is, the <b>mrCP vendor</b> parameter. The value contains a maximum of 40 characters. |
| asrMRCPIID            | String | Body     | No        | MRCP ID of the ASR server configured on the UAP.                                                                  |
| asrSlotName           | String | Body     | No        | Keyword used for parsing the ASR slots.                                                                           |
| asrRecognizeType      | String | Body     | No        | ASR recognition type.<br><b>0</b> : common recognition<br><b>1</b> : intelligent recognition                      |
| asrNoInputTimeout     | String | Body     | No        | Timeout period when a user remains silent, in seconds. The default value is <b>100</b> .                          |
| asrRecognitionTimeout | String | Body     | No        | Interval when the recognition times out, in seconds. The default value is <b>200</b> .                            |

| Parameter                | Type    | Position | Mandatory | Description                                                                                                                                                             |
|--------------------------|---------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| asrSpeechCompleteTimeout | String  | Body     | No        | Timeout period when a user pauses, in seconds. The default value is <b>500</b> .                                                                                        |
| responseSource           | Integer | Body     | No        | Whether the reply comes from a chatbot or a silent agent. The options are <b>0</b> (chatbot) and <b>1</b> (silent agent).                                               |
| specialRecognize         | Integer | Body     | No        | Whether to use recognition by packet capture and recording. The options are <b>0</b> (original recognition) and <b>1</b> (recognition by packet capture and recording). |

**Table 10-34 Prompt\_text** format description (for intelligent information matching businesses)

| Parameter          | Type   | Position | Mandatory | Description                                                                                                    | Source                   |
|--------------------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------|--------------------------|
| sentiment_analysis | String | Body     | No        | Emotion detection type. The options are as follows:<br><b>negative</b><br><b>positive</b><br><b>neutrality</b> | TUC real-time inspection |



| Parameter                | Type        | Position | Mandatory | Description                                                                                        | Source                           |
|--------------------------|-------------|----------|-----------|----------------------------------------------------------------------------------------------------|----------------------------------|
| sentiment_analysis_score | Integer     | Body     | No        | Emotion detection score.<br>0-100                                                                  | TUC real-time inspection         |
| role                     | String      | Body     | No        | User type.<br><b>staff:</b> agent<br><b>customer:</b> user<br>Other values: empty character string | TUC real-time inspection         |
| sensitive_word           | JSON object | Body     | No        | Sensitive word notification.<br>{<br>"Prohibited word":<br>["Password"]<br>}                       | TUC sensitive word configuration |
| Intend                   | String      | Body     | Yes       | Customer intention.<br>It is a description text.                                                   | TUC intention                    |
| recomand_KP              | List        | Body     | No        | Recommended knowledge points.                                                                      | Business knowledge base          |

| Parameter   | Type        | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Source                               |
|-------------|-------------|----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| call_script | JSON string | Body     | Yes       | <p>Recommended script.</p> <p>Note:<br/>The <b>intentcode</b> parameter indicates the TUC intention code and can be empty. The <b>intentDsp</b> parameter indicates the intention description and cannot be empty.</p> <pre>{   {intentcode:   "",   intentDsp:   "",   "status":"","   childintent[   {intentcode:   "",   intentDsp:   "",   "status":""},   {intentcode:   "",   intentDsp:   "",   "status":""}..   .]}   { intentcode   :"",   intentDsp:""   ,   "status":""} }</pre> | ODFS resource template configuration |

| Parameter               | Type   | Position | Mandatory | Description                                                                                                                         | Source        |
|-------------------------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------|---------------|
| call_script_matchedstep | String | Body     | No        | Intention code.<br>It corresponds to the intention code in <b>call_script</b> .<br>It indicates the script progress (matched step). | TUC intention |

**Table 10-35** Prompt\_text format description (for intelligent case filling businesses)

| Parameter  | Type   | Position | Mandatory | Description                                  | Usage Method                                                                    |
|------------|--------|----------|-----------|----------------------------------------------|---------------------------------------------------------------------------------|
| beginIndex | String | Body     | Yes       | Start index of an entity in a text file.     | Start index of an entity in a text file.                                        |
| endIndex   | String | Body     | Yes       | End index of an entity in a text file.       | End index of an entity in a text file.                                          |
| type       | String | Body     | Yes       | Extracted entity type.                       | Recognition type of the entity. You do not need to enter the value in the form. |
| entity     | String | Body     | Yes       | Entity content, which has been standardized. | Used to fill in the corresponding fields in the form.                           |

| Parameter | Type   | Position | Mandatory | Description                                 | Usage Method            |
|-----------|--------|----------|-----------|---------------------------------------------|-------------------------|
| tag       | String | Body     | Yes       | Name of the field to be filled in the form. | Example: object level 2 |

### Response Example 1

```
{
 "userid": "1528780879-9581",
 "outaction": 9,
 "outparams": {
 "call_id": "1528780879-9581",
 "prompt_type": "1",
 "prompt_wav": "welcome",
 "prompt_text": "Query the call fee.",
 "language": "0",
 "inter_idx": "1",
 "model_type": "1011201"
 "timeout": "10",
 "tone": "",
 "grammar": "",
 "question_id": "Q1",
 "question_name": "Question 1",
 "answer_id": "Y"
 }
}
```

**Table 10-36** outparams (outaction=12: Query Operation)

| Parameter | Type   | Position | Mandatory | Description                                                                              |
|-----------|--------|----------|-----------|------------------------------------------------------------------------------------------|
| call_id   | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow. |

| Parameter   | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------|--------|----------|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| prompt_type | String | Body     | Yes                                                 | <p>Query type.</p> <ul style="list-style-type: none"> <li>• <b>1:</b> Query the queuing information about the current skill queue when a call is queuing in a skill queue.</li> <li>• <b>2:</b> Query the queuing information by skill queue ID before a call enters a skill queue.</li> <li>• <b>3:</b> Query the information about the skill queue where an agent belongs by agent ID.</li> <li>• <b>5:</b> Switch between audio and video calls.</li> </ul> |
| moduleName  | String | Body     | No                                                  | Module name, that is, name of a diagram element.                                                                                                                                                                                                                                                                                                                                                                                                               |
| inter_idx   | String | Body     | No (special field in the voice navigation scenario) | Number of consecutive interactions with a user in the ODFS.                                                                                                                                                                                                                                                                                                                                                                                                    |

| Parameter  | Type   | Position | Mandatory | Description                                                             |
|------------|--------|----------|-----------|-------------------------------------------------------------------------|
| changeType | String | Body     | Yes       | Switching type.<br>1. <b>1</b> : audio<br>2. <b>3</b> : audio and video |

## Response Example

```
{
 "outaction": 12,
 "outparams": {
 "call_id": "1528780879-9581",
 "prompt_type": "1",
 "inter_idx": "1",
 "moduleName": "Query",
 "xxx": "xxx" //Extend
 }
}
```

**Table 10-37** outparams (outaction=11: Dialog Transfer)

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                               |
|-------------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| call_id     | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow.                                                                  |
| call_sor_id | String | Body     | Yes       | User ID. (In the voice navigation and voice outbound call scenarios, the value is a user number. In other interaction scenarios, the value is a user ID.) |

| Parameter  | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------|--------|----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| trans_type | String | Body     | Yes       | <p>Dialog transfer type.</p> <ul style="list-style-type: none"> <li>• <b>1:</b> transfer to the manual service (to a skill queue based on the routing number)</li> <li>• <b>2:</b> transfer to the IVR</li> <li>• <b>3:</b> transfer to the manual service (to a skill queue based on the skill name)</li> <li>• <b>4:</b> transfer to the manual service (to an agent ID)</li> <li>• <b>5:</b> transfer to a third-party number</li> <li>• <b>6:</b> online digital assistance</li> <li>• <b>7:</b> transfer to the manual service (to the last agent. Currently, only multimedia is supported.)</li> </ul> |

| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------|------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |      |          |           | <ul style="list-style-type: none"> <li>• <b>8:</b> transfer to the manual service (to the skill queue to which an agent belongs. Currently, only multimedia is supported.)</li> <li>• <b>31:</b> transfer to a multimedia message (to the last agent)</li> <li>• <b>32:</b> transfer to a multimedia message (to a skill queue)</li> <li>• <b>33:</b> transfer to a multimedia message (to an agent)</li> </ul> |



| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| route_value | String | Body     | Yes       | <p>Route value information, which depends on the value of <b>trans_type</b>.</p> <p>When the value of <b>trans_type</b> is <b>1</b>, <b>route_value</b> is set to the subsequent access code of the skill queue.</p> <p>When the value of <b>trans_type</b> is <b>2</b>, <b>route_value</b> is set to the access code of the IVR flow.</p> <p>When the value of <b>trans_type</b> is <b>3</b>, <b>route_value</b> is set to the name of the skill queue.</p> <p>When the value of <b>trans_type</b> is <b>4</b>, <b>route_value</b> is set to an agent ID.</p> <p>When the value of <b>trans_type</b> is <b>5</b>, <b>route_value</b> is set to a third-party number.</p> <p>When the value of</p> |

| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------|------|----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |      |          |           | <p><b>trans_type</b> is 6, <b>route_value</b> is set to a flow route number.</p> <p>When the value of <b>trans_type</b> is 7, <b>route_value</b> is left empty.</p> <p>When the value of <b>trans_type</b> is 8, <b>route_value</b> is set to an agent ID.</p> <p>When the value of <b>trans_type</b> is 31, <b>route_value</b> is left empty.</p> <p>When the value of <b>trans_type</b> is 32, <b>route_value</b> is set to a skill queue name or access code.</p> <p>When the value of <b>trans_type</b> is 33, <b>route_value</b> is set to an agent ID.</p> |

| Parameter   | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                     |
|-------------|--------|----------|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| trans_data  | String | Body     | No                                                  | Call-associated data (transferred when the call is transferred to the manual service).                                                                                                                                          |
| calling_num | String | Body     | No                                                  | Number preferentially used as the calling number when a call is forwarded to a third-party.                                                                                                                                     |
| record_path | String | Body     | No                                                  | Full recording path name. (This parameter is valid and conference recording starts only when <b>route_value</b> is set to a third-party number. If this parameter is left empty or does not exist, recording is not performed.) |
| inter_idx   | String | Body     | No (special field in the voice navigation scenario) | Number of consecutive interactions with a user in the ODFS.                                                                                                                                                                     |
| trans_idx   | String | Body     | No (special field in the voice navigation scenario) | Jump sequence number.                                                                                                                                                                                                           |

| Parameter     | Type   | Position | Mandatory                                                     | Description                                                                          |
|---------------|--------|----------|---------------------------------------------------------------|--------------------------------------------------------------------------------------|
| question_id   | String | Body     | No (special field in the voice outbound call survey scenario) | Question ID in the outbound call scenario. (This parameter is discarded.)            |
| question_name | String | Body     | No (special field in the voice outbound call survey scenario) | Question name in the outbound call scenario. (This parameter is discarded.)          |
| answer_id     | String | Body     | No (special field in the voice outbound call survey scenario) | Answer to the question in the outbound call scenario. (This parameter is discarded.) |

## Response Example 2

```
{
 "userid": "1528780879-9581",
 "outaction": 11,
 "outparams": {
 "call_id": "1528780879-9581",
 "call_sor_id": "13500000001",
 "calling_num": "1234567890",
 "trans_type": "1",
 "route_value": "123456789",
 "inter_idx": "1",
 "trans_idx": "1",
 "question_id": "Q1",
 "question_name": "Question 1",
 "answer_id": "Y"
 }
}
```

**Table 10-38** outparams (outaction=10: Dialog Hangup)

| Parameter | Type   | Position | Mandatory | Description                                                                              |
|-----------|--------|----------|-----------|------------------------------------------------------------------------------------------|
| call_id   | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow. |

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                 |
|-------------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| call_sor_id | String | Body     | Yes       | User ID. (In the voice navigation and voice outbound call scenarios, the value is a user number. In other interaction scenarios, the value is a user ID.)                                                                                                                   |
| call_dst_id | String | Body     | Yes       | Access ID.<br>1. In the voice navigation scenario, this parameter is set to the called number.<br>2. In the voice outbound call survey scenario, this parameter is set to the survey type ID.<br>3. In other interaction scenarios, this parameter is set to the access ID. |
| start_time  | String | Body     | Yes       | Dialog interaction start time.                                                                                                                                                                                                                                              |
| end_time    | String | Body     | Yes       | Dialog interaction end time.                                                                                                                                                                                                                                                |

| Parameter      | Type   | Position | Mandator<br>y                                          | Description                                                                                                                                                                                                                                                                                       |
|----------------|--------|----------|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| release_reason | String | Body     | No                                                     | Whether the ODFS flow enters the <b>End</b> diagram element properly.<br><b>0</b> : The flow enters the <b>End</b> diagram element properly.<br><b>1</b> : The flow enters the <b>End</b> diagram element when an exception or timeout occurs and no error tolerance business logic is processed. |
| region_id      | String | Body     | No<br>(special field in the voice navigation scenario) | Region of a user.                                                                                                                                                                                                                                                                                 |
| entrance_id    | String | Body     | No<br>(special field in the voice navigation scenario) | Entrance ID.                                                                                                                                                                                                                                                                                      |
| exit_id        | String | Body     | No<br>(special field in the voice navigation scenario) | Exit ID. The value is the same as that of <b>entrance_id</b> .                                                                                                                                                                                                                                    |
| user_type_id   | String | Body     | No<br>(special field in the voice navigation scenario) | User type.                                                                                                                                                                                                                                                                                        |

| Parameter       | Type   | Position | Mandatory                                           | Description            |
|-----------------|--------|----------|-----------------------------------------------------|------------------------|
| suilu_region_id | String | Body     | No (special field in the voice navigation scenario) | Call access region ID. |

 NOTE

After a session ends, if the IVR initiates a request whose **inaction** is **9** or **11** and **input** is **hangup**, the ODFS triggers the hangup response and sends the response to the IVR as the end flag. The IVR does not invoke the ODFS interface.

### Response Example 3

```
{
 "userid": "1528780879-9581",
 "outaction": 10,
 "outparams": {
 "call_id": "1528780879-9581",
 "call_sor_id": "13500000001",
 "call_dst_id": "10086",
 "start_time": "2018090407:16:24",
 "end_time": "2018090407:30:24",
 "release_reason": "0",
 "region_id": "025",
 "entrance_id": "03",
 "exit_id": "05",
 "user_type_id": "01",
 "suilu_region_id": "025"
 }
}
```

### 10.6.3 Interface Invoked After Dialog Transfer (inaction=11)

After completing the dialog transfer operation, the access party uses the current operation result as the input parameter to send a request to the ODFS for the next operation. The following describes the request parameter structure.

#### inparams

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                   |
|-----------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| call_id   | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow.<br>The value can contain a maximum of 64 characters. |

| Parameter     | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| call_dst_id   | String | Body     | Yes       | <p>Access ID.</p> <ol style="list-style-type: none"> <li>In the voice navigation scenario, this parameter is set to the flow access code.</li> <li>In the voice outbound call survey scenario, this parameter is set to the flow access code.</li> <li>In other interaction scenarios, this parameter is set to the access ID.</li> </ol> <p>The value can contain a maximum of 20 characters.</p> |
| begin_trans   | String | Body     | Yes       | Transfer start time.                                                                                                                                                                                                                                                                                                                                                                               |
| end_trans     | String | Body     | Yes       | Transfer end time.                                                                                                                                                                                                                                                                                                                                                                                 |
| trans_result  | String | Body     | Yes       | <p>Transfer result.</p> <ul style="list-style-type: none"> <li>0: success</li> <li>Other values: failure</li> </ul>                                                                                                                                                                                                                                                                                |
| auth_token    | String | Body     | Yes       | <p>Authorization information, which is the token value returned by the access control system.</p> <p>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a>.</p>                                                                                                                                                                                                                    |
| record_result | String | Body     | No        | <p>Recording result (valid only when the call is successfully transferred to a third-party number.)</p> <ul style="list-style-type: none"> <li>0: success</li> <li>Other values: failure</li> </ul>                                                                                                                                                                                                |



| Parameter | Type   | Position | Mandatory                                              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------|--------|----------|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| input     | String | Body     | No                                                     | <p>Interaction result. (For details about this parameter, see the following scenarios.)</p> <p>After the transfer is successful, the <b>trans_result</b> parameter that is set to <b>0</b> is added to the request, and the <b>input</b> parameter is not required. Then, the access party receives the hangup response (in which <b>outaction</b> is set to <b>10</b>) of the ODFS, and the access party needs to send the request again. The request needs to obtain the <b>input</b> parameter that is set to <b>hangup</b>.</p> <ul style="list-style-type: none"> <li>• <b>hangup</b>: hangup</li> </ul> <p>The value can contain a maximum of 1024 characters.</p> |
| inter_idx | String | Body     | No<br>(special field in the voice navigation scenario) | <p>Number of interaction times. The value is the same as that of <b>inter_idx</b> returned by the ODFS in the previous time.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| mediaType | String | Body     | No                                                     | <p>Media type (text, audio, video, and so on).<br/>Example: <b>audio</b> or <b>video</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                               |
|-------------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| channelType | String | Body     | No        | Channel type. <ul style="list-style-type: none"> <li>• WEB</li> <li>• INSTAGRAM</li> <li>• TELEGRAM</li> <li>• WECHAT</li> <li>• FACEBOOK</li> <li>• TWITTER</li> <li>• EMAIL</li> <li>• LINE</li> <li>• WHATSAPP</li> <li>• 5G</li> <li>• SMS</li> </ul> |

### ExtParams

| Parameter    | Type   | Position | Mandatory | Description                                                                                                                          |
|--------------|--------|----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------|
| transin_data | String | Body     | No        | Call-associated data parameters agreed by the access party and the OIAP, for example, data packet parameters transferred by the IVR. |

### Request Example

- If the call is transferred successfully, the access party sends the following request:

```
{
 "userid": "1528780879-9581",
 "inaction": 11,
 "inparams": {
 "call_id": "1528780879-9581",
 "call_dst_id": "10086",
 "begin_trans": "2018090407:16:24",
 "end_trans": "2018090407:20:24",
 "trans_result": "0",
 "input": "",
 "inter_idx": "1"
 },
 "extparams": {
```

```
 "transin_data": "95,22714,0,,1,1,,test_gdj_01005"
 }
}
```

After receiving a response from the ODFS, the access party sends the following request again:

```
{
 "userid": "1528780879-9581",
 "inaction": 11,
 "inparams": {
 "call_id": "1528780879-9581",
 "call_dst_id": "10086",
 "begin_trans": "2018090407:16:24",
 "end_trans": "2018090407:20:24",
 "trans_result": "0",
 "input": "hangup",
 "inter_idx": "1"
 },
 "extparams": {
 "transin_data": "95,22714,0,,1,1,,test_gdj_01005"
 }
}
```

After receiving the request, the ODFS sends a hangup response again. The access party does not need to invoke the ODFS interface. The call transfer is complete.

- If the call fails to be transferred:  
After the preceding parameters are transferred, the access party may receive the response containing the value of **outaction** from the ODFS. The options are **9**, **10**, and **11**, and the actual value is determined by the business logic.

After receiving a request whose **inaction** is **8**, **9**, or **11**, the ODFS may send different responses based on the TUC configuration, that is, the value of **outaction** may be **9**, **10**, **11**, or **12**.

**Table 10-39** outparams (outaction=9: Dialog Interaction)

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| prompt_type | String | Body     | Yes       | <p>Interaction type.</p> <ul style="list-style-type: none"> <li>• <b>0:</b> Plays a specified voice for voice interaction (full path).</li> <li>• <b>1:</b> Plays a specified voice for voice interaction.</li> <li>• <b>2:</b> Plays TTS content for voice interaction.</li> <li>• <b>3:</b> text interaction.</li> <li>• <b>4:</b> Records the voice of the calling party.</li> <li>• <b>5:</b> Plays a video.</li> <li>• <b>6:</b> multimedia interaction.</li> <li>• <b>7:</b> card interaction.</li> </ul> |

| Parameter   | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                                                                                                                                                    |
|-------------|--------|----------|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| prompt_wav  | String | Body     | No (special field in the voice navigation scenario) | <p>When <b>prompt_type</b> is set to <b>0</b>, <b>4</b>, or <b>5</b>, enter the full path name for storing the file to be played or recorded. (The path must be readable by the UAP.)</p> <p>When <b>prompt_type</b> is set to <b>1</b>, enter the name of the voice file (excluding the path header, which is assembled by the IVR during voice playing).</p> |
| prompt_text | String | Body     | Yes                                                 | <p>TTS dynamic text content or text dialog content.</p> <p>This parameter is mandatory when <b>prompt_type</b> is set to <b>2</b>, <b>3</b>, <b>6</b>, or <b>7</b>.</p>                                                                                                                                                                                        |
| language    | String | Body     | Yes                                                 | <p>Language ID. (This parameter is mandatory for TTS voice playing and ASR.)</p> <p><b>0</b>: Chinese<br/><b>1</b>: English</p>                                                                                                                                                                                                                                |

| Parameter | Type   | Position | Mandatory                                           | Description                                                 |
|-----------|--------|----------|-----------------------------------------------------|-------------------------------------------------------------|
| inter_idx | String | Body     | No (special field in the voice navigation scenario) | Number of consecutive interactions with a user in the ODFS. |

| Parameter  | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------|--------|----------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| model_type | String | Body     | No (special field in the voice navigation scenario) | <p>Template type. The value is a number of seven digits. The first three digits indicate whether voice playback, recognition, and key pressing are supported, respectively.</p> <ul style="list-style-type: none"> <li>• <b>100:</b> Only playback is supported.</li> <li>• <b>101:</b> Playback is interrupted during key pressing, and recognition is not supported.</li> <li>• <b>110:</b> Playback is interrupted during recognition, and key pressing is not supported.</li> <li>• <b>120:</b> Playback is not interrupted during recognition, and key pressing is not supported.</li> <li>• <b>122:</b> Playback is not interrupted</li> </ul> |

| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------|------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |      |          |           | <p>during key pressing and recognition .</p> <ul style="list-style-type: none"> <li>• <b>111:</b> Playback is interrupted during key pressing and recognition .</li> <li>• <b>102:</b> Playback is not interrupted during key pressing, and recognition is not supported. The following two digits indicate the maximum number of pressed keys. The last two digits indicate whether the asterisk key (*) and pound key (#) are used as function keys, respectively. The value <b>1</b> indicates that the</li> </ul> |



| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------|------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |      |          |           | <p>key is used as a function key. The pound key (#) is used as the confirm key, and the asterisk (*) is used as the cancel key. The value <b>0</b> indicates that the key is used as a common key rather than a function key. For example, <b>1011201</b> indicates that voice playback and key pressing are supported but recognition is not supported, the maximum number of pressed keys is 12, and the pound key (#) is used as the confirm key. <b>1101200</b> indicates</p> |

| Parameter | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                 |
|-----------|--------|----------|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |        |          |                                                     | that voice playback and recognition are supported but key pressing is not supported. In this case, the last four digits <b>1200</b> are invalid.                                                                            |
| timeout   | String | Body     | No (special field in the voice navigation scenario) | Voice playing timeout interval, in seconds. The parameter specifies the timeout interval for the system to wait for customer input after the voice playing ends.                                                            |
| tone      | String | Body     | No (special field in the voice navigation scenario) | This parameter is mandatory for recording when <b>prompt_type</b> is set to <b>4</b> .<br><b>true</b> : A beep tone is played before recording starts.<br><b>false</b> : A beep tone is not played before recording starts. |

| Parameter     | Type   | Position | Mandatory                                                     | Description                                                                                                                   |
|---------------|--------|----------|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| vendor        | String | Body     | No (special field in the voice navigation scenario)           | ASR extended parameter.                                                                                                       |
| grammar       | String | Body     | No (special field in the voice navigation scenario)           | Syntax file name (including the path and suffix).                                                                             |
| question_id   | String | Body     | No (special field in the voice outbound call survey scenario) | Question sequence number in the outbound call scenario, for example, <b>Q1</b> and <b>Q2</b> . (This parameter is discarded.) |
| question_name | String | Body     | No (special field in the voice outbound call survey scenario) | Question name in the outbound call scenario. (This parameter is discarded.)                                                   |

| Parameter         | Type   | Position | Mandatory                                                     | Description                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------|--------|----------|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| answer_id         | String | Body     | No (special field in the voice outbound call survey scenario) | <p>Answer to the question in the outbound call scenario.</p> <ul style="list-style-type: none"> <li>• <b>Y</b>: yes</li> <li>• <b>N</b>: no</li> <li>• <b>TIMEOUT</b>: timeout</li> <li>• <b>NOMATCH</b>: unidentified</li> <li>• <b>ERROR</b>: other exceptions</li> </ul> <p>If the answer is not <b>Y</b> or <b>N</b>, the actual configuration result is used. (This parameter is discarded.)</p> |
| flowRecording     | String | Body     | No                                                            | <p>Whether to record voices.</p> <ul style="list-style-type: none"> <li>• <b>0</b>: yes</li> <li>• <b>1</b>: no</li> </ul> <p>If this parameter is not set, the default value is <b>1</b>.</p>                                                                                                                                                                                                        |
| flowRecordingPath | String | Body     | No                                                            | <p>Path of the recording file returned when recording is required.</p>                                                                                                                                                                                                                                                                                                                                |
| ttsGroupId        | String | Body     | No                                                            | <p>Group ID of the TTS server configured on the UAP.</p>                                                                                                                                                                                                                                                                                                                                              |

| Parameter         | Type   | Position | Mandatory | Description                                                                                                       |
|-------------------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------|
| ttsSoundEffect    | String | Body     | No        | Sound effect of TTS voice playing.<br><b>0</b> : male voice<br><b>1</b> : female voice                            |
| ttsSoundSpeed     | String | Body     | No        | Speed of TTS voice playing.<br><b>0</b> : low speed<br><b>1</b> : medium speed<br><b>8</b> : high speed           |
| ttsMRCPVendor     | String | Body     | No        | TTS extended parameter, that is, the <b>mrCP vendor</b> parameter. The value contains a maximum of 40 characters. |
| asrMRCPId         | String | Body     | No        | MRCP ID of the ASR server configured on the UAP.                                                                  |
| asrSlotName       | String | Body     | No        | Keyword used for parsing the ASR slots.                                                                           |
| asrRecognizeType  | String | Body     | No        | ASR recognition type.<br><b>0</b> : common recognition<br><b>1</b> : intelligent recognition                      |
| asrNoInputTimeout | String | Body     | No        | Timeout period when a user remains silent, in seconds. The default value is <b>100</b> .                          |

| Parameter                | Type    | Position | Mandatory | Description                                                                                                                                                             |
|--------------------------|---------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| asrRecognitionTimeout    | String  | Body     | No        | Interval when the recognition times out, in seconds. The default value is <b>200</b> .                                                                                  |
| asrSpeechCompleteTimeout | String  | Body     | No        | Timeout period when a user pauses, in seconds. The default value is <b>500</b> .                                                                                        |
| responseSource           | Integer | Body     | No        | Whether the reply comes from a chatbot or a silent agent. The options are <b>0</b> (chatbot) and <b>1</b> (silent agent).                                               |
| specialRecognize         | Integer | Body     | No        | Whether to use recognition by packet capture and recording. The options are <b>0</b> (original recognition) and <b>1</b> (recognition by packet capture and recording). |

**Table 10-40 Prompt\_text** format description (for intelligent information matching businesses)

| Parameter      | Type        | Position | Mandatory | Description                                                       | Source                           |
|----------------|-------------|----------|-----------|-------------------------------------------------------------------|----------------------------------|
| sensitive_word | JSON object | Body     | No        | Sensitive word notification.<br>{"Prohibited word": ["Password"]} | TUC sensitive word configuration |
| Intend         | String      | Body     | Yes       | Customer intention.<br>It is a description text.                  | TUC intention                    |
| recomand_KP    | List        | Body     | No        | Recommended knowledge points.                                     | Business knowledge base          |

| Parameter   | Type        | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Source                               |
|-------------|-------------|----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| call_script | JSON string | Body     | Yes       | <p>Recommended script.</p> <p>Note:<br/>The <b>intentcode</b> parameter indicates the TUC intention code and can be empty. The <b>intentDsp</b> parameter indicates the intention description and cannot be empty.</p> <pre>{   {intentcode:   "",   intentDsp:   "",   "status":"","   childintent[   {intentcode:   "",   intentDsp:   "",   "status":""},   {intentcode:   "",   intentDsp:   "",   "status":""}..   .]}   { intentcode   :"",   intentDsp:""   ,   "status":""} }</pre> | ODFS resource template configuration |



| Parameter               | Type   | Position | Mandatory | Description                                                                                                                         | Source        |
|-------------------------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------|---------------|
| call_script_matchedstep | String | Body     | No        | Intention code.<br>It corresponds to the intention code in <b>call_script</b> .<br>It indicates the script progress (matched step). | TUC intention |

**Prompt\_text** format description (for intelligent case filling businesses)

| Parameter  | Type   | Position | Mandatory | Description                                  | Usage Method                                                                    |
|------------|--------|----------|-----------|----------------------------------------------|---------------------------------------------------------------------------------|
| beginIndex | String | Body     | Yes       | Start index of an entity in a text file.     | Start index of an entity in a text file.                                        |
| endIndex   | String | Body     | Yes       | End index of an entity in a text file.       | End index of an entity in a text file.                                          |
| type       | String | Body     | Yes       | Extracted entity type.                       | Recognition type of the entity. You do not need to enter the value in the form. |
| entity     | String | Body     | Yes       | Entity content, which has been standardized. | Used to fill in the corresponding fields in the form.                           |

| Parameter | Type   | Position | Mandatory | Description                                 | Usage Method            |
|-----------|--------|----------|-----------|---------------------------------------------|-------------------------|
| tag       | String | Body     | Yes       | Name of the field to be filled in the form. | Example: object level 2 |

### Response Example 1

```
{
 "userid": "1528780879-9581",
 "outaction": 9,
 "outparams": {
 "call_id": "1528780879-9581",
 "prompt_type": "1",
 "prompt_wav": "welcome",
 "prompt_text": "Query the call fee.",
 "language": "0",
 "inter_idx": "1",
 "model_type": "1011201"
 "timeout": "10",
 "tone": "",
 "grammar": "",
 "question_id": "Q1",
 "question_name": "Question 1",
 "answer_id": "Y"
 }
}
```

**Table 10-41** outparams (outaction=12: Query Operation, Used in the Common IVR Flow)

| Parameter | Type   | Position | Mandatory | Description                                                                              |
|-----------|--------|----------|-----------|------------------------------------------------------------------------------------------|
| call_id   | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow. |

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| prompt_type | String | Body     | Yes       | <p>Query type.</p> <ul style="list-style-type: none"> <li>• <b>1:</b> Query the queuing information about the current skill queue when a call is queuing in a skill queue.</li> <li>• <b>2:</b> Query the queuing information by skill queue ID before a call enters a skill queue.</li> <li>• <b>3:</b> Query the information about the skill queue where an agent belongs by agent ID.</li> <li>• <b>5:</b> Switch between audio and video calls.</li> </ul> |
| skill_id    | String | String   | No        | <p>Skill queue ID.</p> <p>This parameter is mandatory only when <b>prompt_type</b> is set to <b>2</b>.</p>                                                                                                                                                                                                                                                                                                                                                     |

| Parameter  | Type   | Position | Mandatory                                           | Description                                                 |
|------------|--------|----------|-----------------------------------------------------|-------------------------------------------------------------|
| moduleName | String | Body     | No                                                  | Module name, that is, name of a diagram element.            |
| inter_idx  | String | Body     | No (special field in the voice navigation scenario) | Number of consecutive interactions with a user in the ODFS. |

## Response Example

```
{
 "outaction": 12,
 "outparams": {
 "call_id": "1528780879-9581",
 "prompt_type": "1",
 "inter_idx": "1",
 "moduleName": "Query",
 "xxx": "xxx" //Extend
 }
}
```

**Table 10-42** outparams (outaction=11: Dialog Transfer)

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                               |
|-------------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| call_id     | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow.                                                                  |
| call_sor_id | String | Body     | Yes       | User ID. (In the voice navigation and voice outbound call scenarios, the value is a user number. In other interaction scenarios, the value is a user ID.) |

| Parameter  | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------|--------|----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| trans_type | String | Body     | Yes       | <p>Dialog transfer type.</p> <ul style="list-style-type: none"> <li>• <b>1:</b> transfer to the manual service (to a skill queue based on the routing number)</li> <li>• <b>2:</b> transfer to the IVR</li> <li>• <b>3:</b> transfer to the manual service (to a skill queue based on the skill name)</li> <li>• <b>4:</b> transfer to the manual service (to an agent ID)</li> <li>• <b>5:</b> transfer to a third-party number</li> <li>• <b>6:</b> online digital assistance</li> <li>• <b>7:</b> transfer to the manual service (to the last agent. Currently, only multimedia is supported.)</li> </ul> |

| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------|------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |      |          |           | <ul style="list-style-type: none"> <li>● <b>8:</b> transfer to the manual service (to the skill queue to which an agent belongs. Currently, only multimedia is supported.)</li> <li>● <b>31:</b> transfer to a multimedia message (to the last agent)</li> <li>● <b>32:</b> transfer to a multimedia message (to a skill queue)</li> <li>● <b>33:</b> transfer to a multimedia message (to an agent)</li> </ul> |

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| route_value | String | Body     | Yes       | <p>Route value information, which depends on the value of <b>trans_type</b>.</p> <p>When the value of <b>trans_type</b> is <b>1</b>, <b>route_value</b> is set to the subsequent access code of the skill queue.</p> <p>When the value of <b>trans_type</b> is <b>2</b>, <b>route_value</b> is set to the access code of the IVR flow.</p> <p>When the value of <b>trans_type</b> is <b>3</b>, <b>route_value</b> is set to the name of the skill queue.</p> <p>When the value of <b>trans_type</b> is <b>4</b>, <b>route_value</b> is set to an agent ID.</p> <p>When the value of <b>trans_type</b> is <b>5</b>, <b>route_value</b> is set to a third-party number.</p> <p>When the value of</p> |

| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------|------|----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |      |          |           | <p><b>trans_type</b> is 6, <b>route_value</b> is set to a flow route number.</p> <p>When the value of <b>trans_type</b> is 7, <b>route_value</b> is left empty.</p> <p>When the value of <b>trans_type</b> is 8, <b>route_value</b> is set to an agent ID.</p> <p>When the value of <b>trans_type</b> is 31, <b>route_value</b> is left empty.</p> <p>When the value of <b>trans_type</b> is 32, <b>route_value</b> is set to a skill queue name or access code.</p> <p>When the value of <b>trans_type</b> is 33, <b>route_value</b> is set to an agent ID.</p> |



| Parameter   | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                                                     |
|-------------|--------|----------|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| trans_data  | String | Body     | No                                                  | Call-associated data (transferred when the call is transferred to the manual service).                                                                                                                                          |
| calling_num | String | Body     | No                                                  | Number preferentially used as the calling number when a call is forwarded to a third-party.                                                                                                                                     |
| record_path | String | Body     | No                                                  | Full recording path name. (This parameter is valid and conference recording starts only when <b>route_value</b> is set to a third-party number. If this parameter is left empty or does not exist, recording is not performed.) |
| inter_idx   | String | Body     | No (special field in the voice navigation scenario) | Number of consecutive interactions with a user in the ODFS.                                                                                                                                                                     |
| trans_idx   | String | Body     | No (special field in the voice navigation scenario) | Jump sequence number.                                                                                                                                                                                                           |

| Parameter     | Type   | Position | Mandatory                                                     | Description                                                                          |
|---------------|--------|----------|---------------------------------------------------------------|--------------------------------------------------------------------------------------|
| question_id   | String | Body     | No (special field in the voice outbound call survey scenario) | Question ID in the outbound call scenario. (This parameter is discarded.)            |
| question_name | String | Body     | No (special field in the voice outbound call survey scenario) | Question name in the outbound call scenario. (This parameter is discarded.)          |
| answer_id     | String | Body     | No (special field in the voice outbound call survey scenario) | Answer to the question in the outbound call scenario. (This parameter is discarded.) |

## Response Example 2

```
{
 "userid": "1528780879-9581",
 "outaction": 11,
 "outparams": {
 "call_id": "1528780879-9581",
 "call_sor_id": "13500000001",
 "calling_num": "1234567890",
 "trans_type": "1",
 "route_value": "123456789",
 "inter_idx": "1",
 "trans_idx": "1",
 "question_id": "Q1",
 "question_name": "Question 1",
 "answer_id": "Y"
 }
}
```

**Table 10-43** outparams (outaction=10: Dialog Hangup)

| Parameter | Type   | Position | Mandatory | Description                                                                              |
|-----------|--------|----------|-----------|------------------------------------------------------------------------------------------|
| call_id   | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow. |

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                 |
|-------------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| call_sor_id | String | Body     | Yes       | User ID. (In the voice navigation and voice outbound call scenarios, the value is a user number. In other interaction scenarios, the value is a user ID.)                                                                                                                   |
| call_dst_id | String | Body     | Yes       | Access ID.<br>1. In the voice navigation scenario, this parameter is set to the called number.<br>2. In the voice outbound call survey scenario, this parameter is set to the survey type ID.<br>3. In other interaction scenarios, this parameter is set to the access ID. |
| start_time  | String | Body     | Yes       | Dialog interaction start time.                                                                                                                                                                                                                                              |
| end_time    | String | Body     | Yes       | Dialog interaction end time.                                                                                                                                                                                                                                                |

| Parameter      | Type   | Position | Mandator y                                          | Description                                                                                                                                                                                                                                                                                     |
|----------------|--------|----------|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| release_reason | String | Body     | No                                                  | Whether the ODFS flow enters the <b>End</b> diagram element properly.<br><b>0:</b> The flow enters the <b>End</b> diagram element properly.<br><b>1:</b> The flow enters the <b>End</b> diagram element when an exception or timeout occurs and no error tolerance business logic is processed. |
| region_id      | String | Body     | No (special field in the voice navigation scenario) | Region of a user.                                                                                                                                                                                                                                                                               |
| entrance_id    | String | Body     | No (special field in the voice navigation scenario) | Entrance ID.                                                                                                                                                                                                                                                                                    |
| exit_id        | String | Body     | No (special field in the voice navigation scenario) | Exit ID. The value is the same as that of <b>entrance_id</b> .                                                                                                                                                                                                                                  |
| user_type_id   | String | Body     | No (special field in the voice navigation scenario) | User type.                                                                                                                                                                                                                                                                                      |

| Parameter       | Type   | Position | Mandator y                                          | Description            |
|-----------------|--------|----------|-----------------------------------------------------|------------------------|
| suilu_region_id | String | Body     | No (special field in the voice navigation scenario) | Call access region ID. |

 NOTE

After a session ends, if the IVR initiates a request whose **inaction** is **9** or **11** and **input** is **hangup**, the ODFS triggers the hangup response and sends the response to the IVR as the end flag. The IVR does not invoke the ODFS interface.

### Response Example 3

```
{
 "userid": "1528780879-9581",
 "outaction": 10,
 "outparams": {
 "call_id": "1528780879-9581",
 "call_sor_id": "13500000001",
 "call_dst_id": "10086",
 "start_time": "2018090407:16:24",
 "end_time": "2018090407:30:24",
 "release_reason": "0",
 "region_id": "025",
 "entrance_id": "03",
 "exit_id": "05",
 "user_type_id": "01",
 "suilu_region_id": "025"
 }
}
```

## 10.6.4 Packet Capture and Recording Interface Invoked in the Dialog (inaction=7)

When sending a request to the ODFS for the first time, the access party first requests the ODFS to enable VoiceCyber recording. Whether the ODFS sends an enabling request to VoiceCyber is determined during the flow release. This feature applies only to the intelligent IVR service on the network where the packet capture system (such as VoiceCyber) is connected.

## inparams

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                           |
|-------------|--------|----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| call_id     | String | Body     | No        | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow.<br>The value can contain a maximum of 64 characters.                                                                                                                                                                                         |
| call_sor_id | String | Body     | No        | Subscriber ID. (In the voice navigation and voice outbound call scenarios, the subscriber number is transferred. In other interaction scenarios, the subscriber ID is transferred.)<br>The value can contain a maximum of 64 characters.                                                                                              |
| call_dst_id | String | Body     | Yes       | Access ID.<br>1. In the voice navigation scenario, this parameter is set to the flow access code.<br>2. In the voice outbound call survey scenario, this parameter is set to the flow access code.<br>3. In other interaction scenarios, this parameter is set to the access ID.<br>The value can contain a maximum of 20 characters. |
| real_callee | String | Body     | No        | Called number for accessing the IVR. This parameter is valid in the voice navigation scenario.<br>The value can contain a maximum of 32 characters.                                                                                                                                                                                   |

| Parameter  | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                     |
|------------|--------|----------|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cti_callid | String | Body     | No (special field in the voice navigation scenario) | Call ID of the CTI to which a call is connected, which is transferred by Huawei IVR. In other scenarios, this parameter is left empty.<br><br>The value can contain a maximum of 32 characters. |
| auth_token | String | Body     | Yes                                                 | Authorization information, which is the token value returned by the access control system.                                                                                                      |

### Request Example

```
{
 "userid": "1528780879-9581",
 "inaction": 7,
 "inparams": {
 "call_id": "1528780879-9581",
 "call_sor_id": "13500000001",
 "call_dst_id": "10086",
 "auth_token": "eyJhbGciOiJIUzU1NiJ9.eyJpYXQiOiJlMzgwMzg5MzUzUzU1NiJ9.eyJpYXQiOiJlMzgwMzg5MzUzUzU1NiJ9"
 }
}
```

After receiving the request in which the value of **inaction** is **7**, the ODFS determines whether to send a request for starting recording or a packet capture session to the packet capture and recording system (for example, VoiceCyber) based on the flow configuration. Then, the ODFS sends a response to the IVR.

### outparams (outaction=7: Successfully Starting and Interconnecting with the Packet Capture System)

Response Example

```
{
 "ret": "0",
 "userid": "16128422559300717ed3bf958dca2d0cda6c1",
 "outaction": "7",
 "outparams": {}
}
```

## 10.6.5 Recognition Result Requesting Interface (inaction=13)

The access party requests the ODFS to return the voice recognition result so that the voice playing can be interrupted. This feature applies only to the intelligent IVR service on the network where the packet capture system (such as VoiceCyber) is connected.

## inparams

| Parameter   | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| call_id     | String | Body     | No        | <p>Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow.</p> <p>The value can contain a maximum of 64 characters.</p>                                                                                                                                                                                                                                           |
| call_sor_id | String | Body     | No        | <p>User ID. (In the voice navigation and voice outbound call scenarios, the user number is transferred. In other interaction scenarios, the user ID is transferred.)</p> <p>The value can contain a maximum of 64 characters.</p>                                                                                                                                                                  |
| call_dst_id | String | Body     | Yes       | <p>Access ID.</p> <ol style="list-style-type: none"> <li>In the voice navigation scenario, this parameter is set to the flow access code.</li> <li>In the voice outbound call survey scenario, this parameter is set to the flow access code.</li> <li>In other interaction scenarios, this parameter is set to the access ID.</li> </ol> <p>The value can contain a maximum of 20 characters.</p> |
| real_callee | String | Body     | No        | <p>Called number for accessing the IVR. This parameter is valid in the voice navigation scenario.</p> <p>The value can contain a maximum of 32 characters.</p>                                                                                                                                                                                                                                     |



| Parameter  | Type   | Position | Mandatory                                           | Description                                                                                                                                                                                     |
|------------|--------|----------|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cti_callid | String | Body     | No (special field in the voice navigation scenario) | Call ID of the CTI to which a call is connected, which is transferred by Huawei IVR. In other scenarios, this parameter is left empty.<br><br>The value can contain a maximum of 32 characters. |
| auth_token | String | Body     | Yes                                                 | Authorization information, which is the token value returned by the access control system.                                                                                                      |

### Request Example

```
{
 "userid": "1528780879-9581",
 "inaction": 13,
 "inparams": {
 "call_id": "1528780879-9581",
 "call_sor_id": "13500000001",
 "call_dst_id": "10086",
 "auth_token": "eyJhbGciOiJIUzI1NiJ9.eyJpYXQiOiJlMzgwMzg5MzUslmV4cCI6MTUzODA0MjUzNSwian"
 }
}
```

After receiving the request in which the value of **inaction** is **13**, the ODFS checks whether the call recognition result queue reported by VoiceCyber contains data. If yes, the ODFS returns **1** to the IVR. If no, the ODFS returns **0**.

**Table 10-44** outparams (outaction=13: Recognition Result Feedback)

| Parameter | Type   | Position | Mandatory | Description                                                                              |
|-----------|--------|----------|-----------|------------------------------------------------------------------------------------------|
| call_id   | String | Body     | Yes       | Unique call ID, which is the same as the value of <b>userid</b> and is used by the flow. |

| Parameter      | Type   | Position | Mandatory | Description                                                                                                                  |
|----------------|--------|----------|-----------|------------------------------------------------------------------------------------------------------------------------------|
| recognize_type | String | Body     | Yes       | Whether the recognition result has been obtained.<br><ul style="list-style-type: none"> <li>0: no</li> <li>1: yes</li> </ul> |

### Response Example

```
{
 "ret": "0",
 "userid": "1528780879-9581",
 "outaction": "13",
 "outparams": {
 "call_id": "1528780879-9581",
 "recognize_type": "0"
 }
}
```

## 10.7 Interaction Record Query Interface

### Description

The OIAP provides an interface for third-party systems to query intelligent interaction records. This interface can be used to query only the instances of the latest incoming call of a user.

### Interface Method

POST

### URL

https://IP:PORT/oifde/rest/api/queryHistory

### Request

| Parameter | Type                 | Position | Mandatory | Description                                                       |
|-----------|----------------------|----------|-----------|-------------------------------------------------------------------|
| tenantId  | String               | Body     | Yes       | Tenant space ID.                                                  |
| params    | Map <String, Object> | Body     | Yes       | Parameter package. For details, see <a href="#">Table 10-45</a> . |

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                                                                                             |
|-----------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| authToken | String | Body     | Yes       | Valid token value for accessing the interface.<br>You can obtain the valid token information by invoking the interface for obtaining tokens.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> . |

**Table 10-45** params

| Parameter  | Type   | Position | Mandatory | Description                                                                                                                                                       |
|------------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| userMobile | String | Body     | Yes       | User ID. (In the voice navigation and voice outbound call scenarios, the user number is transferred. In other interaction scenarios, the user ID is transferred.) |

## Response

| Parameter | Type    | Position | Mandatory | Description                                                                                                                                                                             |
|-----------|---------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| rtnCode   | Integer | Body     | Yes       | Error code.<br><ul style="list-style-type: none"> <li>• <b>0</b> or <b>null</b>: success</li> <li>• Other values: failure</li> </ul> The status code <b>200</b> also indicates success. |
| rtnMsg    | String  | Body     | No        | Error description.                                                                                                                                                                      |

| Parameter | Type                 | Position | Mandatory | Description                                                            |
|-----------|----------------------|----------|-----------|------------------------------------------------------------------------|
| beans     | Map <String, String> | Body     | Yes       | Returned content array. For details, see <a href="#">Table 10-46</a> . |
| callId    | String               | Body     | Yes       | Unique call ID.                                                        |
| callSorId | String               | Body     | Yes       | User ID, which is the same as the value of <b>userMobile</b> .         |
| object    | Object               | Body     | No        | The default value is <b>null</b> (specific to dedicated sites).        |
| bean      | String               | Body     | No        | The default value is <b>null</b> (specific to dedicated sites).        |

**Table 10-46** beans

| Parameter      | Type   | Position | Mandatory | Description                                                                                                                                            |
|----------------|--------|----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| interNo        | String | Body     | Yes       | Internal sequence number.                                                                                                                              |
| userSaying     | String | Body     | Yes       | Text of the chat records between a user and the chatbot.                                                                                               |
| intention      | String | Body     | Yes       | User intention.                                                                                                                                        |
| systemReply    | String | Body     | Yes       | System reply.                                                                                                                                          |
| type           | String | Body     | Yes       | Reply type. The options are <b>TTS</b> , <b>voice file</b> , and <b>text</b> .                                                                         |
| timestamp      | String | Body     | Yes       | System reply time.                                                                                                                                     |
| responseSource | String | Body     | Yes       | Source of the dialog reply. <ul style="list-style-type: none"> <li>• <b>0</b>: chatbot reply</li> <li>• <b>1</b>: reply from a silent agent</li> </ul> |

## Example

- Request

```
{
 "tenantId": "123456",
 "params": {
 "userMobile": "180****9999"
 },
 "authToken": "n*****"
}
```

- Response

```
{
 "rtnCode": 0, //Interface success or failure flag.
 "rtnMsg": "Success", //Interface success or failure description.
 "beans": [
 {
 "interNo": "1", //Sequence number.
 "userSaying": "How much is my call fee?", //ASR result.
 "intention": "Query the call fee.", //User intention.
 "systemReply": "Hello, your call fee of this month is US$100. The call fee balance is US$100.", //
 System reply.
 "type": "TTS", //Reply type.
 "timestamp": "2019-04-25 17:42:10.0" //System reply time.
 "responseSource": "0" //Chatbot reply.
 }
],
 "object": null,
 "bean": null,
 "callId": "xytest02131110",
 "callSorId": "18019919999"
}
```

## 10.8 Session Record Query Interface

### Description

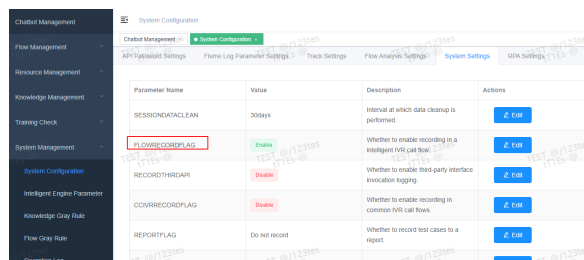
This interface is invoked by a third-party system to query intelligent session information.

### Prerequisites

**Step 1** Choose **Configuration Center > Flow Configuration > Intelligent IVR**.

**Step 2** Choose **System Management > System Configuration**. On the **System Settings** tab page, click **Edit** in the row containing **FLOWRECORDFLAG**, select **Enable**, and click **Confirm** to enable this parameter.

**Figure 10-1** Enabling the FLOWRECORDFLAG parameter



----End

## Interface Method

POST

## URL

https://IP:PORT/oifde/rest/api/queryRecordHistory

## Request

**Table 10-47** Parameters in the request body

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                                                         |
|-----------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| tenantId  | String | Body     | Yes       | Tenant ID.                                                                                                                                                                          |
| authToken | String | Body     | Yes       | Token                                                                                                                                                                               |
| beginTime | String | Body     | No        | Start time.<br>Format:<br>yyyy-MM-dd<br>HH:mm:ss                                                                                                                                    |
| endTime   | String | Body     | No        | End time.<br>Format:<br>yyyy-MM-dd<br>HH:mm:ss                                                                                                                                      |
| pageNum   | String | Body     | No        | Page number.<br>Number of the page to be queried. The value <b>1</b> is for the first page.<br>If this parameter is not transferred, the default value of page number is <b>1</b> . |
| pageSize  | String | Body     | No        | Number of records on each page.<br>The value can be <b>5, 10, 20, 50, or 100</b> .<br>If this parameter is not transferred, 100 records are displayed on each page by default.      |

| Parameter  | Type   | Position | Mandatory | Description                                                                                                      |
|------------|--------|----------|-----------|------------------------------------------------------------------------------------------------------------------|
| callId     | String | Body     | No        | Call ID. One of the <b>userMobile</b> , <b>callId</b> , and <b>ctiCallId</b> parameters must be transferred.     |
| userMobile | String | Body     | No        | User number. One of the <b>userMobile</b> , <b>callId</b> , and <b>ctiCallId</b> parameters must be transferred. |
| ctiCallId  | String | Body     | No        | CTI call ID. One of the <b>userMobile</b> , <b>callId</b> , and <b>ctiCallId</b> parameters must be transferred. |

## Response

| Parameter  | Type     | Position | Mandatory | Description                                                                                                  |
|------------|----------|----------|-----------|--------------------------------------------------------------------------------------------------------------|
| errorCode  | Integer  | Body     | No        | Error code. <ul style="list-style-type: none"> <li>A value other than <b>0</b> indicates failure.</li> </ul> |
| errorMsg   | String   | Body     | No        | Error description.                                                                                           |
| total      | Long     | Body     | Yes       | Total number of records.                                                                                     |
| recordList | record[] | Body     | Yes       | Dialog binding relationship list in an array.                                                                |

**Table 10-48** record

| Parameter | Type   | Position | Mandatory | Description                    |
|-----------|--------|----------|-----------|--------------------------------|
| logId     | String | Body     | Yes       | Unique ID of a session record. |
| tenantId  | String | Body     | Yes       | Tenant ID.                     |
| callSorId | String | Body     | Yes       | User number.                   |

| Parameter       | Type            | Position | Mandatory | Description                                                                                                                                                           |
|-----------------|-----------------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| callId          | String          | Body     | Yes       | Call ID.                                                                                                                                                              |
| ctiCallId       | String          | Body     | No        | CTI call ID.                                                                                                                                                          |
| callingNumber   | String          | Body     | Yes       | Calling number.                                                                                                                                                       |
| calledNumber    | String          | Body     | Yes       | Called number.                                                                                                                                                        |
| startTime       | Long            | Body     | No        | Start time of a call.<br>The value is in timestamp format.                                                                                                            |
| endTime         | Long            | Body     | No        | Call end time.<br>The value is in timestamp format.                                                                                                                   |
| lastUpdateTime  | Long            | Body     | No        | Last update time.<br>The value is in timestamp format.                                                                                                                |
| flowInstId      | String          | Body     | No        | Flow instance ID.                                                                                                                                                     |
| dialogType      | String          | Body     | No        | Dialog type.                                                                                                                                                          |
| callData        | String          | Body     | No        | Call data.                                                                                                                                                            |
| locationId      | Integer         | Body     | No        | Recording node, which is used when the CTI pool is used.                                                                                                              |
| flag            | String          | Body     | No        | Flag.                                                                                                                                                                 |
| businessInfo    | JSON string     | Body     | Yes       | Recording file information.                                                                                                                                           |
| businessInfoStr | JSON string     | Body     | Yes       | Recording file information.<br>The information includes <b>yugaoFileName</b> , <b>locationId</b> (node ID), and <b>recordFileName</b> (recording file path and name). |
| recordDetails   | RecordDetails[] | Body     | Yes       | Call details.                                                                                                                                                         |
| qaRecords       | qaRecords[]     | Body     | Yes       | Q&A details.                                                                                                                                                          |



**Table 10-49** RecordDetails

| Parameter      | Type    | Position | Mandatory | Description                                                                                                                  |
|----------------|---------|----------|-----------|------------------------------------------------------------------------------------------------------------------------------|
| interNo        | String  | Body     | Yes       | Internal sequence number.                                                                                                    |
| userSaying     | String  | Body     | Yes       | ASR result.                                                                                                                  |
| intention      | String  | Body     | Yes       | User intention.                                                                                                              |
| systemReply    | String  | Body     | Yes       | System reply.                                                                                                                |
| timestamp      | Long    | Body     | Yes       | System reply time.                                                                                                           |
| requestTime    | Long    | Body     | Yes       | User request time.                                                                                                           |
| responseSource | Integer | Body     | Yes       | Whether the reply comes from a chatbot or a silent agent.<br>The options are <b>0</b> (chatbot) and <b>1</b> (silent agent). |
| involveMode    | Integer | Body     | Yes       | Flow access mode.<br>The options are <b>0</b> (common mode), <b>1</b> (monitoring mode), and <b>2</b> (insertion mode).      |

**Table 10-50** qaRecords

| Parameter      | Type   | Position | Mandatory | Description               |
|----------------|--------|----------|-----------|---------------------------|
| interNo        | String | Body     | No        | Internal sequence number. |
| seriesId       | String | Body     | No        | Q&A series ID.            |
| questionTitle  | String | Body     | No        | Question title.           |
| questionType   | String | Body     | No        | Question type.            |
| answerIntent   | String | Body     | No        | Answer intention.         |
| originalAnswer | String | Body     | No        | Original user answer.     |
| createTime     | Long   | Body     | No        | Creation time.            |

## Example

- Request

```
{
 "tenantId": "tenant001",
 "authToken": "0d8e11892be840cf983453ea70b505de",
 "userMobile": "180****9999"
}
```

- Response

```
{
 "errorCode": 0,
 "errorMsg": "Success",
 "total": 1,
 "recordList": [
 {
 "logId": "7343-4256-a659-c7fe7682ef03",
 "tenantId": "xxxxxx",
 "callSortId": "10086",
 "callId": "16185589414826353c2c0036c0292e43ca7a4",
 "ctiCallId": null,
 "callingNumber": "10086",
 "calledNumber": "899149138753490944",
 "startTime": 1618558942000,
 "endTime": 1618559267000,
 "lastUpdateTime": 1618559267000,
 "flowInstId": "1234567892021041615422158916185589414826353c2c0036c0292e43ca7a4",
 "businessInfo": null,
 "businessInfoStr": "{\n \"yugaoFileName\": \"\\\"null\\\"\", \"locationId\": \"\\\"0\\\"\", \"recordFileName\": \"\\\"Y:/135/odfsrecord/20220720/1658313131-85918321361224.wav\\\"\"}",
 "recordDetails": [
 {
 "interNo": "1",
 "userSaying": "How much call fee do I have?",
 "intention": "Call fee query",
 "systemReply": "Hello, your call fee of this month is CNY100. The call fee balance is CNY100.",
 "timestamp": 1618558954000,
 "requestTime": 1618558954000,
 "responseSource": 0,
 "involveMode": 0
 }
],
 "qaRecords": [
 {
 "interNo": "1",
 "seriesId": "100",
 "questionTitle": "Did you take a PCR test?",
 "questionType": "2",
 "answerIntent": "Yes.",
 "originalAnswer": "I have taken the test.",
 "createTime": 1650774697000
 }
]
 }
]
}
```

## 10.9 FAQ Configuration Interface

The OIAP provides FAQ configuration and test interfaces for third parties.

## 10.9.1 FAQ Group Query Interface

### Interface Method

POST

### URL

https://IP:PORT/oifde/rest/api/faqGroup/query

### Request

**Table 10-51** Parameters in the request body

| Parameter | Type    | Position | Mandatory | Description                                                                                                                                                       |
|-----------|---------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| tenantId  | String  | Body     | Yes       | Tenant ID.                                                                                                                                                        |
| language  | String  | Body     | No        | Language.<br><b>en_US</b> : English<br><b>zh_CN</b> : Chinese<br><b>es_ES</b> : Spanish<br><b>ar</b> : Arabic<br><b>th_TH</b> : Thai<br><b>pt_BR</b> : Portuguese |
| name      | String  | Body     | No        | Name.                                                                                                                                                             |
| pageNum   | Integer | Body     | Yes       | Page number.<br>Number of the page to be queried. The value <b>1</b> is for the first page.                                                                       |
| pageSize  | Integer | Body     | Yes       | Number of records on each page.                                                                                                                                   |
| authToken | String  | Body     | Yes       | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> .                                                                  |

## Response

| Parameter | Type       | Position | Mandatory | Description              |
|-----------|------------|----------|-----------|--------------------------|
| data      | FaqModel[] | Body     | Yes       | FAQ group data.          |
| totalSize | Integer    | Body     | Yes       | Total number of records. |

**Table 10-52** FaqModel

| Parameter   | Type    | Position | Mandatory | Description                                                                 |
|-------------|---------|----------|-----------|-----------------------------------------------------------------------------|
| id          | Integer | Body     | No        | Internal sequence number.                                                   |
| tenantId    | String  | Body     | Yes       | Tenant ID.                                                                  |
| name        | String  | Body     | Yes       | Name, which contains a maximum of 64 characters.                            |
| description | String  | Body     | No        | Description, which contains a maximum of 512 characters.                    |
| language    | String  | Body     | Yes       | Language.<br><b>en_US</b> : English<br><b>zh_CN</b> : Chinese               |
| updateTime  | Long    | Body     | No        | Modification time.<br>The value is in timestamp format.                     |
| on          | Boolean | Body     | No        | Activation flag.<br><b>true</b> : activation<br><b>false</b> : deactivation |
| amount      | Integer | Body     | Yes       | Number of FAQs.                                                             |

## Example

- Request

```
{
 "tenantId": "00030010",
 "language": "en_US",
 "name": "",
 "pageNum": 1,
 "pageSize": 10,
 "authToken": "0*****"
}
```

- Response

```
{
 "data": [
 {
 "id": 10003,
 "tenantId": "00030010",
 "name": "FAQ",
 "description": "",
 "language": "en_US",
 "updateTime": 1556260264000,
 "on": false,
 "amount": 1
 },
 {
 "id": 10005,
 "tenantId": "00030010",
 "name": "Social Security Related FAQ",
 "description": "",
 "language": "en_US",
 "updateTime": 1556260257000,
 "on": false,
 "amount": 1
 },
 {
 "id": 10002,
 "tenantId": "00030010",
 "name": "Service Provisioning",
 "description": "",
 "language": "en_US",
 "updateTime": 1554285568000,
 "on": false,
 "amount": 1
 }
],
 "totalSize": 3
}
```

## 10.9.2 FAQ Group Creation Interface

### Interface Method

POST

### URL

https://IP:PORT/oifde/rest/api/faqGroup/create

### Request

| Parameter | Type     | Position | Mandatory | Description                                                                                      |
|-----------|----------|----------|-----------|--------------------------------------------------------------------------------------------------|
| model     | FaqModel | Body     | Yes       | FAQ group model.                                                                                 |
| authToken | String   | Body     | Yes       | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> . |

**Table 10-53** FaqModel

| Parameter   | Type    | Position | Mandatory | Description                                                                                                                                                       |
|-------------|---------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| id          | Integer | Body     | No        | Internal sequence number. Set this parameter to <b>-1</b> during creation. If this parameter is left empty, the default value <b>-1</b> is used.                  |
| tenantId    | String  | Body     | Yes       | Tenant ID.                                                                                                                                                        |
| name        | String  | Body     | Yes       | Name, which contains a maximum of 64 characters.                                                                                                                  |
| description | String  | Body     | Yes       | Description, which contains a maximum of 512 characters.                                                                                                          |
| updateTime  | Long    | Body     | No        | Modification time. The value is in timestamp format.                                                                                                              |
| on          | Boolean | Body     | No        | Activation flag.<br><b>true</b> : activation<br><b>false</b> : deactivation                                                                                       |
| amount      | Integer | Body     | No        | Number of FAQs.                                                                                                                                                   |
| language    | String  | Body     | Yes       | Language.<br><b>en_US</b> : English<br><b>zh_CN</b> : Chinese<br><b>es_ES</b> : Spanish<br><b>ar</b> : Arabic<br><b>th_TH</b> : Thai<br><b>pt_BR</b> : Portuguese |

## Response

| Parameter     | Type            | Position | Mandatory | Description      |
|---------------|-----------------|----------|-----------|------------------|
| faqGroupModel | FaqModel        | Body     | No        | Q&A data.        |
| faqModel      | FaqElementModel | Body     | No        | Q&A object data. |

| Parameter | Type   | Position | Mandatory | Description                                                                                                 |
|-----------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------|
| errorCode | String | Body     | Yes       | Error code. <ul style="list-style-type: none"> <li>• 0: success</li> <li>• Other values: failure</li> </ul> |
| errorMsg  | String | Body     | No        | Error description.                                                                                          |

### Example

- Request

```
{
 "authToken": "e*****",
 "model": {
 "id": -1,
 "tenantId": "00030010",
 "name": "Social Security Related FAQ2",
 "description": "This is a test group.",
 "language": "en_US"
 }
}
```

- Response

```
{
 "errorCode": "0",
 "errorMsg": ""
}
```

## 10.9.3 FAQ Group Modification Interface

### Interface Method

POST

### URL

https://IP:PORT/oifde/rest/api/faqGroup/update

### Request

**Table 10-54** Parameters in the request body

| Parameter | Type     | Position | Mandatory | Description                                                                                      |
|-----------|----------|----------|-----------|--------------------------------------------------------------------------------------------------|
| model     | FaqModel | Body     | Yes       | FAQ group model.                                                                                 |
| authToken | String   | Body     | Yes       | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> . |

**Table 10-55** FaqModel

| Parameter   | Type    | Position | Mandatory | Description                                                                 |
|-------------|---------|----------|-----------|-----------------------------------------------------------------------------|
| id          | Integer | Body     | Yes       | FAQ group ID.                                                               |
| tenantId    | String  | Body     | Yes       | Tenant ID.                                                                  |
| name        | String  | Body     | Yes       | Name, which contains a maximum of 64 characters.                            |
| description | String  | Body     | Yes       | Description, which contains a maximum of 512 characters.                    |
| language    | String  | Body     | Yes       | Language, which does not take effect and cannot be changed.                 |
| updateTime  | Long    | Body     | No        | Modification time.                                                          |
| on          | Boolean | Body     | No        | Activation flag.<br><b>true</b> : activation<br><b>false</b> : deactivation |
| amount      | Integer | Body     | No        | Number of FAQs.                                                             |

## Response

| Parameter     | Type            | Position | Mandatory | Description                                                                                                                                                              |
|---------------|-----------------|----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| faqGroupModel | FaqModel        | Body     | No        | Q&A data.                                                                                                                                                                |
| faqModel      | FaqElementModel | Body     | No        | Q&A object data.                                                                                                                                                         |
| errorCode     | String          | Body     | Yes       | Error code. <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure. For details, see <a href="#">Common Error Codes</a>.</li> </ul> |
| errorMsg      | String          | Body     | No        | Error description.                                                                                                                                                       |



## Example

- Request

```
{
 "authToken": "e*****",
 "model": {
 "id": 10000,
 "tenantId": "00030010",
 "name": "Social Security Related FAQ2",
 "description": "This is a test group.",
 "language": ""
 }
}
```

- Response

```
{
 "errorCode": "0",
 "errorMsg": ""
}
```

## 10.9.4 FAQ Group Deletion Interface

### Interface Method

POST

### URL

https://IP:PORT/oifde/rest/api/faqGroup/delete

### Request

**Table 10-56** Parameters in the request body

| Parameter   | Type   | Position | Mandatory | Description                                                                                      |
|-------------|--------|----------|-----------|--------------------------------------------------------------------------------------------------|
| tenantId    | String | Body     | Yes       | Tenant ID.                                                                                       |
| faqGroupIds | int[]  | Body     | Yes       | List of IDs to be deleted.                                                                       |
| authToken   | String | Body     | Yes       | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> . |

### Response

| Parameter     | Type     | Position | Mandatory | Description |
|---------------|----------|----------|-----------|-------------|
| faqGroupModel | FaqModel | Body     | No        | Q&A data.   |

| Parameter | Type            | Position | Mandatory | Description                                                                                                 |
|-----------|-----------------|----------|-----------|-------------------------------------------------------------------------------------------------------------|
| faqModel  | FaqElementModel | Body     | No        | Q&A object data.                                                                                            |
| errorCode | String          | Body     | Yes       | Error code. <ul style="list-style-type: none"> <li>• 0: success</li> <li>• Other values: failure</li> </ul> |
| errorMsg  | String          | Body     | No        | Error description.                                                                                          |

### Example

- Request

```
{
 "tenantId": "00030010",
 "faqGroupIds": [10000, 10001],
 "authToken": "e*****"
}
```
- Response

```
{
 "errorCode": "0",
 "errorMsg": ""
}
```

## 10.9.5 FAQ Group Status Change Interface

### Interface Method

POST

### URL

https://IP:PORT/oifde/rest/api/faqGroup/changeStatus

### Request

Table 10-57 Parameters in the request body

| Parameter  | Type    | Position | Mandatory | Description                                        |
|------------|---------|----------|-----------|----------------------------------------------------|
| tenantId   | String  | Body     | Yes       | Tenant ID.                                         |
| faqGroupId | Integer | Body     | Yes       | ID of the FAQ group whose status is to be changed. |

| Parameter | Type    | Position | Mandatory | Description                                                                                                     |
|-----------|---------|----------|-----------|-----------------------------------------------------------------------------------------------------------------|
| on        | Boolean | Body     | No        | Activation flag. The default value is <b>false</b> .<br><b>true</b> : activation<br><b>false</b> : deactivation |
| authToken | String  | Body     | Yes       | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> .                |

## Response

| Parameter     | Type            | Position | Mandatory | Description                                                                                                    |
|---------------|-----------------|----------|-----------|----------------------------------------------------------------------------------------------------------------|
| faqGroupModel | FaqModel        | Body     | No        | Q&A data.                                                                                                      |
| faqModel      | FaqElementModel | Body     | No        | Q&A object data.                                                                                               |
| errorCode     | String          | Body     | Yes       | Error code.<br><ul style="list-style-type: none"> <li>• 0: success</li> <li>• Other values: failure</li> </ul> |
| errorMsg      | String          | Body     | No        | Error description.                                                                                             |

## Example

- Request
 

```
{
 "tenantId": "00030010",
 "faqGroupId": "10012",
 "on": true,
 "authToken": "e*****"
}
```
- Response
 

```
{
 "errorCode": "0",
 "errorMsg": ""
}
```

## 10.9.6 Q&A Query Interface

### Interface Method

The request method must be set to POST.

### URL

https://IP:PORT/oifde/rest/api/faq/query

### Request

**Table 10-58** Parameters in the request body

| Parameter  | Type    | Position | Mandatory | Description                                                                                   |
|------------|---------|----------|-----------|-----------------------------------------------------------------------------------------------|
| tenantId   | String  | body     | Yes       | Tenant ID.                                                                                    |
| faqGroupId | Integer | body     | Yes       | FAQ group ID.                                                                                 |
| name       | String  | body     | No        | Question in a Q&A. If this parameter is not set, all Q&As are returned.                       |
| pageNum    | Integer | body     | Yes       | Page number. Number of the page to be queried. The value is 1 for the first page.             |
| pageSize   | Integer | body     | Yes       | Number of records on each page.                                                               |
| authToken  | String  | body     | Yes       | Authentication token. For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> . |

### Response

| Parameter | Type              | Position | Mandatory | Description              |
|-----------|-------------------|----------|-----------|--------------------------|
| data      | FaqElementModel[] | body     | Yes       | Q&A data.                |
| totalSize | Integer           | body     | Yes       | Total number of records. |

**Table 10-59** FaqElementModel

| Parameter    | Type               | Position | Mandatory | Description                                                       |
|--------------|--------------------|----------|-----------|-------------------------------------------------------------------|
| id           | Integer            | body     | Yes       | Internal sequence number.                                         |
| faqGroupId   | Integer            | body     | Yes       | FAQ group ID.                                                     |
| question     | String             | body     | Yes       | Question, which contains a maximum of 8192 characters.            |
| simQuestions | SimStatementUnit[] | body     | No        | Similar question. A maximum of 100 similar questions are allowed. |
| answer       | String             | body     | Yes       | Answer, which contains a maximum of 8192 characters.              |
| simAnswers   | SimStatementUnit[] | body     | No        | Similar answer. A maximum of 100 similar answers are allowed.     |
| keywords     | KeywordUnit[]      | body     | No        | Keyword. A maximum of 20 keywords are supported.                  |

**Table 10-60** SimStatementUnit

| Parameter | Type    | Position | Mandatory | Description                                                              |
|-----------|---------|----------|-----------|--------------------------------------------------------------------------|
| id        | Integer | body     | Yes       | Internal sequence number.                                                |
| elementId | Integer | body     | Yes       | Q&A ID.                                                                  |
| statement | String  | body     | Yes       | Question or answer content, which contains a maximum of 8192 characters. |
| type      | String  | body     | Yes       | <b>Q:</b> question<br><b>A:</b> answer                                   |

**Table 10-61** KeywordUnit

| Parameter | Type   | Position | Mandatory | Description                                         |
|-----------|--------|----------|-----------|-----------------------------------------------------|
| w         | String | body     | Yes       | Keyword, which contains a maximum of 64 characters. |

## Example

- Request

```
{
 "tenantId": "00030010",
 "faqGroupId": 10000,
 "name": "",
 "pageNum": 1,
 "pageSize": 10,
 "authToken": "e*****"
}
```

- Response

```
{
 "data": [
 {
 "id": 10007,
 "faqId": 10000,
 "question": "What is a Q&A chatbot?",
 "simQuestions": [],
 "answer": " A Q&A chatbot automatically provides answers to users' questions.",
 "simAnswers": [],
 "keywords": []
 },
 {
 "id": 10008,
 "faqId": 10000,
 "question": "What is a task-oriented chatbot?",
 "simQuestions": [],
 "answer": " A chatbot oriented for accomplishing a series of tasks (such as air ticket booking, meal ordering, and RBT subscription) with clear objectives.",
 "simAnswers": [],
 "keywords": []
 }
],
 "totalSize": 2
}
```

## 10.9.7 Q&A Creation Interface

### Interface Method

POST

### URL

<https://IP:PORT/oifde/rest/api/faq/create>

## Request

| Parameter | Type            | Position | Mandatory | Description                                                                                      |
|-----------|-----------------|----------|-----------|--------------------------------------------------------------------------------------------------|
| tenantId  | String          | Body     | Yes       | Tenant ID.                                                                                       |
| model     | FaqElementModel | Body     | Yes       | Q&A model.                                                                                       |
| authToken | String          | Body     | Yes       | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> . |

**Table 10-62** FaqElementModel

| Parameter    | Type               | Position | Mandatory | Description                                                                                                                                      |
|--------------|--------------------|----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| id           | Integer            | Body     | No        | Internal sequence number. Set this parameter to <b>-1</b> during creation. If this parameter is left empty, the default value <b>-1</b> is used. |
| faqGroupId   | Integer            | Body     | Yes       | FAQ group ID.                                                                                                                                    |
| question     | String             | Body     | Yes       | Question, which contains a maximum of 8192 characters.                                                                                           |
| simQuestions | SimStatementUnit[] | Body     | No        | Similar question. A maximum of 100 similar questions are allowed.                                                                                |
| answer       | String             | Body     | Yes       | Answer, which contains a maximum of 8192 characters.                                                                                             |
| simAnswers   | SimStatementUnit[] | Body     | No        | Similar answer. A maximum of 100 similar answers are allowed.                                                                                    |

| Parameter | Type           | Position | Mandatory | Description                                                                                  |
|-----------|----------------|----------|-----------|----------------------------------------------------------------------------------------------|
| keywords  | KeywordUnit[ ] | Body     | No        | Keyword. A maximum of 20 keywords are allowed. The value must not contain vertical bars ( ). |

**Table 10-63** SimStatementUnit

| Parameter | Type    | Position | Mandatory | Description                                                                   |
|-----------|---------|----------|-----------|-------------------------------------------------------------------------------|
| id        | Integer | Body     | Yes       | Internal sequence number.                                                     |
| elementId | Integer | Body     | No        | Q&A ID. If this parameter is left blank, the default value <b>-1</b> is used. |
| statement | String  | Body     | Yes       | Question or answer content, which contains a maximum of 8192 characters.      |
| type      | String  | Body     | Yes       | <b>Q:</b> question<br><b>A:</b> answer                                        |

**Table 10-64** KeywordUnit

| Parameter | Type   | Position | Mandatory | Description                                         |
|-----------|--------|----------|-----------|-----------------------------------------------------|
| w         | String | Body     | Yes       | Keyword, which contains a maximum of 64 characters. |

## Response

| Parameter     | Type     | Position | Mandatory | Description |
|---------------|----------|----------|-----------|-------------|
| faqGroupModel | FaqModel | Body     | Yes       | Q&A data.   |



| Parameter | Type            | Position | Mandatory | Description                                                                                              |
|-----------|-----------------|----------|-----------|----------------------------------------------------------------------------------------------------------|
| faqModel  | FaqElementModel | Body     | Yes       | Q&A object data.                                                                                         |
| errorCode | String          | Body     | Yes       | Error code. <ul style="list-style-type: none"><li>• 0: success</li><li>• Other values: failure</li></ul> |
| errorMsg  | String          | Body     | No        | Error description.                                                                                       |

## Example

- Request

```
{
 "tenantId": "00030010",
 "authToken": "XX",
 "model": {
 "id": -1,
 "faqGroupId": 10012,
 "question": "House purchase restriction in Nanjing",
 "simQuestions": [
 {
 "statement": "House purchase restriction policies in Nanjing",
 "type": "Q"
 }
],
 "answer": "Each household can purchase at most two houses.",
 "simAnswers": [
 {
 "statement": "Each household can purchase at most two houses.",
 "type": "A"
 }
],
 "keywords": [
 {
 "w": "Purchase restriction"
 }
]
 }
}
```

- Response

```
{
 "errorCode": "0",
 "errorMsg": ""
}
```

## 10.9.8 FAQ Modification Interface

### Interface Method

POST

### URL

https://IP:PORT/oifde/rest/api/faq/update

## Request

**Table 10-65** Parameters in the request body

| Parameter | Type            | Position | Mandatory | Description                                                                                      |
|-----------|-----------------|----------|-----------|--------------------------------------------------------------------------------------------------|
| tenantId  | String          | Body     | Yes       | Tenant ID.                                                                                       |
| model     | FaqElementModel | Body     | Yes       | FAQ group model.                                                                                 |
| authToken | String          | Body     | Yes       | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> . |

**Table 10-66** FaqElementModel

| Parameter    | Type               | Position | Mandatory | Description                                                                                  |
|--------------|--------------------|----------|-----------|----------------------------------------------------------------------------------------------|
| id           | Integer            | Body     | Yes       | Q&A ID.                                                                                      |
| faqGroupId   | Integer            | Body     | Yes       | FAQ group ID.                                                                                |
| question     | String             | Body     | Yes       | Question, which contains a maximum of 8192 characters.                                       |
| simQuestions | SimStatementUnit[] | Body     | No        | Similar question. A maximum of 100 similar questions are allowed.                            |
| answer       | String             | Body     | Yes       | Answer, which contains a maximum of 8192 characters.                                         |
| simAnswers   | SimStatementUnit[] | Body     | No        | Similar answer. A maximum of 100 similar answers are allowed.                                |
| keywords     | KeywordUnit[]      | Body     | No        | Keyword. A maximum of 20 keywords are allowed. The value must not contain vertical bars ( ). |

**Table 10-67** SimStatementUnit

| Parameter | Type    | Position | Mandatory | Description                                                              |
|-----------|---------|----------|-----------|--------------------------------------------------------------------------|
| id        | Integer | Body     | Yes       | Internal sequence number.                                                |
| elementId | Integer | Body     | Yes       | Q&A ID.                                                                  |
| statement | String  | Body     | Yes       | Question or answer content, which contains a maximum of 8192 characters. |
| type      | String  | Body     | Yes       | <b>Q:</b> question<br><b>A:</b> answer                                   |

**Table 10-68** KeywordUnit

| Parameter | Type   | Position | Mandatory | Description                                         |
|-----------|--------|----------|-----------|-----------------------------------------------------|
| w         | String | Body     | Yes       | Keyword, which contains a maximum of 64 characters. |

## Response

| Parameter     | Type            | Position | Mandatory | Description                                                                                             |
|---------------|-----------------|----------|-----------|---------------------------------------------------------------------------------------------------------|
| faqGroupModel | FaqModel        | Body     | Yes       | Q&A data.                                                                                               |
| faqModel      | FaqElementModel | Body     | Yes       | Q&A object data.                                                                                        |
| errorCode     | String          | Body     | Yes       | Error code. <ul style="list-style-type: none"> <li>0: success</li> <li>Other values: failure</li> </ul> |
| errorMsg      | String          | Body     | No        | Error description.                                                                                      |

## Example

- Request

```
{
 "tenantId": "00030010",
```

```

"authToken": "XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX",
"model": {
 "id": 22897,
 "faqGroupId": 10012,
 "question": "House purchase restriction in Nanjing",
 "simQuestions": [
 {
 "statement": "House purchase restriction policies in Nanjing",
 "type": "Q"
 }
],
 "answer": "Each household can purchase at most two houses.",
 "simAnswers": [
 {
 "statement": "Each household can purchase at most two houses.",
 "type": "A"
 }
],
 "keywords": [
 {
 "w": "Purchase restriction"
 }
]
}

```

- Response

```

{
 "errorCode": "0",
 "errorMsg": ""
}

```

## 10.9.9 Q&A Deletion Interface

### Interface Method

POST

### URL

https://IP:PORT/oifde/rest/api/faq/delete

### Request

| Parameter  | Type    | Position | Mandatory | Description                                                                                      |
|------------|---------|----------|-----------|--------------------------------------------------------------------------------------------------|
| tenantId   | String  | Body     | Yes       | Tenant ID.                                                                                       |
| faqGroupId | Integer | Body     | Yes       | FAQ group ID.                                                                                    |
| faqIds     | int[]   | Body     | Yes       | List of IDs to be deleted.                                                                       |
| authToken  | String  | Body     | Yes       | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> . |

## Response

| Parameter     | Type            | Position | Mandatory | Description                                                                                                 |
|---------------|-----------------|----------|-----------|-------------------------------------------------------------------------------------------------------------|
| faqGroupModel | FaqModel        | Body     | Yes       | Q&A data.                                                                                                   |
| faqModel      | FaqElementModel | Body     | Yes       | Q&A object data.                                                                                            |
| errorCode     | String          | Body     | Yes       | Error code. <ul style="list-style-type: none"> <li>● 0: success</li> <li>● Other values: failure</li> </ul> |
| errorMsg      | String          | Body     | No        | Error description.                                                                                          |

## Example

- Request

```
{
 "tenantId": "00030010",
 "faqGroupId": 10012,
 "faqIds": [22897],
 "authToken": "9*****"
}
```
- Response

```
{
 "errorCode": "0",
 "errorMsg": ""
}
```

## 10.9.10 Specific FAQ Group Test Interface

### Interface Method

The request method must be set to POST.

### URL

<https://IP:PORT/oifde/rest/api/faq/testOneGroup>

### Request

**Table 10-69** Parameters in the request body

| Parameter  | Type    | Position | Mandatory | Description   |
|------------|---------|----------|-----------|---------------|
| tenantId   | String  | body     | Yes       | Tenant ID.    |
| faqGroupId | Integer | body     | Yes       | FAQ group ID. |

| Parameter | Type   | Position | Mandatory | Description                                                                                      |
|-----------|--------|----------|-----------|--------------------------------------------------------------------------------------------------|
| user      | String | body     | Yes       | Test subscriber ID.                                                                              |
| sentence  | String | body     | Yes       | Request statement.                                                                               |
| authToken | String | body     | Yes       | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> . |

## Response

| Parameter   | Type        | Position | Mandatory | Description   |
|-------------|-------------|----------|-----------|---------------|
| answer      | FaqAnswer   | body     | Yes       | Answer.       |
| similarFaqs | FaqAnswer[] | body     | Yes       | Answer group. |

**Table 10-70** FaqAnswer

| Parameter    | Type     | Position | Mandatory | Description                                                                                            |
|--------------|----------|----------|-----------|--------------------------------------------------------------------------------------------------------|
| faqGroupId   | Integer  | body     | Yes       | FAQ group ID.                                                                                          |
| faqGroupName | String   | body     | Yes       | FAQ group name.                                                                                        |
| faqId        | Integer  | body     | Yes       | Q&A ID.                                                                                                |
| question     | String   | body     | Yes       | Question.                                                                                              |
| answers      | String[] | body     | Yes       | Answer.                                                                                                |
| prob         | float    | body     | Yes       | Matching degree. A larger value indicates a higher matching degree.<br>The value must be 0 or greater. |

## Example

- Request

```
{
 "tenantId": "00030010",
 "faqGroupId": 10000,
```

```
"user": "138****8888",
"sentence": "What is guardian life insurance?",
"authToken": "5*****"
```

- Response

```
{
 "answer": {
 "faqGroupId": 10000,
 "faqGroupName": "Insurance consultation",
 "faqId": 10039,
 "question": "What is life insurance?",
 "answers": ["Life insurance is a type of personal insurance that takes the life span of the insured as the object of insurance and takes the survival and death of the insured as the prestation conditions. In the life insurance, the insured transfers risks to the insurer by accepting the terms raised by the insurer and paying the insurance premium. The difference between the life insurance and other insurance businesses lies in the risk that is transferred. In the life insurance, the risk of survival or death of the insured is transferred."],
 "prob": 121.11094785672965
 }
}
```

## 10.9.11 FAQ Group Test and Activation Interface

### Interface Method

POST

### URL

https://IP:PORT/oifde/rest/api/faq/testEnabledGroups

### Request

**Table 10-71** Parameters in the request body

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                                       |
|-----------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| tenantId  | String | Body     | Yes       | Tenant ID.                                                                                                                                                        |
| user      | String | Body     | Yes       | Test subscriber ID.                                                                                                                                               |
| sentence  | String | Body     | Yes       | Request statement.                                                                                                                                                |
| language  | String | Body     | Yes       | Language.<br><b>en_US</b> : English<br><b>zh_CN</b> : Chinese<br><b>es_ES</b> : Spanish<br><b>ar</b> : Arabic<br><b>th_TH</b> : Thai<br><b>pt_BR</b> : Portuguese |

| Parameter | Type   | Position | Mandatory | Description                                                                                      |
|-----------|--------|----------|-----------|--------------------------------------------------------------------------------------------------|
| authToken | String | Body     | Yes       | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> . |

## Response

| Parameter   | Type        | Position | Mandatory | Description   |
|-------------|-------------|----------|-----------|---------------|
| answer      | FaqAnswer   | Body     | Yes       | Answer.       |
| similarFaqs | FaqAnswer[] | Body     | Yes       | Answer group. |

**Table 10-72** FaqAnswer

| Parameter    | Type     | Position | Mandatory | Description                                                                                            |
|--------------|----------|----------|-----------|--------------------------------------------------------------------------------------------------------|
| faqGroupId   | Integer  | Body     | Yes       | FAQ group ID.                                                                                          |
| faqGroupName | String   | Body     | Yes       | FAQ group name.                                                                                        |
| faqId        | Integer  | Body     | Yes       | Q&A ID.                                                                                                |
| question     | String   | Body     | Yes       | Question.                                                                                              |
| answers      | String[] | Body     | Yes       | Answer.                                                                                                |
| prob         | Float    | Body     | Yes       | Matching degree. A larger value indicates a higher matching degree.<br>The value must be 0 or greater. |

## Example

- Request
 

```
{
 "tenantId": "00030010",
 "user": "138****8888",
 "sentence": "What is life insurance?",
 "language": "zh_CN",
 "authToken": "5*****"
}
```



- Response

```
{
 "answer": {
 "faqGroupId": 10000,
 "faqGroupName": "Insurance consultation",
 "faqId": 10039,
 "question": "What is life insurance?",
 "answers": ["Life insurance is a type of personal insurance that takes the life span of the insured as the object of insurance and takes the survival and death of the insured as the prestation conditions. In the life insurance, the insured transfers risks to the insurer by accepting the terms raised by the insurer and paying the insurance premium. The difference between the life insurance and other insurance businesses lies in the risk that is transferred. In the life insurance, the risk of survival or death of the insured is transferred."],
 "prob": 121.11094785672965
 }
}
```

## 10.10 Intention List Query Interface

### Basic Information

This interface is invoked by a third-party system (for example, the silent agent system) to query the intention list.

### Interface Method

POST

### URL

<https://IP:PORT/oifde/rest/api/intentions/query>

### Request

**Table 10-73** Parameters in the request body

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                                      |
|-----------|--------|----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| tenantId  | String | Body     | Yes       | Tenant ID.                                                                                                                                                       |
| language  | String | Body     | Yes       | Language.<br><b>en_US</b> : English<br><b>zh_CN</b> : Chinese<br><b>pt_BR</b> : Portuguese<br><b>th_TH</b> : Thai<br><b>fr_FR</b> : French<br><b>ar</b> : Arabic |

| Parameter  | Type       | Position | Mandatory                                                                                                                   | Description                                                                                      |
|------------|------------|----------|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| pageNum    | Integer    | Body     | Yes                                                                                                                         | Page number.<br>Number of the page to be queried. The value is <b>1</b> for the first page.      |
| pageSize   | Integer    | Body     | Yes                                                                                                                         | Number of records on each page.<br>5, 10, 20, 50, or 100 records can be displayed on each page.  |
| domainInfo | DomainInfo | Body     | If <b>oifde.slient.use</b> is set to <b>ipcc</b> , this parameter is mandatory. In other cases, this parameter is optional. | Domain information.                                                                              |
| authToken  | String     | Body     | Yes                                                                                                                         | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> . |

**Table 10-74** DomainInfo

| Parameter  | Type    | Position | Mandatory | Description  |
|------------|---------|----------|-----------|--------------|
| domainName | String  | Body     | No        | Domain name. |
| domainId   | Integer | Body     | Yes       | Domain ID.   |
| language   | String  | Body     | No        | Language.    |
| tenantId   | String  | Body     | No        | Tenant ID.   |

## Response

| Parameter  | Type        | Position | Mandatory | Description                                                                                                                    |
|------------|-------------|----------|-----------|--------------------------------------------------------------------------------------------------------------------------------|
| errorCode  | Integer     | Body     | No        | Error code.<br><ul style="list-style-type: none"> <li>0: success</li> <li>Other values: failure</li> </ul>                     |
| errorMsg   | String      | Body     | No        | Error description.                                                                                                             |
| intentions | intention[] | Body     | Yes       | Intention list (array structure).<br>Default intentions are not included, for example, unknown intentions and sensitive words. |
| total      | Integer     | Body     | Yes       | Number of returned intentions.                                                                                                 |

**Table 10-75** intention

| Parameter  | Type   | Position | Mandatory | Description                                                               |
|------------|--------|----------|-----------|---------------------------------------------------------------------------|
| intentCmd  | String | Body     | No        | Command word.                                                             |
| intentName | String | Body     | O         | Intention name (format: <i>Domain name/Intention name-Command word</i> ). |
| intentDesc | String | Body     | No        | Intention description.                                                    |

## Example

- Request

```
{
 "tenantId": "202104237142",
 "language": "en_US",
 "pageNum": 1,
 "pageSize": 20,
 "authToken": "t*****",
 "domainInfo": {
 "domainName": "Chatbot",
 "domainId": "10149"
 }
}
```

- Response

```
{
 "errorMsg": ""
```

```

"errorCode": 0,
"intentions": [
 {
 "intentName": "Address for car moving",
 "intentDesc": " ",
 "intentCmd": "Address for car moving"
 },
 {
 "intentName": "Social security service",
 "intentDesc": " ",
 "intentCmd": "Social security service"
 },
 {
 "intentName": "Car moving service",
 "intentDesc": "Car moving service",
 "intentCmd": "Car moving"
 },
 {
 "intentName": "Housing provident fund issue",
 "intentDesc": " ",
 "intentCmd": "Housing provident fund issue"
 },
 {
 "intentName": "Yes/No",
 "intentDesc": " ",
 "intentCmd": "Yes/No"
 },
 {
 "intentName": "Housing provident fund service",
 "intentDesc": " ",
 "intentCmd": "Housing provident fund"
 }
],
"total": 6
}

```

## 10.11 Dedicated Interfaces for Silent Agents

This interface is provided for the silent agent system to instruct chatbots in businesses when agents are silent.

### 10.11.1 Flow Status Change Interface

#### Interface Method

POST

#### URL

<https://IP:PORT/oifde/rest/api/flow/changeWorkMode>

#### Request

**Table 10-76** Parameters in the request body

| Parameter | Type   | Position | Mandatory | Description |
|-----------|--------|----------|-----------|-------------|
| tenantId  | String | Body     | Yes       | Tenant ID.  |

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| callId    | String | Body     | Yes       | Session ID.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| agentId   | String | Body     | Yes       | Agent ID.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| workMode  | String | Body     | Yes       | <p>Session state, that is, the state of the flow to be switched.</p> <p><b>0:</b> common state<br/> <b>1:</b> supervision state<br/> <b>2:</b> insertion state<br/> <b>3:</b> transfer state</p> <p><b>NOTE</b><br/> This interface can be invoked to switch the status only in the supervision or insertion state. The new status is compared with the status of the current session.</p> <ul style="list-style-type: none"> <li>• The supervision state and the insertion state change with each other. The session determines how the silent agent controls the session based on the new state.</li> <li>• When the supervision or insertion state is changed to the common state, the session is no longer controlled by the silent agent.</li> <li>• When the supervision or insertion state is changed to the transfer state, the call is transferred in the session.</li> </ul> |

| Parameter           | Type   | Position | Mandatory                                                             | Description                                                                                      |
|---------------------|--------|----------|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| callTransferRequest | Object | Body     | This parameter is mandatory when <b>workMode</b> is set to <b>3</b> . | For details about call transfer parameters, see <a href="#">Table 10-77</a> .                    |
| authToken           | String | Body     | Yes                                                                   | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> . |

**Table 10-77** callTransferRequest

| Parameter        | Type   | Position | Mandator<br>y | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------|--------|----------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| callTransferType | String | Body     | Yes           | <p>Call transfer type.</p> <p><b>1:</b> transfer to the manual service (to a skill queue by routing code)</p> <p><b>2:</b> transfer to an IVR</p> <p><b>3:</b> transfer to the manual service (to a skill queue by skill name)</p> <p><b>4:</b> transfer to the manual service (to an agent by ID)</p> <p><b>5:</b> transfer to a third-party number</p> <p><b>6:</b> online digital assistance</p> <p><b>7:</b> transfer to the manual service (to the last agent. Currently, only multimedia is supported.)</p> <p><b>8:</b> transfer to the manual service (to the skill queue to which an agent belongs. Currently, only multimedia is supported.)</p> <p><b>31:</b> transfer to a multimedia message (to the last agent)</p> <p><b>32:</b> transfer to a multimedia message (to a skill queue)</p> <p><b>33:</b> transfer to a multimedia message (to an agent)</p> |

| Parameter              | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------|--------|----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| callTransferRouteValue | String | Body     | Yes       | <p>Call transfer route value.</p> <ul style="list-style-type: none"> <li>If <b>callTransferType</b> is set to <b>1</b>, set this parameter to the route code for transferring a call to a skill queue. For this configuration, you need to ensure that the manual flow and the current flow are under the same system access code. The call is transferred to the manual skill queue through the extension code configured on the <b>Called Route</b> page.</li> <li>If <b>callTransferType</b> is set to <b>2</b>, set this parameter to the IVR flow access code.</li> <li>The figure shows the IVR flow access code in the AICC integration deployment mode.</li> <li>If <b>callTransferType</b> is set to <b>3</b>, set this parameter to the name of the skill queue where the agent to whom the call is transferred resides, for</li> </ul> |



| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------|------|----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |      |          |           | <p>example, <b>Agent Group 1</b>.</p> <ul style="list-style-type: none"> <li>• If <b>callTransferType</b> is set to <b>4</b>, set this parameter to the platform employee ID of the agent to whom the call is transferred.</li> <li>• If <b>callTransferType</b> is set to <b>5</b>, set this parameter to the third-party number.</li> <li>• If <b>callTransferType</b> is set to <b>6</b>, set this parameter to the flow route code agreed with the third-party intelligent system.</li> <li>• If <b>callTransferType</b> is set to <b>7</b>, you do not need to set this parameter.</li> <li>• If <b>callTransferType</b> is set to <b>8</b>, set this parameter to the platform employee ID or variable corresponding to the agent to whom the call is transferred.</li> <li>• If <b>callTransferType</b> is set to <b>31</b>, you do not need to set this parameter.</li> </ul> |

| Parameter             | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       |        |          |           | <ul style="list-style-type: none"> <li>If <b>callTransferType</b> is set to <b>32</b>, set this parameter to the name or access code of the skill queue where the agent to whom the call is transferred resides.</li> <li>If <b>callTransferType</b> is set to <b>33</b>, set this parameter to the platform employee ID or variable corresponding to the agent to whom the call is transferred.</li> </ul> |
| callTransferTransData | String | Body     | No        | Channel-associated data.                                                                                                                                                                                                                                                                                                                                                                                    |
| callTransferNumber    | String | Body     | No        | Calling number.                                                                                                                                                                                                                                                                                                                                                                                             |

## Response

| Parameter | Type   | Position | Mandatory | Description                                                                                                    |
|-----------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------|
| errorCode | String | Body     | No        | Error code. <ul style="list-style-type: none"> <li><b>0</b>: success</li> <li>Other values: failure</li> </ul> |
| errorMsg  | String | Body     | No        | Response description.                                                                                          |

## Example

- Request

```
{
 "tenantId":"XXX",
```

```

"callId":"123123412300030010",
"agentId":"88880002",
"workMode":"3",
"authToken": "{*****}",
"callTransferRequest"{
 "callTransferType":"5",
 "callTransferRouteValue":"88880006",
 "callTransferTransData": "",
 "callTransferNumber": ""
}
}

```

- Response

```

{
 "errorCode" : "0",
 "errorMsg" : ""
}

```

## 10.11.2 Reply Interface

### Interface Method

POST

### URL

<https://IP:PORT/oifde/rest/api/flow/receiveDialogrecord>

### Request

**Table 10-78** Parameters in the request body

| Parameter | Type    | Position | Mandatory | Description                                                                                                                      |
|-----------|---------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------|
| tenantId  | String  | Body     | Yes       | Tenant ID.                                                                                                                       |
| callId    | String  | Body     | Yes       | Session ID.                                                                                                                      |
| agentId   | String  | Body     | Yes       | Agent ID.                                                                                                                        |
| nodeId    | String  | Body     | Yes       | ID of the diagram element node, which is transferred to a silent agent and then returned by the silent agent.                    |
| nodeIndex | Integer | Body     | No        | Execution position of the replied diagram element node, which is transferred to a silent agent and returned by the silent agent. |

| Parameter          | Type    | Position | Mandatory | Description                                                                                                                                                                                                                   |
|--------------------|---------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| replyType          | Integer | Body     | No        | Reply type. The default value is <b>0</b> .<br><b>0</b> : intention reply<br><b>1</b> : content reply                                                                                                                         |
| replyIntentCode    | String  | Body     | Yes       | Intention code. When a silent agent replies with customized content (that is, <b>replyType</b> is set to <b>1</b> ) and the session is in the insertion state, this parameter has a fixed value of <b>silentInsertReply</b> . |
| replyIntentContent | String  | Body     | Yes       | Reply returned by an agent. Reply content configured in the intention.<br>If the content is customized, directly enter the reply of the silent agent.                                                                         |
| replyIntentName    | String  | Body     | Yes       | Intention name. For the content reply, the value is the same as that of <b>replyIntentCode</b> .                                                                                                                              |
| authToken          | String  | Body     | Yes       | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> .                                                                                                                              |

## Response

| Parameter | Type   | Position | Mandatory | Description                                                                                                       |
|-----------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------|
| errorCode | String | Body     | No        | Error code.<br><ul style="list-style-type: none"> <li><b>0</b>: success</li> <li>Other values: failure</li> </ul> |

| Parameter | Type   | Position | Mandatory | Description        |
|-----------|--------|----------|-----------|--------------------|
| errorMsg  | String | Body     | No        | Error description. |

## Example

- Request

```
{
 "callId":"16064786965020f6fb86792bd25dbbb489426",
 "agentId":"10001",
 "nodeId":"node_action_97511fbc15d9b23074405ee736187a82c529",
 "nodeIndex":2,
 "replyType":0,
 "replyIntentCode":"car",
 "replyIntentContent": "Test vehicles",
 "replyIntentName":"SSQ test"
 "authToken": "t*****"
}
```

- Response

```
{
 "errorCode" : "0",
 "errorMsg" : ""
}
```

## 10.12 Interface for Pushing Packet Capture Recording Request Results

When controlling the audio and video recording server for recording, the ODFS only enables the audio and video recording server to forward the ASR result. Therefore, an interface needs to be provided for the audio and video recording server to receive the continuously reported recognition results.

### Interface Method

POST

### URL

https://IP:PORT/oifde/rest/api/flow/asrrecognizeresult

### Message Header

Content-Type:application/json; charset=UTF-8

## Request

**Table 10-79** Parameters in the request body

| Parameter    | Type        | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------|-------------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| serviceToken | String      | Body     | Yes       | Authentication token. It is the same as the <b>serviceToken</b> field carried in the VoiceCyber request recognition interface (transfertoasr) invoked by the OIAP.                                                                                                                                                                                                                            |
| subCCID      | String      | Body     | No        | ID of a call center.                                                                                                                                                                                                                                                                                                                                                                          |
| taskID       | String      | Body     | Yes       | ID used for <b>capturesession</b> .<br>Unique call ID used in the request (inaction=7) for starting packet capture recording in a dialog. The value is the same as those of <b>userid</b> and <b>call_id</b> and is used by the flow.<br><b>NOTE</b><br>For details about <b>capturesession</b> , see the interface reference provided by the corresponding audio and video recording server. |
| respType     | String      | Body     | Yes       | <b>NormalResult:</b> The user ends the speech normally.<br><b>StartSpeech:</b> The user starts to speak.<br>The default value is <b>StartSpeech</b> .                                                                                                                                                                                                                                         |
| sentence     | JSON object | Body     | Yes       | ASR result. For details, see <a href="#">Table 10-80</a> .                                                                                                                                                                                                                                                                                                                                    |

| Parameter | Type        | Position | Mandatory | Description                                                                                                                                                 |
|-----------|-------------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| analysis  | JSON object | Body     | No        | Object inspection analysis information. For details, see <a href="#">Table 10-81</a> .                                                                      |
| speakerID | String      | Body     | No        | ID of the speaker, which is used during the manual call.<br><b>0</b> : customer<br><b>1</b> : agent<br><b>2</b> : others<br>The default value is <b>0</b> . |

**Table 10-80** sentence

| Parameter  | Type    | Position | Mandatory | Description                                                                                                                                                     |
|------------|---------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| st         | Integer | Body     | Yes       | Start timestamp of a sentence, in milliseconds.                                                                                                                 |
| et         | Integer | Body     | Yes       | End timestamp of a sentence, in milliseconds.                                                                                                                   |
| isFinal    | Boolean | Body     | Yes       | The value <b>true</b> indicates that the result is the final result, and the value <b>false</b> indicates that the result is the intermediate temporary result. |
| text       | String  | Body     | Yes       | Text in the recognition result.<br>text =<br>URLEncoder.encode(text, "UTF-8");                                                                                  |
| confidence | Float   | Body     | Yes       | Confidence of the recognition result. The value ranges from 0 to 1. The value <b>0</b> indicates the intermediate result.                                       |

**Table 10-81** analysis

| Parameter | Type      | Position | Mandator<br>y | Description                                                                                                                                                                                                                                                                                        |
|-----------|-----------|----------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| emotions  | emotion[] | Body     | No            | Emotion information array. If the value of <b>checkEmotion</b> is <b>false</b> or no emotion information is detected, this field is invalid.<br><b>NOTE</b><br>For details about <b>checkEmotion</b> , see the interface reference provided by the corresponding audio and video recording server. |
| avgVol    | Integer   | Body     | No            | Average volume. If the value of <b>outputVolume</b> is <b>false</b> , this parameter is invalid.<br><b>NOTE</b><br>For details about <b>outputVolume</b> , see the interface reference provided by the corresponding audio and video recording server.                                             |
| maxVol    | Integer   | Body     | No            | Maximum volume. If the value of <b>outputVolume</b> is <b>false</b> , this parameter is invalid.                                                                                                                                                                                                   |
| speed     | Integer   | Body     | No            | Speaking speed. If the value of <b>outputSpeed</b> is <b>false</b> , this parameter is invalid.<br><b>NOTE</b><br>For details about <b>outputSpeed</b> , see the interface reference provided by the corresponding audio and video recording server.                                               |



**Table 10-82** emotion

| Parameter | Type    | Position | Mandatory | Description                                                                                                                  |
|-----------|---------|----------|-----------|------------------------------------------------------------------------------------------------------------------------------|
| st        | Integer | Body     | Yes       | Audio start time, in milliseconds.                                                                                           |
| et        | Integer | Body     | Yes       | Audio end time, in milliseconds.                                                                                             |
| c         | Float   | Body     | Yes       | Confidence. The value ranges from 0.0 to 1.0.                                                                                |
| e         | String  | Body     | No        | Emotion. The value can be <b>HAPPY</b> , <b>ANGRY</b> , <b>SAD</b> , or <b>DISGUSTED</b> , which varies with the ASR vendor. |

## Response

| Parameter | Type   | Position | Mandatory | Description                                                |
|-----------|--------|----------|-----------|------------------------------------------------------------|
| retCode   | String | Body     | Yes       | Error code.<br><b>0</b> : success<br>Other values: failure |
| retMsg    | String | Body     | Yes       | Description.                                               |

## Example

- Request

```
{
 "serviceToken":"160*****bbb489426",
 "subCCID":"10001",
 "taskId":"node_action_97511fbc15d9b23074405ee736187a82c529",
 "respType":"StartSpeech",
 "sentence":{
 "st":1
 "et":2
 "isFinal":true
 "text":"sdfasdfaefasdfsad"
 "confidence":0
 }
}
```

- Response

```
{
 "retCode" : "0",
 "retMsg":"asr recognize success"
}
```

## 10.13 Spelling Check Interface

### Description

This interface is invoked by a third-party system to check the spelling.

When a subscriber enters the question to be queried, the system can correct the errors if the entered sentence contains wrong spellings (homonyms in Chinese and spellings in English).

When the system connects to the CSP, **userName** and **token** in the header are used for authentication. The value of **userName** is **ipcc**. For details about how to obtain the token, see [4.4 C3 OIAP Interface Authentication](#).

When other third-party systems are connected, **authToken** in the request body is used for authentication.

### Interface Method

The request method must be set to POST.

### URL

https://IP:PORT/oifde/rest/api/spellcheck

### Request

**Table 10-83** Parameters in the request body

| Parameter | Type   | Position | Mandator<br>y | Description                                                                                                                                                            |
|-----------|--------|----------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| tenantId  | String | body     | Yes           | Tenant ID. The default value is <b>ipcc</b> , that is, the <b>ipcc</b> subscriber agreed upon token obtaining.                                                         |
| authToken | String | body     | Yes           | Token.<br>After the token expires, the token obtaining interface needs to be invoked again.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> . |

| Parameter   | Type   | Position | Mandator<br>y | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------|--------|----------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| sentence    | String | body     | Yes           | Input text. The value contains a maximum of 4096 characters.                                                                                                                                                                                                                                                                                                                                                                                                    |
| language    | String | body     | Yes           | Language. <ul style="list-style-type: none"><li>• <b>zh_CN</b>: Chinese</li><li>• <b>en_US</b>: English</li></ul> The type of the language must match that of the input text.<br>[Restrictions] The errors in the Chinese and English texts can be corrected. Texts in other languages are directly returned without error correction. In the returned object, the <b>hasMistake</b> field is set to <b>false</b> , indicating that no error correction exists. |
| checkerType | String | body     | Yes           | Verification type.<br><b>nonWordSpellChecker</b> : spelling error correction<br><b>realWordSpellChecker</b> : wrongly written character correction<br>Wrongly written character correction is recommended for Chinese.<br>Spelling error correction is recommended for English.                                                                                                                                                                                 |

## Response

| Parameter             | Type                | Position | Mandatory | Description                                                                                                                                                                                                    |
|-----------------------|---------------------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hasMistake            | boolean             | body     | Yes       | Whether there is any spelling error. <ul style="list-style-type: none"> <li>• <b>true:</b> The sentence contains misspellings.</li> <li>• <b>false:</b> The sentence does not contain misspellings.</li> </ul> |
| spellCheckerMatchList | SpellCheckerMatch[] | body     | Yes       | Error correction result.                                                                                                                                                                                       |

**Table 10-84** SpellCheckerMatch

| Parameter   | Type    | Position              | Mandatory | Description                             |
|-------------|---------|-----------------------|-----------|-----------------------------------------|
| word        | String  | spellCheckerMatchList | Yes       | Word in the original input.             |
| startIndex  | Integer | spellCheckerMatchList | Yes       | Start index of the word in a sentence.  |
| endIndex    | Integer | spellCheckerMatchList | Yes       | End index of the word in a sentence.    |
| hasMistake  | boolean | spellCheckerMatchList | Yes       | Whether the word is misspelled.         |
| correctWord | String  | spellCheckerMatchList | Yes       | Corrected word if a word is misspelled. |

## Example

- Request
 

```
{
 "tenantId": "ipcc",
 "authToken": "0*****",
 "sentence": "eat apply",
 "language": "zh_CN",
 "checkerType": "nonWordSpellChecker"
}
```
- Response
 

```
{
 "hasMistake": false,
 "spellCheckerMatchList": [
 {
 "word": "Eat",
```

```

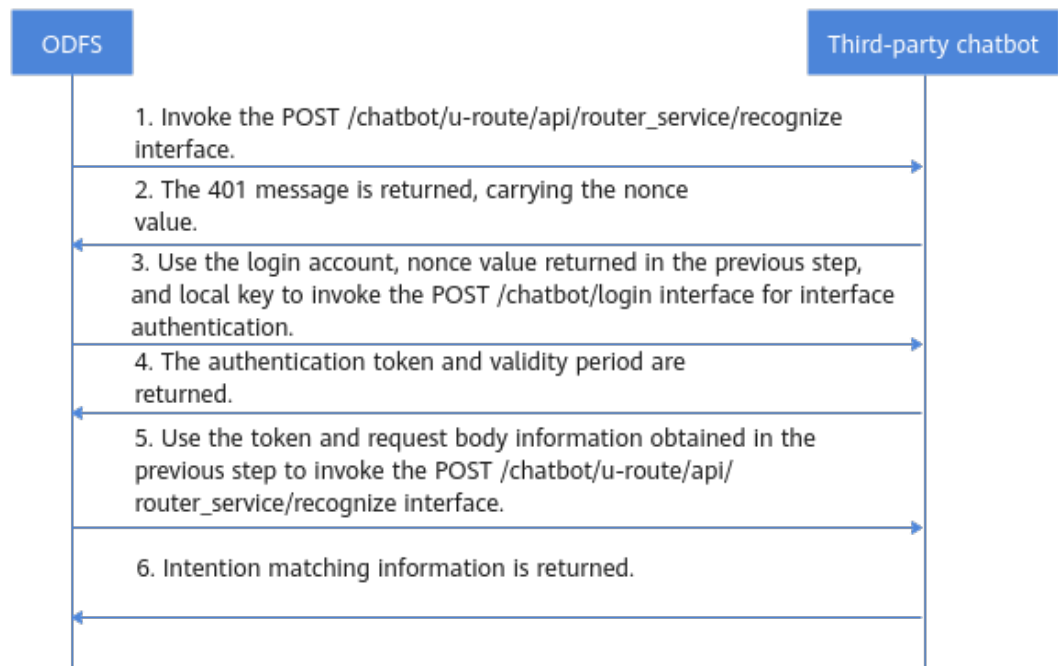
 "startIndex": 0,
 "endIndex": 1,
 "hasMistake": false,
 "correctWord": "eat"
 },
 {
 "word": "apply",
 "startIndex": 1,
 "endIndex": 2,
 "hasMistake": true,
 "correctWord": "apple"
 }
]
}

```

## 10.14 Specifications of the Interface for Connecting the ODFS to a Third-Party Robot System

If an enterprise uses only the ODFS of the OIAP for dialog process management and uses the chatbot semantic understanding module of a third-party system for semantic recognition, ensure that the interfaces provided by the third-party system meet the requirements described in this specification.

The processing logic for connecting the ODFS to a third-party chatbot system is as follows:



### 10.14.1 Authorization Interface

#### Description

This interface is used for interface authentication.

#### Interface Method

POST

## URL

/chatbot/serverauth/login

## Request Parameters

**Table 10-85** Parameters in the request body

| Parameter | Mandatory | Type   | Length | Description                                                                                                                         |
|-----------|-----------|--------|--------|-------------------------------------------------------------------------------------------------------------------------------------|
| account   | Yes       | String | 32     | Sign-in account.                                                                                                                    |
| nonce     | Yes       | String | 128    | Original random text provided by the server, which comes from the "401 Unauthorized" message returned in the last business request. |
| checksum  | Yes       | String | 512    | Text encrypted by the client using the HMAC-SHA256 encryption algorithm based on the <b>nonce</b> value and local key.              |

## Response Parameters

| Parameter | Mandatory | Type    | Length | Description                                                                                                          |
|-----------|-----------|---------|--------|----------------------------------------------------------------------------------------------------------------------|
| token     | No        | String  | 128    | Token required by the business request interface. This parameter is mandatory when the authentication is successful. |
| duration  | No        | Integer | 4      | Token validity period, in seconds. This parameter is mandatory when the authentication is successful.                |
| error     | No        | String  | 512    | Error message returned when the authentication fails. The status code <b>401</b> is also returned.                   |

| Parameter | Mandatory | Type   | Length | Description                                                                                                  |
|-----------|-----------|--------|--------|--------------------------------------------------------------------------------------------------------------|
| nonce     | No        | String | 128    | Character string randomly generated by the server. This parameter is returned when the authentication fails. |

## Example

- Request
 

```
{
 "account": "odfs",
 "nonce": "*****", // Original random text provided by the server.
 "checksum": "0dbe11*****0b505de" // Text encrypted by the client using the HMAC-SHA256 algorithm based on the nonce value and local key.
}
```
- Response
 

```
{
 "token": "2*****d",
 "duration": 3600
}
```

## 10.14.2 Business Request Interface

### Description

- When this interface is invoked for the first time, the nonce information required for authentication can be obtained.
- After the interface authentication is successful, this interface can be invoked to obtain the intention template matching status from the third-party system.

### Interface Method

POST

### URL

/chatbot/u-route/api/router\_service/recognize

### Parameters in the request header

| Parameter     | Mandatory | Type   | Description                                     |
|---------------|-----------|--------|-------------------------------------------------|
| Content-Type  | Yes       | String | application/json;charset=utf-8                  |
| Chatbot-Token | Yes       | String | Token returned by the authentication interface. |

## Request

**Table 10-86** Parameters in the request body

| Parameter | Mandatory | Type        | Description   |
|-----------|-----------|-------------|---------------|
| request   | Yes       | requestBody | Request body. |

**Table 10-87** requestBody

| Parameter         | Mandatory | Type    | Length | Description                                                                                                                                                                                                           |
|-------------------|-----------|---------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| userId            | Yes       | String  | 64     | User ID.                                                                                                                                                                                                              |
| accesscode        | No        | String  | 32     | Access code (number that a user dials to access the system).                                                                                                                                                          |
| channel           | No        | String  | 32     | Channel. (Currently, the value is fixed at <b>OIFDE</b> .)                                                                                                                                                            |
| sentence          | Yes       | String  | 1024   | Text information entered by a customer.                                                                                                                                                                               |
| tenantId          | Yes       | String  | 64     | Tenant ID.                                                                                                                                                                                                            |
| language          | Yes       | String  | 20     | Language.<br><b>zh_CN</b> : Chinese<br><b>en_US</b> : English                                                                                                                                                         |
| context           | No        | String  | 64     | Context required for intent recognition.                                                                                                                                                                              |
| targetIntentCount | No        | Integer | 4      | Number of intentions returned by the chatbot when multiple intentions are required. Generally, this parameter is used when a customer enters one sentence to match multiple intentions. The value ranges from 1 to 5. |



| Parameter      | Mandatory | Type   | Length | Description                                                                                                                                                                                                                                                                                            |
|----------------|-----------|--------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| confidence2Top | No        | Float  | 4      | Confidence interval.<br>If multiple intentions are returned, the confidence interval between the subsequent intentions and the first intention with the highest confidence is required. A smaller value indicates a closer proximity between the returned intentions.<br>The value ranges from 0 to 1. |
| timeZone       | No        | String | 10     | Time zone. The value <b>8</b> indicates GMT+8.                                                                                                                                                                                                                                                         |

## Response Parameters

| Parameter        | Mandatory | Type      | Length | Description                                                                                                                                                 |
|------------------|-----------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| errorMsg         | No        | String    | 512    | Error message.                                                                                                                                              |
| errorCode        | No        | String    | 20     | Error code.                                                                                                                                                 |
| intentsResponses | No        | Intents[] | -      | Intention array, which must be returned when the operation is successful.                                                                                   |
| nonce            | No        | String    | 128    | Character string randomly generated by the server. This parameter is returned when the token authentication fails and the status code 401 is also returned. |

**Table 10-88** Intents

| Parameter      | Mandatory | Type     | Length | Description                                                                                                                                                                                                                                          |
|----------------|-----------|----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| responses      | No        | String[] | 4096   | Response returned by the chatbot. The value is a character string array. Multiple values are allowed.                                                                                                                                                |
| confidence     | Yes       | Float    | 4      | Confidence. <ul style="list-style-type: none"> <li>Confidence of the chatbot reply. The value ranges from 0 to 1. For example, if 10 answers are provided for question 1 and six of them are answer 1, the confidence of answer 1 is 0.6.</li> </ul> |
| commands       | Yes       | String[] | 64     | Intention command word.                                                                                                                                                                                                                              |
| params         | No        | Map      | -      | Keyword parameters. The slot information of general intentions is returned through this parameter. An example is {"Number": "3"}. For details about operations related to general intentions, see <a href="#">Adding Intention Templates</a> .       |
| scenarioName   | No        | String   | 64     | Intention name.                                                                                                                                                                                                                                      |
| scenarioType   | No        | Integer  | 4      | Scenario type.<br><b>1</b> : auxiliary scenario<br><b>0</b> : business scenario<br><b>-1</b> : no scenario                                                                                                                                           |
| scenarioStatus | No        | String   | 64     | Scenario status (not used currently).                                                                                                                                                                                                                |

### Example

- Request

```
{
 "request":
```

```
{
 "sentence": "Query the bill of March.",
 "targetIntentCount":1,
 "confidence2Top":0.2,
 "accessCode": "10086",
 "channel":"OIFDE",
 "tenantId":"NJ_001",
 "language":"en_US",
 "userId":"123456789"
}
```

- Successful response

```
{
 "errorCode":"0",
 "errorMsg":"","",
 "intentsResponses":
 [
 {
 "responses":[""],
 "confidence":1.0,
 "commands":["bill"],
 "params":{"Number":"3"},
 "scenarioName":"query bills",
 "scenarioType":"normal",
 "scenarioStatus":"finish"
 }
]
}
```

- Failed response

```
401 Unauthorized
{
 "errorMsg":"NEED_LOGIN","nonce":"0cf*****accesaf"
}
```

## 10.15 Statistics Report

### Basic Information

This interface is invoked by third-party systems to query statistics reports, including call statistics reports, chatbot reports, and knowledge reports.

When the system connects to the Customer Service Platform (CSP), **userName** and **token** in the header are used for authentication. The value of **userName** is **ipcc**. For details about how to obtain the token, see [4.4 C3 OIAP Interface Authentication](#).

When a third-party system is connected, the **authToken** authentication mode is used for the request body.

### 10.15.1 Querying Call Statistics Reports

#### Interface Method

POST

#### URL

https://IP:PORT/oifde/rest/api/queryCallStatisticsReport

## Request

**Table 10-89** Parameters in the request body

| Parameter  | Type   | Position | Mandatory | Description                                                                                                                                                                                                          |
|------------|--------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| type       | String | Body     | Yes       | Query type. <ul style="list-style-type: none"> <li><b>hour</b>: report data on a specified date, which is queried by hour.</li> <li><b>day</b>: report data of the last 30 days, which is queried by day.</li> </ul> |
| tenantId   | String | Body     | Yes       | Tenant ID.                                                                                                                                                                                                           |
| accessCode | String | Body     | Yes       | Access ID (chatbot access code).                                                                                                                                                                                     |
| timestamp  | Long   | Body     | Yes       | Timestamp of the query date, in milliseconds.                                                                                                                                                                        |
| authToken  | String | Body     | Yes       | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> .                                                                                                                     |

## Response

| Parameter | Type                     | Position | Mandatory | Description             |
|-----------|--------------------------|----------|-----------|-------------------------|
| -         | QueryCallStatisticsRes[] | Body     | Yes       | Call statistics report. |

**Table 10-90** QueryCallStatisticsRes

| Parameter  | Mandatory | Type   | Description                                    |
|------------|-----------|--------|------------------------------------------------|
| recordTime | Yes       | Long   | Timestamp of the record date, in milliseconds. |
| tenantId   | Yes       | String | Tenant ID.                                     |

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                      |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| accessCode              | Yes       | String | Access ID (chatbot access code).                                                                                                                                                                                 |
| callCount               | Yes       | Long   | Number of connected calls.                                                                                                                                                                                       |
| exitNoConsultCount      | Yes       | Long   | Number of calls disconnected without consultation, that is, the number of calls that a user interacts with IVR only once.                                                                                        |
| callStaffNoConsultCount | Yes       | Long   | Number of calls processed only by agents, that is, the number of calls that a user interacts with the IVR more than once but less than or equal to three times and the call is not hung up in the IVR.           |
| callStaffConsultCount   | Yes       | Long   | Number of calls that are transferred to the manual service after consultation, that is, the number of calls that a user interacts with the IVR for more than three times and the call is not hung up in the IVR. |
| exitConsultingCount     | Yes       | Long   | Number of calls processed only by chatbots, that is, the number of calls that a user interacts with the IVR for more than once and the call is hung up in the IVR.                                               |
| interactCount           | Yes       | Long   | Number of dialog rounds, that is, the total number of interactions between users and the IVR.                                                                                                                    |

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| autonomyRate            | Yes       | String | Net self-service resolution rate. <ul style="list-style-type: none"> <li>• <b>-1.000</b>: No chatbot is used (Number of calls processed only by agents + Number of calls transferred to agents after consultation + Number of calls processed only by chatbots).</li> <li>• <b>0-1.000</b>: Number of calls processed only by chatbots/Total number of calls processed by chatbots.</li> </ul> |
| averageInteract-PerCall | Yes       | String | Average number of dialog rounds, that is, the average number of interactions between users and the IVR per call.                                                                                                                                                                                                                                                                               |
| dbRecordTime            | Yes       | Date   | Date recorded in the database. If this parameter is not set, the value is <b>null</b> .                                                                                                                                                                                                                                                                                                        |
| type                    | Yes       | String | Query type. <ul style="list-style-type: none"> <li>• <b>hour</b>: query by hour.</li> <li>• <b>day</b>: query by day.</li> </ul>                                                                                                                                                                                                                                                               |
| interfaceRequestCount   | Yes       | Long   | Number of interface invoking times.                                                                                                                                                                                                                                                                                                                                                            |
| interfaceSuccess-Count  | Yes       | Long   | Number of successful invoking times.                                                                                                                                                                                                                                                                                                                                                           |
| interfaceSuccess-Rate   | Yes       | String | Interface invoking success rate. <ul style="list-style-type: none"> <li>• <b>-1.000</b>: No interface is invoked.</li> <li>• <b>0-1.000</b>: Number of successful invoking times/Total number of interface invoking times.</li> </ul>                                                                                                                                                          |

## Example

- Request
 

```
{
 "tenantId": "202104237142",
 "accessCode": "943370855474270208",
 "timestamp": 1628784000000,
 "type": "hour",
 "authToken": "wEd*****Q6VwYMj"
}
```
- Response
 

```
[
 {
 "recordTime": 1628820000000,
 "tenantId": "202104237142",
 "accessCode": "943370855474270208",
 "callCount": 1,
 "exitNoConsultCount": 0,
 "callStaffNoConsultCount": 0,
 "callStaffConsultCount": 0,
 "exitConsultingCount": 1,
 "interactCount": 2,
 "autonomyRate": "1.0000",
 "averageInteractPerCall": "2.00",
 "dbRecordTime": 1628820000000,
 "type": "hour",
 "interfaceRequestCount": 0,
 "interfaceSuccessCount": 0,
 "interfaceSuccessRate": "-1.0000"
 }
]
```

## 10.15.2 Querying Chatbot Report Information

### Interface Method

The request method must be set to POST.

### URL

<https://IP:PORT/oifde/rest/api/queryChatbotReport>

### Request

**Table 10-91** Parameters in the request body

| Parameter | Type   | Position | Mandator<br>y | Description                                                                                                                                                                                                              |
|-----------|--------|----------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| type      | String | body     | Yes           | Query type. <ul style="list-style-type: none"> <li>• <b>hour</b>: report data on a specified date, which is queried by hour.</li> <li>• <b>day</b>: report data of the last 30 days, which is queried by day.</li> </ul> |

| Parameter  | Type   | Position | Mandatory | Description                                                                                      |
|------------|--------|----------|-----------|--------------------------------------------------------------------------------------------------|
| tenantId   | String | body     | Yes       | Tenant ID.                                                                                       |
| accessCode | String | body     | Yes       | Access ID (chatbot access code).                                                                 |
| timestamp  | long   | body     | Yes       | Millisecond timestamp of the query date.                                                         |
| authToken  | String | body     | Yes       | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> . |

## Response

| Parameter | Type               | Position | Mandatory | Description                 |
|-----------|--------------------|----------|-----------|-----------------------------|
| -         | ChatbotReportRes[] | body     | Yes       | Chatbot report information. |

**Table 10-92** ChatbotReportRes

| Name                  | Mandatory | Type    | Description                                                                                                                      |
|-----------------------|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------|
| recordTime            | Yes       | long    | Millisecond timestamp of the record date.                                                                                        |
| tenantId              | Yes       | String  | Tenant ID.                                                                                                                       |
| accessCode            | Yes       | String  | Access ID (chatbot access code).                                                                                                 |
| type                  | Yes       | String  | Query type. <ul style="list-style-type: none"> <li>• <b>hour</b>: query by hour.</li> <li>• <b>day</b>: query by day.</li> </ul> |
| consultCount          | Yes       | Integer | Total number of replies from the chatbot.                                                                                        |
| responseSuccess-Count | Yes       | Integer | Number of successful replies from the chatbot.                                                                                   |
| unknowCount           | Yes       | Integer | Number of unknown replies from the chatbot.                                                                                      |



| Name                   | Mandatory | Type    | Description                                                                                                                                                                                                                          |
|------------------------|-----------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| responseRate           | Yes       | String  | Reply success rate.                                                                                                                                                                                                                  |
| feedbackCount          | Yes       | Integer | Number of evaluations.<br>Number of customers who participate in the satisfaction survey.                                                                                                                                            |
| positiveFeedback Count | Yes       | Integer | Satisfied feedback.<br>Amount of satisfactory feedback from customers in the satisfaction survey.                                                                                                                                    |
| positiveFeedback Rate  | Yes       | String  | Satisfaction rate.<br><ul style="list-style-type: none"> <li>• <b>-1.0000</b>: The value of <b>feedbackCount</b> is <b>0</b>.</li> <li>• <b>0-1.0000</b>: Satisfaction rate = <b>positiveFeedback-Count/feedbackCount</b></li> </ul> |

## Example

- Request

```
{
 "tenantId":"202104237142",
 "accessCode":"950964151029600256",
 "timestamp":1630512000000,
 "type":"hour",
 "authToken":"E*****"
}
```

- Response

```
[
 {
 "tenantId": "202104237142",
 "accessCode": "950964151029600256",
 "recordTime": 1630580400000,
 "type": "hour",
 "consultCount": 1,
 "responseSuccessCount": 0,
 "unknowCount": 1,
 "responseRate": "0.0000",
 "feedbackCount": 0,
 "positiveFeedbackCount": 0,
 "positiveFeedbackRate": "-1.0000"
 }
]
```

## 10.15.3 Querying Knowledge Reports

### Interface Method

POST

## URL

https://IP:PORT/oifde/rest/api/queryKnowledgeReport

## Request

**Table 10-93** Parameters in the request body

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                           |
|-----------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| type      | String | Body     | Yes       | Query type. <ul style="list-style-type: none"> <li><b>day</b>: Report data on a specified date is queried by day.</li> <li><b>month</b>: Report data of the last 30 days is queried by month. The end time is one day after the timestamp.</li> </ul> |
| tenantId  | String | Body     | Yes       | Tenant ID.                                                                                                                                                                                                                                            |
| timestamp | Long   | Body     | No        | Timestamp of the query date, in milliseconds.<br>If this parameter is not transferred, only the numbers of Q&As, intentions, and voice chats of the tenant space are returned.                                                                        |
| authToken | String | Body     | Yes       | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> .                                                                                                                                                      |

## Response

| Parameter | Type    | Position | Mandatory | Description |
|-----------|---------|----------|-----------|-------------|
| tenantId  | Integer | Body     | Yes       | Tenant ID.  |

| Parameter            | Type              | Position | Mandatory | Description                                                                                                                                                                                                                                               |
|----------------------|-------------------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| recordTime           | String            | Body     | Yes       | Timestamp of the query date, in milliseconds.                                                                                                                                                                                                             |
| type                 | Long              | Body     | Yes       | Query type. <ul style="list-style-type: none"> <li>• <b>day</b>: Report data on a specified date is queried by day.</li> <li>• <b>month</b>: Report data of the last 30 days is queried by month. The end time is one day after the timestamp.</li> </ul> |
| qaCount              | Integer           | Body     | Yes       | Total number of Q&As for the tenant.<br>Total number of configured Q&As in the current tenant space.                                                                                                                                                      |
| intentCount          | Integer           | Body     | Yes       | Total number of tenant intentions.                                                                                                                                                                                                                        |
| talkCount            | Integer           | Body     | Yes       | Total number of voice chats of a tenant.                                                                                                                                                                                                                  |
| effectiveQaCount     | Integer           | Body     | Yes       | Number of hit Q&As.                                                                                                                                                                                                                                       |
| effectiveIntentCount | Integer           | Body     | Yes       | Number of hit intentions.                                                                                                                                                                                                                                 |
| effectiveTalkCount   | Integer           | Body     | Yes       | Number of hit voice chats.                                                                                                                                                                                                                                |
| effectiveQaSum       | Integer           | Body     | Yes       | Total number of hit Q&As.                                                                                                                                                                                                                                 |
| effectiveIntentSum   | Integer           | Body     | Yes       | Total number of hit intentions.                                                                                                                                                                                                                           |
| effectiveTalkSum     | Integer           | Body     | Yes       | Total number of hit voice chats.                                                                                                                                                                                                                          |
| qaList               | List<HotspotData> | Body     | Yes       | List of top 10 Q&As.                                                                                                                                                                                                                                      |

| Parameter  | Type              | Position | Mandatory | Description                |
|------------|-------------------|----------|-----------|----------------------------|
| intentList | List<HotspotData> | Body     | Yes       | List of top 10 intentions. |

**Table 10-94** HotspotData

| Name  | Mandatory | Type    | Description                                                                                                                                                                                                    |
|-------|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| name  | Yes       | String  | Name of hot knowledge data.                                                                                                                                                                                    |
| count | Yes       | Integer | Number of hit hot knowledge data records. <ul style="list-style-type: none"> <li>Number of hit Q&amp;As in the top 10 Q&amp;A list.</li> <li>Number of hit intentions in the top 10 intention list.</li> </ul> |

## Example

- Request

```
{
 "tenantId": "202104237142",
 "timestamp": 1630684800000,
 "type": "month",
 "authToken": "0kQ[*****]PHFhoyDy"
}
```

- Response

```
{
 "tenantId": "202104237142",
 "recordTime": 1630684800000,
 "type": "month",
 "qaCount": 78,
 "intentCount": 42,
 "talkCount": 45,
 "effectiveQaCount": 1,
 "effectiveIntentCount": 7,
 "effectiveTalkCount": 6,
 "effectiveQaSum": 1,
 "effectiveIntentSum": 17,
 "effectiveTalkSum": 22,
 "qaList": [
 {
 "name": "We are testing.",
 "count": 1
 }
],
 "intentList": [
 {
 "name": "Call fee query(Call fee query)",
 "count": 7
 },
 {
 "name": "Package downgrade(Package downgrade)"
 }
]
}
```

```

 "count": 3
 },
 {
 "name": "No service required(No service required)",
 "count": 2
 },
 {
 "name": "Yes/No(Yes/No)",
 "count": 2
 },
 {
 "name": "Taxa de chamada(Taxa de chamada)",
 "count": 1
 },
 {
 "name": "Housing provident fund service(Housing provident fund)",
 "count": 1
 },
 {
 "name": "Housing provident fund issue(Housing provident fund issue)",
 "count": 1
 }
]
}

```

## 10.15.4 Querying Top 10 Hot Chatbot Information

### Interface Method

POST

### URL

https://IP:PORT/oifde/rest/api/queryChatbotHotspotData

### Request

**Table 10-95** Parameters in the request body

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                           |
|-----------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| type      | String | Body     | Yes       | Query type. <ul style="list-style-type: none"> <li><b>day:</b> Report data on a specified date is queried by day.</li> <li><b>month:</b> Report data of the last 30 days is queried by month. The end time is one day after the timestamp.</li> </ul> |
| tenantId  | String | Body     | Yes       | Tenant ID.                                                                                                                                                                                                                                            |

| Parameter | Type   | Position | Mandatory | Description                                                                                      |
|-----------|--------|----------|-----------|--------------------------------------------------------------------------------------------------|
| timestamp | Long   | Body     | Yes       | Timestamp of the query date, in milliseconds.                                                    |
| authToken | String | Body     | Yes       | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> . |

## Response

| Parameter | Type           | Position | Mandatory | Description                              |
|-----------|----------------|----------|-----------|------------------------------------------|
| -         | HotspotData[ ] | Body     | Yes       | Top 10 hot chatbot invoking information. |

Table 10-96 HotspotData

| Parameter | Mandatory | Type    | Description            |
|-----------|-----------|---------|------------------------|
| name      | Yes       | String  | Chatbot access code.   |
| count     | Yes       | Integer | Chatbot access volume. |

## Example

- Request
 

```
{
 "tenantId": "202104237142",
 "timestamp": 1630684800000,
 "type": "month",
 "authToken": "0kQl*****FhoyDy"
}
```
- Response
 

```
[
 {
 "name": "947988117535592448",
 "count": 19
 },
 {
 "name": "943382168053223424",
 "count": 10
 },
 {
 "name": "943372803514568704",
 "count": 4
 }
]
```

```
[
 {
 "name": "940757366746386432",
 "count": 4
 },
 {
 "name": "943218432118099968",
 "count": 4
 },
 {
 "name": "947918435541585920",
 "count": 4
 },
 {
 "name": "942949731485618176",
 "count": 3
 },
 {
 "name": "950966390083293184",
 "count": 3
 },
 {
 "name": "943370855474270208",
 "count": 2
 },
 {
 "name": "942919556320464896",
 "count": 1
 }
]
```

## 10.16 Querying the Offline Analysis of Outbound Call Failure Causes

### Interface Method

The request method must be set to POST.

### URL

https://IP:PORT/oifde/rest/api/queryRbtRecognitionResult

### Request

**Table 10-97** Parameters in the request body

| Parameter | Type | Position | Mandatory | Description                                                                                                                                                                                                                 |
|-----------|------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| beginTime | Long | Body     | Yes       | Millisecond timestamp of the query start time.<br><b>NOTICE</b><br>To ensure efficiency, the interface data is stored in different tables by month. Only the table of the month corresponding to the start time is queried. |

| Parameter | Type    | Position | Mandatory | Description                                                                                      |
|-----------|---------|----------|-----------|--------------------------------------------------------------------------------------------------|
| endTime   | Long    | Body     | Yes       | Millisecond timestamp of the query end time.                                                     |
| tenantId  | String  | Body     | Yes       | Tenant ID.                                                                                       |
| pageNum   | Integer | Body     | No        | Number of pages to be queried. The value starts from 1. The default value is <b>1</b> .          |
| pageSize  | Integer | Body     | No        | Number of records on each page. The maximum value is 1000. The default value is <b>1000</b> .    |
| authToken | String  | Body     | Yes       | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> . |

## Response

| Parameter       | Type             | Position | Mandatory | Description                                  |
|-----------------|------------------|----------|-----------|----------------------------------------------|
| rbtRecognitions | RbtRecognition[] | Body     | Yes       | Analysis of the outbound call failure cause. |
| total           | Integer          | Body     | Yes       | Total number.                                |
| pageSize        | Integer          | Body     | Yes       | Number of records on each page.              |
| pageNum         | Integer          | Body     | Yes       | Page number, starting from 1.                |

**Table 10-98** RbtRecognition

| Parameter        | Mandatory | Type   | Description                |
|------------------|-----------|--------|----------------------------|
| rbtRecognitionId | Yes       | Long   | Result ID.                 |
| callId           | Yes       | String | Chatbot access volume.     |
| fileName         | Yes       | String | Recording file drive path. |
| callerNo         | Yes       | String | Calling number.            |



| Parameter       | Mandatory | Type    | Description                                                       |
|-----------------|-----------|---------|-------------------------------------------------------------------|
| calleeNo        | Yes       | String  | Called number.                                                    |
| agentId         | Yes       | Integer | Agent ID.                                                         |
| recordBeginTime | Yes       | Long    | Recording start time.                                             |
| recordEndTime   | Yes       | Long    | Recording end time.                                               |
| callType        | Yes       | Integer | Call type. The fixed value is 7, indicating manual outbound call. |
| mediaType       | Yes       | Integer | Media type. The fixed value is 5, indicating voice.               |
| vdnId           | Yes       | Integer | CTI VDN ID.                                                       |
| tenantId        | Yes       | String  | Tenant ID.                                                        |
| callCenterId    | Yes       | Integer | CTI call center ID.                                               |
| releaseCause    | Yes       | Integer | Release cause. For details, see the CTI product documentation.    |
| beginTime       | Yes       | Long    | Result input time.                                                |
| endTime         | No        | Long    | Result update time.                                               |
| result          | No        | Integer | For details, see <a href="#">Table 10-99</a> .                    |
| asrTransResult  | No        | String  | ASR result.                                                       |
| confirmedResult | No        | String  | Manual confirmation result.                                       |
| confirmStatus   | Yes       | Integer | Manual confirmation status.                                       |
| remark          | No        | String  | Remarks.                                                          |
| locationId      | Yes       | Integer | Recording node, which is used when the CTI pool is used.          |
| updateTime      | No        | Long    | Modification time.                                                |

**Table 10-99** Failure causes

| Code | Cause                                 |
|------|---------------------------------------|
| -1   | The recording file name is incorrect. |
| -2   | Failed to download the recording.     |

| Code | Cause                                                                                       |
|------|---------------------------------------------------------------------------------------------|
| -3   | Failed to request ASR.                                                                      |
| -4   | Failed to obtain ASR.                                                                       |
| -5   | Failed to obtain the intention recognition result.                                          |
| 101  | The called number does not exist.                                                           |
| 102  | The called party has powered off.                                                           |
| 103  | The called party is busy.                                                                   |
| 104  | The calling number is suspended on arrears.                                                 |
| 105  | The called number is suspended.                                                             |
| 106  | The called party is busy and the call has been registered the call waiting service.         |
| 107  | The called party is busy and the call has not been registered the call waiting service.     |
| 108  | The called party is unreachable.                                                            |
| 109  | The called party has subscribed to the call transfer service.                               |
| 110  | The international call is barred.                                                           |
| 111  | The called party does not answer the call for a long time.                                  |
| 112  | The called party has enabled the inbound call barring function.                             |
| 113  | The line of another carrier is faulty.                                                      |
| 114  | The called party cannot be connected and the inbound call notification function is enabled. |

## Example

- Request
 

```
{
 "beginTime": 1631203200000,
 "endTime": 1631289540000,
 "tenantId": "xxxxxx",
 "pageNum": 1,
 "pageSize": 100,
 "authToken": "xxxxxxxxxx"
}
```

- Response

```
{
 "rbtRecognitions": [
 {
 "rbtRecognitionId": 953730645354352640,
 "callId": "xxxxxxx-xxxx",
 "fileName": "Y:\\268\\0\\20210908\\2608\\xxxx.V3",
 "callerNo": "xxxxxxx",
 "calleeNo": "xxxxxxx",
 "agentId": 1234,
 "recordBeginTime": 1631240233000,
 "recordEndTime": 1631067449000,
 "callType": 7,
 "mediaType": 5,
 "vdnId": 123,
 "tenantId": "123456789",
 "callCenterId": 1,
 "releaseCause": 531,
 "beginTime": 1631241600000,
 "endTime": 1631241730000,
 "result": 105,
 "asrTransResult": null,
 "confirmedResult": null,
 "confirmStatus": 0,
 "remark": null,
 "locationId": 0,
 "updateTime": 1631241730000
 }
],
 "total": 1,
 "pageSize": 100,
 "pageNum": 1
}
```

## 10.17 Intelligent Case Interface

### Basic Information

This interface is invoked by third-party access systems to implement the text classification and entity recognition capabilities. It can be used in the intelligent case classification and intelligent case filling scenarios of the intelligent agent assistant. The intelligent agent assistant invokes the text classification interface to classify cases and invokes the entity recognition interface to extract case entities from case information to improve cases. This further enhances the capabilities of the intelligent agent assistant.

When the system connects to the CSP, **userName** and **token** in the header are used for authentication. The value of **userName** is **ipcc**. For details about how to obtain the token, see [4.4 C3 OIAP Interface Authentication](#).

When other third-party systems are connected, **authToken** in the request body is used for authentication.

### 10.17.1 Text Classification Interface

#### Description

This interface is invoked by third-party access systems to implement the text classification capability and can be used in intelligent case classification scenarios.

**NOTICE**

Before invoking the text classification interface, commission the text classification function. For details, see OIAP VXXXRXXXCXX [Product Documentation](#) 01.

**Interface Method**

POST

**URL**<https://IP:PORT/oifde/rest/api/textClassification>**Request****Table 10-100** Parameters in the request body

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------|--------|----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| tenantId  | String | Body     | Yes       | Tenant ID.                                                                                                                                                                                                                                                                                                                                                                                             |
| language  | String | Body     | Yes       | Language. The options are as follows: <ul style="list-style-type: none"><li>• <b>zh_CN</b>: Chinese</li><li>• <b>en_US</b>: English</li><li>• <b>es_ES</b>: Spanish</li><li>• <b>ar</b>: Arabic</li><li>• <b>th_TH</b>: Thai</li><li>• <b>pt_BR</b>: Portuguese</li></ul> Note: In intelligent case classification scenarios, the languages supported by the LODAS text classification model are used. |
| text      | String | Body     | Yes       | Statement.<br>Basis for text classification. The value can contain a maximum of 4096 characters.                                                                                                                                                                                                                                                                                                       |
| authToken | String | Body     | Yes       | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> .                                                                                                                                                                                                                                                                                                       |

## Response

| Parameter | Type        | Position | Mandatory | Description                 |
|-----------|-------------|----------|-----------|-----------------------------|
| results   | TextLabel[] | Body     | Yes       | Text classification result. |

**Table 10-101** TextLabel

| Parameter   | Mandatory | Type   | Description                                                                            |
|-------------|-----------|--------|----------------------------------------------------------------------------------------|
| label       | Yes       | String | Classification tag. Intelligent case classification scenario, that is, case type name. |
| probability | Yes       | Long   | Matching degree. The value ranges from 0 to 1.                                         |

## Example

- Request

```
{
 "tenantId":"fangyg",
 "language":"zh_CN",
 "text":"Failed to issue the invoice.",
 "authToken":"XIO*****[YbYACW]"
}
```

- Response

```
{
 "results": [
 {
 "label": "Mobile business → Basic service → Electronic invoice → Global transfer → Function usage → Invoice printing failure → Global transfer",
 "probability": 0.41408610343933105
 },
 {
 "label": "Mobile business → Service touch point → One-point interconnection business → Global transfer → Business rules → Unsatisfied with business regulations/flows → Global transfer",
 "probability": 0.012493142858147621
 },
 {
 "label": "Mobile business → Business marketing → Tariff package → Downgrade package → Handling specifications → Restricted channel handling disapproval → Global transfer",
 "probability": 0.004905845504254103
 }
]
}
```

## 10.17.2 Entity Recognition Interface

### Description

This interface is invoked by third-party access systems to implement the entity recognition capability, which can be used in intelligent ticket filling scenarios.

**NOTICE**

To use the LODAS-based entity recognition model, commission the entity recognition function before invoking the entity recognition interface. For details, see "Commissioning the Entity Extraction Model Function" in *OIAP Product Documentation*.

**Interface Method**

POST

**URL**<https://IP:PORT/oifde/rest/api/entityDetection>**Request****Table 10-102** Parameters in the request body

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------|--------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| tenantId  | String | Body     | Yes       | Tenant ID.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| language  | String | Body     | Yes       | Language. The options are as follows: <ul style="list-style-type: none"><li>• <b>zh_CN</b>: Chinese</li><li>• <b>en_US</b>: English</li><li>• <b>es_ES</b>: Spanish</li><li>• <b>ar</b>: Arabic</li><li>• <b>th_TH</b>: Thai</li><li>• <b>pt_BR</b>: Portuguese</li></ul> Note: <ol style="list-style-type: none"><li>1. The preceding languages are supported for TUC-based entity recognition.</li><li>2. For LODAS-based entity recognition, the languages supported by the LODAS entity recognition model are used.</li></ol> |

| Parameter | Type   | Position | Mandatory | Description                                                                                      |
|-----------|--------|----------|-----------|--------------------------------------------------------------------------------------------------|
| sentence  | String | Body     | Yes       | Statement.<br>Entity recognition basis.<br>The value can contain a maximum of 4096 characters.   |
| authToken | String | Body     | Yes       | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> . |

## Response

| Parameter       | Type          | Position | Mandatory | Description                    |
|-----------------|---------------|----------|-----------|--------------------------------|
| count           | Integer       | Body     | Yes       | Number of identified entities. |
| entityMsgV2List | EntityMsgV2[] | Body     | Yes       | Entity object list.            |

**Table 10-103** EntityMsgV2

| Name     | Mandatory | Type    | Description                                                                                                                                                                                                                                                                               |
|----------|-----------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| citation | Yes       | String  | Reference name of an entity,<br>for example, reference name of an address in a system entity.<br><b>@system.address</b>                                                                                                                                                                   |
| type     | Yes       | Integer | Entity type. <ul style="list-style-type: none"> <li>• <b>-1</b>: system or environment entity, not a user entity</li> <li>• <b>0</b>: common entity</li> <li>• <b>1</b>: composite entity</li> <li>• <b>2</b>: rule entity</li> <li>• <b>3</b>: entity identified by the LODAS</li> </ul> |

| Name       | Mandatory | Type                 | Description                                                                                                                                                                                                                        |
|------------|-----------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| userEntity | Yes       | Boolean              | Whether the entity is a user entity.                                                                                                                                                                                               |
| envEntity  | Yes       | Boolean              | Whether the entity is an environment entity.                                                                                                                                                                                       |
| beginIndex | Yes       | Integer              | Start sequence number in the input statement when the entity value is identified.                                                                                                                                                  |
| endIndex   | Yes       | Integer              | End sequence number in the input statement when the entity value is identified.                                                                                                                                                    |
| values     | Yes       | Map <String, String> | Identified entity value pair. The value is in <i>Entity type:Entity value</i> format. Example:<br><b>"@system.address": "Yuelu District, Changsha City, Hunan Province"</b><br>For details, see <a href="#">Adding an Entity</a> . |
| formats    | Yes       | List<String>         | List of reference formats that identify the entity. In the example <b>["raw", "province"]</b> , <b>"raw"</b> indicates the original value, and <b>"province"</b> indicates the province.                                           |

## Example

- Request
 

```
{
 "tenantId":"202104237142",
 "language":"en_US",
 "sentence":"On Wanglong Road, Yuelu Avenue, Yuelu District, Changsha, travel is affected due to serious water accumulation after the heavy rain.",
 "authToken":"E2mjXcv*****XX1av"
}
```
- Response
 

```
{
 "count": 4,
 "entityMsgV2List": [
 {
 "citation": "@system.any", // Match any user input.
 "type": -1,
 "userEntity": false,
 }
]
}
```



```
"envEntity": false,
"beginIndex": 0,
"endIndex": 25,
"values": {
 "@system.any": "On Wanglong Road, Yuelu Avenue, Yuelu District, Changsha, travel is
affected due to serious water accumulation after the heavy rain.",
 "@system.any.raw": "On Wanglong Road, Yuelu Avenue, Yuelu District, Changsha, travel is
affected due to serious water accumulation after the heavy rain."
},
"formats": [
 "raw"
]
},
{
 "citation": "@system.env.time", // Current time.
 "type": -1,
 "userEntity": false,
 "envEntity": true,
 "beginIndex": -1,
 "endIndex": -1,
 "values": {
 "@system.env.time.hour": "11",
 "@system.env.time.minute": "09",
 "@system.env.time": "11:09"
 },
 "formats": [
 "hour",
 "minute"
]
},
{
 "citation": "@system.env.date", // Current date.
 "type": -1,
 "userEntity": false,
 "envEntity": true,
 "beginIndex": -1,
 "endIndex": -1,
 "values": {
 "@system.env.date.yyyyMM": "202110",
 "@system.env.date": "2021-10-19",
 "@system.env.date.year": "2021",
 "@system.env.date.month": "10",
 "@system.env.date.day": "19"
 },
 "formats": [
 "yyyyMM",
 "year",
 "month",
 "day"
]
},
{
 "citation": "@system.address", // Address detection.
 "type": -1,
 "userEntity": false,
 "envEntity": false,
 "beginIndex": 0,
 "endIndex": 5,
 "values": {
 "@system.address.raw": "Yuelu District",
 "@system.address": "Yuelu District, Changsha City, Hunan Province",
 "@system.address.province": "Hunan Province"
 },
 "formats": [
 "raw",
 "province"
]
}
```

```
]
}
```

## 10.18 Interface for Querying the Recordings of Calls Transferred to a Third Party

### Description

This interface is invoked to query the recordings of calls transferred from a common IVR to a third party.

### Interface Method

POST

### URL

https://IP:PORT/oifde/rest/api/queryTransferRecordHistory

### Request

Table 10-104 Parameters in the request body

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                                                                                             |
|-----------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| tenantId  | String | Body     | Yes       | Tenant ID.                                                                                                                                                                                                              |
| authToken | String | Body     | Yes       | Valid token value for accessing the interface.<br>You can obtain the valid token information by invoking the interface for obtaining tokens.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> . |
| beginTime | String | Body     | No        | Start time.<br>Format:<br>yyyy-MM-dd HH:mm:ss                                                                                                                                                                           |
| endTime   | String | Body     | No        | End time.<br>Format:<br>yyyy-MM-dd HH:mm:ss                                                                                                                                                                             |

| Parameter  | Type   | Position | Mandatory | Description                                                                                                                                                                         |
|------------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| pageNum    | String | Body     | No        | Page number.<br>Number of the page to be queried. The value <b>1</b> is for the first page.<br>If this parameter is not transferred, the default value of page number is <b>1</b> . |
| pageSize   | String | Body     | No        | Number of records on each page.<br>The value can be <b>5, 10, 20, 50, or 100</b> .<br>If this parameter is not transferred, 100 records are displayed on each page by default.      |
| callId     | String | Body     | No        | Flow call ID. One of the <b>userMobile</b> , <b>callId</b> , and <b>ctiCallId</b> parameters must be transferred.                                                                   |
| userMobile | String | Body     | No        | Subscriber number. One of the <b>userMobile</b> , <b>callId</b> , and <b>ctiCallId</b> parameters must be transferred.                                                              |
| ctiCallId  | String | Body     | No        | CTI call ID. One of the <b>userMobile</b> , <b>callId</b> , and <b>ctiCallId</b> parameters must be transferred.                                                                    |

## Response

**Table 10-105** Parameters in the response body

| Parameter    | Type    | Position | Mandatory | Description                                                                                                           |
|--------------|---------|----------|-----------|-----------------------------------------------------------------------------------------------------------------------|
| errorCode    | Integer | Body     | Yes       | Error code.<br><ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> |
| errorMessage | String  | Body     | Yes       | Error description.                                                                                                    |

| Parameter          | Type             | Position | Mandatory | Description                                  |
|--------------------|------------------|----------|-----------|----------------------------------------------|
| total              | Long             | Body     | No        | Total number of records.                     |
| transferRecordList | transferRecord[] | Body     | No        | Call transfer record list (array structure). |

**Table 10-106** transferRecord

| Parameter      | Type   | Position | Mandatory | Description                                              |
|----------------|--------|----------|-----------|----------------------------------------------------------|
| id             | String | Body     | Yes       | Unique ID of a transfer record.                          |
| tenantId       | String | Body     | Yes       | Tenant ID.                                               |
| callId         | String | Body     | Yes       | Flow call ID.                                            |
| ctiCallId      | String | Body     | Yes       | CTI call ID.                                             |
| flowInstId     | String | Body     | Yes       | Flow instance ID.                                        |
| callingNumber  | String | Body     | Yes       | Calling number (user number).                            |
| calledNumber   | String | Body     | Yes       | Called flow access code.                                 |
| transfNumber   | String | Body     | Yes       | Number to be transferred to a third-party.               |
| startTime      | Long   | Body     | Yes       | Start time of a call. The value is in timestamp format.  |
| endTime        | Long   | Body     | No        | Call end time. The value is in timestamp format.         |
| recordFilePath | String | Body     | No        | Recording file address.                                  |
| locationId     | String | Body     | Yes       | Recording node, which is used when the CTI pool is used. |

| Parameter    | Type   | Position | Mandatory | Description                                                                                                  |
|--------------|--------|----------|-----------|--------------------------------------------------------------------------------------------------------------|
| opResult     | String | Body     | Yes       | Transfer result. The options are <b>INIT</b> (start), <b>SUCCESS</b> (successful), and <b>FAIL</b> (failed). |
| recordResult | String | Body     | No        | Recording result. The options are <b>0</b> (success), <b>N/A</b> (no feedback), and other values (failure).  |

## Example

- Request

```
{
 "authToken": "P*****oN1ix",
 "tenantId": "202204017094",
 "beginTime": "2022-02-21 20:04:38",
 "endTime": "",
 "pageNum": "1",
 "pageSize": "5",
 "callId": "1648805538-165717321823298",
 "userMobile": "",
 "ctiCallId": ""
}
```

- Response

```
{
 "errorCode": 0, //Interface success or failure flag.
 "errorMessage": "success!", //Interface success or failure description.
 "total": 1, //Total
 "transferRecordList": [
 {
 "id": "202204013156893697",
 "tenantId": "202204017094",
 "callId": "1648805538-165717321823298",
 "ctiCallId": "1648805538-1657",
 "flowInstId": "88880301202204011732186311648805538-165717321823298",
 "callingNumber": "88880301",
 "calledNumber": "30502",
 "transfNumber": "88880302",
 "startTime": 1648805539000,
 "endTime": 1648805558000,
 "recordFilePath": "Y:/61/transferrecord/20220401/77448039.wav",
 "locationId": "0",
 "opResult": "SUCCESS",
 "recordResult": "N/A"
 }
]
}
```

## 10.19 Semantic Recognition Interface

### Description

This interface is invoked to obtain the matching status of an intention template.

## Interface Method

POST

## URL

https://IP:PORT/oifde/rest/api/speechrecognition

## Request

**Table 10-107** Parameters in the request body

| Parameter         | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                                                      |
|-------------------|--------|----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| userId            | String | Body     | Yes       | User ID.<br>The value can contain a maximum of 64 characters.                                                                                                                                                                                                                                                    |
| sentence          | String | Body     | Yes       | Text information entered by a customer.<br>The value can contain a maximum of 1024 characters.                                                                                                                                                                                                                   |
| tenantId          | String | Body     | Yes       | Tenant ID.<br>The value can contain a maximum of 64 characters.                                                                                                                                                                                                                                                  |
| language          | String | Body     | Yes       | Language. The options are as follows: <ul style="list-style-type: none"> <li>● <b>zh_CN</b>: Chinese</li> <li>● <b>en_US</b>: English</li> <li>● <b>es_ES</b>: Spanish</li> <li>● <b>ar</b>: Arabic</li> <li>● <b>th_TH</b>: Thai</li> <li>● <b>pt_BR</b>: Portuguese</li> <li>● <b>fr_FR</b>: French</li> </ul> |
| targetIntentCount | String | Body     | No        | Number of intentions returned by the chatbot when multiple intentions are required. Generally, this parameter is used when a customer enters one sentence to match multiple intentions.<br>The value ranges from 1 to 5.                                                                                         |

| Parameter      | Type          | Position | Mandatory | Description                                                                                                                                                                                                                                                                  |
|----------------|---------------|----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| confidence2Top | String        | Body     | No        | Confidence interval between the subsequent intentions and the first intention with the highest confidence is required if multiple intentions are returned. A smaller value indicates a closer proximity between the returned intentions.<br>The value ranges from 0 to 1.    |
| context        | String        | Body     | No        | Context required for intention recognition. Only one context can be transferred.<br>To use the context, configure a single context based on the intention.<br>The value can contain a maximum of 128 characters.                                                             |
| domainList     | List <String> | Body     | No        | IDs of activated domains.<br>A maximum of 100 IDs are allowed.                                                                                                                                                                                                               |
| faqGroupList   | List <String> | Body     | No        | IDs of activated FAQ groups.<br>A maximum of 100 IDs are allowed.                                                                                                                                                                                                            |
| authToken      | String        | Body     | Yes       | Valid token value for accessing the interface.<br>You can obtain the valid token information by invoking the interface for obtaining tokens.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> .<br>The value can contain a maximum of 32 characters. |

## Response

**Table 10-108** Parameters in the response body

| Parameter        | Type               | Position | Mandatory | Description                                                                             |
|------------------|--------------------|----------|-----------|-----------------------------------------------------------------------------------------|
| errorCode        | Integer            | Body     | Yes       | Error code.<br>The value <b>0</b> indicates success and other values indicates failure. |
| errorMessage     | String             | Body     | No        | Error message.                                                                          |
| intentsResponses | intentsResponses[] | Body     | No        | Intention array, which must be returned when the operation is successful.               |

**Table 10-109** intentsResponses

| Parameter     | Type     | Position | Mandatory | Description                                                                                                                                                                                                                                              |
|---------------|----------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| responses     | String[] | Body     | No        | Response returned by the chatbot. The value is a character string array. Multiple values are allowed.                                                                                                                                                    |
| confidence    | Float    | Body     | Yes       | Confidence.                                                                                                                                                                                                                                              |
| commands      | String[] | Body     | Yes       | Intention command word.                                                                                                                                                                                                                                  |
| commandParams | Map      | Body     | No        | Keyword parameters. The slot information of general intentions is returned through this parameter.<br>Example:<br><b>{"Number": "3"}</b><br>For details about operations related to general intentions, see <a href="#">Adding Intention Templates</a> . |
| scenarioName  | String   | Body     | No        | Intention name.                                                                                                                                                                                                                                          |



| Parameter      | Type          | Position | Mandatory | Description                                                                                                                                                      |
|----------------|---------------|----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| scenarioStatus | String        | Body     | No        | Scenario status.                                                                                                                                                 |
| simQuestions   | List <String> | Body     | No        | If a similar question exists in the FAQ question, the similar question is returned. (Similar questions refer to questions other than the matched main question.) |

## Example

- Request

```
{
 "userId": "1649209493813571405",
 "sentence": "Query the call fee.",
 "tenantId": "202205125916",
 "language": "en_US",
 "targetIntentCount": "2",
 "confidence2Top": "0.5",
 "authToken": "Xun4*****yAmResnf",
 "context": "Query the call fee.",
 "domainList": [10039],
 "faqGroupList": [10952, 10950]
}
```

- Response

```
{
 "intentsResponses": [
 {
 "scenarioStatus": "finish",
 "confidence": 1.0,
 "responses": "Dear user, your call fee balance is CNY56.",
 "scenarioName": "Call fee query",
 "commands": "Query the call fee."
 }
],
 "errorCode": 0
}
```

- Request (including FAQs)

```
{
 "userId": "1649209493813571405",
 "sentence": "Preferential package recommendation",
 "tenantId": "202205125916",
 "language": "en_US",
 "targetIntentCount": "2",
 "confidence2Top": "0.5",
 "authToken": "Xun4vb*****mResnf",
 "context": "",
 "domainList": [10039],
 "faqGroupList": [10952, 10950]
}
```

- Response

```
{
 "intentsResponses": [
```

```

{
 "simQuestions": [
 "Some preferential traffic packages are available."
],
 "scenarioStatus": "SUCCESS",
 "confidence": 23.0,
 "responses": "A monthly discount is available, CNY10 for 3 GB traffic.",
 "scenarioName": "1721756338",
 "commands": "systemQA"
}
],
"errorCode": 0
}

```

## 10.20 GTS RPA Integration Interfaces

### 10.20.1 Interface for Querying the RPA Task List

#### Description

This interface is invoked to query the RPA task list.

#### Interface Method

POST

#### URL

<https://IP:PORT/oifde/rest/api/rpa/queryJob>

#### Request

**Table 10-110** Parameters in the request body

| Parameter  | Type            | Position | Mandatory | Description                                                                                                         |
|------------|-----------------|----------|-----------|---------------------------------------------------------------------------------------------------------------------|
| tenantId   | String          | Body     | Yes       | Tenant ID.<br>The value can contain a maximum of 64 characters.                                                     |
| pageNo     | Integer         | Body     | No        | Number of pages to be queried. The default value is <b>1</b> .                                                      |
| pageSize   | Integer         | Body     | No        | Number of data records on each page. The default value is <b>50</b> .<br>The value can be <b>5, 10, 20, or 50</b> . |
| conditions | RpaJobCondition | Body     | No        | Search criteria.                                                                                                    |

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                  |
|-----------|--------|----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| authToken | String | Body     | Yes       | Valid token value for accessing the interface.<br>You can obtain the valid token information by invoking the interface for obtaining tokens.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> .<br>The value can contain a maximum of 32 characters. |

**Table 10-111** RpaJobConditions

| Parameter | Type    | Position | Mandatory | Description                                                                                                                                                                                                                                      |
|-----------|---------|----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| jobName   | String  | Body     | No        | Task name for fuzzy search.                                                                                                                                                                                                                      |
| status    | Integer | Body     | No        | Task status for search. The options are as follows: <ul style="list-style-type: none"> <li>• <b>init</b>: to be executed</li> <li>• <b>running</b>: running</li> <li>• <b>suspend</b>: suspended</li> <li>• <b>success</b>: completed</li> </ul> |

## Response

**Table 10-112** Parameters in the response body

| Parameter | Type   | Position | Mandatory | Description                                                                             |
|-----------|--------|----------|-----------|-----------------------------------------------------------------------------------------|
| errorCode | Int    | Body     | Yes       | Error code.<br>The value <b>0</b> indicates success and other values indicates failure. |
| errorMsg  | String | Body     | No        | Error message.                                                                          |
| total     | Int    | Body     | No        | Total number of records.                                                                |

| Parameter | Type                 | Position | Mandatory | Description                                                         |
|-----------|----------------------|----------|-----------|---------------------------------------------------------------------|
| jobs      | RpaDetailJobResult[] | Body     | No        | Task list, which must be returned when the operation is successful. |

**Table 10-113** RpaDetailJobResult

| Parameter   | Type    | Position | Mandatory | Description                                                                                                                                                                                                                           |
|-------------|---------|----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| uid         | String  | Body     | No        | Task UUID.                                                                                                                                                                                                                            |
| jobName     | String  | Body     | No        | Task name.                                                                                                                                                                                                                            |
| createTime  | String  | Body     | No        | Task creation time.                                                                                                                                                                                                                   |
| startTime   | String  | Body     | No        | Task start time.                                                                                                                                                                                                                      |
| status      | String  | Body     | No        | Task status. The options are as follows: <ul style="list-style-type: none"> <li>• <b>init</b>: to be executed</li> <li>• <b>running</b>: running</li> <li>• <b>success</b>: completed</li> <li>• <b>suspend</b>: suspended</li> </ul> |
| mode        | String  | Body     | No        | Execution mode. The options are <b>once</b> and <b>repeat</b> .                                                                                                                                                                       |
| runMode     | String  | Body     | No        | Running mode. The options are <b>online</b> and <b>offline</b> .                                                                                                                                                                      |
| timeout     | Integer | Body     | No        | Task timeout period, in seconds.                                                                                                                                                                                                      |
| description | String  | Body     | No        | Task description.                                                                                                                                                                                                                     |

## Example

- Request

```
{
 "tenantId": "202201072597",
 "authToken": "hjbLf*****RQFv3nq",
 "pageNo": 1,
```

```

 "pageSize": 10,
 "conditions": {}
 }
}

```

- Response
 

```

{
 "total": 1,
 "jobs": [
 {
 "uid": "0c9358552188478a8d5ff9203db8791f",
 "jobName": "AICC_RPA",
 "createTime": "2022-04-24 17:12:02",
 "startTime": "2022-04-29 11:47:25",
 "status": "running",
 "mode": "queueTrigger",
 "runMode": "online",
 "timeout": 120,
 "description": null
 }
],
 "errorCode": 0,
 "errorMsg": null
}

```

## 10.20.2 Interface for Querying RPA Task Details

### Description

This interface is invoked to query RPA task details.

### Interface Method

POST

### URL

<https://IP:PORT/oifde/rest/api/rpa/queryJobDetails>

### Request

**Table 10-114** Parameters in the request body

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                                                    |
|-----------|--------|----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| tenantId  | String | Body     | Yes       | Tenant ID.<br>The value can contain a maximum of 64 characters.                                                                                                                |
| jobName   | String | Body     | No        | Task name. ( <b>jobName</b> can be used as a search criterion. If it is specified, <b>uid</b> can be set to <b>null</b> . Either <b>jobName</b> or <b>uid</b> must be passed.) |

| Parameter | Type   | Position | Mandatory | Description                                                                                                                                                                                                                                                                  |
|-----------|--------|----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| uid       | String | Body     | No        | Task UUID. (If both <b>jobName</b> and <b>uid</b> are specified, <b>uid</b> is used. Either <b>jobName</b> or <b>uid</b> must be passed.)                                                                                                                                    |
| authToken | String | Body     | Yes       | Valid token value for accessing the interface.<br>You can obtain the valid token information by invoking the interface for obtaining tokens.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> .<br>The value can contain a maximum of 32 characters. |

## Response

**Table 10-115** Parameters in the response body

| Parameter | Type                 | Position | Mandatory | Description                                                                             |
|-----------|----------------------|----------|-----------|-----------------------------------------------------------------------------------------|
| errorCode | Int                  | Body     | Yes       | Error code.<br>The value <b>0</b> indicates success and other values indicates failure. |
| errorMsg  | String               | Body     | No        | Error message.                                                                          |
| jobDetail | RpaDetailJobResult[] | Body     | No        | Queue details.                                                                          |

**Table 10-116** RpaDetailJobResult

| Parameter | Type   | Position | Mandatory | Description |
|-----------|--------|----------|-----------|-------------|
| uid       | String | Body     | Yes       | Task UUID.  |
| jobName   | String | Body     | Yes       | Task name.  |

| Parameter        | Type    | Position | Mandatory | Description                                                                                                                                                                                                                                      |
|------------------|---------|----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| startTime        | String  | Body     | No        | Job start time.<br>The format is <i>yyyy-mm-dd HH:mm:ss</i> .                                                                                                                                                                                    |
| createTime       | String  | Body     | Yes       | Job creation time.<br>The format is <i>yyyy-mm-dd HH:mm:ss</i> .                                                                                                                                                                                 |
| workstationName  | String  | Body     | No        | Executor name.                                                                                                                                                                                                                                   |
| clusterName      | String  | Body     | No        | Cluster name.                                                                                                                                                                                                                                    |
| runMode          | String  | Body     | Yes       | Running mode. The value can be <b>online</b> .                                                                                                                                                                                                   |
| mode             | String  | Body     | Yes       | Execution mode. The options are <b>once</b> , <b>repeat</b> , and <b>queueTrigger</b> .                                                                                                                                                          |
| jobType          | String  | Body     | Yes       | Task type, which is fixed at <b>procedure</b> .                                                                                                                                                                                                  |
| status           | String  | Body     | Yes       | Task status for search. The options are as follows: <ul style="list-style-type: none"> <li>• <b>init</b>: to be executed</li> <li>• <b>running</b>: running</li> <li>• <b>suspend</b>: suspended</li> <li>• <b>success</b>: completed</li> </ul> |
| procedureName    | String  | Body     | Yes       | Script package name.                                                                                                                                                                                                                             |
| procedureVersion | String  | Body     | Yes       | Script package version.                                                                                                                                                                                                                          |
| description      | String  | Body     | Yes       | Task description.                                                                                                                                                                                                                                |
| timeout          | Integer | Body     | No        | Task timeout period.                                                                                                                                                                                                                             |
| recentTaskStatus | String  | Body     | No        | Latest job status. This field is not returned for tasks that do not generate jobs.                                                                                                                                                               |

| Parameter | Type   | Position | Mandator<br>y | Description |
|-----------|--------|----------|---------------|-------------|
| queueUid  | String | Body     | No            | Queue UUID. |
| queueName | String | Body     | No            | Queue name. |

## Example

- Request

```
{
 "tenantId": "202201072597",
 "authToken": "hjbLfhU*****Fv3nq",
 "uid": "0c9358552188478a8d5ff9203db8791f"
}
```

- Response

```
{
 "errorCode": 0,
 "errorMsg": null,
 "jobDetail": {
 "jobName": "AICC_RPA",
 "queueUid": "00019cad3dd5c71d4696b209d7024fa04d3a",
 "workstationName": "AICC_RPA",
 "runMode": "online",
 "timeout": 120,
 "mode": "queueTrigger",
 "uid": "0c9358552188478a8d5ff9203db8791f",
 "procedureVersion": "1.0.5",
 "queueName": "Case creation",
 "createTime": "2022-04-24 17:12:02",
 "procedureName": "AICC_RPA",
 "startTime": "2022-04-29 11:47:25",
 "jobType": "procedure",
 "recentTaskStatus": "failed",
 "status": "running"
 }
}
```

## 10.20.3 Interface for Creating RPA Queue Data

### Description

This interface is invoked to create RPA queue data.

### Interface Method

The request method must be set to POST.

### URL

<https://IP:PORT/oifde/rest/api/rpa/createRpaQueueData>



## Request

**Table 10-117** Parameters in the request body

| Parameter       | Type           | Position | Mandatory | Description                                                                                                                                                                                                                                                                  |
|-----------------|----------------|----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| tenantId        | String         | Body     | Yes       | Tenant ID.<br>The value can contain a maximum of 64 characters.                                                                                                                                                                                                              |
| authToken       | String         | Body     | Yes       | Valid token value for accessing the interface.<br>You can obtain the valid token information by invoking the interface for obtaining tokens.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> .<br>The value can contain a maximum of 32 characters. |
| tag             | String (32)    | Body     | No        | Queue data label, which is unique for the same queue.                                                                                                                                                                                                                        |
| priority        | String         | Body     | No        | Priority. The default value is <b>normal</b> . The options are as follows: <ul style="list-style-type: none"><li>● <b>low</b>: low</li><li>● <b>normal</b>: medium</li><li>● <b>high</b>: high</li></ul>                                                                     |
| inputJsonData   | String (65535) | Body     | No        | Input queue data, which is a JSON character string.                                                                                                                                                                                                                          |
| expectStartTime | Long           | Body     | No        | Planned start timestamp. The value ranges from 0 to 7258089600000L.                                                                                                                                                                                                          |
| expectEndTime   | Long           | Body     | No        | Planned end timestamp. The value ranges from 0 to 7258089600000L.                                                                                                                                                                                                            |
| description     | String (100)   | Body     | No        | Queue data description.                                                                                                                                                                                                                                                      |
| queueUid        | String         | Body     | Yes       | Queue UUID, which is unique.                                                                                                                                                                                                                                                 |

## Response

**Table 10-118** Parameters in the response body

| Parameter | Type        | Position | Mandatory | Description                                                                             |
|-----------|-------------|----------|-----------|-----------------------------------------------------------------------------------------|
| errorCode | Integer     | Body     | Yes       | Error code.<br>The value <b>0</b> indicates success and other values indicates failure. |
| errorMsg  | String      | Body     | No        | Error message.                                                                          |
| queueData | QueueData[] | Body     | No        | Queue data, which must be returned when the operation is successful.                    |

**Table 10-119** QueueData

| Parameter       | Type        | Position | Mandatory | Description                                                         |
|-----------------|-------------|----------|-----------|---------------------------------------------------------------------|
| id              | Long        | Body     | No        | Queue data ID that is automatically added.                          |
| uid             | String      | Body     | No        | Queue data UUID.                                                    |
| queueName       | String (32) | Body     | No        | Queue name.                                                         |
| queueUid        | String      | Body     | No        | Queue UUID.                                                         |
| createTime      | Long        | Body     | No        | Creation timestamp. The value ranges from 0 to 7258089600000L.      |
| expectStartTime | Long        | Body     | No        | Planned start timestamp. The value ranges from 0 to 7258089600000L. |
| expectEndTime   | Long        | Body     | No        | Planned end timestamp. The value ranges from 0 to 7258089600000L.   |

| Parameter          | Type           | Position | Mandatory | Description                                                                                                                                                                                                                                    |
|--------------------|----------------|----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| status             | String         | Body     | No        | Queue status. The options are as follows: <ul style="list-style-type: none"> <li>• <b>init</b>: waiting for processing</li> <li>• <b>processing</b>: processing</li> <li>• <b>success</b>: success</li> <li>• <b>failed</b>: failed</li> </ul> |
| priority           | String         | Body     | No        | Priority. The options are as follows: <ul style="list-style-type: none"> <li>• <b>low</b>: low</li> <li>• <b>normal</b>: medium</li> <li>• <b>high</b>: high</li> </ul>                                                                        |
| inactived          | String         | Body     | No        | Queue enabling status. The options are as follows: <ul style="list-style-type: none"> <li>• <b>active</b>: enabled</li> <li>• <b>inactive</b>: disabled</li> </ul>                                                                             |
| tag                | String (32)    | Body     | No        | Queue data label.                                                                                                                                                                                                                              |
| inputJsonData      | String (65535) | Body     | No        | Input queue data, which is a JSON character string.                                                                                                                                                                                            |
| outputJsonData     | String (65535) | Body     | No        | Output result data, which is a JSON character string.                                                                                                                                                                                          |
| analysisJsonData   | String (65535) | Body     | No        | Intermediate queue data, which is a JSON character string.                                                                                                                                                                                     |
| failedReason       | String (512)   | Body     | No        | Failure cause.                                                                                                                                                                                                                                 |
| failedReasonDetail | String (65535) | Body     | No        | Failure cause details.                                                                                                                                                                                                                         |
| description        | String (100)   | Body     | No        | Queue data description.                                                                                                                                                                                                                        |
| progress           | Integer        | Body     | No        | Progress. The value ranges from 0 to 100.                                                                                                                                                                                                      |

## Example

- Request Example

```
{
 "tenantId": "202201010101",
 "authToken": "abcdefg",
 "inputJsonData": {
 "caseId": "0000000002",
 "userId": "123456",
 },
 "description": "Queue data description",
 "queueUid": "123456789",
 "priority": "normal"
}
```

- Response Example

```
{
 "errorCode": 0,
 "errorMsg": null,
 "queueData": {
 "id": 67,
 "uid": "1234567890123",
 "queueName": "Case creation",
 "queueUid": "123456789",
 "createTime": 1652100233488,
 "expectStartTime": null,
 "expectEndTime": null,
 "status": "init",
 "priority": "normal",
 "inactivated": "active",
 "tag": null,
 "inputJsonData": "{\"caseId\":\"0000000002\"}",
 "outputJsonData": null,
 "analysisJsonData": null,
 "failedReason": null,
 "failedReasonDetail": null,
 "description": "Queue data description",
 "progress": null
 }
}
```

## 10.20.4 Interface for Querying RPA Queue Data

### Description

This interface is invoked to query RPA queue data.

### Interface Method

POST

### URL

<https://IP:PORT/oifde/rest/api/rpa/queryRpaQueueData>

## Request

**Table 10-120** Parameters in the request body

| Parameter  | Type                   | Position | Mandatory | Description                                                                                                                                                                                                                                                                  |
|------------|------------------------|----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| tenantId   | String                 | Body     | Yes       | Tenant ID.<br>The value can contain a maximum of 64 characters.                                                                                                                                                                                                              |
| authToken  | String                 | Body     | Yes       | Valid token value for accessing the interface.<br>You can obtain the valid token information by invoking the interface for obtaining tokens.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> .<br>The value can contain a maximum of 32 characters. |
| pageNo     | Integer                | Body     | No        | Number of pages to be queried. The default value is <b>1</b> .                                                                                                                                                                                                               |
| pageSize   | Integer                | Body     | No        | Number of data records on each page. The default value is <b>50</b> .<br>The value can be <b>5, 10, 20, or 50</b> .                                                                                                                                                          |
| conditions | RpaQueueDataConditions | Body     | Yes       | Search criteria.<br>Either <b>uid</b> or <b>queueUid</b> must be passed.                                                                                                                                                                                                     |

**Table 10-121** RpaQueueDataConditions

| Parameter | Type   | Position | Mandatory | Description                                                                                                                         |
|-----------|--------|----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------|
| uid       | String | Body     | No        | Queue data UUID for query (at least one of the <b>uid</b> , <b>queueUid</b> , and <b>queueName</b> parameters must be transferred). |

| Parameter   | Type        | Position | Mandatory | Description                                                                                                                                                                                                                                                    |
|-------------|-------------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| queueUid    | String      | Body     | No        | Queue data UUID for query (at least one of the <b>uid</b> , <b>queueUid</b> , and <b>queueName</b> parameters must be transferred).                                                                                                                            |
| queueName   | String (32) | Body     | No        | Queue name for query (at least one of <b>uid</b> , <b>queueUid</b> , and <b>queueName</b> must be transferred).                                                                                                                                                |
| tag         | String      | Body     | No        | Queue data label for query.                                                                                                                                                                                                                                    |
| status      | String      | Body     | No        | Queue status for query. The options are as follows: <ul style="list-style-type: none"> <li>• <b>init</b>: waiting for processing</li> <li>• <b>processing</b>: processing</li> <li>• <b>success</b>: success</li> <li>• <b>failed</b>: failed</li> </ul>       |
| inactivated | String      | Body     | No        | Queue enabling status for query. The options are as follows: <ul style="list-style-type: none"> <li>• <b>active</b>: enabled</li> <li>• <b>inactive</b>: disabled</li> <li>• If this parameter is not transferred, the query is enabled by default.</li> </ul> |
| priority    | String      | Body     | No        | Queue priority for query. The options are as follows: <ul style="list-style-type: none"> <li>• <b>low</b>: low</li> <li>• <b>normal</b>: medium</li> <li>• <b>high</b>: high</li> </ul>                                                                        |

## Response

**Table 10-122** Parameters in the response body

| Parameter | Type        | Position | Mandatory | Description                                                                             |
|-----------|-------------|----------|-----------|-----------------------------------------------------------------------------------------|
| errorCode | Integer     | Body     | Yes       | Error code.<br>The value <b>0</b> indicates success and other values indicates failure. |
| errorMsg  | String      | Body     | No        | Error message.                                                                          |
| total     | Integer     | Body     | No        | Number of queue data records, which must be returned when the operation is successful.  |
| queueData | QueueData[] | Body     | No        | Queue data, which must be returned when the operation is successful.                    |

**Table 10-123** QueueData

| Parameter       | Type        | Position | Mandatory | Description                                                         |
|-----------------|-------------|----------|-----------|---------------------------------------------------------------------|
| id              | Long        | Body     | No        | Queue data ID that is automatically assigned.                       |
| uid             | String      | Body     | No        | Queue data UUID.                                                    |
| queueName       | String (32) | Body     | No        | Queue name.                                                         |
| queueUid        | String      | Body     | No        | Queue UUID.                                                         |
| createTime      | Long        | Body     | No        | Creation timestamp. The value ranges from 0 to 7258089600000L.      |
| expectStartTime | Long        | Body     | No        | Planned start timestamp. The value ranges from 0 to 7258089600000L. |

| Parameter          | Type           | Position | Mandatory | Description                                                                                                                                                                                                                                    |
|--------------------|----------------|----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| expectEndTime      | Long           | Body     | No        | Planned end timestamp. The value ranges from 0 to 7258089600000L.                                                                                                                                                                              |
| status             | String         | Body     | No        | Queue status. The options are as follows: <ul style="list-style-type: none"> <li>• <b>init</b>: waiting for processing</li> <li>• <b>processing</b>: processing</li> <li>• <b>success</b>: success</li> <li>• <b>failed</b>: failed</li> </ul> |
| priority           | String         | Body     | No        | Priority. The options are as follows: <ul style="list-style-type: none"> <li>• <b>low</b>: low</li> <li>• <b>normal</b>: medium</li> <li>• <b>high</b>: high</li> </ul>                                                                        |
| inactivated        | String         | Body     | No        | Queue enabling status. The options are as follows: <ul style="list-style-type: none"> <li>• <b>active</b>: enabled</li> <li>• <b>inactive</b>: disabled</li> </ul>                                                                             |
| tag                | String (32)    | Body     | No        | Queue data label.                                                                                                                                                                                                                              |
| inputJsonData      | String (65535) | Body     | No        | Input queue data, which is a JSON character string.                                                                                                                                                                                            |
| outputJsonData     | String (65535) | Body     | No        | Output result data, which is a JSON character string.                                                                                                                                                                                          |
| analysisJsonData   | String (65535) | Body     | No        | Intermediate queue data, which is a JSON character string.                                                                                                                                                                                     |
| failedReason       | String (512)   | Body     | No        | Failure cause.                                                                                                                                                                                                                                 |
| failedReasonDetail | String (65535) | Body     | No        | Failure cause details.                                                                                                                                                                                                                         |
| description        | String (100)   | Body     | No        | Queue data description.                                                                                                                                                                                                                        |



| Parameter | Type    | Position | Mandatory | Description                               |
|-----------|---------|----------|-----------|-------------------------------------------|
| progress  | Integer | Body     | No        | Progress. The value ranges from 0 to 100. |

## Example

- Request

```
{
 "tenantId": "202201072597",
 "authToken": "oqyo*****fGMCu",
 "pageNo": 1,
 "pageSize": 10,
 "conditions": {
 "uid": "000145cdb75b3a514821872b9734f02ae76d",
 "queueUid": "00019cad3dd5c71d4696b209d7024fa04d3a"
 }
}
```

- Response

```
{
 "errorCode": 0,
 "errorMsg": null,
 "total": 1,
 "queueData": [
 {
 "id": 44,
 "uid": "000145cdb75b3a514821872b9734f02ae76d",
 "queueName": "Case creation",
 "queueUid": "00019cad3dd5c71d4696b209d7024fa04d3a",
 "createTime": 1651027548328,
 "expectStartTime": null,
 "expectEndTime": null,
 "status": "success",
 "priority": "normal",
 "inactived": "active",
 "tag": null,
 "inputJsonData": "{\"caseId\":\"0607000000t1FY2F0Mb2\"}",
 "outputJsonData": null,
 "analysisJsonData": null,
 "failedReason": null,
 "failedReasonDetail": null,
 "description": "Queue data description",
 "progress": null
 }
]
}
```

## 10.21 Interface for Generating TTS Voices Based on Texts

### Description

This interface, provide by the OIAP, is invoked by third-party systems to generate TTS voices.

If the text to be converted is long, the interface response time increases accordingly.

## Interface Method

POST

## URI

https://IP:PORT/oifde/rest/api/tts/texttovoice

## Message Header

Content-Type:application/json; charset=UTF-8

## Request

**Table 10-124** Parameters in the request body

| No. | Parameter | Type   | Mandatory | Description                                                                                                           |
|-----|-----------|--------|-----------|-----------------------------------------------------------------------------------------------------------------------|
| 1   | tenantId  | String | Yes       | Tenant ID.                                                                                                            |
| 2   | authToken | String | Yes       | Authentication token.<br>For details, see <a href="#">4.4 C3 OIAP Interface Authentication</a> .                      |
| 3   | text      | String | Yes       | Text to be synthesized, which must be encoded using UTF-8.                                                            |
| 4   | config    | Object | Yes       | TTS configuration information.<br>For details about the parameters of this object, see <a href="#">Table 10-125</a> . |

Table 10-125 config

| No. | Parameter | Type   | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                             |
|-----|-----------|--------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.1 | voiceName | String | Yes       | Model feature string, which is used by the server to invoke different models.<br>The options are as follows: <ul style="list-style-type: none"><li>• <b>cn_chengshuxing_common</b>: mature</li><li>• <b>cn_kefuman_common</b>: graceful</li><li>• <b>cn_roumeiqian_common</b>: soft</li><li>• <b>cn_tianmeiru_common</b>: sweet</li><li>• <b>cn_ziranzhen_common</b>: natural</li></ul> |
| 4.2 | pitch     | String | No        | Fundamental frequency, which is used to adjust the pitch.<br>The value ranges from -500 to 500.<br>The default value is <b>0</b> .                                                                                                                                                                                                                                                      |
| 4.3 | volume    | String | No        | Volume, which is used to adjust the volume.<br>The value ranges from 0 to 100. The default value is <b>50</b> .                                                                                                                                                                                                                                                                         |
| 4.4 | speed     | String | No        | Speed, which is used to adjust the speech speed.<br>The value ranges from -500 to 500.<br>The default value is <b>0</b> .                                                                                                                                                                                                                                                               |

## Response

- **Status code: 200**

**Table 10-126** Parameters in the response body

| No. | Parameter | Type   | Description                                                                                           |
|-----|-----------|--------|-------------------------------------------------------------------------------------------------------|
| 1   | retCode   | String | Result code. The value <b>0</b> indicates success and other values indicates failure.                 |
| 2   | retMsg    | String | Description of a failure cause.                                                                       |
| 3   | data      | Object | Return result.<br>For details about the parameters of this object, see <a href="#">Table 10-127</a> . |

**Table 10-127** data

| No. | Parameter  | Type    | Description                                                                                                         |
|-----|------------|---------|---------------------------------------------------------------------------------------------------------------------|
| 3.1 | format     | String  | Audio encoding format.                                                                                              |
| 3.2 | sampleRate | Integer | Audio sampling rate.                                                                                                |
| 3.3 | voiceData  | String  | Base64-encoded voice data.                                                                                          |
| 3.4 | sentences  | List    | Output sentence information.<br>For details about the parameters of this object, see <a href="#">Table 10-128</a> . |

**Table 10-128** sentences

| No.   | Parameter | Type    | Description                                                  |
|-------|-----------|---------|--------------------------------------------------------------|
| 3.4.1 | st        | Integer | Start timestamp of a sentence, in milliseconds.              |
| 3.4.2 | et        | Integer | End timestamp of a sentence, in milliseconds.                |
| 3.4.3 | offset    | Integer | Start position of a sentence in the original text, in bytes. |
| 3.4.4 | len       | Integer | Length of a sentence in the original text, in bytes.         |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error code.

None

## Example

### Request header

```
Content-Type:application/json; charset=UTF-8
```

### Request body message

```
{
 "config": {
 "voiceName":"cn_tianmeiru_common"
 },
 "text":"Hello, test the TTS interface.",
 "authToken": "*****",
 "tenantId":"*****"
}
```

### Response body message

```
{
 "data": {
 "sentences": [
 {
 "st": 0,
 "offset": 0,
 "len": 48,
 "et": 2790
 }
],
 "voiceData": "UklGRuRsAQBXQVZFZm10IIBA",
 "format": "wav",
 "sampleRate": "16000"
 },
 "retCode": "0"
}
```

## 10.22 Offline Conversion Callback Interface

### Description

This interface is provided by the OIAP for a third-party system to return the ASR offline conversion result to the ODFS.

This interface is a system-level third-party interface. For details about the authentication mode, see the third point in "NOTE" in [4.4 C3 OIAP Interface Authentication](#).

## Interface Method

POST

## URI

https://IP:PORT/oifde/rest/sysapi/asrcallback

## Message Header

**Table 10-129** Request header parameters

| No. | Parameter    | Type   | Mandatory | Description                                                                                                                           |
|-----|--------------|--------|-----------|---------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | String | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                        |
| 2   | userName     | String | Yes       | For details, see the <b>appKey</b> description in the third point in "NOTE" in <a href="#">4.4 C3 OIAP Interface Authentication</a> . |
| 3   | token        | String | Yes       | For details about the generation mode, see <a href="#">4.4 C3 OIAP Interface Authentication</a> .                                     |

## Request

**Table 10-130** Parameters in the request body

| No. | Parameter | Type   | Mandatory | Description                                                                                         |
|-----|-----------|--------|-----------|-----------------------------------------------------------------------------------------------------|
| 1   | Body      | Object | Yes       | Result to be written back.<br><a href="#">Table 10-131</a> describes the parameters of this object. |

**Table 10-131** Description of body parameters

| No. | Parameter | Type   | Mandatory | Description                                                                                     |
|-----|-----------|--------|-----------|-------------------------------------------------------------------------------------------------|
| 1.1 | state     | Object | Yes       | Conversion status.<br><a href="#">Table 10-132</a> describes the parameters of this object.     |
| 1.2 | Body      | Object | Yes       | Writeback result body.<br><a href="#">Table 10-133</a> describes the parameters of this object. |

**Table 10-132** Description of state parameters

| No.   | Parameter | Type    | Mandatory | Description                                                                                             |
|-------|-----------|---------|-----------|---------------------------------------------------------------------------------------------------------|
| 1.1.1 | code      | String  | Yes       | Conversion result code.                                                                                 |
| 1.1.2 | success   | Boolean | Yes       | Whether the conversion is successful. The options are <b>true</b> (success) and <b>false</b> (failure). |

**Table 10-133** Description of body parameters

| No.   | Parameter | Type   | Mandatory | Description                                                                                 |
|-------|-----------|--------|-----------|---------------------------------------------------------------------------------------------|
| 1.2.1 | aid       | String | Yes       | Unique ID of an audio file, which is passed by the client.                                  |
| 1.2.2 | lattices  | List   | Yes       | Conversion result.<br><a href="#">Table 10-134</a> describes the parameters of this object. |

**Table 10-134** Description of lattices parameters

| No.     | Parameter | Type    | Mandatory | Description                   |
|---------|-----------|---------|-----------|-------------------------------|
| 1.2.2.1 | lid       | Integer | Yes       | Sequence number of a segment. |
| 1.2.2.2 | begin     | Integer | Yes       | Start time of a segment.      |
| 1.2.2.3 | end       | Integer | Yes       | End time of a segment.        |
| 1.2.2.4 | onebest   | String  | Yes       | Text after conversion.        |
| 1.2.2.5 | spk       | Integer | Yes       | Role of the speaker.          |

## Response

- **Status code: 200**

**Table 10-135** Parameters in the response body

| No. | Parameter | Type   | Description                                                                           |
|-----|-----------|--------|---------------------------------------------------------------------------------------|
| 1   | retCode   | String | Result code. The value <b>0</b> indicates success and other values indicates failure. |
| 2   | retMsg    | String | Failure cause.                                                                        |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation.  
1. Check whether you have purchased related services.  
2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None



## Example

Request header:

```
Content-Type:application/json; charset=UTF-8
userName:ODFS_SYS_OPENAPI
token:*****
```

Request body:

```
{
 "body": {
 "state": {
 "code": 0,
 "success": true
 },
 "body": {
 "aid": "FJKkMeepk8l",
 "lattices": [{
 "begin": 4360,
 "end": 5970,
 "lid": 0,
 "onebest": "Hello, is the call connected?",
 "spk": 0
 }]
 }
 }
}
```

Response body:

```
{
 "retCode": "0",
 "retMsg": "success"
}
```

## 10.23 Health Check Interface

### Description

This interface is invoked by a third-party access party to check whether ODFS is running properly. If the response code is **200**, ODFS is running properly.

### Interface Method

POST or GET

### URL

<https://IP:PORT/oifde/rest/api/servicemonitor>

## Request

**Table 10-136** Parameter in the request header

| No. | Parameter    | Type   | Mandatory | Description                                                    |
|-----|--------------|--------|-----------|----------------------------------------------------------------|
| 1   | Content-Type | String | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> . |

No request body parameter.

## Response

No response body parameter.

## Example

- Request  
None
- Response  
None

# 11 Web Client Access Interface Reference

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- [11.1 Performing Third-Party Request Authentication \(applyToken\)](#)
- [11.2 Querying Queuing Information \(queryQueueInfo\)](#)
- [11.3 Proactively Polling Messages Sent by Agents \(poll\)](#)
- [11.4 Submitting the Customer Satisfaction Evaluation Result \(saveSatisfaction\)](#)
- [11.5 Sending a Message \(send\)](#)
- [11.6 Sending a File by a Customer \(uploadFileStream\)](#)
- [11.7 Receiving a File by a Customer \(downloadFileStream\)](#)
- [11.8 Associating Common Phrases Based on the Customer Input \(queryPhraseByKeyword\)](#)
- [11.9 Checking Whether the Current Tenant Space Supports the Click-to-dial Function \(checkClickToCallSupport\)](#)
- [11.10 Creating a Click-to-Dial Call \(createClickToCall\)](#)
- [11.11 Obtaining a Click-to-Dial Event \(getClickToCallEvents\)](#)
- [11.12 Releasing a Click-to-Dial Call \(dropClickToCall\)](#)
- [11.13 Creating an Anonymous Call \(createcall\)](#)
- [11.14 Submitting a Message by a Customer \(doLeaveMessage\)](#)
- [11.15 Submitting the Chatbot Satisfaction Evaluation Result \(feedbacksatisfaction\)](#)
- [11.16 Querying Historical Messages \(queryHistoryChatMessage\)](#)
- [11.17 Discarding an Email \(chat\\_dropMail\)](#)
- [11.18 Sending an MT WhatsApp Message \(sendWhatsappMessage\)](#)
- [11.19 Querying Information About the Current Chat on the Online Chat Workbench \(getUserInfoBycallId\)](#)
- [11.20 Querying the Satisfaction Survey Configuration \(getSatisfactionSurveyMode\)](#)

## 11.1 Performing Third-Party Request Authentication (applyToken)

### Scenario

This interface is invoked to generate a client access token for a third-party request.

### Method

POST

### URI

`https://Domain name/apiaccess/ccmessaging/applyToken` (For example, the domain name is `service.besclouds.com`.)

### Request Description

**Table 11-1** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | x-app-key     | String | Yes              | App key, which is the user ID and is configured on the API Fabric                                                                                                         |
| 2   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |

**Table 11-2** Request body parameter

| No. | Parameter | Type                     | Mandatory or Not | Description  |
|-----|-----------|--------------------------|------------------|--------------|
| 1   | reqBody   | <b>applyTokenReqBody</b> | Yes              | Request body |

**Table 11-3** applyTokenReqBody parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                                                               |
|-----|-----------|--------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | userId    | String | Yes              | User ID<br>The value is defined by the enterprise and is a string of 1 to 32 characters.                                                                                                  |
| 1.2 | userName  | String | Yes              | Username<br>The value is defined by the enterprise. This parameter is used for name display.                                                                                              |
| 1.3 | channelId | String | Yes              | Channel ID<br>The value is the same as that of <b>Configuration ID</b> of the channel configured on the <b>Service Channel Configuration &gt; Channel Configuration</b> page in the AICC. |
| 1.4 | locale    | String | Yes              | Language information<br>The value does not contain the country code. For example, <b>zh</b> indicates Chinese, and <b>en</b> indicates English. For details, see ISO 639 language codes.  |

## Response Description

- Status code: 200

**Table 11-4** applyTokenRspBody parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----|------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | token      | String | Yes              | <p>Generated token. When another request is initiated later, the value of this parameter must be assigned to <b>ccmessaging-token</b> in the header.</p> <p>Notes:</p> <ul style="list-style-type: none"><li>• The token is valid within 1 hour. If the system returns error code 401 (the authentication fails), you need to use the applyToken interface to generate a token again.</li><li>• If the token expires during a session, the AICC automatically returns a new token for the current request. The enterprise needs to update the value of <b>ccmessaging-token</b> in the header.</li></ul> |
| 1.2 | resultCode | String | Yes              | <p>Result code</p> <ul style="list-style-type: none"><li>• <b>0</b>: success</li><li>• <b>1</b>: failure</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 1.3 | resultDesc | String | No               | <p>Result description</p> <p>Currently, no value is returned.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

- **Status code: 400**

Incorrect request. Check the request path and parameters.

- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: example message

Request parameters:

```
{
 "userId": "XXXXXXXXXX",
 "userName": "XXXXXXXX",
 "channelId": "XXXXXXXXXXXX",
 "locale": "en"
}
```

Response parameters:

```
{
 "XX"
}
```

## 11.2 Querying Queuing Information (queryQueueInfo)

### Scenario

This interface is invoked to query queuing information for queuing notification on the customer side.

Queuing information can be used only after a connection is successfully established through the send interface.

### Method

POST

### URI

<https://Domain name/apiaccess/ccmessaging/queryQueueInfo> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 11-5** Request header parameters

| No. | Parameter         | Type   | Mandatory or Not | Description                                                                                                                                                                                                        |
|-----|-------------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | ccmessaging-token | String | No               | <ul style="list-style-type: none"> <li>Value of <b>token</b> returned by the applyToken interface</li> <li>Value of <b>ccmessaging-token</b> returned in the interface response header during a session</li> </ul> |
| 2   | x-app-key         | String | No               | App key, which is the user ID and is configured on the API Fabric                                                                                                                                                  |
| 3   | Authorization     | String | No               | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the tokenByAkSk interface}. (A space is required after <b>Bearer</b> .)                                                 |

**Table 11-6** Request body parameter

| No. | Parameter | Type           | Mandatory or Not | Description  |
|-----|-----------|----------------|------------------|--------------|
| 1   | reqBody   | <b>ReqBody</b> | Yes              | Request body |

**Table 11-7** ReqBody parameters

| No. | Parameter       | Type   | Mandatory or Not | Description                                                      |
|-----|-----------------|--------|------------------|------------------------------------------------------------------|
| 1.1 | userId          | String | Yes              | Unique customer ID. The value is a string of 1 to 32 characters. |
| 1.2 | channelConfigId | String | Yes              | Channel configuration ID                                         |



| No. | Parameter | Type   | Mandatory or Not | Description  |
|-----|-----------|--------|------------------|--------------|
| 1.3 | channel   | String | Yes              | Channel type |

## Response Description

- Status code: 200

Table 11-8 RspMsg parameters

| No. | Parameter             | Type    | Mandatory or Not | Description                                                  |
|-----|-----------------------|---------|------------------|--------------------------------------------------------------|
| 1.1 | position              | Integer | No               | Position of the current call in a queue                      |
| 1.2 | totalWaitTime         | Integer | No               | Accumulated queuing duration of the current call, in seconds |
| 1.3 | currentDeviceWaitTime | Integer | No               | Actual waiting duration in the current queue, in seconds     |
| 1.4 | configMaxcWaitTime    | Integer | No               | Maximum waiting duration, in seconds                         |
| 1.5 | longestWaitTime       | Integer | No               | Maximum queuing duration of a call in a queue, in seconds    |
| 1.6 | estimateWaitTime      | Integer | No               | Estimated waiting duration in the current queue, in seconds  |

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----|------------|--------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.7 | resultCode | String | Yes              | <p>Return code for the queuing information query. The options are as follows:</p> <p><b>0:</b> The session is queuing. The query is successful.</p> <p><b>1:</b> Incorrect parameters.</p> <p><b>2:</b> The CCUCS request fails.</p> <p><b>3:</b> Incorrect token.</p> <p><b>4:</b> Unknown error.</p> <p><b>5:</b> The session has ended.</p> <p><b>6:</b> The CCUCS session has expired.</p> <p><b>160001:</b> The CCUCS communication fails.</p> <p><b>160004:</b> The session does not exist or has ended.</p> <p><b>160021:</b> The session has been transferred to another agent and is not queuing.</p> <p><b>160022:</b> The session has been transferred to an IVR and is not queuing.</p> <p><b>160023:</b> The session has been transferred to the private queue and is not queuing.</p> <p><b>160024:</b> The agent does not answer the session.</p> |

- Status code: 400**

Incorrect request. Check the request path and parameters.
- Status code: 401**

Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.

- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Query queuing information.

Request header:

```
ccmessaging-token: xxxx
x-app-key: xxxx
Authorization: Bearer xxxx
Content-Type: application/json
```

Request parameters:

```
{
 "userId": "xxxx",
 "channelConfigId": "xxxxx",
 "channel": "WEB"
}
```

Response parameters:

```
{
 "totalWaitTime": 3,
 "resultCode": "0",
 "longestWaitTime": 3,
 "position": 1,
 "currentDeviceWaitTime": 3,
 "configMaxcWaitTime": 60,
 "estimateWaitTime": 60
}
```

## 11.3 Proactively Polling Messages Sent by Agents (poll)

### Scenario

This interface is invoked to proactively poll messages sent by agents to users.

If no message is found, check whether the send interface is invoked to set up a connection (CONNECT).

#### NOTE

If the send interface is not invoked during a session, the session is automatically released when the default session duration (configured on the CCUCS backend) is exceeded.

### Method

GET

## URI

<https://Domain name/apiaccess/ccmessaging/poll> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 11-9** Query parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                                                                                                                              |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | receiverId | String | Yes              | Recipient ID, that is, <b>userId</b> in <b>applyToken</b>                                                                                                                                                                |
| 2   | channel    | String | Yes              | Recipient channel type. The default value <b>WEB</b> must be used.                                                                                                                                                       |
| 3   | isNeedRead | String | No               | Whether to read the message indicating that the agent has read the user message. The value <b>true</b> indicates that the message is required. Other values or an empty value indicate that the message is not required. |

**Table 11-10** Request header parameters

| No. | Parameter         | Type   | Mandatory or Not | Description                                                                                                                                                                                                               |
|-----|-------------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | ccmessaging-token | String | Yes              | <ul style="list-style-type: none"> <li>Value of <b>token</b> returned by the <b>applyToken</b> interface</li> <li>Value of <b>ccmessaging-token</b> returned in the interface response header during a session</li> </ul> |
| 2   | x-app-key         | String | Yes              | App key, which is the user ID and is configured on the API Fabric                                                                                                                                                         |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                      |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> (space){Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |

## Response Description

- Status code: 200

Table 11-11 pollRsp parameters

| No. | Parameter        | Type                  | Mandatory or Not | Description                                                                                                                                                       |
|-----|------------------|-----------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultDesc       | String                | No               | Result description<br>If the operation is successful, the description is <b>query user messages success</b> . If the operation fails, no description is returned. |
| 1.2 | downlinkMessages | <b>downLinkMsgArr</b> | Yes              | Array of messages sent to users                                                                                                                                   |
| 1.3 | resultCode       | String                | Yes              | Result code of the message received by the client. The value <b>0</b> indicates success, and other values indicate failure.                                       |

**Table 11-12** downLinkMsgArr parameters

| No. | Parameter      | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                     |
|-----|----------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | channel        | String | Yes              | Message channel type. Currently, the value is fixed to <b>WEB</b> , indicating the access from the web channel.                                                                                                                                                                 |
| 1.2 | content        | String | Yes              | Content of the MT message sent to a customer. The value can contain a maximum of 500 characters.<br>The value varies according to the media type.<br>For a multimedia library file, the value is the multimedia library file ID.<br>For a local file, the value is the OBS key. |
| 1.3 | from           | String | Yes              | Message sender ID. Generally, the value is the same as that of <b>Configuration ID</b> of the channel in the AICC.                                                                                                                                                              |
| 1.4 | mediaType      | String | Yes              | Message media type. The options are <b>TEXT, IMAGE, VIDEO, AUDIO, LOCATE, and DOCUMENT.</b>                                                                                                                                                                                     |
| 1.5 | senderNickname | String | No               | Nickname configured when an agent signs in or the robot is enabled. If the message is a system message, the nickname is <b>system.</b>                                                                                                                                          |

| No.  | Parameter       | Type    | Mandatory or Not | Description                                                                                                                                                                                                              |
|------|-----------------|---------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.6  | sourceType      | String  | Yes              | Message sender. The options are <b>AGENT</b> , <b>ROBOT</b> , and <b>SYSTEM</b> .                                                                                                                                        |
| 1.7  | timestamp       | String  | No               | Message sending timestamp                                                                                                                                                                                                |
| 1.8  | to              | String  | Yes              | Message recipient ID. Generally, the value is that of <b>userId</b> sent by the enterprise client                                                                                                                        |
| 1.9  | simQuestions    | String  | Yes              | Similar question content                                                                                                                                                                                                 |
| 1.10 | isOfflineStatus | Boolean | No               | This parameter is used by the client to determine whether a message can be sent in the next step.                                                                                                                        |
| 1.11 | messageCode     | String  | No               | Unique message code, which is used to identify the message for canceling or deleting an action                                                                                                                           |
| 1.12 | interIdx        | String  | No               | Number of interaction times. The value is the same as that of <b>inter_idx</b> returned by the ODFS in the previous time.                                                                                                |
| 1.13 | contentType     | String  | No               | If the file is a multimedia library file, the return value is <b>null</b> .<br>If the file is a local file, the value is <b>1</b> .                                                                                      |
| 1.14 | mediaFileType   | String  | No               | Multimedia file type. The options are <b>jpg</b> , <b>png</b> , <b>bpm</b> , <b>mp3</b> , <b>aac</b> , <b>mp4</b> , <b>txt</b> , <b>csv</b> , <b>richtext</b> , <b>doc</b> , <b>docx</b> , <b>pdf</b> , and <b>zip</b> . |

| No.  | Parameter   | Type   | Mandatory or Not | Description                                                         |
|------|-------------|--------|------------------|---------------------------------------------------------------------|
| 1.15 | controlType | String | No               | The options are <b>CHAT</b> , <b>DISCONNECT</b> , and <b>READ</b> . |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: example messages  
URL: *{Domain address}/apiaccess/ccmessaging/poll?receiverId=XXXXXXXXXXXXXXXXXXXXXXXXXXXX&channel=WEB*

Request header:

```
ccmessaging-token: XXXXXXXXX
```

Response parameters:

```
{
 "resultCode": "0",
 "resultDesc": "query user messages success.",
 "downlinkMessages": [{
 "from": "1011577355744904195",
 "channel": "WEB",
 "to": "session_fixed_user_fixed",
 "controlType": "CHAT",
 "mediaType": "TEXT",
 "content": "Welcome",
 "simQuestions": null,
 "senderNickname": "test",
 "senderAvatar": "1",
 "timestamp": 1619590480756,
 "sourceType": "ROBOT",
 "callId": null,
 "robotGender": "MALE"
 }], {
 "from": "1011577355744904195",
 "channel": "WEB",
 "to": "session_fixed_user_fixed",
 "controlType": "CHAT",
 "mediaType": "TEXT",
 "content": "Switch to manual service",
 }
}
```



```
"simQuestions": null,
"senderNickname": "test",
"senderAvatar": "1",
"timestamp": 1619590482098,
"sourceType": "ROBOT",
"callId": null,
"robotGender": "MALE"
}, {
 "from": "1011577355744904195",
 "channel": "WEB",
 "to": "session_fixed_user_fixed",
 "controlType": "CHAT",
 "mediaType": "TEXT",
 "content": "Agent connected",
 "simQuestions": null,
 "senderNickname": "system",
 "senderAvatar": null,
 "timestamp": 1619590484115,
 "sourceType": "SYSTEM",
 "callId": null,
 "robotGender": null
}]
}
In the multimedia library file scenario:
{
 "downlinkMessages": [
 {
 "callId": null,
 "simQuestions": null,
 "senderNickname": "agent",
 "handlerType": null,
 "isOfflineStatus": null,
 "channel": "WEB",
 "senderAvatar": "",
 "robotGender": null,
 "mediaType": "IMAGE",
 "associationContentId": null,
 "content": "1179725658739559425",
 "receiveTime": null,
 "controlType": "CHAT",
 "sourceType": "AGENT",
 "queueFlag": null,
 "messageCode": "1e1f2bf7-fd6e-4471-a45d-2b43d1eb6272",
 "from": "202201077401331370",
 "to": "1642643982282972758",
 "mediaFileType": "png",
 "contentType": null,
 "interIdx": null,
 "timestamp": 1648102235191
 }
],
 "resultCode": "0",
 "resultDesc": "query user messages success."
}
In the scenario of sending local files:
{
 "downlinkMessages": [
 {
 "callId": null,
 "simQuestions": null,
 "senderNickname": "agent",
 "handlerType": null,
 "isOfflineStatus": null,
 "channel": "WEB",
 "senderAvatar": "",
 "robotGender": null,
 "mediaType": "IMAGE",
 "associationContentId": null,
```

```

 "content": "878e7d9a-8e2f-4893-8b54-352f8ecbf86c",
 "receiveTime": null,
 "controlType": "CHAT",
 "sourceType": "AGENT",
 "queueFlag": null,
 "messageCode": "9374d9c4-b8ee-4035-aab9-ad5ceddbb856",
 "from": "202201077401331370",
 "to": "1642643982282972758",
 "mediaFileType": "png",
 "contentType": "1",
 "interIdx": null,
 "timestamp": 1648102054235
 }
],
"resultCode": "0",
"resultDesc": "query user messages success."
}

```

## 11.4 Submitting the Customer Satisfaction Evaluation Result (saveSatisfaction)

### Scenario

This interface is invoked to save the satisfaction evaluation result submitted by a user.

### Method

POST

### URI

<https://Domain name/apiaccess/ccmessaging/saveSatisfaction> (For example, the domain name is service.besclouds.com.)

### Request Description

Table 11-13 Request header parameters

| No. | Parameter         | Type   | Mandatory or Not | Description                                                                                                                                                                                        |
|-----|-------------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | ccmessaging-token | String | Yes              | <ul style="list-style-type: none"> <li>Token returned by the applyToken interface</li> <li>Value of <b>ccmessaging-token</b> returned by the Response Header interface during a session</li> </ul> |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                             |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | x-app-key     | String | Yes              | App key, which is the user ID and is configured on the API Fabric                                                                                                                       |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <code>tokenByAkSk</code> interface}</i> . (A space is required after <b>Bearer</b> .) |

**Table 11-14** Request body parameter

| No. | Parameter    | Type                    | Mandatory or Not | Description                         |
|-----|--------------|-------------------------|------------------|-------------------------------------|
| 1   | satisfaction | <b>satisfactionInfo</b> | Yes              | Satisfaction evaluation information |

**Table 11-15** satisfactionInfo parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                 |
|-----|-----------|--------|------------------|-------------------------------------------------------------|
| 1.1 | channel   | String | Yes              | Channel type. Currently, the value is fixed to <b>WEB</b> . |
| 1.2 | userId    | String | Yes              | User ID. The value is a string of 1 to 32 characters.       |

| No. | Parameter       | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----|-----------------|--------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.3 | evaluation      | String | Yes              | <p>Satisfaction level. The value ranges from 1 to 5. The default satisfaction levels are as follows:</p> <ul style="list-style-type: none"><li>• 1: very dissatisfied</li><li>• 2: dissatisfied</li><li>• 3: general</li><li>• 4: satisfied</li><li>• 5: very satisfied</li></ul> <p>You can invoke the interface for querying the satisfaction survey configuration to query the satisfaction level set in <b>Configuration Center &gt; Workbench Configuration &gt; Satisfaction Survey &gt; Satisfaction Level</b> or use the default value. The satisfaction level is the same as the pressed key.</p> |
| 1.4 | comment         | String | Yes              | <p>Satisfaction comment. The value can contain a maximum of 512 characters.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 1.5 | channelConfigId | String | Yes              | <p>Channel ID. The value is the same as that of <b>Configuration ID</b> of the web channel configured in the AICC.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

## Response Description

- Status code: 200

**Table 11-16** RspMsg parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                            |
|-----|------------|--------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | Yes              | Return code <ul style="list-style-type: none"> <li>● <b>0</b>: success</li> <li>● <b>13</b>: failure to obtain the call information or submit the satisfaction evaluation result</li> </ul>                                                                                                                                                                            |
| 1.2 | resultDesc | String | No               | Return description <ul style="list-style-type: none"> <li>● If the return code is <b>0</b>, the description may be <b>Save satisfaction success!</b><br/>The description may also be <b>Exception appeared!</b></li> <li>● If the return code is <b>13</b>, the description is <b>The callIdString obtained failed!</b> or <b>Save satisfaction failed.</b></li> </ul> |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: example message

Request parameters:

```
{
 "channel": "WEB",
 "userId": "XXXXXXXX",
 "evaluation": "5",
 "comment": "Satisfied",
 "channelConfigId": "XXXXXXXX"
}
```

Response parameters:

```
{
 "resultCode": "0"
}
```

## 11.5 Sending a Message (send)

### Scenario

This interface is invoked to send a channel message (such as a connection, sending input status, session, transfer-to-manual, or disconnection message).

### Method

POST

### URI

<https://Domain name/apiaccess/ccmessaging/send> (For example, the domain name is <https://service.besclouds.com>.)

### Request Description

**Table 11-17** Request header parameters

| No. | Parameter         | Type   | Mandatory or Not | Description                                                             |
|-----|-------------------|--------|------------------|-------------------------------------------------------------------------|
| 1   | ccmessaging-token | String | Yes              | Value of <b>ccmessaging-token</b> generated by the applyToken interface |
| 2   | x-app-key         | String | Yes              | App key, which is the user ID and is configured on the API Fabric       |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |

**Table 11-18** Request body parameter

| No. | Parameter | Type                       | Mandatory or Not | Description  |
|-----|-----------|----------------------------|------------------|--------------|
| 1   | reqBody   | <a href="#">sendMsgReq</a> | Yes              | Request body |

**Table 11-19** sendMsgReq parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                      |
|-----|-----------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | channel   | String | Yes              | Type of the channel through which the client sends a message, for example, the web channel (web customer service access channel) |

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----|-----------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.2 | content   | String | No               | <p>Message content, which varies depending on <b>mediaType</b>. For example, if <b>mediaType</b> is set to <b>TEXT</b>, the value is the text content to be sent. The size of the text content to be sent cannot exceed 1 KB. If <b>mediaType</b> is set to audio, video, or other media types, the value is in the format of <i>fileId,mediaType</i>, where <i>fileId</i> indicates the value of <b>objectKey</b> returned by the /ccmessaging/uploadFileStream interface. The value is <i>value of <b>objectKey</b>,jpg</i> for images, <i>value of <b>objectKey</b>,mp4</i> for videos, <i>value of <b>objectKey</b>,mp3</i> for audio, and <i>value of <b>objectKey</b>,txt</i> for locations. The file download interface uses <i>fileId</i> to download a file.</p> <p>If <b>mediaType</b> is set to <b>WEBCARD</b>, the value is a string converted from the JSON structure. For example, the fixed JSON structure is as follows:</p> <pre>{ "title": "Card title", "description": "Card description", "mediaFileId": "Card media file ID (which is returned by the upload" }</pre> |



| No. | Parameter      | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----|----------------|--------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                |        |                  | <p><i>interface)","mediaFileType": "Only fixed values <b>img</b>, <b>img/png</b>, and <b>img/jpg</b> are supported. If this parameter is left empty, the default value <b>jpg</b> is used."</i>, "redirectUrl": "Redirection URL"}<br/>                     Either <b>redirectUrl</b> or <b>mediaFileId</b> must be set. Other parameters can be left empty. For details, see the example of sending a web card message to an agent.</p> |
| 1.3 | controlType    | String | Yes              | Message control type. The options are <b>CONNECT</b> , <b>CHAT</b> , <b>TRANSAGENT</b> , <b>INPUT</b> , <b>DISCONNECT</b> , and <b>READ</b> .                                                                                                                                                                                                                                                                                            |
| 1.4 | from           | String | Yes              | ID of the user who sends a message through a channel                                                                                                                                                                                                                                                                                                                                                                                     |
| 1.5 | mediaType      | String | Yes              | Message media type. The options are <b>TEXT</b> , <b>IMAGE</b> , <b>AUDIO</b> , <b>VIDEO</b> , <b>FILE</b> , <b>FILE_IMAGE</b> , <b>FILE_VIDEO</b> , <b>WEBCARD</b> , and <b>LOCATE</b> .                                                                                                                                                                                                                                                |
| 1.6 | senderNickname | String | No               | Nickname of the message sender                                                                                                                                                                                                                                                                                                                                                                                                           |
| 1.7 | sourceType     | String | Yes              | Message source type. Set this parameter to <b>CUSTOMER</b> .                                                                                                                                                                                                                                                                                                                                                                             |
| 1.8 | timestamp      | String | No               | Time when a message is sent                                                                                                                                                                                                                                                                                                                                                                                                              |
| 1.9 | to             | String | Yes              | Channel configuration ID                                                                                                                                                                                                                                                                                                                                                                                                                 |

| No.  | Parameter    | Type   | Mandatory or Not | Description                                                                                                                         |
|------|--------------|--------|------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| 1.10 | userAgent    | String | No               | User client type, which is obtained from <b>UserAgent</b>                                                                           |
| 1.11 | senderAvatar | String | No               | Avatar of the message sender. For the WeChat channel, the WeChat avatar URL is transmitted.                                         |
| 1.12 | messageld    | String | No               | Unique ID of the user who sends the message. The value can contain a maximum of 32 characters. The value cannot contain commas (,). |
| 1.13 | transData    | String | No               | Data in JSON format, which is transferred to the robot flow when the robot is connected                                             |

## Response Description

- Status code: 200

**Table 11-20** senMsgRsp parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----|------------|--------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultDesc | String | No               | <p>Result code description.</p> <p>The description varies depending on the scenario.</p> <ul style="list-style-type: none"> <li>CONNECT message for connecting to an agent<br/>If <b>resultCode</b> is <b>0</b>, the operation is successful.<br/>If <b>resultCode</b> is <b>11</b>, the description is <b>Queuing...</b><br/>If <b>resultCode</b> is <b>12</b>, the description is <b>The current time is not within the working time of the service agents.</b><br/>If <b>resultCode</b> is <b>13</b>, the description is <b>No ccucs address available! or connect failed, none channel config found.</b></li> </ul> <p>For other non-0 errors, see "Error Code Reference" in <i>CCUCS Interface Developer Guide</i>.</p> <ul style="list-style-type: none"> <li>CONNECT message for connecting to the robot<br/>If <b>resultCode</b> is <b>0</b>, the description is <b>connect to robot</b></li> </ul> |

| No. | Parameter | Type | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----|-----------|------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |           |      |                  | <p><b>successfully or process robot multi message successfully.</b></p> <p>If <b>resultCode</b> is <b>11</b>, the description is <b>Queuing...</b></p> <p>If <b>resultCode</b> is <b>13</b>, the description is <b>Failed to disconnect robot, No ccucs address available!, fail to initialize robot., or connect failed, none channel config found.</b></p> <ul style="list-style-type: none"> <li>DISCONNECT message for disconnecting from an agent<br/>If <b>resultCode</b> is <b>0</b>, the description is <b>disconnect successfully.</b></li> </ul> <p>If <b>resultCode</b> is <b>11</b>, the description is <b>Queuing...</b></p> <p>If <b>resultCode</b> is <b>13</b>, the description is <b>disconnect failed., disconnect failed, none channel config found., or disconnect failed, session keep touch failed.</b></p> <ul style="list-style-type: none"> <li>DISCONNECT message for</li> </ul> |

| No. | Parameter | Type | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----|-----------|------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |           |      |                  | <p>disconnecting from the robot<br/>If <b>resultCode</b> is <b>0</b>, the description is <b>Disconnect robot successfully.</b></p> <p>If <b>resultCode</b> is <b>11</b>, the description is <b>Queuing...</b></p> <p>If <b>resultCode</b> is <b>13</b>, the description is <b>Failed to disconnect robot., disconnect failed, none channel config found., or disconnect failed, session keep touch failed.</b></p> <ul style="list-style-type: none"> <li>• CHAT message for chatting with an agent<br/>If <b>resultCode</b> is <b>0</b>, the description is <b>sendUserMessage successfully.</b></li> </ul> <p>If <b>resultCode</b> is <b>3</b>, the description is <b>Incorrect JSON format, content can not be empty, the content Json String must contains mediaFileId or redirectUrl, the content Json String must contains title, or Incorrect mediaFileType.</b></p> |

| No. | Parameter | Type | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----|-----------|------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |           |      |                  | <p>If <b>resultCode</b> is <b>11</b>, the description is <b>Queuing...</b></p> <p>If <b>resultCode</b> is <b>13</b>, the description is <b>sendUserMessage failed., Chat failed because the content is empty., chat failed, none channel config found., or chat failed, send too quick or session keep touch failed.</b></p> <ul style="list-style-type: none"> <li>• CHAT message for chatting with the robot<br/>If <b>resultCode</b> is <b>0</b>, the description is <b>Failed to disconnect robot, Send message to robot successfully, or process robot multi message successfully.</b></li> </ul> <p>If <b>resultCode</b> is <b>3</b>, the description is <b>Incorrect JSON format, content can not be empty, the content Json String must contains mediaFileId or redirectUrl, the content Json String must contains title, or</b></p> |

| No. | Parameter | Type | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----|-----------|------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |           |      |                  | <p><b>Incorrect mediaFileType.</b><br/>           If <b>resultCode</b> is <b>11</b>, the description is <b>Queuing...</b><br/>           If <b>resultCode</b> is <b>13</b>, the description is <b>connect failed, Chat failed because the content is empty, chat failed, none channel config found., or chat failed, send too quick or session keep touch failed.</b></p> <ul style="list-style-type: none"> <li>• <b>TRANS2AGENT</b> message<br/>             If <b>resultCode</b> is <b>13</b>, the description is <b>transfer to agent failed, none channel config found.</b><br/>             If <b>resultCode</b> is <b>13</b>, the description is <b>fail to transfer from robot to agent,session keep touch failed.</b><br/>             If <b>resultCode</b> is <b>13</b>, the description is <b>fail to transfer from robot to agent,it has been agent service.</b><br/>             If <b>resultCode</b> is <b>11</b>, the</li> </ul> |

| No. | Parameter | Type | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----|-----------|------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |           |      |                  | <p>description is <b>Queuing...</b></p> <p>If <b>resultCode</b> is <b>12</b>, the description is <b>The current time is not within the working time of the service agents.</b></p> <p>If <b>resultCode</b> is <b>13</b>, the description is <b>fail to transfer from robot to agent,connect to ccucs failed.</b></p> <p>If <b>resultCode</b> is <b>13</b>, the description is <b>Failed to disconnect robot.</b></p> <p>If <b>resultCode</b> is <b>0</b>, the description is <b>transfer from robot to agent success.</b></p> <ul style="list-style-type: none"> <li>• INPUT message<br/>If <b>resultCode</b> is <b>0</b>, the description is <b>sendUserMessage successfully.</b></li> </ul> <p>If <b>resultCode</b> is <b>11</b>, the description is <b>Queuing...</b></p> <p>If <b>resultCode</b> is <b>13</b>, the description is <b>send inputStatus failed, none channel config found.</b></p> <p>If <b>resultCode</b> is <b>13</b>, the description is <b>This</b></p> |



| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----|------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |            |        |                  | <p><b>is robot service, this message is prevented!</b></p> <p>If <b>resultCode</b> is <b>13</b>, the description is <b>sendUserMessage failed.</b></p> <p>If <b>resultCode</b> is <b>13</b>, the description is <b>Queuing...</b></p> <p>If <b>resultCode</b> is <b>3</b>, the description is as follows:<br/> <b>The redirection address is not in the trust list, contact operation staff to add it.</b></p> |
| 1.2 | resultCode | String | Yes              | Interface return code. The value <b>0</b> indicates success, and other values indicate failure.                                                                                                                                                                                                                                                                                                                |
| 1.3 | offlineMsg | Object | No               | If the offline function is enabled, the value is <b>true</b> . If the offline function is disabled, the AICC does not return this object.                                                                                                                                                                                                                                                                      |

| No.   | Parameter       | Type    | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------|-----------------|---------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.3.1 | isOfflineStatus | Boolean | No               | <p>This parameter is used by the client to determine whether the user can send messages after the connection fails.</p> <p>This parameter is used in the following scenarios:</p> <ol style="list-style-type: none"> <li>1. The user fails to send a message whose <b>controlType</b> is <b>CONNECT</b>.</li> <li>2. The user fails to send a message whose <b>controlType</b> is <b>CHAT</b>. No session exists.</li> <li>3. The user sends a message whose <b>controlType</b> is <b>DISCONNECT</b> when waiting in a skill queue.</li> </ol> |
| 1.3.2 | tipText         | String  | No               | <p>If <b>isOfflineStatus</b> is <b>true</b>, the offline mode is triggered, and the message is saved.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                      |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Send a request for connecting to the robot.

Request parameters:

```
{
 "content": "",
 "controlType": "CONNECT",
 "from": "session_1619573111751_user_1619573111751",
 "mediaType": "TEXT",
 "senderNickname": "user_1619573111751",
 "sourceType": "CUSTOMER",
 "timestamp": "1619573122352",
 "to": "1011577355744904195",
 "userAgent": null,
 "senderAvatar": null,
 "channel": "WEB"
}
```

Response parameters:

```
{
 "resultCode": "0",
 "resultDesc": "connect to robot successfully."
}
```

- Scenario: Send a request for chatting with a robot.

Request parameters:

```
{
 "content": "Version",
 "controlType": "CHAT",
 "from": "session_1619573111751_user_1619573111751",
 "mediaType": "TEXT",
 "senderNickname": "user_1619573111751",
 "sourceType": "CUSTOMER",
 "timestamp": "1619573123199",
 "to": "1011577355744904195",
 "userAgent": null,
 "senderAvatar": null,
 "channel": "WEB"
}
```

Response parameters:

```
{
 "resultCode": "0",
 "resultDesc": "Send message to robot successfully"
}
```

- Scenario: Send a request for switching from robot service to manual service.

Request parameters:

```
{
 "content": "",
 "controlType": "TRANS2AGENT",
 "from": "session_1619573111751_user_1619573111751",
 "mediaType": "TEXT",
 "senderNickname": "user_1619573111751",
 "sourceType": "CUSTOMER",
 "timestamp": "1619573129953",
 "to": "1011577355744904195",
 "userAgent": null,
 "senderAvatar": null,
 "channel": "WEB"
}
```

Response parameters:

```
{
 "resultCode": "0",
 "resultDesc": "transfer from robot to agent success."
}
```

- Scenario: Send a web card message to an agent.

Request parameters:

```
{
 "content": "{\"title\":\"Test title\",\"description\":\"Test description\",\"mediaFileId\":\"xxx-xxx-xxx-xxx-2e171ac78313\",\"mediaFileType\":\"img\",\"redirectUrl\":\"https://www.***.com\"}",
 "controlType": "CHAT",
 "from": "session_1619573111751_user_1619573111751",
 "mediaType": "WEBCARD",
 "senderNickname": "user_1619573111751",
 "sourceType": "CUSTOMER",
 "timestamp": "1619573129953",
 "to": "1011577355744904195",
 "userAgent": null,
 "senderAvatar": null,
 "channel": "WEB"
}
```

Response parameters:

```
{
 "resultCode": "0",
 "resultDesc": "sendUserMessage successfully."
}
or
{
 "resultCode": "3",
 "resultDesc": "The redirection address is not in the trust list, contact operation staff to add it."
}
```

- Scenario: Send a disconnection request.

Request parameters:

```
{
 "content": "",
 "controlType": "DISCONNECT",
 "from": "session_1619573842490_user_1619573842490",
 "mediaType": "TEXT",
 "senderNickname": "user_1619573842490",
 "sourceType": "CUSTOMER",
 "timestamp": "1619573854156",
 "to": "1011577355744904195",
 "userAgent": null,
 "senderAvatar": null,
 "channel": "WEB"
}
```

Response parameters:

```
{
 "resultCode": "0",
 "resultDesc": "Disconnect robot successfully"
}
```

## 11.6 Sending a File by a Customer (uploadFileStream)

### Scenario

This interface is invoked by a customer to send a file.

## Method

POST

## URI

https://*Domain name*/apiaccess/ccmessaging/uploadFileStream (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 11-21** Request header parameters

| No. | Parameter         | Type   | Mandatory or Not | Description                                                                                                                                                                                                        |
|-----|-------------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | ccmessaging-token | String | Yes              | <ul style="list-style-type: none"> <li>Value of <b>token</b> returned by the applyToken interface</li> <li>Value of <b>ccmessaging-token</b> returned in the interface response header during a session</li> </ul> |
| 2   | x-app-key         | String | Yes              | App key, which is the user ID and is configured on the API Fabric                                                                                                                                                  |
| 3   | Authorization     | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the tokenByAkSk interface}</b> . (A space is required after <b>Bearer</b> .)                                                |

**Table 11-22** Request body parameter

| No. | Parameter | Type           | Mandatory or Not | Description  |
|-----|-----------|----------------|------------------|--------------|
| 1   | reqBody   | <b>ReqBody</b> | Yes              | Request body |

**Table 11-23** ReqBody parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                        |
|-----|------------|--------|------------------|------------------------------------------------------------------------------------|
| 1.1 | fileType   | String | Yes              | File type. The supported types include JPG, PNG, BPM, MP3, AAC, MP4, TXT, and CSV. |
| 1.2 | fileStream | String | Yes              | File stream encoded using Base64                                                   |
| 1.3 | channel    | String | Yes              | Channel for sending file streams. Only <b>WEB</b> is supported.                    |

## Response Description

- **Status code: 200**

**Table 11-24** Response body parameters

| No. | Parameter  | Type   | Description                                                                                                                                                                                                                                                                  |
|-----|------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | returnCode | String | Return code. The value <b>0</b> indicates success, and other values indicate failure. The error codes include: <ul style="list-style-type: none"> <li>• <b>2</b>: missing parameter</li> <li>• <b>3</b>: incorrect parameter</li> <li>• <b>13</b>: upload failure</li> </ul> |
| 1.2 | objectKey  | String | Object key                                                                                                                                                                                                                                                                   |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

Request parameters:

```
{
 "fileType": "jpg",
 "channel": "WEB",
 "fileStream": "/9j/4AAQSkZJRgABAQEAYABgAAD/
2wBDAAMCAgMCAgMDAwMEAwMEBQgFBQQEBQoHBwYIp3+7j8a/PP/gqXP5/7QXh9tu3/Alpi34z/
ANPV3SpXfxCP/9k="
}
```

Response parameters:

```
{
 "returnCode": "0",
 "objectKey": "44992392*****6cc328db296"
}
```

## 11.7 Receiving a File by a Customer (downloadFileStream)

### Scenario

This interface is invoked by a customer to receive a file.

### Method

POST

### URI

<https://Domain name/apiaccess/ccmessaging/downloadFileStream> (For example, the domain name is service.besclouds.com.)

### Request Description

Table 11-25 Request header parameters

| No. | Parameter         | Type   | Mandatory or Not | Description                                                                                                                                                                                                     |
|-----|-------------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | ccmessaging-token | String | Yes              | <ul style="list-style-type: none"><li>Value of <b>token</b> returned by the applyToken interface</li><li>Value of <b>ccmessaging-token</b> returned in the interface response header during a session</li></ul> |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                             |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | x-app-key     | String | Yes              | App key, which is the user ID and is configured on the API Fabric                                                                                                                       |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <code>tokenByAkSk</code> interface}</i> . (A space is required after <b>Bearer</b> .) |

**Table 11-26** Request body parameter

| No. | Parameter | Type           | Mandatory or Not | Description  |
|-----|-----------|----------------|------------------|--------------|
| 1   | reqBody   | <b>ReqBody</b> | Yes              | Request body |

**Table 11-27** ReqBody parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                             |
|-----|-----------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | fileId    | String | Yes              | File ID for file download, which is carried in the poll interface<br><br>If the value of <b>fileId</b> is <b>local</b> / <i>{Value of <b>content</b>}</i> , a local file is sent. The value of <b>content</b> is in the response of the poll interface. |
| 1.2 | channel   | String | Yes              | Download channel type. Currently, the value is fixed to <b>WEB</b> .                                                                                                                                                                                    |



| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                  |
|-----|------------|--------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.3 | fileType   | String | Yes              | Type of the file to be downloaded. The options are <b>jpg, png, bpm, mp3, aac, mp4, txt, csv, richtext, doc, docx, pdf, and zip</b> .<br>In scenarios where local files are sent, set this parameter to the value of <b>mediaFileType</b> in the MT multimedia file message. |
| 1.4 | multiMedia | String | No               | If the file is a multimedia library file, this parameter is mandatory and must be set to <b>multiMedia</b> .                                                                                                                                                                 |

## Response Description

- Status code: 200

Table 11-28 RspBody parameter structure

| No. | Parameter  | Type   | Mandatory or Not | Description                      |
|-----|------------|--------|------------------|----------------------------------|
| 1.1 | fileStream | String | No               | File stream encoded using Base64 |

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----|------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.2 | resultCode | String | Yes              | <p>Return code. The value <b>0</b> indicates success, and other values indicate failure.</p> <ul style="list-style-type: none"> <li>• If <b>resultCode</b> is <b>0</b>, the operation is successful, and no description is returned.</li> <li>• If <b>resultCode</b> is <b>401</b>, the description is <b>objectKey is null!</b></li> <li>• If <b>resultCode</b> is <b>13</b>, the description is <b>param filetype Out of range!, empty file!, fsservice downloadFile is failed, downloadFileStream IOException, or downloadFileStream exception.</b></li> <li>• If <b>resultCode</b> is <b>2</b>, the description is <b>param channelId or userId or tenantId is null.</b></li> </ul> |
| 1.3 | resultDesc | String | No               | <p>Return description. The return code <b>0</b> indicates success, and other return codes indicate failure.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.

- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario:

Request parameters:

```
{
 "fileType": "jpg",
 "channel": "WEB",
 "fileId": "XXXXXXXXXXXXXXXXX"
 "multiMedia": "multiMedia"
}
```

Response parameters:

```
{
 "fileStream": "/9j/4AAQSkZJRgABAQEAYABgAAD/
2wBDAAMCAgMCAgMDAwMEAwMEBQgFBQQEBQoHBwYIDAoMDAsKCwsNDhIQDQ4RDgsLEBYQERM
UFRUVD8XGBYUGBIUFRT/
2wBDAQMEBAUEBQkFBBQkUDQsNFBQUBQwFBQwFBQwFBQwFBQwFBQwFBQwFBQwFBQwFBQwFBQw
FBQwFBQwFBQwFBQwFBQw/wAARCAA9ADwDASIAAhEBAxEB/
8QAHwAAAQUBAQEBAQEAAAAAAAAAAAECAwQFBgcI"
}
```

# 11.8 Associating Common Phrases Based on the Customer Input (queryPhraseByKeyword)

## Scenario

This interface is invoked to associate common phrases based on keywords entered by the customer. This interface requires that the chatbot be enabled in the channel configuration.

If no content is returned, check whether activated FAQ groups exist in the tenant space.

## Method

POST

## URI

<https://Domain name/apiaccess/ccmessaging/queryPhraseByKeyword> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 11-29** Request header parameters

| No. | Parameter         | Type   | Mandatory or Not | Description                                                                                                                                                                                                        |
|-----|-------------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | ccmessaging-token | String | Yes              | <ul style="list-style-type: none"> <li>Value of <b>token</b> returned by the applyToken interface</li> <li>Value of <b>ccmessaging-token</b> returned in the interface response header during a session</li> </ul> |
| 2   | x-app-key         | String | No               | App key, which is the user ID and is configured on the API Fabric                                                                                                                                                  |
| 3   | Authorization     | String | No               | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the tokenByAkSk interface}. (A space is required after <b>Bearer</b> .)                                                 |

**Table 11-30** Request body parameter

| No. | Parameter | Type           | Mandatory or Not | Description  |
|-----|-----------|----------------|------------------|--------------|
| 1   | reqBody   | <b>ReqBody</b> | Yes              | Request body |

**Table 11-31** ReqBody parameters

| No. | Parameter  | Type   | Mandatory or Not | Description     |
|-----|------------|--------|------------------|-----------------|
| 1.1 | strContent | String | Yes              | Message content |

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                                                  |
|-----|-----------|--------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.2 | locale    | String | Yes              | Language<br>The value does not contain the country code. For example, <b>zh</b> indicates Chinese, and <b>en</b> indicates English. For details, see ISO 639 language codes. |
| 1.3 | channel   | String | Yes              | Channel type.<br>Currently, the value is fixed to <b>WEB</b> (web channel access).                                                                                           |

## Response Description

- Status code: 200

Table 11-32 RspBody parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                                                                                 |
|-----|------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | question   | String | Yes              | Array of similar questions<br>A maximum of five records can be returned, which are the top five records with the highest confidences matched by the OIAP based on keywords. |
| 1.2 | resultCode | String | Yes              | Return code. The value <b>0</b> indicates success, and other values indicate failure.                                                                                       |

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                            |
|-----|------------|--------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.3 | resultDesc | String | No               | Return description <ul style="list-style-type: none"> <li>If <b>resultCode</b> is <b>0</b>, the operation is successful, and no description is returned.</li> <li>If <b>resultCode</b> is <b>1</b>, the description is <b>request is no exist, locale is error, Robot is no exist, authToken is no exist, doNMSRequest is error, or Exception appeared!</b></li> </ul> |

- Status code: 400**  
 Incorrect request. Check the request path and parameters.
- Status code: 401**  
 Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- Status code: 404**  
 The requested content is not found. Check the request path.
- Status code: 500**  
 Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: example message

Request header:

```
ccmessaging-token: XXXXXXXXX
```

Request parameters:

```
{
 "strContent": "Mesh",
 "locale": "en",
 "channel": "WEB"
}
```

Response parameters:

```
{
 "question": ["Where can I download the app mesh edition?", "How can I log in to the app mesh"]
}
```

```
edition?", "What phone versions does the app mesh edition support?", "Why do I not have function
menu permissions such as street promotion and mesh account book after I log in to the app mesh
edition?", "How do I log in to the middle-screen mesh system on a PC?"]
 "resultCode": "0"
}
```

## 11.9 Checking Whether the Current Tenant Space Supports the Click-to-dial Function (checkClickToCallSupport)

### Scenario

This interface is invoked to check whether the click-to-dial function is supported.

### Method

GET

### URI

[https://Domain\\_name/apiaccess/ccmessaging/v1/checkClickToCallSupport](https://Domain_name/apiaccess/ccmessaging/v1/checkClickToCallSupport) (For example, the domain name is service.besclouds.com.)

### Request Description

**Table 11-33** Query parameter

| No. | Parameter | Type   | Mandatory or Not | Description                           |
|-----|-----------|--------|------------------|---------------------------------------|
| 1   | channel   | String | Yes              | Recipient channel type ( <b>WEB</b> ) |

**Table 11-34** Request header parameters

| No. | Parameter         | Type   | Mandatory or Not | Description                                                             |
|-----|-------------------|--------|------------------|-------------------------------------------------------------------------|
| 1   | ccmessaging-token | String | Yes              | Value of <b>ccmessaging-token</b> generated by the applyToken interface |
| 2   | x-app-key         | String | Yes              | App key, which is the user ID and is configured on the API Fabric       |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |

## Response Description

- **Status code: 200**

**Table 11-35** Response body parameters

| No. | Parameter            | Type    | Mandatory or Not | Description                                     |
|-----|----------------------|---------|------------------|-------------------------------------------------|
| 1.1 | webRTCSupported      | Boolean | No               | Whether WebRTC is supported                     |
| 1.2 | clickToCallSupported | Boolean | No               | Whether the click-to-dial function is supported |
| 1.3 | resultCode           | String  | No               | Response result code                            |
| 1.4 | resultDesc           | String  | No               | Response result description                     |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None



## Example

- Scenario: Check whether the click-to-dial function is supported.

URL: `https://Domain name/apiaccess/ccmessaging/v1/checkClickToCallSupport`

Request header:

```
ccmessaging-token: XXXXXXXXX
x-app-key: XXXXXXXXX
Authorization: XXXXXXXXX
```

Request parameters:

```
{
 "channel": "WEB"
}
```

Response parameters:

```
{
 "resultCode": "0",
 "resultDesc": "",
 "webRTCSupported": true,
 "clickToCallSupported": true
}
```

## 11.10 Creating a Click-to-Dial Call (createClickToCall)

### Scenario

This interface is invoked to create a click-to-dial call.

### Method

POST

### URI

`https://Domain name/apiaccess/ccmessaging/v1/createClickToCall` (For example, the domain name is `service.besclouds.com`.)

### Request

**Table 11-36** Request header parameters

| No. | Parameter         | Type   | Mandatory or Not | Description                                                                          |
|-----|-------------------|--------|------------------|--------------------------------------------------------------------------------------|
| 1   | ccmessaging-token | String | No               | Value of <b>ccmessaging-token</b> generated by the <code>applyToken</code> interface |
| 2   | x-app-key         | String | No               | App key, which is the user ID and is configured on the API Fabric                    |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | Authorization | String | No               | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |

**Table 11-37** Request body parameters

| No. | Parameter    | Type   | Mandatory or Not | Description                                                        |
|-----|--------------|--------|------------------|--------------------------------------------------------------------|
| 1.1 | channel      | String | Yes              | Recipient channel type ( <b>WEB</b> )                              |
| 1.2 | mediaAbility | String | Yes              | Media capability<br><b>0</b> : voice call<br><b>1</b> : video call |

## Response

- **Status code: 200**

**Table 11-38** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                                                                                                                              |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Response result code                                                                                                                                                                                                     |
| 1.2 | resultDesc | String | No               | Response result description<br>If <b>resultCode</b> is <b>0</b> , the operation is successful.<br>If <b>resultCode</b> is <b>13</b> , the description is <b>connect failed</b> or <b>No agents available currently</b> . |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.

- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Code

None

## Example

Request header:

```
ccmessaging-token:eyJjcmVhdG*****NzlxMTc4
Authorization:Bearer dbb0*****bbb33a
x-app-key:6e9d9c*****152c2f6
Content-Type:application/json
```

Request parameters:

```
{
 "channel": "WEB",
 "mediaAbility": "0"
}
```

Response parameters:

```
{
 "resultCode": "0",
 "resultDesc": null
}
```

## 11.11 Obtaining a Click-to-Dial Event (getClickToCallEvents)

### Scenario

This interface is invoked to obtain a click-to-dial event.

### Method

GET

### URI

<https://Domain name/apiaccess/ccmessaging/v1/getClickToCallEvents> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 11-39** Query parameter

| No. | Parameter | Type   | Mandatory or Not | Description                           |
|-----|-----------|--------|------------------|---------------------------------------|
| 1   | channel   | String | Yes              | Recipient channel type ( <b>WEB</b> ) |

**Table 11-40** Request header parameters

| No. | Parameter         | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|-------------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | ccmessaging-token | String | Yes              | Value of <b>ccmessaging-token</b> generated by the applyToken interface                                                                                                   |
| 2   | x-app-key         | String | Yes              | App key, which is the user ID and is configured on the API Fabric                                                                                                         |
| 3   | Authorization     | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |

## Response Description

- **Status code: 200**

**Table 11-41** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description          |
|-----|------------|--------|------------------|----------------------|
| 1.1 | resultCode | String | No               | Response result code |

| No.   | Parameter         | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                 |
|-------|-------------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.2   | resultDesc        | String | No               | Response result description<br>If <b>resultCode</b> is <b>0</b> , the description is <b>Call in queue, Call connected, Call disconnected, Call queued timeout, Call failed, Call continue to poll events with unknown events, or ClickToCall polled without any events.</b> |
| 1.3   | eventId           | String | No               | Event ID                                                                                                                                                                                                                                                                    |
| 1.4   | content           | Object | No               | Event content                                                                                                                                                                                                                                                               |
| 1.4.1 | causeDesc         | String | No               | Cause description                                                                                                                                                                                                                                                           |
| 1.4.2 | causeId           | String | No               | Cause ID                                                                                                                                                                                                                                                                    |
| 1.4.3 | accessCode        | String | No               | Click-to-dial called party                                                                                                                                                                                                                                                  |
| 1.4.4 | domain            | String | No               | WebRTC gateway domain name                                                                                                                                                                                                                                                  |
| 1.4.5 | gwAddresses       | array  | No               | WebRTC gateway communication address and port number                                                                                                                                                                                                                        |
| 1.4.6 | clickToCallCaller | String | No               | Click-to-dial calling party                                                                                                                                                                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Request header:  
ccmessaging-token:  
x-app-key:  
Authorization:
- Request parameters:  
None
- Response parameters:  

```
{
 resultCode: "0",
 resultDesc: "Call connected",
 eventId: 168101,
 content: {
 domain: "xxx"
 gwAddresses: ["xx1", "xx2"]
 accessCode: "179080000537636"
 clickToCallCaller: "AnonymousCard"
 }
}
```

## 11.12 Releasing a Click-to-Dial Call (dropClickToCall)

### Scenario

This interface is invoked to release a click-to-dial call.

### Method

POST

### URI

<https://Domain name/apiaccess/ccmessaging/v1/dropClickToCall> (For example, the domain name is service.besclouds.com.)

### Request Description

**Table 11-42** Request header parameters

| No. | Parameter             | Type   | Mandato<br>ry or Not | Description                                                             |
|-----|-----------------------|--------|----------------------|-------------------------------------------------------------------------|
| 1   | ccmessaging-<br>token | String | Yes                  | Value of <b>ccmessaging-token</b> generated by the applyToken interface |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                             |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | x-app-key     | String | Yes              | App key, which is the user ID and is configured on the API Fabric                                                                                                                       |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <code>tokenByAkSk</code> interface}</i> . (A space is required after <b>Bearer</b> .) |

**Table 11-43** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                           |
|-----|-----------|--------|------------------|---------------------------------------|
| 1.1 | channel   | String | Yes              | Recipient channel type ( <b>WEB</b> ) |

## Response Description

- **Status code: 200**

**Table 11-44** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                                                                                         |
|-----|------------|--------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Response result code                                                                                                                                                                |
| 1.2 | resultDesc | String | No               | Response result description<br>If <b>resultCode</b> is <b>0</b> , the operation is successful.<br>If <b>resultCode</b> is <b>13</b> , the description is <b>disconnect failed</b> . |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**

Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.

- **Status code: 404**

The requested content is not found. Check the request path.

- **Status code: 500**

Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Release a click-to-dial call.

- Request header:

```
x-app-key: *****,
Authorization: *****,
ccmessaging-token: *****
```

- Request parameters:

```
{
 "channel": "WEB"
}
```

- Response parameters:

```
{
 "resultCode": "0",
 "resultDesc": ""
}
```

## 11.13 Creating an Anonymous Call (createcall)

### Scenario

An operator logs in to the app and invokes the createcall interface provided by the chat module to create an anonymous outbound call task. Then, the operator can initiate an anonymous call by integrating the SDK.

### Method

POST

### URI

<https://Domain name/apiaccess/ccmessaging/v1/mobileagent/createcall> (For example, the domain name is service.besclouds.com.)



## Request Description

**Table 11-45** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                             |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | X-APP-Key     | String | Yes              | App key, which is the user ID                                                                                                                                                           |
| 2   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <code>tokenByAkSk</code> interface}</i> . (A space is required after <b>Bearer</b> .) |

**Table 11-46** Request body parameters

| No. | Parameter     | Type          | Mandatory or Not | Description                                                                                                                                        |
|-----|---------------|---------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | called        | String (32)   | Yes              | Called number                                                                                                                                      |
| 1.2 | callData      | String (1024) | No               | Call data                                                                                                                                          |
| 1.3 | callerPresent | String (32)   | Yes              | Calling number displayed to users and customer managers. If this parameter is not included, the calling number of the platform is used by default. |

## Response Description

- Status code: 200

**Table 11-47** Response body parameters

| No.   | Parameter    | Type        | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------|--------------|-------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1   | resultCode   | String      | Yes              | <p>Return code.</p> <p>The value <b>0</b> indicates success, and other values indicate failure.</p> <p><b>3001000001</b>: The feature is not enabled and cannot be used.</p> <p><b>3001000002</b>: No SIP server information is found.</p> <p><b>3001000003</b>: Input parameter verification failed.</p> <p><b>30010010001</b>: failure to add an outbound call task.</p> <p><b>30010010002</b>: The VDN is unavailable.</p> <p><b>30010010003</b>: The VDN configuration is abnormal, and the recording path fails to be generated.</p> <p><b>30010019999</b>: Other CCM exceptions occur.</p> <p><b>30011010001</b>: The call fails to be created because the call setup success event is not received.</p> <p><b>30011019999</b>: Other CCUCS exceptions occur.</p> <p><b>30010009999</b>: The chat module is abnormal.</p> |
| 1.2   | resultDesc   | String      | No               | Failure cause.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1.3   | resultData   | Object      | No               | Response structure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 1.3.1 | callSerialNo | String (50) | No               | Call SN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| No.   | Parameter         | Type   | Mandatory or Not | Description                                                                                 |
|-------|-------------------|--------|------------------|---------------------------------------------------------------------------------------------|
| 1.3.2 | sipServiceAddress | String | Yes              | SIP server address, which is in the format of <i>IP address.Port number</i> .               |
| 1.3.3 | accesscode        | String | Yes              | This parameter is used for VoIP anonymous calls. The format is <i>{Access code}{UVID}</i> . |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Create an outbound call task.

- Request header

```
{
 "X-APP-Key": "b*****c7b",
 "Authorization": "Bearer 1fea*****1d6a15",
 "Content-Type": "application/json"
}
```

- Request parameters

```
{
 "called": "88884432",
 "callData": "1",
 "callerPresent": "95599"
}
```

- Response header

```
connection: keep-alive
content-encoding: gzip
content-length: 130
content-type: application/json;charset=UTF-8
date: Wed, 12 May 2021 08:52:40 GMT
server: openresty
```

- Response parameters

```
{
 "resultCode": "0",
 "resultDesc": "Success",
}
```

```
"resultData": {
 "sipServiceAddress": "10.137.203.215:5063",
 "accesscode": "179080024609291"
}
```

## 11.14 Submitting a Message by a Customer (doLeaveMessage)

### Scenario

This interface is invoked by a customer to submit a message.

### Method

POST

### URI

<https://Domain name/apiaccess/ccmessaging/doLeaveMessage> (For example, the domain name is service.besclouds.com.)

### Request Description

**Table 11-48** Request header parameters

| No. | Parameter         | Type   | Mandatory or Not | Description                                                                                                                                                                             |
|-----|-------------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | ccmessaging-token | String | Yes              | Value of <b>ccmessaging-token</b> generated by the <code>applyToken</code> interface                                                                                                    |
| 2   | x-app-key         | String | Yes              | App key, which is the user ID and is configured on the API Fabric                                                                                                                       |
| 3   | Authorization     | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <code>tokenByAkSk</code> interface}</i> . (A space is required after <b>Bearer</b> .) |

**Table 11-49** Request body parameters

| No. | Parameter    | Type   | Mandatory or Not | Description                             |
|-----|--------------|--------|------------------|-----------------------------------------|
| 1.1 | callId       | String | Yes              | User ID                                 |
| 1.2 | caller       | String | Yes              | Number for leaving a message            |
| 1.3 | leaveMessage | String | Yes              | Message information                     |
| 1.4 | channel      | String | Yes              | Channel name. The value is <b>WEB</b> . |

## Response Description

- **Status code: 200**

**Table 11-50** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                            |
|-----|------------|--------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | Yes              | Return code                                                                                                                                                                                                                                                                                                                                                            |
| 1.2 | resultDesc | String | No               | Return description<br>If <b>resultCode</b> is <b>0</b> , no description is returned, or the description is <b>Save leaveMessage success!</b><br>If <b>resultCode</b> is <b>3</b> , the description is <b>the leaveMessageParams is error.</b><br>If <b>resultCode</b> is <b>13</b> , the description is <b>Exception appeared!</b> or <b>Save leaveMessage failed!</b> |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**

The requested content is not found. Check the request path.

- **Status code: 500**

Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

Request header:

```
ccmessaging-token: x-app-key: Authorization:
```

Request parameters:

```
{
 "callId": "111111222111",
 "caller": "138****7777",
 "leaveMessage": "Please reply",
 "channel": "WEB"
}
```

Response parameters:

```
{
 "resultCode": "0",
 "resultDesc": "Save leaveMessage success!"
}
```

## 11.15 Submitting the Chatbot Satisfaction Evaluation Result (feedbacksatisfaction)

### Scenario

This interface is invoked to submit the satisfaction evaluation result of the chatbot's reply.

### Method

POST

### URI

<https://Domain name/apiaccess/ccmessaging/v1/robot/feedbacksatisfaction> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 11-51** Request header parameters

| No. | Parameter         | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|-------------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | x-app-key         | String | Yes              | App key, which is the user ID                                                                                                                                              |
| 2   | Authorization     | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the tokenByAkSk interface}</i> . (A space is required after <b>Bearer</b> .) |
| 3   | ccmessaging-token | String | Yes              | Value of <b>ccmessaging-token</b> generated by the applyToken interface                                                                                                    |

**Table 11-52** Request body parameters

| No. | Parameter       | Type        | Mandatory or Not | Description                                                                                                              |
|-----|-----------------|-------------|------------------|--------------------------------------------------------------------------------------------------------------------------|
| 1.1 | feedback        | Integer     | Yes              | Satisfaction feedback. The options are <b>1</b> (satisfied) and <b>0</b> (dissatisfied).                                 |
| 1.2 | feedbackContent | String (64) | No               | When <b>feedback</b> is set to <b>0</b> , the value cannot be empty and can contain a maximum of 64 characters.          |
| 1.3 | from            | String      | Yes              | Message sender ID                                                                                                        |
| 1.4 | interIdx        | String      | Yes              | Number of interaction times. The value is the same as that of <b>interidx</b> returned by the ODFS in the previous time. |

## Response Description

- **Status code: 200**

**Table 11-53** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----|------------|--------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | Yes              | <p><b>0:</b> success</p> <p><b>3000000008:</b> The value of <b>feedbackContent</b> cannot be empty in the case of dissatisfaction during satisfaction survey.</p> <p><b>1001000002:</b> Interface flow control failed.</p> <p><b>30010009999:</b> The chat module is abnormal.</p> <p><b>3000000019:</b> Chatbot evaluation failed because the current session is not a chatbot session or no session exists.</p> <p><b>1001000001:</b> Interface authentication failed.</p> |
| 1.2 | resultDesc | String | No               | Failure cause                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

Request header:



```
{
 "ccmessaging-token": "eyJjcmVhdGV*****2hhbm5lbElkljoiMjAyMTAyMTkzMTkzODY5NzA4In0%3D",
 "x-app-key": "ea5c29a3*****a3dbeb4c32c",
 "Authorization": "Bearer 57042f*****968c4e0",
 "Content-Type": "application/json"
}
```

Request parameters:

```
{
 "feedback": 0,
 "feedbackContent": "dissatisfied",
 "from": "1111111",
 "interIdx": "2"
}
```

Response parameters:

```
{
 "resultCode": "0",
 "resultDesc": "Send message to robot successfully"
}
```

## 11.16 Querying Historical Messages (queryHistoryChatMessage)

### Scenario

This interface is invoked to query historical messages.

### Method

POST

### URI

<https://Domain name/apiaccess/ccmessaging/queryHistoryChatMessage> (For example, the domain name is service.besclouds.com.)

### Request Description

**Table 11-54** Request header parameters

| No. | Parameter     | Type   | Mandato<br>ry or Not | Description                                                                                                                                                                |
|-----|---------------|--------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | x-app-key     | String | Yes                  | App key, which is the user ID                                                                                                                                              |
| 2   | Authorization | String | Yes                  | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the tokenByAkSk interface}</i> . (A space is required after <b>Bearer</b> .) |

| No. | Parameter         | Type   | Mandatory or Not | Description                                                             |
|-----|-------------------|--------|------------------|-------------------------------------------------------------------------|
| 3   | ccmessaging-token | String | Yes              | Value of <b>ccmessaging-token</b> generated by the applyToken interface |

**Table 11-55** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                        |
|-----|-----------|--------|------------------|----------------------------------------------------------------------------------------------------|
| 1.1 | channelId | String | Yes              | Channel ID                                                                                         |
| 1.2 | userId    | String | Yes              | ID of the user who sends a message through a channel. The value is a string of 1 to 32 characters. |
| 1.3 | startTime | String | No               | Start time for querying historical messages                                                        |
| 1.4 | endTime   | String | No               | End time for querying historical messages                                                          |
| 1.5 | limit     | String | Yes              | Number of queried historical messages. This parameter is a pagination parameter.                   |
| 1.6 | offset    | String | Yes              | Offset. This parameter is a pagination parameter.                                                  |

## Response Description

- **Status code: 200**

**Table 11-56** Response body parameters

| No. | Parameter   | Type   | Mandatory or Not | Description                              |
|-----|-------------|--------|------------------|------------------------------------------|
| 1.1 | messageList | Array  | Yes              | Queried historical messages              |
| 1.1 | resultCode  | String | Yes              | <b>0</b> : success<br><b>1</b> : failure |

| No. | Parameter  | Type   | Mandatory or Not | Description        |
|-----|------------|--------|------------------|--------------------|
| 1.2 | resultDesc | String | Yes              | Return description |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Query historical messages.

URL: successful request message

Request header:

```
{
 "ccmessaging-token":
 "eyJjcmVhdGVUaW1l*****IiwY2hhbm5lbElkljoiMjAyMTAyMTkzMTk2ODY5NzA4In
 0%3D",
 "x-app-key": "ea5c29a3-ea45-4b79-a449-2a3dbeb4c32c",
 "Authorization": "Bearer 57042f85*****8c4e0",
 "Content-Type": "application/json"
}
```

Request parameters:

```
{
 "channelId":"202207292843442389",
 "userId":"1659490221026188522",
 "limit":"1",
 "offset":"0",
 "startTime":"1659910093000",
 "endTime":"1659938956000",
 "channel":"WEB"
}
```

Response parameters:

```
{
 "messageList": [
 {
 "id": "10113293212986888",
 "channel": "WEB",
 "senderNickname": "wangming77",
 "senderAvatar": "../image/user1.png",
 "sendTime": 1659938956000,
 "receiveTime": 1659938956000,
 "controlType": "CHAT",
 "sourceType": "USER",
 }
]
}
```

```

 "mediaType": "FILE",
 "content": "diaoyu.aac,26964,fee53aad-94a0-4dc2-b7ff-fd8c2e2496f2,aac",
 "callId": "1659938875-16806492",
 "messageCode":
"67A257B0DB5EFBC08C9F2BD612443F09BBF858570A62CCAAB8D3CE45B7C0EFD0",
 "associationContentId": null,
 "sendStatus": null,
 "errorMsg": null,
 "isForwarded": false,
 "forwardTime": null,
 "contentDealType": null
 }
],
"resultCode": "0",
"resultDesc": "success"
}

```

## 11.17 Discarding an Email (chat\_dropMail)

### Scenario

This interface is invoked to discard an email.

### Method

POST

### URI

<https://Domain name/apiaccess/rest/ccmessaging/v1/emailchannel/dropMail> (For example, the domain name is service.besclouds.com.)

### Request Description

**Table 11-57** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                       |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | X-APP-Key     | String | No               | App key, which is the user ID                                                                                                                                                     |
| 2   | Authorization | String | No               | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <b>tokenByAkSk</b> interface}</i> . (A space is required after <b>Bearer</b> .) |

**Table 11-58** Request body parameter

| No. | Parameter | Type   | Mandatory or Not | Description |
|-----|-----------|--------|------------------|-------------|
| 1.1 | emailId   | String | Yes              | Email ID    |

## Response Description

- **Status code: 200**

**Table 11-59** Response body parameters

| No. | Parameter   | Type   | Mandatory or Not | Description                                                                                                       |
|-----|-------------|--------|------------------|-------------------------------------------------------------------------------------------------------------------|
| 1.1 | returnCode  | String | Yes              | Return code. The value <b>0</b> indicates success. The value <b>3</b> indicates that the email ID does not exist. |
| 1.2 | description | String | Yes              | Response description                                                                                              |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Discard an email.  
URL: successful request message  
Request header:  
x-app-Key:\*\*\*\*\* Authorization:Bearer \*\*\*\*\*  
Request parameters:

```
{
 "emailId": "10195068940994050"
}
```

Response parameters:

```
{
 "returnCode": "0",
 "description": "dropMail success"
}
```

## 11.18 Sending an MT WhatsApp Message (sendWhatsappMessage)

### Scenario

This interface is invoked to send an MT WhatsApp message.

### Method

POST

### URI

<https://Domain name/apiaccess/rest/ccmessaging/omni/1/advanced> (For example, the domain name is service.besclouds.com.)

### Request Description

Table 11-60 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 2   | x-app-key     | String | Yes              | App key, which is the user ID and is configured on the API Fabric                                                                                                         |
| 3   | Content-Type  | String | Yes              | Content type                                                                                                                                                              |

**Table 11-61** Request body parameters

| No.     | Parameter    | Type            | Mandatory or Not | Description                                                                                                                                                                                               |
|---------|--------------|-----------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1     | scenarioKey  | String          | No               | Unique key of the solution that will be used to send messages. If this field is not set, the default solution is used.<br>The AICC does not send this field.                                              |
| 1.2     | bulkId       | String          | Yes              | Unique request ID. Multiple IDs will be received only when the message is sent to multiple destination addresses.                                                                                         |
| 1.3     | destinations | Array [Object]  | Yes              | List of message recipients                                                                                                                                                                                |
| 1.3.1   | messageId    | String          | Yes              | Unique ID of a sent message                                                                                                                                                                               |
| 1.3.2   | to           | Object          | Yes              | Message destination address                                                                                                                                                                               |
| 1.3.2.1 | phoneNumber  | String          | Yes              | Destination phone number. The value must be in the international number format, for example, <b>41793026727</b> .                                                                                         |
| 1.4     | whatsApp     | <b>whatsApp</b> | Yes              | Encapsulated <b>whatsApp</b> object                                                                                                                                                                       |
| 1.5     | sendAt       | String          | No               | Date and time when the message needs to be sent. This parameter is used for scheduled OMNI messaging. The first message in the OMNI flow is not sent immediately, but will be sent at the scheduled time. |

**Table 11-62** whatsApp parameters

| No. | Parameter    | Type   | Mandatory or Not | Description                                                                                                                                                                     |
|-----|--------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | text         | String | No               | Text of the message to be sent                                                                                                                                                  |
| 1.2 | imageUrl     | String | No               | URL of the image sent in the WhatsApp message. The value can contain a maximum of 2048 characters. The image type must be JPG, JPEG, or PNG. The image size cannot exceed 2 MB. |
| 1.3 | audioUrl     | String | No               | URL of the audio file sent in the WhatsApp message. The value can contain a maximum of 2048 characters. The audio type must be AAC. The audio size cannot exceed 2 MB.          |
| 1.4 | videoUrl     | String | No               | URL of the video sent in the WhatsApp message. The value can contain a maximum of 2048 characters. The video type must be MP4. The video size cannot exceed 10 MB.              |
| 1.5 | locationName | String | No               | Text of the message to be sent<br>The value contains a maximum of 1000 characters.                                                                                              |
| 1.6 | address      | String | No               | Address. This parameter is optional. The value contains a maximum of 1000 characters.                                                                                           |
| 1.7 | longitude    | Number | No               | Longitude. The value ranges from -180 to 180.                                                                                                                                   |



| No.  | Parameter         | Type              | Mandatory or Not | Description                                                                                                         |
|------|-------------------|-------------------|------------------|---------------------------------------------------------------------------------------------------------------------|
| 1.8  | latitude          | Number            | No               | Latitude. The value ranges from -90 to 90.                                                                          |
| 1.9  | templateName      | String            | No               | Template name                                                                                                       |
| 1.10 | templateData      | Array [String]    | No               | Template parameter values sorted by registration sequence in the template                                           |
| 1.11 | language          | String            | No               | Code of the language or locale to be used. The code must be the same as that used for registration in the template. |
| 1.12 | mediaTemplateData | mediaTemplateData | No               | Encapsulated <b>mediaTemplateData</b> object                                                                        |

**Table 11-63** mediaTemplateData parameters

| No. | Parameter | Type                | Mandatory or Not | Description                                                                      |
|-----|-----------|---------------------|------------------|----------------------------------------------------------------------------------|
| 1.1 | header    | <b>HeaderObject</b> | No               | Media template type. This parameter is required for media templates with titles. |
| 1.2 | body      | <b>BodyObject</b>   | No               | Media template body                                                              |
| 1.3 | buttons   | Array [Object]      | No               | Media template buttons                                                           |

**Table 11-64** HeaderObject parameters

| No. | Parameter       | Type   | Mandatory or Not | Description                                                                  |
|-----|-----------------|--------|------------------|------------------------------------------------------------------------------|
| 1.1 | textPlaceholder | String | No               | Text placeholder. This parameter is required for templates with text titles. |

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                         |
|-----|-----------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.2 | imageUrl  | String | No               | Image URL. This parameter is required for templates with image titles. The image type must be JPG, JPEG, or PNG. The image size cannot exceed 2 MB. |
| 1.3 | videoUrl  | String | No               | Video URL. This parameter is required for templates with video titles. The video type must be MP4. The video size cannot exceed 10 MB.              |
| 1.4 | latitude  | Number | No               | Latitude. The value ranges from -90 to 90. This parameter is required for templates with location titles.                                           |
| 1.5 | longitude | Number | No               | Longitude. The value ranges from -180 to 180. This parameter is required for templates with location titles.                                        |

**Table 11-65** BodyObject parameters

| No. | Parameter    | Type           | Mandatory or Not | Description                                                                                                                             |
|-----|--------------|----------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | placeholders | Array [String] | No               | Media template body placeholders. The value cannot be null, but can be an empty array. Values within the array cannot be null or empty. |

**Table 11-66** ButtonObject parameters

| No. | Parameter         | Type   | Mandatory or Not | Description                                                                                                                                                                                               |
|-----|-------------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | urlPlaceholder    | String | No               | Date and time when the message needs to be sent. This parameter is used for scheduled OMNI messaging. The first message in the OMNI flow is not sent immediately, but will be sent at the scheduled time. |
| 1.2 | quickReplyPayload | String | No               | Quick reply payload. This parameter is required for the quick reply button.                                                                                                                               |

**Table 11-67** destinations parameters

| No. | Parameter | Type            | Mandatory or Not | Description                 |
|-----|-----------|-----------------|------------------|-----------------------------|
| 1.1 | messageId | String          | Yes              | Unique ID of a sent message |
| 1.2 | to        | <b>toObject</b> | Yes              | Message destination address |

**Table 11-68** MessageObject parameters

| No. | Parameter | Type                | Mandatory or Not | Description                                                                                                          |
|-----|-----------|---------------------|------------------|----------------------------------------------------------------------------------------------------------------------|
| 1.1 | to        | <b>toObject</b>     | No               | Message destination address                                                                                          |
| 1.2 | status    | <b>StatusObject</b> | No               | Message status. The message states include successfully sent, not sent, passed, not passed, and waiting for passing. |
| 1.3 | messageId | String              | No               | Unique ID of a sent message                                                                                          |

**Table 11-69** toObject parameters

| No. | Parameter   | Type   | Mandatory or Not | Description                                                                                                       |
|-----|-------------|--------|------------------|-------------------------------------------------------------------------------------------------------------------|
| 1.1 | phoneNumber | String | Yes              | Destination phone number. The value must be in the international number format, for example, <b>41793026727</b> . |

**Table 11-70** StatusObject parameters

| No. | Parameter   | Type    | Mandatory or Not | Description                            |
|-----|-------------|---------|------------------|----------------------------------------|
| 1.1 | groupName   | String  | Yes              | Status group name                      |
| 1.2 | id          | Integer | Yes              | Status ID                              |
| 1.3 | groupId     | Integer | Yes              | Status group ID                        |
| 1.4 | name        | String  | Yes              | Status name                            |
| 1.5 | action      | String  | No               | Action to be taken to eliminate errors |
| 1.6 | description | String  | Yes              | Readable status description            |

## Response Description

- **Status code: 200**

**Table 11-71** Response body parameters

| No.   | Parameter | Type           | Mandatory or Not | Description                                                           |
|-------|-----------|----------------|------------------|-----------------------------------------------------------------------|
| 1.1   | messages  | Array [Object] | Yes              | Array of sent message objects. Each message corresponds to an object. |
| 1.1.1 | to        | Object         | Yes              | Message destination address                                           |

| No.     | Parameter   | Type   | Mandatory or Not | Description                                                                                                       |
|---------|-------------|--------|------------------|-------------------------------------------------------------------------------------------------------------------|
| 1.1.1.1 | phoneNumber | String | Yes              | Destination phone number. The value must be in the international number format, for example, <b>41793026727</b> . |
| 1.1.2   | status      | Object | Yes              | Status object                                                                                                     |
| 1.1.2.1 | groupId     | Number | Yes              | Status group ID                                                                                                   |
| 1.1.2.2 | groupName   | String | Yes              | Status group name                                                                                                 |
| 1.1.2.3 | id          | Number | Yes              | Status ID                                                                                                         |
| 1.1.2.4 | name        | String | Yes              | Status name                                                                                                       |
| 1.1.2.5 | description | String | Yes              | Readable status description                                                                                       |
| 1.1.2.6 | action      | String | No               | Action to be taken to eliminate errors                                                                            |
| 1.1.3   | messageId   | String | Yes              | Unique ID of a sent message                                                                                       |
| 1.2     | bulkId      | String | Yes              | Unique request ID                                                                                                 |

- Status code: 400**  
 Incorrect request. Check the request path and parameters.
- Status code: 401**  
 Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- Status code: 404**  
 The requested content is not found. Check the request path.
- Status code: 500**  
 Incorrect request. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: OAuth authentication is supported when WhatsApp sends a template message.

URL: successful request message

Request header:

```
{ "x-app-key": "268e19b9-aae6-488a-bec6-5c9a67692946", "Authorization": "Bearer 2febd549*****b9daff1", "Content-Type": "application/json" }
```

Request parameters:

```
{
 "bulkId": "2853BC8B21D23F473AB9AE41B75F34FC18D322B91B01F60FAF206ACEBA9EF7BD",
 "whatsApp": {
 "templateName": "1",
 "templateData": [],
 "language": "zh_CN"
 },
 "destinations": [
 {
 "messageId": "46dbab11-f9cc-4d32-852b-cbba988b7d08",
 "to": {
 "phoneNumber": "155****8467"
 }
 }
]
}
```

Response parameters:

```
{
 "messages": [
 {
 "messageId": "10011",
 "to": {
 "phoneNumber": "173****6067"
 },
 "status": {
 "groupName": "send-test",
 "groupId": 113,
 "name": "sendMessage",
 "description": "description",
 "id": 1
 }
 }
],
 "bulkId": "20221025"
}
```

## 11.19 Querying Information About the Current Chat on the Online Chat Workbench (getUserInfoBycallId)

### Scenario

This interface is invoked to query information about the current chat on the online chat workbench.

### Method

POST

## URI

<https://Domain name/apiaccess/rest/workbench/v1/getUserInfoBycallId> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 11-72** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | X-APP-Key     | String | No               | App key, which is the user ID                                                                                                                                             |
| 2   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |

**Table 11-73** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                           |
|-----|-----------|--------|------------------|-------------------------------------------------------|
| 1   | callId    | String | Yes              | Call ID                                               |
| 2   | userId    | String | Yes              | User ID. The value is a string of 1 to 32 characters. |
| 3   | tenantId  | String | Yes              | Tenant ID                                             |

## Response Description

- **Status code: 200**

**Table 11-74** Response body parameters

| No. | Parameter    | Type   | Mandatory or Not | Description |
|-----|--------------|--------|------------------|-------------|
| 1   | userNickname | String | Yes              | Name        |
| 2   | userId       | String | Yes              | User ID     |
| 3   | userAvatar   | String | No               | User avatar |

| No. | Parameter       | Type   | Mandatory or Not | Description                                                                |
|-----|-----------------|--------|------------------|----------------------------------------------------------------------------|
| 4   | channel         | String | Yes              | Channel name, for example, <b>WEB</b> , <b>WECHAT</b> , or <b>FACEBOOK</b> |
| 5   | createTime      | String | Yes              | Creation time                                                              |
| 6   | channelConfigId | String | Yes              | Channel configuration ID                                                   |
| 7   | userAgent       | String | No               | User proxy                                                                 |
| 8   | clientIp        | String | No               | Client IP address                                                          |
| 9   | osName          | String | No               | Operating system name                                                      |
| 10  | borderType      | String | No               | Operating system version                                                   |

- Status code: 400**  
Incorrect request. Check the request path and parameters.
- Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- Status code: 404**  
The requested content is not found. Check the request path.
- Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

None

# 11.20 Querying the Satisfaction Survey Configuration (getSatisfactionSurveyMode)

## Scenario

This interface is invoked to query the satisfaction survey configuration.



## Method

POST

## URI

https://*Domain name*/apiaccess/ccmessaging/getsatisfactionsurveymode (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 11-75** Request header parameters

| No. | Parameter         | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|-------------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | X-APP-Key         | String | Yes              | App key, which is the user ID                                                                                                                                             |
| 2   | Authorization     | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 3   | ccmessaging-token | String | Yes              | Value of <b>ccmessaging-token</b> generated by the <i>applyToken</i> interface                                                                                            |

## Response Description

- **Status code: 200**

**Table 11-76** Response body parameters

| No. | Parameter          | Type   | Mandatory or Not | Description                                                                                                                                                       |
|-----|--------------------|--------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode         | String | Yes              | Response code. <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• <b>13</b>: failure to query the satisfaction survey configuration</li> </ul> |
| 2   | resultDesc         | String | Yes              | Response description                                                                                                                                              |
| 3   | satisfactionSurvey | Object | Yes              | Satisfaction survey                                                                                                                                               |

| No.   | Parameter              | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------|------------------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.1   | surveyType             | String | Yes              | Survey type<br><b>WEB:</b> web page<br><b>NO:</b> no survey                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 3.2   | satisfactionLevel      | Array  | No               | Satisfaction level array                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 3.2.1 | satisfactionLevel-Key  | String | No               | Satisfaction level. The value ranges from 1 to 5. The default satisfaction levels are as follows: <ul style="list-style-type: none"> <li>● 1: very dissatisfied</li> <li>● 2: dissatisfied</li> <li>● 3: general</li> <li>● 4: satisfied</li> <li>● 5: very satisfied</li> </ul> You can invoke the interface for querying the satisfaction survey configuration to query the satisfaction level set in <b>Configuration Center &gt; Workbench Configuration &gt; Satisfaction Survey &gt; Satisfaction Level</b> or use the default value. The satisfaction level is the same as the pressed key. |
| 3.2.2 | satisfactionLevel-Desc | String | No               | Satisfaction description. The default values are as follows: <ul style="list-style-type: none"> <li>● Very dissatisfied</li> <li>● Dissatisfied</li> <li>● General</li> <li>● Satisfied</li> <li>● Very satisfied</li> </ul>                                                                                                                                                                                                                                                                                                                                                                       |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**

Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.

- **Status code: 404**

The requested content is not found. Check the request path.

- **Status code: 500**

Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Create an outbound call task.

- Request header

```
{
 "X-APP-Key": "b*****c7b",
 "Authorization": "Bearer 1fea*****1d6a15",
 "Content-Type": "application/json"
}
```

- Request parameters

None

- Response header

```
connection: keep-alive
content-encoding: gzip
content-length: 130
content-type: application/json;charset=UTF-8
date: Wed, 12 May 2021 08:52:40 GMT
server: openresty
```

- Response parameters

```
{
 "satisfactionSurvey": {
 "surveyType": "WEB",
 "satisfactionLevel": [
 {
 "satisfactionLevelDesc": "Very dissatisfied",
 "satisfactionLevelKey": "1"
 },
 {
 "satisfactionLevelDesc": "Dissatisfied",
 "satisfactionLevelKey": "2"
 },
 {
 "satisfactionLevelDesc": "General",
 "satisfactionLevelKey": "3"
 },
 {
 "satisfactionLevelDesc": "Satisfied",
 "satisfactionLevelKey": "4"
 },
 {
 "satisfactionLevelDesc": "Very satisfied",
 "satisfactionLevelKey": "5"
 }
]
 },
 "resultCode": "0",
 "resultDesc": "Get satisfaction survey mode success!"
}
```

# 12 Inspection, Monitoring, and Statistics Collection Interface Reference

---

[12.1 Real-time Inspection: qualitycontrol](#)

[12.2 Intelligent Quality Check](#)

[12.3 Monitoring and Statistics Collection](#)

## 12.1 Real-time Inspection: qualitycontrol

### NOTE

Currently, video calls are not supported.

To support inspection on inspectors, you need to configure data on the CTI platform by choosing **Web Configuration Console > VDN Configuration > Recording Quality Inspection > Recording Quality Inspection Parameter**.

**Support QC on QC Inspectors** is set to **Yes**.

### 12.1.1 Inserting

#### Prerequisites

- The inspector has signed in.
- The inspector is in idle state.

#### Description

This interface is used by an inspector to inspect a specified agent in real time after the inspector signs in and shows idle.

An agent who has the inspection permission can barge into an agent who has signed in. After barging into an agent, the inspector enters the barge state, and the agent and inspector enter the two-party conversation mode. If the monitored agent answers the call from the customer, the inspector can directly talk with the agent and the customer.

## Interface Method

The request method must be set to PUT. This interface supports only the PUT method.

## URI

https://ip:port/agentgateway/resource/qualitycontrol/{agentid}/addinsert/{workNo}

In the URL, **ip** indicates the IP address of the CC-Gateway, **port** indicates the HTTPS port number of the CC-Gateway, **{agentid}** indicates the employee ID of the agent that has logged in, and **{workno}** indicates the employee ID of the agent to be inserted.

**Table 12-1** Parameters in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                                                                                                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999.                                                                                                 |
| 2   | workNo    | string    | Yes                | ID of the agent to be inserted. The value ranges from 101 to 59999. The agent ID must belong to the same VDN as the value of <b>agentid</b> . |

## Method Name in Logs

addInsert

## Request Description

- Message header

**Table 12-2** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 12-3** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- AgentOther\_PhoneAlerting
- AgentOther\_PhoneOffhook
- AgentState\_Busy

## Error Code

- 100-006
- 900-001
- 900-002

- 900-003
- 900-005

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "message": "",
 "retcode": "0",
 "result": {}
}
```

## 12.1.2 Listening

### Prerequisites

- The inspector has signed in.
- The inspector is in idle state.

### Description

This interface is used by an inspector to listen to a specified agent after the inspector signs in and shows idle.

An agent with the inspection permission can listen to an agent who has signed in. When the listening starts, the inspector enters the listening state, and the listened-to agent and the customer are unaware of the listening. If the listened-to agent is answering an inbound call of a customer, the inspector can hear the talk between the agent and the customer.

### Interface Method

The request method must be set to PUT. This interface supports only the PUT method.

### URI

`https://ip:port/agentgateway/resource/qualitycontrol/{agentid}/addsupervise/{workNo}`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 12-4** Parameters in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                                                                                                                         |
|-----|-----------|-----------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999.                                                                                                       |
| 2   | workNo    | string    | Yes                | ID of the agent to be listened to. The value ranges from 101 to 59999.<br>The agent ID must belong to the same VDN as the value of <b>agentid</b> . |

## Method Name in Logs

addSupervise

## Request Description

- Message header

**Table 12-5** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None



## Response Description

**Table 12-6** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

### Triggered Event

- AgentOther\_PhoneAlerting
- AgentOther\_PhoneOffhook
- AgentState\_Busy

### Error Code

- 100-006
- 900-001
- 900-002
- 900-003
- 900-005

### Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "message": "",
 "retcode": "0",
 "result": {}
}
```

## 12.1.3 Intercepting

### Prerequisites

- The inspector has signed in.
- The inspector has performed the insertion, listening, or whisper operation.

## Description

An inspector needs to interrupt the session between an agent and a customer and directly talk with the customer.

After an inspection inspector signs in and intercepts an agent who has been barged in, listened to, or whispered, the inspection inspector enters the interception state. The conversation between the agent and the customer is interrupted, the agent enters the idle state, and the inspection inspector continues to talk with the customer.

## Interface Method

The request method must be set to PUT. This interface supports only the PUT method.

## URI

`https://ip:port/agentgateway/resource/qualitycontrol/{agentid}/intercept/{workNo}`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 12-7** Parameters in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                                                                                                                         |
|-----|-----------|-----------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999.                                                                                                       |
| 2   | workNo    | string    | Yes                | ID of the agent to be intercepted. The value ranges from 101 to 59999.<br>The agent ID must belong to the same VDN as the value of <b>agentid</b> . |

## Method Name in Logs

intercept

## Request Description

- Message header

**Table 12-8** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 12-9** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- AgentEvent\_Talking
- AgentMediaEvent\_Record

## Error Code

- 100-006
- 900-001
- 900-002
- 900-003

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "message": "",
 "retcode": "0",
 "result": {}
}
```

## 12.1.4 Canceling Listening and Inserting

### Prerequisites

- The inspector has signed in.
- The inspector has listened to or inserted into a call.

### Description

This interface is used by an inspector that has signed in to cancel listening and inserting on a specified agent.

### Interface Method

The request method must be set to DELETE. This interface supports only the DELETE method.

### URI

<https://ip:port/agentgateway/resource/qualitycontrol/{agentid}/{workNo}>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 12-10** Parameters in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                                                                                                          |
|-----|-----------|-----------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 2   | workNo    | string    | Yes                | Specified agent ID. The value ranges from 101 to 59999.<br>The agent ID must belong to the same VDN as the value of <b>agentid</b> . |

## Method Name in Logs

stopSuperviseOrInsert

## Request Description

- Message header

**Table 12-11** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 12-12** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

### Triggered Event

- AgentOther\_PhoneRelease
- AgentState\_Ready

### Error Code

- 100-006
- 900-001
- 900-002
- 900-003

### Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "message": "",
 "retcode": "0",
 "result": {}
}
```

## 12.1.5 Indicating an Agent in Busy State Forcibly

### Prerequisites

- The inspector has signed in.

### Description

This interface is used by an inspector that has signed in to indicate that a specified agent is in busy state forcibly.

## Interface Method

The request method must be set to POST. This interface supports only the POST method.

## URI

https://ip:port/agentgateway/resource/qualitycontrol/{agentid}/forcebusy/{workNo}

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 12-13** Parameters in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                                                                                                          |
|-----|-----------|-----------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999.                                                                                        |
| 2   | workNo    | string    | Yes                | Specified agent ID. The value ranges from 101 to 59999.<br>The agent ID must belong to the same VDN as the value of <b>agentid</b> . |

## Method Name in Logs

forceBusy

## Request Description

- Message header

**Table 12-14** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                    |
|-----|--------------|------------|--------------------|------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> . |

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|-----------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Guid      | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 12-15** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- None

## Error Code

- 100-006
- 900-001
- 900-002
- 900-003

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None



- Response parameter

```
{
 "message": "",
 "retcode": "0",
 "result": {}
}
```

## 12.1.6 Indicating an Agent in Idle State Forcibly

### Prerequisites

- The inspector has signed in.

### Description

This interface is used by an inspector that has signed in to indicate that a specified agent is in idle state forcibly.

### Interface Method

The request method must be set to POST. This interface supports only the POST method.

### URI

<https://ip:port/agentgateway/resource/qualitycontrol/{agentid}/forceidle/{workNo}>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 12-16** Parameters in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                                                                                                          |
|-----|-----------|-----------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999.                                                                                        |
| 2   | workNo    | string    | Yes                | Specified agent ID. The value ranges from 101 to 59999.<br>The agent ID must belong to the same VDN as the value of <b>agentid</b> . |

### Method Name in Logs

forceidle

## Request Description

- Message header

**Table 12-17** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 12-18** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- None

## Error Code

- 100-006
- 900-001

- 900-002
- 900-003

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "message": "",
 "retcode": "0",
 "result": {}
}
```

## 12.1.7 Forcibly Signing Out

### Prerequisites

- The inspector has signed in.

### Description

This interface is used by an inspector that has signed in to sign out a specified agent forcibly.

### Interface Method

The request method must be set to POST. This interface supports only the POST method.

### URI

`https://ip:port/agentgateway/resource/qualitycontrol/{agentid}/forcelogout/{workNo}`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 12-19** Parameters in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                                                                                                          |
|-----|-----------|-----------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 2   | workNo    | string    | Yes                | Specified agent ID. The value ranges from 101 to 59999.<br>The agent ID must belong to the same VDN as the value of <b>agentid</b> . |

## Method Name in Logs

forceLogoutAgent

## Request Description

- Message header

**Table 12-20** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 12-21** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

### Triggered Event

- None

### Error Code

- 100-006
- 900-001
- 900-002
- 900-003

### Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "message": "",
 "retcode": "0",
 "result": {}
}
```

## 12.1.8 Releasing a Call Forcibly

### Prerequisites

- The inspector has signed in.

### Description

This interface is used by an inspector that has signed in to release a call forcibly.

## Interface Method

The request method must be set to POST. This interface supports only the POST method.

## URI

https://ip:port/agentgateway/resource/qualitycontrol/{agentid}/forcedropcall/{callid}

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 12-22** Parameters in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |
| 2   | callid    | string    | Yes                | ID of a specified call.                       |

## Method Name in Logs

forceDropCall

## Request Description

- Message header

**Table 12-23** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                    |
|-----|--------------|------------|--------------------|------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> . |

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|-----------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Guid      | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 12-24** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- None

## Error Code

- 100-006
- 900-001
- 900-002
- 900-003

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None

- Response parameter

```
{
 "message": "",
 "retcode": "0",
 "result": {}
}
```

## 12.1.9 Adjusting the Skill Queue of a Specified Agent

### Prerequisites

- The inspector has signed in.

### Description

This interface is used by an inspector that has signed in to adjust the skill queue of a specified agent.

### Interface Method

The request method must be set to POST. This interface supports only the POST method.

### URI

<https://ip:port/agentgateway/resource/qualitycontrol/{agentid}/adjustskill>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 12-25** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

### Method Name in Logs

adjustSkill

### Request Description

- Message header



**Table 12-26** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body

**Table 12-27** Parameters in the message body

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                            |
|-----|-----------|------------|--------------------|------------------------------------------------------------------------|
| 1   | workNo    | string     | No                 | Indicates the ID of the specified agent.                               |
| 2   | skills    | array      | No                 | Indicates the array of the skill queue ID. The maximum length is 1000. |

## Response Description

**Table 12-28** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- None

## Error Code

- 100-001
- 100-006
- 900-001
- 900-002
- 900-003

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  

```
{
 "workNo": "49999",
 "skills": [
 10,
 25
]
}
```
- Response parameter  

```
{
 "message": "",
 "retcode": "0",
 "result": {}
}
```

## 12.1.10 Switching Between Listening and Inserting

### Prerequisites

- The inspector has signed in.
- The inspector has listened to or inserted into a call.

### Description

This interface is used to switch between listening and inserting for a specified agent after an inspector has signed in.

### Interface Method

The request method must be set to POST. This interface supports only the POST method.

### URI

<https://ip:port/agentgateway/resource/qualitycontrol/{agentid}/switch/{workNo}>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 12-29** Parameters in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                                                                                                          |
|-----|-----------|-----------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999.                                                                                        |
| 2   | workNo    | string    | Yes                | Specified agent ID. The value ranges from 101 to 59999.<br>The agent ID must belong to the same VDN as the value of <b>agentid</b> . |

## Method Name in Logs

switchSuperviseOrInsert

## Request Description

- Message header

**Table 12-30** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 12-31** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

### Triggered Event

- None

### Error Code

- 100-006
- 900-001
- 900-002
- 900-003

### Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "message": "",
 "retcode": "0",
 "result": {}
}
```

## 12.1.11 Forcing an Agent to Rest

### Prerequisites

- The inspector has signed in.

### Description

This interface is used to force a specified agent to rest after an inspector has signed in.

## Interface Method

The request method must be set to POST. This interface supports only the POST method.

## URI

https://ip:port/agentgateway/resource/qualitycontrol/{agentid}/forcerest/{workNo}/{time}/{reason}

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 12-32** Parameters in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                                                                                                          |
|-----|-----------|-----------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999.                                                                                        |
| 2   | workNo    | string    | Yes                | Specified agent ID. The value ranges from 101 to 59999.<br>The agent ID must belong to the same VDN as the value of <b>agentid</b> . |
| 3   | time      | long      | Yes                | Rest duration, in seconds. The value ranges from 1 to 86399.                                                                         |
| 4   | reason    | int       | Yes                | Rest reason code. The value ranges from 1 to 255.                                                                                    |

## Method Name in Logs

forceRest

## Request Description

- Message header

**Table 12-33** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 12-34** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- None

## Error Code

- 100-006
- 900-001
- 900-002
- 900-003

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "message": "",
 "retcode": "0",
 "result": {}
}
```

## 12.1.12 Requesting for Whispering

### Prerequisites

- The inspector has signed in.
- The inspector is in idle state.

### Description

This interface is used by an inspector to request for whispering.

An agent who has the whisper permission can hear the conversation between the service agent and a customer and provide online guidance for the service agent during the conversation. The customer cannot hear the guidance.

### Interface Method

The request method must be set to POST. This interface supports only the POST method.

### URI

`https://ip:port/agentgateway/resource/qualitycontrol/{agentid}/requestwhisperagent?whisperagentid={whisperagentid}`

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

**Table 12-35** Parameters in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

| No. | Parameter      | Data Type | Mandatory (Yes/No) | Description                                                                                                                                                      |
|-----|----------------|-----------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | whisperagentid | string    | No                 | ID of the agent whose whisper is inspected. The value ranges from 101 to 59999.<br><br>The agent ID must belong to the same VDN as the value of <b>agentid</b> . |

## Method Name in Logs

requestWhisperAgent

## Request Description

- Message header

**Table 12-36** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None



## Response Description

**Table 12-37** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

### Triggered Event

- AgentOther\_PhoneAlerting
- AgentOther\_PhoneOffhook
- AgentState\_Busy

### Error Code

- 100-006
- 900-001
- 900-002
- 900-003
- 900-004

### Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "message": "",
 "retcode": "0",
 "result": {}
}
```

## 12.1.13 Stopping Whispering

### Prerequisites

- The inspector has signed in.
- The inspector has whispered.

## Description

This interface is used by an inspection agent to stop whispering after the inspection agent signs in.

## Interface Method

The request method must be set to POST. This interface supports only the POST method.

## URI

`https://ip:port/agentgateway/resource/qualitycontrol/{agentid}/requeststopwhisperagent?whisperagentid={whisperagentid}`

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

**Table 12-38** Parameters in the URI

| No. | Parameter      | Data Type | Mandatory (Yes/No) | Description                                                                                                                                                  |
|-----|----------------|-----------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | agentid        | string    | Yes                | Agent ID. The value ranges from 101 to 59999.                                                                                                                |
| 2   | whisperagentid | string    | No                 | ID of the agent whose whisper is inspected. The value ranges from 101 to 59999.<br>The agent ID must belong to the same VDN as the value of <b>agentid</b> . |

## Method Name in Logs

`requestStopWhisperAgent`

## Request Description

- Message header

**Table 12-39** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 12-40** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- None

## Error Code

- 100-006
- 900-001
- 900-002
- 900-003
- 900-004

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "message": "",
 "retcode": "0",
 "result": {}
}
```

## 12.1.14 Switching Among Whispering, Listening, and Barging

### Prerequisites

- The inspector has signed in.
- The inspector has whispered, and listened to and inserted into a call.

### Description

This interface is used by an inspector to switch modes among whispering, listening, and insertion after the inspector signs in.

### Interface Method

The request method must be set to POST. This interface supports only the POST method.

### URI

https://ip:port/agentgateway/resource/qualitycontrol/{agentid}/  
requestswitchinsertwhisperagent?  
whisperagentid={whisperagentid}&switchtype={switchtype}

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

**Table 12-41** Parameters in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

| No. | Parameter      | Data Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                   |
|-----|----------------|-----------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | whisperagentid | string    | No                 | ID of the agent whose whisper is inspected. The value ranges from 101 to 59999.<br><br>The agent ID must belong to the same VDN as the value of <b>agentid</b> .                                              |
| 3   | switchtype     | int       | Yes                | Switching type. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0</b>: switch to listening</li> <li>• <b>1</b>: switch to insertion</li> <li>• <b>2</b>: switch to whisper</li> </ul> |

## Method Name in Logs

requestSwitchInsertWhisperAgent

## Request Description

- Message header

**Table 12-42** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                    |
|-----|--------------|------------|--------------------|------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> . |

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|-----------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Guid      | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 12-43** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- None

## Error Code

- 100-006
- 900-001
- 900-002
- 900-003
- 900-004

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1

- Request parameter  
None
- Response parameter

```
{
 "message": "",
 "retcode": "0",
 "result": {}
}
```

## 12.2 Intelligent Quality Check

### 12.2.1 scoresetting

#### 12.2.1.1 POST /CCSQM/rest/ccisqm/v1/appraisescore/createAppraiseScore

##### Scenario

This interface is invoked to create an inspection rating rule.

##### Method

POST

##### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/appraisescore/createAppraiseScore> (For example, the domain name is service.besclouds.com.)

##### Request Description

**Table 12-44** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                      |
|-----|-----------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | x-UserId  | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface. |

**Table 12-45** Request body parameters

| No. | Parameter   | Type   | Mandatory or Not | Description   |
|-----|-------------|--------|------------------|---------------|
| 1.1 | name        | String | Yes              | Rule name     |
| 1.2 | lower_bound | Number | Yes              | Minimum score |
| 1.3 | upper_bound | Number | Yes              | Maximum score |
| 1.4 | base        | Number | Yes              | Start score   |

## Response Description

- **Status code: 200**

**Table 12-46** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | id         | Number | Yes              | Unique rule ID                                                                                                     |
| 1.2 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>• <b>0412000</b>: success</li> <li>• Others: failure</li> </ul> |
| 1.3 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.



- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Create an inspection rating rule.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "name": "test",
 "lower_bound": 11,
 "upper_bound": 111,
 "base": 11
}
```

Response parameters:

```
{
 "resultCode": "0412000",
 "id": "1828287446",
 "resultDesc": "Operation successful."
}
```

### 12.2.1.2 POST /CCSQM/rest/ccisqm/v1/appraisescore/applyAppraiseScore

#### Scenario

This interface is invoked to use an inspection rating rule.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/appraisescore/applyAppraiseScore> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-47** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-48** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description    |
|-----|-----------|--------|------------------|----------------|
| 1.1 | id        | String | Yes              | Unique rule ID |

## Response Description

- Status code: 200

**Table 12-49** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>• <b>0412000</b>: success</li> <li>• Others: failure</li> </ul> |

| No. | Parameter  | Type   | Mandatory or Not | Description        |
|-----|------------|--------|------------------|--------------------|
| 1.2 | resultDesc | String | No               | Return description |

- Status code: 400**  
 Incorrect request. Check the request path and parameters.
- Status code: 401**  
 Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- Status code: 404**  
 The requested content is not found. Check the request path.
- Status code: 500**  
 Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Use an inspection rating rule.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "id": "1828287446"
}
```

Response parameters:

```
{
 "resultCode": "0412000",
 "resultDesc": "Operation successful."
}
```

### 12.2.1.3 POST /CCSQM/rest/ccisqm/v1/appraisescore/removeAppraiseScore

#### Scenario

This interface is invoked to delete an inspection rating rule.

#### Method

POST

## URI

`https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/appraisescore/removeAppraiseScore` (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-50** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-51** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description    |
|-----|-----------|--------|------------------|----------------|
| 1.1 | id        | String | Yes              | Unique rule ID |

## Response Description

- Status code: 200

**Table 12-52** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>● <b>0412000</b>: success</li> <li>● Others: failure</li> </ul> |
| 1.2 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Delete an inspection rating rule.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "id": "1828287446"
}
```

Response parameters:

```
{
 "resultCode": "0412000",
 "resultDesc": "Operation successful."
}
```

### 12.2.1.4 POST /CCSQM/rest/ccisqm/v1/appraisescore/queryAppraiseScore

#### Scenario

This interface is invoked to query an inspection rating rule.

## Method

POST

## URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/appraisescorerequest/queryAppraiseScore> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-53** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-54** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                      |
|-----|-----------|--------|------------------|----------------------------------|
| 1.1 | page      | Number | Yes              | Offset                           |
| 1.2 | limit     | Number | Yes              | Maximum data volume on each page |

## Response Description

- **Status code: 200**

**Table 12-55** Response body parameters

| No.   | Parameter         | Type           | Mandatory or Not | Description                                                                                                        |
|-------|-------------------|----------------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1   | using             | String         | Yes              | ID of the rule in use                                                                                              |
| 1.2   | fundamental_score | Array [Object] | Yes              | List of rule data                                                                                                  |
| 1.2.1 | id                | Number         | No               | Unique rule ID                                                                                                     |
| 1.2.2 | lower_bound       | Number         | No               | Minimum score                                                                                                      |
| 1.2.3 | upper_bound       | Number         | No               | Maximum score                                                                                                      |
| 1.2.4 | base              | Number         | No               | Start score                                                                                                        |
| 1.2.5 | name              | String         | No               | Rule name                                                                                                          |
| 1.3   | resultCode        | String         | No               | Return code <ul style="list-style-type: none"> <li>• <b>0412000</b>: success</li> <li>• Others: failure</li> </ul> |
| 1.4   | resultDesc        | String         | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Query an inspection rating rule.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "page": 1,
 "limit": 10000
}
```

Response parameters:

```
{
 "fundamental_score": [{
 "lower_bound": 1,
 "name": "default",
 "upper_bound": 100,
 "id": "0",
 "base": 60
 }, {
 "lower_bound": 10,
 "name": "1",
 "upper_bound": 100,
 "id": "1980058583",
 "base": 10
 }, {
 "lower_bound": 11,
 "name": "test",
 "upper_bound": 111,
 "id": "1828287446",
 "base": 11
 }
],
 "using": "1828287446",
 "resultCode": "0412000",
 "resultDesc": "Operation successful."
}
```

### 12.2.1.5 POST /CCSQM/rest/ccisqm/v1/appraisescore/modifyAppraiseScore

#### Scenario

This interface is invoked to modify an inspection rating rule.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/appraisescore/modifyAppraiseScore> (For example, the domain name is service.besclouds.com.)

#### Request Description

**Table 12-56** Request header parameters

| No. | Parameter    | Type   | Mandato ry or Not | Description                                                    |
|-----|--------------|--------|-------------------|----------------------------------------------------------------|
| 1   | Content-Type | String | No                | The value is fixed to <b>application/json; charset=UTF-8</b> . |
| 2   | x-app-key    | String | No                | App key                                                        |



| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                          |

**Table 12-57** Request body parameters

| No. | Parameter   | Type   | Mandatory or Not | Description    |
|-----|-------------|--------|------------------|----------------|
| 1.1 | id          | String | Yes              | Unique rule ID |
| 1.2 | name        | String | Yes              | Rule name      |
| 1.3 | lower_bound | Number | Yes              | Minimum score  |
| 1.4 | upper_bound | Number | Yes              | Maximum score  |
| 1.5 | base        | Number | Yes              | Start score    |

## Response Description

- **Status code: 200**

**Table 12-58** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>• <b>0412000</b>: success</li> <li>• Others: failure</li> </ul> |
| 1.2 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Modify an inspection rating rule.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "id": "1980058583",
 "name": "1",
 "lower_bound": 10,
 "upper_bound": 100,
 "base": 10,
}
```

Response parameters:

```
{
 "resultCode": "0412000",
 "resultDesc": "Operation successful."
}
```

## 12.2.2 sentencemanagement

### 12.2.2.1 POST /CCSQM/rest/ccisqm/v1/sentencemanage/ createSentenceCategory

#### Scenario

This interface is invoked to create a sentence category.

#### Method

POST

## URI

`https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/sentencemanage/createSentenceCategory` (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-59** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                            |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                   |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | No               | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                          |

**Table 12-60** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description            |
|-----|-----------|--------|------------------|------------------------|
| 1   | name      | String | Yes              | Sentence category name |

## Response Description

- Status code: 200

**Table 12-61** Response body parameters

| No. | Parameter   | Type   | Mandatory or Not | Description                                                                                                        |
|-----|-------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | category_id | String | No               | Unique ID of a sentence category                                                                                   |
| 1.2 | resultCode  | String | No               | Return code <ul style="list-style-type: none"> <li>● <b>0403000</b>: success</li> <li>● Others: failure</li> </ul> |
| 1.3 | resultDesc  | String | No               | Return description                                                                                                 |
| 1.4 | statusCode  | Number | No               | Status code                                                                                                        |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Create a sentence category.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "name": "cs"
}
```

Response parameters:

```
{
 "category_id": "925086177642418176",
 "resultCode": "0403000",
 "resultDesc": "Operation successful."
}
```

## 12.2.2.2 POST /CCSQM/rest/ccisqm/v1/sentencemanage/ moveSentenceToCategory

### Scenario

This interface is invoked to move a sentence to a category.

### Method

POST

### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/sentencemanage/moveSentenceToCategory> (For example, the domain name is service.besclouds.com.)

### Request Description

**Table 12-62** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | No               | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-63** Request body parameters

| No. | Parameter   | Type   | Mandatory or Not | Description             |
|-----|-------------|--------|------------------|-------------------------|
| 1.1 | sentencelds | String | Yes              | Unique ID of a sentence |
| 1.2 | category_id | String | Yes              | Unique ID of a category |

## Response Description

- **Status code: 200**

**Table 12-64** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>• <b>0403000</b>: success</li> <li>• Others: failure</li> </ul> |
| 2   | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Move a sentence to a category.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "sentenceIds": "14161,14171",
 "category_id": "894378237264662528"
}
```

Response parameters:

```
{
 "resultCode": "0403000",
 "resultDesc": "Operation successful."
}
```

### 12.2.2.3 POST /CCSQM/rest/ccisqm/v1/sentencemanage/deleteSentence

#### Scenario

This interface is invoked to delete a sentence.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/sentencemanage/deleteSentence> (For example, the domain name is service.besclouds.com.)

#### Request Description

**Table 12-65** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                            |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                   |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | No               | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                          |

**Table 12-66** Request body parameters

| No. | Parameter   | Type   | Mandatory or Not | Description             |
|-----|-------------|--------|------------------|-------------------------|
| 1.1 | sentence_id | String | Yes              | Unique ID of a sentence |

## Response Description

- **Status code: 200**

**Table 12-67** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>• <b>0403000</b>: success</li> <li>• Others: failure</li> </ul> |
| 2   | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Delete a sentence.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:



```
{
 "sentence_id": "14412"
}
```

Response parameters:

```
{
 "resultCode": "0403000",
 "resultDesc": "Operation successful."
}
```

## 12.2.2.4 POST /CCSQM/rest/ccisqm/v1/sentencemanage/querySentence

### Scenario

This interface is invoked to query sentences. If the input parameter contains the unique ID of a sentence, details about the sentence are queried. Otherwise, a sentence list is queried.

### Method

POST

### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/sentencemanage/querySentence> (For example, the domain name is service.besclouds.com.)

### Request Description

Table 12-68 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                       |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                                    |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                           |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <b>tokenByAkSk</b> interface}</i> . (A space is required after <b>Bearer</b> .) |

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                      |
|-----|-----------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | x-UserId  | String | No               | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface. |

**Table 12-69** Request body parameters

| No. | Parameter   | Type   | Mandatory or Not | Description                                                                                                                                                        |
|-----|-------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | category_id | String | No               | Unique ID of a sentence category. If the ID of a sentence category is transferred, only sentences in the category are queried.                                     |
| 1.2 | page        | Number | Yes              | Page number. Pagination query criterion.                                                                                                                           |
| 1.3 | limit       | Number | Yes              | Number of records on each page. Pagination query criterion.<br><ul style="list-style-type: none"> <li>Value range: <b>5, 10, 20, 50,</b> and <b>100</b></li> </ul> |
| 1.4 | keyword     | String | No               | Query keyword                                                                                                                                                      |
| 1.5 | sentence_id | String | No               | Unique ID of a sentence. If the ID of a sentence is transferred, only details about the sentence are returned.                                                     |

## Response Description

- **Status code: 200**

**Table 12-70** Response body parameters

| No.     | Parameter     | Type           | Mandatory or Not | Description                                                                                                                      |
|---------|---------------|----------------|------------------|----------------------------------------------------------------------------------------------------------------------------------|
| 1.1     | data          | Array [Object] | No               | Returned sentence dataset                                                                                                        |
| 1.1.1   | category_id   | String         | No               | Unique ID of a sentence category                                                                                                 |
| 1.1.2   | sentence_id   | String         | Yes              | Unique ID of a sentence                                                                                                          |
| 1.1.3   | sentence_name | String         | No               | Sentence name                                                                                                                    |
| 1.1.4   | tags          | Array [Object] | No               | Semantics and keywords used in a sentence                                                                                        |
| 1.1.4.1 | tag_id        | String         | No               | Unique ID of a tag                                                                                                               |
| 1.1.4.2 | tag_name      | String         | No               | Tag name                                                                                                                         |
| 1.1.4.3 | tag_type      | String         | No               | Tag type. The options are <b>keyword</b> (keyword), <b>dialogue_act</b> (semantic), and <b>regular_exp</b> (regular expression). |
| 1.2     | paging        | Object         | No               | Pagination information                                                                                                           |
| 1.2.1   | current       | Number         | No               | Page number                                                                                                                      |
| 1.2.2   | limit         | Number         | No               | Number of records on each page                                                                                                   |
| 1.2.3   | total         | Number         | No               | Total number of query results                                                                                                    |
| 1.3     | category_id   | String         | No               | Unique ID of a category                                                                                                          |
| 1.4     | sentence_id   | String         | No               | Unique ID of a sentence                                                                                                          |
| 1.5     | sentence_name | String         | No               | Sentence name                                                                                                                    |
| 1.6     | tagDataList   | Array [Object] | No               | List of semantics and keywords                                                                                                   |
| 1.6.1   | tag_type      | String         | No               | Tag type                                                                                                                         |

| No.     | Parameter     | Type           | Mandatory or Not | Description                                                                                                        |
|---------|---------------|----------------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.6.2   | pos_sentences | Array [Object] | No               | Positive semantics, keywords, and regular expressions                                                              |
| 1.6.2.1 | id            | String         | No               | Unique ID of a corpus                                                                                              |
| 1.6.2.2 | name          | String         | No               | Corpus content                                                                                                     |
| 1.6.3   | neg_sentences | Array [Object] | No               | Negative semantics, which cannot coexist with <b>pos_sentences</b> in one tag object                               |
| 1.6.3.1 | id            | String         | No               | Unique ID of a corpus                                                                                              |
| 1.6.3.2 | name          | String         | No               | Corpus content                                                                                                     |
| 1.7     | resultCode    | String         | No               | Return code <ul style="list-style-type: none"> <li>● <b>0403000</b>: success</li> <li>● Others: failure</li> </ul> |
| 1.8     | resultDesc    | String         | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario 1: Query a sentence list.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "category_id": "1070149256381206528",
 "keyword": "Sentence",
 "page": 1,
 "limit": 10
}
```

Response parameters:

```
{
 "paging": {
 "total": 4
 },
 "data": [
 {
 "category_id": "1070149256381206528",
 "sentence_id": "10870",
 "sentence_name": "Sentence name 78",
 "tags": null
 },
 {
 "category_id": "1070149256381206528",
 "sentence_id": "10877",
 "sentence_name": "Sentence name 25",
 "tags": null
 },
 {
 "category_id": "1070149256381206528",
 "sentence_id": "10884",
 "sentence_name": "Sentence name 39",
 "tags": null
 },
 {
 "category_id": "1070149256381206528",
 "sentence_id": "10891",
 "sentence_name": "Sentence name 85",
 "tags": null
 }
]
}
```

- Scenario 2: Query sentence details by sentence ID.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "sentence_id": "10891"
}
```

Response parameters:

```
{
 "category_id": "1070149256381206528",
 "sentence_id": "10891",
 "tagDataList": [
 {
 "tag_type": "dialogue_act",
 "pos_sentences": [
 {
 "name": "Synonym corpus 18",
 "id": "10169"
 }
]
 },
 {
 "name": "Antonym corpus 14",
 }
]
}
```

```

 "id": "10047"
 }
]
 },
 {
 "tag_type": "keyword",
 "pos_sentences": [
 {
 "name": "Regular expression 2221",
 "id": "10109"
 },
 {
 "name": "Keyword 22223",
 "id": "10108"
 },
 {
 "name": "Keyword 11164",
 "id": "10107"
 }
]
 }
],
"sentence_name": "Sentence name 85",
"resultCode": "0403000",
"resultDesc": "Operation successful."
}

```

### 12.2.2.5 POST /CCSQM/rest/ccisqm/v1/sentencemanage/ querySentenceByCategoryId

#### Scenario

This interface is invoked to obtain the list of sentences in a sentence category based on its unique ID.

#### Method

POST

#### URI

[https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/sentencemanage/  
querySentenceByCategoryId](https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/sentencemanage/querySentenceByCategoryId) (For example, the domain name is service.besclouds.com.)

#### Request Description

**Table 12-71** Request header parameters

| No. | Parameter    | Type   | Mandato<br>ry or Not | Description                                                    |
|-----|--------------|--------|----------------------|----------------------------------------------------------------|
| 1   | Content-Type | String | No                   | The value is fixed to <b>application/json; charset=UTF-8</b> . |
| 2   | x-app-key    | String | No                   | App key                                                        |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | No               | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                          |

**Table 12-72** Request body parameters

| No. | Parameter   | Type   | Mandatory or Not | Description                                                                                                                    |
|-----|-------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | category_id | String | Yes              | Unique ID of a sentence category                                                                                               |
| 1.2 | page        | Number | Yes              | Page number                                                                                                                    |
| 1.3 | limit       | Number | Yes              | Number of records on each page<br><ul style="list-style-type: none"> <li>Value range: <b>5, 10, 20, 50, and 100</b></li> </ul> |

## Response Description

- **Status code: 200**

**Table 12-73** Response body parameters

| No.   | Parameter     | Type           | Mandatory or Not | Description             |
|-------|---------------|----------------|------------------|-------------------------|
| 1.1   | data          | Array [Object] | No               | Result content          |
| 1.1.1 | sentence_id   | String         | No               | Unique ID of a sentence |
| 1.1.2 | sentence_name | String         | No               | Sentence name           |

| No.   | Parameter   | Type   | Mandatory or Not | Description                                                                                                        |
|-------|-------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1.3 | category_id | String | No               | Unique ID of a sentence category                                                                                   |
| 1.2   | paging      | Object | No               | Pagination information                                                                                             |
| 1.2.1 | total       | String | No               | Total number of query results                                                                                      |
| 1.3   | resultCode  | String | No               | Return code <ul style="list-style-type: none"> <li>● <b>0403000</b>: success</li> <li>● Others: failure</li> </ul> |
| 1.4   | resultDesc  | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Obtain the list of sentences in a sentence category based on its unique ID.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "category_id": "1070149256381206528",
 "page": 1,
 "limit": 10
}
```

Response parameters:

```
{
 "data": [
 {
 "category_id": "1070149256381206528",
```



```
 "sentence_id": "10849",
 "sentence_name": "Sentence name 87"
 },
 {
 "category_id": "1070149256381206528",
 "sentence_id": "10856",
 "sentence_name": "Sentence name 96"
 },
 {
 "category_id": "1070149256381206528",
 "sentence_id": "10863",
 "sentence_name": "Sentence name 403"
 },
 {
 "category_id": "1070149256381206528",
 "sentence_id": "10870",
 "sentence_name": "Sentence name 78"
 },
 {
 "category_id": "1070149256381206528",
 "sentence_id": "10877",
 "sentence_name": "Sentence name 25"
 },
 {
 "category_id": "1070149256381206528",
 "sentence_id": "10884",
 "sentence_name": "Sentence name 39"
 },
 {
 "category_id": "1070149256381206528",
 "sentence_id": "10891",
 "sentence_name": "Sentence name 85"
 }
],
"resultCode": "0403000",
"paging": {
 "total": 7
},
"resultDesc": "Operation successful."
}
```

## 12.2.2.6 POST /CCSQM/rest/ccisqm/v1/sentencemanage/updateSentence

### Scenario

This interface is invoked to update a sentence.

### Method

POST

### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/sentencemanage/updateSentence> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-74** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                             |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                                          |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                                 |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <code>tokenByAkSk</code> interface}</i> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | No               | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                                        |

**Table 12-75** Request body parameters

| No.   | Parameter     | Type           | Mandatory or Not | Description                                                                                                                                                                   |
|-------|---------------|----------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1   | category_id   | String         | Yes              | Unique ID of a sentence category                                                                                                                                              |
| 1.2   | sentence_name | String         | Yes              | Sentence name                                                                                                                                                                 |
| 1.3   | sentence_id   | String         | Yes              | Sentence ID                                                                                                                                                                   |
| 1.4   | tagDataList   | Array [Object] | Yes              | Semantics and keywords used in a sentence                                                                                                                                     |
| 1.4.1 | tag_type      | String         | Yes              | Tag type <ul style="list-style-type: none"> <li>• <b>keyword</b>: keyword</li> <li>• <b>dialogue_act</b>: corpus</li> <li>• <b>regular_exp</b>: regular expression</li> </ul> |

| No.     | Parameter     | Type           | Mandatory or Not | Description                                                                         |
|---------|---------------|----------------|------------------|-------------------------------------------------------------------------------------|
| 1.4.2   | pos_sentences | Array [Object] | No               | Positive corpuses, keywords, and regular expressions                                |
| 1.4.2.1 | id            | String         | No               | Unique ID of a corpus                                                               |
| 1.4.2.2 | name          | String         | No               | Corpus content                                                                      |
| 1.4.3   | neg_sentences | Array [Object] | No               | Negative corpuses, which cannot coexist with <b>pos_sentences</b> in one tag object |
| 1.4.3.1 | id            | String         | No               | Unique ID of a corpus                                                               |
| 1.4.3.2 | name          | String         | No               | Corpus content                                                                      |

## Response Description

- **Status code: 200**

**Table 12-76** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | id         | String | No               | Unique ID of a sentence category                                                                                   |
| 1.2 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>• <b>0403000</b>: success</li> <li>• Others: failure</li> </ul> |
| 1.3 | resultDesc | String | No               | Return description                                                                                                 |
| 1.4 | statusCode | Number | No               | Status code                                                                                                        |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**

The requested content is not found. Check the request path.

- **Status code: 500**

Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Update a sentence.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "category_id": "1070149256381206528",
 "sentence_name": "Sentence name 766",
 "tagDataList": [
 {
 "tag_type": "dialogue_act",
 "pos_sentences": [
 {
 "name": "1111111111222222222"
 },
 {
 "id": "10162",
 "name": "Synonym corpus 585111111111111111"
 }
],
 "neg_sentences": [
 {
 "name": "11111111111111111"
 },
 {
 "id": "10040",
 "name": "Antonym corpus 46111111111111111"
 }
]
 },
 {
 "tag_type": "keyword",
 "pos_sentences": [
 {
 "name": "22222222222222222222222222222222"
 },
 {
 "id": "10094",
 "name": "Keyword 98911111111111111111111"
 },
 {
 "id": "10093",
 "name": "Keyword 111111111111111111111111"
 }
]
 }
],
 "sentence_id": "10863",
 "deleteTagDataList": []
}
```

Response parameters:

```
{
 "resultCode": "0403000",
 "id": "10863",
 "resultDesc": "Operation successful."
}
```

### 12.2.2.7 POST /CCSQM/rest/ccisqm/v1/sentencemanage/ updateSentenceCategory

#### Scenario

This interface is invoked to update a sentence category.

#### Method

POST

#### URI

[https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/sentencemanage/  
updateSentenceCategory](https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/sentencemanage/updateSentenceCategory) (For example, the domain name is  
service.besclouds.com.)

#### Request Description

Table 12-77 Request header parameters

| No. | Parameter     | Type   | Mandato<br>ry or Not | Description                                                                                                                                                                   |
|-----|---------------|--------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No                   | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                                |
| 2   | x-app-key     | String | No                   | App key                                                                                                                                                                       |
| 3   | Authorization | String | Yes                  | Authentication field.<br>The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the tokenByAkSk interface}</i> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | No                   | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                              |

**Table 12-78** Request body parameters

| No. | Parameter   | Type   | Mandatory or Not | Description                                       |
|-----|-------------|--------|------------------|---------------------------------------------------|
| 1.1 | name        | String | Yes              | New name of a sentence category                   |
| 1.2 | category_id | String | Yes              | Unique ID of the sentence category to be modified |

## Response Description

- **Status code: 200**

**Table 12-79** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | id         | String | No               | Unique ID of a sentence category                                                                                   |
| 1.2 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>• <b>0403000</b>: success</li> <li>• Others: failure</li> </ul> |
| 1.3 | resultDesc | String | No               | Return description                                                                                                 |
| 1.4 | statusCode | Number | No               | Status code                                                                                                        |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Update a sentence category.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "name": "cs3",
 "category_id": "1070149256381206528"
}
```

Response parameters:

```
{
 "resultCode": "0403000",
 "id": "1070149256381206528",
 "resultDesc": "Operation successful."
}
```

### 12.2.2.8 POST /CCSQM/rest/ccisqm/v1/sentencemanage/deleteSentenceCategory

#### Scenario

This interface is invoked to delete a sentence category.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/sentencemanage/deleteSentenceCategory> (For example, the domain name is service.besclouds.com.)

#### Request Description

**Table 12-80** Request header parameters

| No. | Parameter    | Type   | Mandatory or Not | Description                                                    |
|-----|--------------|--------|------------------|----------------------------------------------------------------|
| 1   | Content-Type | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> . |
| 2   | x-app-key    | String | No               | App key                                                        |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | No               | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                          |

**Table 12-81** Request body parameters

| No. | Parameter   | Type   | Mandatory or Not | Description                                      |
|-----|-------------|--------|------------------|--------------------------------------------------|
| 1   | category_id | String | Yes              | Unique ID of the sentence category to be deleted |

## Response Description

- **Status code: 200**

**Table 12-82** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>• <b>0403000</b>: success</li> <li>• Others: failure</li> </ul> |
| 1.2 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**



Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.

- **Status code: 404**

The requested content is not found. Check the request path.

- **Status code: 500**

Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Delete a sentence category.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "category_id": "923019012181331968"
}
```

Response parameters:

```
{
 "resultCode": "0403000",
 "resultDesc": "Opration Successful."
}
```

### 12.2.2.9 POST /CCSQM/rest/ccisqm/v1/sentencemanage/ querySentenceCategory

#### Scenario

This interface is invoked to query all sentence categories.

#### Method

POST

#### URI

[https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/sentencemanage/  
querySentenceCategory](https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/sentencemanage/querySentenceCategory) (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-83** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | No               | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

## Response Description

- **Status code: 200**

**Table 12-84** Response body parameters

| No. | Parameter   | Type           | Mandatory or Not | Description                                                                                                        |
|-----|-------------|----------------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1   | data        | Array [Object] | No               | Sentence category result set                                                                                       |
| 1.1 | category_id | String         | No               | Unique ID of a sentence category                                                                                   |
| 1.2 | name        | String         | No               | Sentence category name                                                                                             |
| 2   | resultCode  | String         | No               | Return code <ul style="list-style-type: none"> <li>• <b>0403000</b>: success</li> <li>• Others: failure</li> </ul> |

| No. | Parameter  | Type   | Mandatory or Not | Description        |
|-----|------------|--------|------------------|--------------------|
| 3   | resultDesc | String | No               | Return description |

- Status code: 400**  
 Incorrect request. Check the request path and parameters.
- Status code: 401**  
 Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- Status code: 404**  
 The requested content is not found. Check the request path.
- Status code: 500**  
 Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Query all sentence categories.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Response parameters:

```
{
 "data": [{
 "category_id": "925086177642418176",
 "name": "Sentence category 1"
 }],
 "resultCode": "0403000",
 "resultDesc": "Operation successful."
}
```

### 12.2.2.10 POST /CCSQM/rest/ccisqm/v1/sentencemanage/createSentence

#### Scenario

This interface is invoked to create a sentence.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/sentencemanage/createSentence> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-85** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                       |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                                    |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                           |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <b>tokenByAkSk</b> interface}</i> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | No               | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                                  |

**Table 12-86** Request body parameters

| No.   | Parameter     | Type           | Mandatory or Not | Description                                                                                                                                                                   |
|-------|---------------|----------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1   | category_id   | String         | Yes              | Unique ID of a sentence category                                                                                                                                              |
| 1.2   | sentence_name | String         | Yes              | Sentence name                                                                                                                                                                 |
| 1.3   | tagDataList   | Array [Object] | Yes              | Semantics and keywords used in a sentence                                                                                                                                     |
| 1.3.1 | tag_type      | String         | Yes              | Tag type <ul style="list-style-type: none"> <li>● <b>keyword</b>: keyword</li> <li>● <b>dialogue_act</b>: corpus</li> <li>● <b>regular_exp</b>: regular expression</li> </ul> |

| No.     | Parameter     | Type           | Mandatory or Not | Description                                          |
|---------|---------------|----------------|------------------|------------------------------------------------------|
| 1.3.2   | pos_sentences | Array [Object] | No               | Positive corpuses, keywords, and regular expressions |
| 1.3.2.1 | name          | String         | No               | Positive corpus content                              |
| 1.3.3   | neg_sentences | Array [Object] | No               | Antonym corpuses                                     |
| 1.3.3.1 | name          | String         | No               | Antonym corpus content                               |

## Response Description

- **Status code: 200**

**Table 12-87** Response body parameters

| No. | Parameter   | Type   | Mandatory or Not | Description                                                                                                        |
|-----|-------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | sentence_id | String | No               | Sentence ID                                                                                                        |
| 1.2 | id          | String | No               | Sentence ID                                                                                                        |
| 1.3 | resultCode  | String | No               | Return code <ul style="list-style-type: none"> <li>• <b>0403000</b>: success</li> <li>• Others: failure</li> </ul> |
| 1.4 | resultDesc  | String | No               | Return description                                                                                                 |
| 1.5 | statusCode  | Number | No               | Status code                                                                                                        |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Create a sentence.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "category_id": "1070149256381206528",
 "sentence_name": "Sentence name 87",
 "tagDataList": [
 {
 "tag_type": "dialogue_act",
 "pos_sentences": [
 {
 "name": "Synonym corpus 88"
 }
],
 "neg_sentences": [
 {
 "name": "Antonym corpus 28"
 }
]
 },
 {
 "tag_type": "keyword",
 "pos_sentences": [
 {
 "name": "Keyword 11192"
 },
 {
 "name": "Keyword 22222"
 }
]
 },
 {
 "tag_type": "regular_exp",
 "pos_sentences": [{
 "name": "Regular expression 2221"
 }]
 }
]
}
```

Response parameters:

```
{
 "sentence_id": "10849",
 "resultCode": "0403000",
 "id": "10849",
 "resultDesc": "Operation successful."
}
```

## 12.2.3 sensitiveWordManage

### 12.2.3.1 POST /CCSQM/rest/ccisqm/v1/sensitiveWordManage/deleteSensitiveWord

#### Scenario

This interface is invoked to delete a sensitive word.

## Method

POST

## URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/sensitiveWordManage/deleteSensitiveWord> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-88** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                       |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                                    |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                           |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <b>tokenByAkSk</b> interface}</i> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                                  |

**Table 12-89** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                   |
|-----|-----------|--------|------------------|-------------------------------|
| 1   | sw_id     | String | Yes              | Unique ID of a sensitive word |

## Response Description

- **Status code: 200**

**Table 12-90** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | result     | String | No               | Operation result                                                                                                   |
| 1.2 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>● <b>0401000</b>: success</li> <li>● Others: failure</li> </ul> |
| 1.3 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Delete a sensitive word.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "sw_id": "894378241547046912"
}
```

Response parameters:

```
{
 "result": "success",
 "resultCode": "0401000",
 "resultDesc": "Operation successful."
}
```



### 12.2.3.2 POST /CCSQM/rest/ccisqm/v1/sensitiveWordManage/ querySensitiveWordList

#### Scenario

This interface is invoked to obtain a sensitive word list.

#### Method

POST

#### URI

https://*Domain name*/apiaccess/CCSQM/rest/ccisqm/v1/sensitiveWordManage/  
querySensitiveWordList (For example, the domain name is service.besclouds.com.)

#### Request Description

**Table 12-91** Request header parameters

| No. | Parameter     | Type   | Mandato<br>ry or Not | Description                                                                                                                                                                |
|-----|---------------|--------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No                   | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No                   | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes                  | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes                  | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-92** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                 |
|-----|-----------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------|
| 1.1 | page      | Number | Yes              | Page number                                                                                                                 |
| 1.2 | limit     | Number | Yes              | Number of records on each page <ul style="list-style-type: none"> <li>Value range: <b>5, 10, 20, 50, and 100</b></li> </ul> |
| 1.3 | keyword   | String | No               | Keyword of sensitive word names                                                                                             |

## Response Description

- **Status code: 200**

**Table 12-93** Response body parameters

| No.   | Parameter   | Type           | Mandatory or Not | Description                                                                                                    |
|-------|-------------|----------------|------------------|----------------------------------------------------------------------------------------------------------------|
| 1.1   | paging      | Object         | No               | Pagination information                                                                                         |
| 1.1.1 | total       | Number         | No               | Total number of query results                                                                                  |
| 1.2   | data        | Array [Object] | No               | Query results                                                                                                  |
| 1.2.1 | sw_id       | String         | No               | Unique ID of a sensitive word                                                                                  |
| 1.2.2 | sw_name     | String         | No               | Sensitive word name                                                                                            |
| 1.2.3 | category_id | String         | No               | Unique ID of a sensitive word category                                                                         |
| 1.3   | resultCode  | String         | No               | Return code <ul style="list-style-type: none"> <li><b>0401000</b>: success</li> <li>Others: failure</li> </ul> |
| 1.4   | resultDesc  | String         | No               | Return description                                                                                             |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.

- **Status code: 404**  
The requested path is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Obtain a sensitive word list.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "page": 1,
 "limit": 10,
 "keyword": "Change"
}
```

Response parameters:

```
{
 "data": [
 {
 "category_id": "1065038086678777856",
 "sw_id": "1067229455178534912",
 "sw_name": "Change sensitive word name 766"
 },
 {
 "category_id": "1071491122737451008",
 "sw_id": "1071495709510864896",
 "sw_name": "Change sensitive word name 131"
 }
],
 "resultCode": "0401000",
 "paging": {
 "total": 2
 },
 "resultDesc": "Operation successful."
}
```

### 12.2.3.3 POST /CCSQM/rest/ccisqm/v1/sensitiveWordManage/deleteSensitiveCategory

#### Scenario

This interface is invoked to delete a sensitive word category.

#### Method

POST

## URI

[https://Domain\\_name/apiaccess/CCSQM/rest/ccisqm/v1/sensitiveWordManage/deleteSensitiveCategory](https://Domain_name/apiaccess/CCSQM/rest/ccisqm/v1/sensitiveWordManage/deleteSensitiveCategory) (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-94** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                            |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                   |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                          |

**Table 12-95** Request body parameters

| No. | Parameter   | Type   | Mandatory or Not | Description                            |
|-----|-------------|--------|------------------|----------------------------------------|
| 1   | category_id | String | Yes              | Unique ID of a sensitive word category |

## Response Description

- **Status code: 200**

**Table 12-96** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>● <b>0401000</b>: success</li> <li>● Others: failure</li> </ul> |
| 1.2 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Delete a sensitive word category.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "category_id": "923002229017808896"
}
```

Response parameters:

```
{
 "resultCode": "0401000",
 "resultDesc": "Operation successful."
}
```

### 12.2.3.4 POST /CCSQM/rest/ccisqm/v1/sensitiveWordManage/updateSensitiveWord

#### Scenario

This interface is invoked to update a sensitive word.

## Method

POST

## URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/sensitiveWordManage/updateSensitiveWord> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-97** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-98** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description              |
|-----|-----------|--------|------------------|--------------------------|
| 1.1 | sw_name   | String | Yes              | Sensitive word name      |
| 1.2 | score     | Number | No               | Sensitive word score     |
| 1.3 | exception | Object | No               | Sensitive word exception |

| No.   | Parameter   | Type           | Mandatory or Not | Description                            |
|-------|-------------|----------------|------------------|----------------------------------------|
| 1.3.1 | customer    | Array [String] | No               | Sentence said by the customer          |
| 1.3.2 | staff       | Array [String] | No               | Sentence said by the agent             |
| 1.4   | sw_id       | String         | Yes              | Unique ID of a sensitive word          |
| 1.5   | category_id | String         | Yes              | Unique ID of a sensitive word category |

## Response Description

- **Status code: 200**

**Table 12-99** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | id         | String | No               | Unique ID of a sensitive word                                                                                      |
| 1.2 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>• <b>0401000</b>: success</li> <li>• Others: failure</li> </ul> |
| 1.3 | resultDesc | String | No               | Return description                                                                                                 |
| 1.4 | statusCode | Number | No               | Status code                                                                                                        |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Update a sensitive word.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "category_id": "894378241379274752",
 "sw_name": "Hey",
 "score": -8,
 "exception": {
 "customer": ["14171"],
 "staff": ["14161", "14166"]
 },
 "sw_id": "894378241626738688"
}
```

Response parameters:

```
{
 "resultCode": "0401000",
 "id": "1071495709510864896",
 "resultDesc": "Operation successful."
}
```

### 12.2.3.5 POST /CCSQM/rest/ccisqm/v1/sensitiveWordManage/querySensitiveCategoryList

#### Scenario

This interface is invoked to obtain a sensitive word category list.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/sensitiveWordManage/querySensitiveCategoryList> (For example, the domain name is service.besclouds.com.)

#### Request Description

**Table 12-100** Request header parameters

| No. | Parameter    | Type   | Mandatory or Not | Description                                                    |
|-----|--------------|--------|------------------|----------------------------------------------------------------|
| 1   | Content-Type | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> . |
| 2   | x-app-key    | String | No               | App key                                                        |



| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                          |

## Response Description

- **Status code: 200**

**Table 12-101** Response body parameters

| No. | Parameter   | Type   | Mandatory or Not | Description                                                                                                        |
|-----|-------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | category_id | String | No               | Unique ID of a sensitive word category                                                                             |
| 1.2 | name        | String | No               | Name of a sensitive word category                                                                                  |
| 1.3 | resultCode  | String | No               | Return code <ul style="list-style-type: none"> <li>• <b>0401000</b>: success</li> <li>• Others: failure</li> </ul> |
| 1.4 | resultDesc  | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**

Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.

- **Status code: 500**

Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Obtain a sensitive word category list.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Response parameters:

```
{
 "data": [{
 "category_id": "894378241379274752",
 "name": "Forbidden word 1"
 }, {
 "category_id": "894378241379274753",
 "name": "Forbidden word 2"
 }, {
 "category_id": "923002678840135680",
 "name": "test2"
 }],
 "resultCode": "0401000",
 "resultDesc": "Operation successful."
}
```

### 12.2.3.6 POST /CCSQM/rest/ccisqm/v1/sensitiveWordManage/ querySensitiveWordsByCategoryId

#### Scenario

This interface is invoked to obtain the list of sensitive words in a sensitive word category based on its unique ID.

#### Method

POST

#### URI

[https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/sensitiveWordManage/  
querySensitiveWordsByCategoryId](https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/sensitiveWordManage/querySensitiveWordsByCategoryId) (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-102** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-103** Request body parameters

| No. | Parameter   | Type   | Mandatory or Not | Description                                                                                                                    |
|-----|-------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | category_id | String | Yes              | Unique ID of a sensitive word category                                                                                         |
| 1.2 | page        | Number | Yes              | Page number                                                                                                                    |
| 1.3 | limit       | Number | Yes              | Number of records on each page<br><ul style="list-style-type: none"> <li>Value range: <b>5, 10, 20, 50, and 100</b></li> </ul> |

## Response Description

- **Status code: 200**

**Table 12-104** Response body parameters

| No.   | Parameter   | Type           | Mandatory or Not | Description                                                                                                           |
|-------|-------------|----------------|------------------|-----------------------------------------------------------------------------------------------------------------------|
| 1.1   | paging      | Object         | No               | Pagination information                                                                                                |
| 1.1.1 | total       | Number         | No               | Total number of query results                                                                                         |
| 1.2   | data        | Array [Object] | No               | Returned sentence dataset                                                                                             |
| 1.2.1 | sw_id       | String         | No               | Sensitive word ID                                                                                                     |
| 1.2.2 | sw_name     | String         | No               | Sensitive word name                                                                                                   |
| 1.2.3 | category_id | String         | No               | Unique ID of a sensitive word category                                                                                |
| 1.3   | resultCode  | String         | No               | Return code<br><ul style="list-style-type: none"> <li>● <b>0401000</b>: success</li> <li>● Others: failure</li> </ul> |
| 1.4   | resultDesc  | String         | No               | Return description                                                                                                    |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested path is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Obtain the list of sensitive words in a sensitive word category based on its unique ID.  
Request header:  

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "page": 1,
 "limit": 10,
 "category_id": "894378241379274753"
}
```

Response parameters:

```
{
 "data": [{
 "category_id": "894378241379274753",
 "sw_id": "894378241689653248",
 "sw_name": "Ha ha ha"
 }],
 "resultCode": "0401000",
 "paging": {
 "total": 1
 },
 "resultDesc": "Operation successful."
}
```

### 12.2.3.7 POST /CCSQM/rest/ccisqm/v1/sensitiveWordManage/createSensitiveCategory

#### Scenario

This interface is invoked to create a sensitive word category.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/sensitiveWordManage/createSensitiveCategory> (For example, the domain name is service.besclouds.com.)

#### Request Description

Table 12-105 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                  |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                               |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                      |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of AccessToken returned by the tokenByAkSk interface}</b> . (A space is required after <b>Bearer</b> .) |

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                      |
|-----|-----------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | x-UserId  | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface. |

**Table 12-106** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                       |
|-----|-----------|--------|------------------|-----------------------------------|
| 1   | name      | String | Yes              | Name of a sensitive word category |

## Response Description

- **Status code: 200**

**Table 12-107** Response body parameters

| No. | Parameter   | Type   | Mandatory or Not | Description                                                                                                     |
|-----|-------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------|
| 1.1 | category_id | String | No               | Unique ID of a sensitive word category                                                                          |
| 1.2 | name        | String | No               | Name of a sensitive word category                                                                               |
| 1.3 | resultCode  | String | No               | Return code <ul style="list-style-type: none"><li>• <b>0401000</b>: success</li><li>• Others: failure</li></ul> |
| 1.4 | resultDesc  | String | No               | Return description                                                                                              |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.

- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Create a sensitive word category.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "name": "test2"
}
```

Response parameters:

```
{
 "category_id": "923002678840135680",
 "resultCode": "0401000",
 "resultDesc": "Operation successful."
}
```

### 12.2.3.8 POST /CCSQM/rest/ccisqm/v1/sensitiveWordManage/ moveSensitiveWordToCategory

#### Scenario

This interface is invoked to move sensitive words to a category.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/sensitiveWordManage/moveSensitiveWordToCategory> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-108** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                             |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                                          |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                                 |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <code>tokenByAkSk</code> interface}</i> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                                        |

**Table 12-109** Request body parameters

| No. | Parameter        | Type   | Mandatory or Not | Description                                                                         |
|-----|------------------|--------|------------------|-------------------------------------------------------------------------------------|
| 1.1 | category_id      | String | Yes              | Unique ID of a sensitive word category                                              |
| 1.2 | sensitiveWordIds | String | Yes              | Unique ID of a sensitive word. Use commas (,) to separate multiple sensitive words. |

## Response Description

- **Status code: 200**



**Table 12-110** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>● <b>0401000</b>: success</li> <li>● Others: failure</li> </ul> |
| 1.2 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Move sensitive words to a category.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "sensitiveWordIds": "1071495709510864896,1067229455178534912",
 "category_id": "1071491122737451008"
}
```

Response parameters:

```
{
 "resultCode": "0401000",
 "resultDesc": "Operation successful."
}
```

### 12.2.3.9 POST /CCSQM/rest/ccisqm/v1/sensitiveWordManage/createSensitiveWord

#### Scenario

This interface is invoked to add a sensitive word.

## Method

POST

## URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/sensitiveWordManage/createSensitiveWord> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-111** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-112** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description              |
|-----|-----------|--------|------------------|--------------------------|
| 1.1 | sw_name   | String | Yes              | Sensitive word name      |
| 1.2 | score     | Number | No               | Sensitive word score     |
| 1.3 | exception | Object | No               | Sensitive word exception |

| No.   | Parameter   | Type           | Mandatory or Not | Description                            |
|-------|-------------|----------------|------------------|----------------------------------------|
| 1.3.1 | customer    | Array [String] | No               | Sentence said by the customer          |
| 1.3.2 | staff       | Array [String] | No               | Sentence said by the agent             |
| 1.4   | category_id | String         | Yes              | Unique ID of a sensitive word category |

## Response Description

- **Status code: 200**

**Table 12-113** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | sw_id      | String | No               | Unique ID of a sensitive word                                                                                      |
| 1.2 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>• <b>0401000</b>: success</li> <li>• Others: failure</li> </ul> |
| 1.3 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Add a sensitive word.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "category_id": "923002678840135680",
 "sw_name": "test11",
 "score": -4,
 "exception": {
 "customer": ["14166"],
 "staff": []
 }
}
```

Response parameters:

```
{
 "resultCode": "0401000",
 "sw_id": "923007085031985152",
 "resultDesc": "Operation successful."
}
```

### 12.2.3.10 POST /CCSQM/rest/ccisqm/v1/sensitiveWordManage/updateSensitiveCategory

#### Scenario

This interface is invoked to update a sensitive word category.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/sensitiveWordManage/updateSensitiveCategory> (For example, the domain name is service.besclouds.com.)

#### Request Description

Table 12-114 Request header parameters

| No. | Parameter    | Type   | Mandatory or Not | Description                                                    |
|-----|--------------|--------|------------------|----------------------------------------------------------------|
| 1   | Content-Type | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> . |
| 2   | x-app-key    | String | No               | App key                                                        |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                          |

**Table 12-115** Request body parameters

| No. | Parameter   | Type   | Mandatory or Not | Description                                             |
|-----|-------------|--------|------------------|---------------------------------------------------------|
| 1.1 | name        | String | Yes              | New name of a sensitive word category                   |
| 1.2 | category_id | String | Yes              | Unique ID of the sensitive word category to be modified |

## Response Description

- **Status code: 200**

**Table 12-116** Response body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                            |
|-----|-----------|--------|------------------|----------------------------------------|
| 1.1 | id        | String | No               | Unique ID of a sensitive word category |

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.2 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>● <b>0401000</b>: success</li> <li>● Others: failure</li> </ul> |
| 1.3 | resultDesc | String | No               | Return description                                                                                                 |
| 1.4 | statusCode | Number | No               | Status code                                                                                                        |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Update a sensitive word category.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "name": "Forbidden word 1"
 "category_id": "894378241379274752"
}
```

Response parameters:

```
{
 "resultCode": "0401000",
 "id": "1071490109427159040",
 "resultDesc": "Operation successful."
}
```

### 12.2.3.11 POST /CCSQM/rest/ccisqm/v1/sensitiveWordManage/ querySensitiveWordDetail

#### Scenario

This interface is invoked to obtain details about a sensitive word based on its unique ID.

#### Method

POST

#### URI

[https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/sensitiveWordManage/  
querySensitiveWordDetail](https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/sensitiveWordManage/querySensitiveWordDetail) (For example, the domain name is  
service.besclouds.com.)

#### Request Description

Table 12-117 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                            |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                   |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                          |

**Table 12-118** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                   |
|-----|-----------|--------|------------------|-------------------------------|
| 1   | sw_id     | String | Yes              | Unique ID of a sensitive word |

## Response Description

- **Status code: 200**

**Table 12-119** Response body parameters

| No.     | Parameter     | Type           | Mandatory or Not | Description                            |
|---------|---------------|----------------|------------------|----------------------------------------|
| 1.1     | sw_id         | String         | No               | Unique ID of a sensitive word          |
| 1.2     | sw_name       | String         | No               | Sensitive word name                    |
| 1.3     | score         | Number         | No               | Sensitive word score                   |
| 1.4     | exception     | Object         | No               | Sensitive word exception               |
| 1.4.1   | customer      | Array [Object] | No               | Sentence said by the customer          |
| 1.4.1.1 | category_id   | String         | No               | Unique ID of a sentence category       |
| 1.4.1.2 | sentence_id   | String         | No               | Unique ID of a sentence                |
| 1.4.1.3 | sentence_name | String         | No               | Sentence name                          |
| 1.4.2   | staff         | Array [Object] | No               | Sentence said by the agent             |
| 1.4.2.1 | category_id   | String         | No               | Unique ID of a sentence category       |
| 1.4.2.2 | sentence_id   | String         | No               | Unique ID of a sentence                |
| 1.4.2.3 | sentence_name | String         | No               | Sentence name                          |
| 1.5     | category_id   | String         | No               | Unique ID of a sensitive word category |



| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.6 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>● <b>0401000</b>: success</li> <li>● Others: failure</li> </ul> |
| 1.7 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Obtain details about a sensitive word based on its unique ID.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "sw_id": "894378241547046912"
}
```

Response parameters:

```
{
 "exception": {
 "customer": [{
 "category_id": "894378237264662528",
 "sentence_id": "14171",
 "sentence_name": "Intent name demo3"
 }],
 "staff": [{
 "category_id": "894378237264662529",
 "sentence_id": "14161",
 "sentence_name": "Intent name demo1"
 }], {
 "category_id": "894378237264662529",
 "sentence_id": "14166",
 "sentence_name": "Intent name demo2"
 }
]
},
```

```

"score": "-10",
"category_id": "894378241379274752",
"resultCode": "0401000",
"sw_id": "894378241547046912",
"resultDesc": "Operation successful."
"sw_name": "La la la"
}

```

## 12.2.4 conversationspecific

### 12.2.4.1 POST /CCSQM/rest/ccisqm/v1/conversation-rules/ updateSentenceGroup

#### Scenario

This interface is invoked to update a script.

#### Method

POST

#### URI

[https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/conversation-rules/  
updateSentenceGroup](https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/conversation-rules/updateSentenceGroup) (For example, the domain name is service.besclouds.com.)

#### Request Description

Table 12-120 Request header parameters

| No. | Parameter     | Type   | Mandato<br>ry or Not | Description                                                                                                                                                                |
|-----|---------------|--------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No                   | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No                   | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes                  | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                      |
|-----|-----------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | x-UserId  | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface. |

**Table 12-121** Request body parameters

| No. | Parameter | Type           | Mandatory or Not | Description                                                                                                                                                                                                                                                                                    |
|-----|-----------|----------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | sentences | Array [String] | No               | Sentences used in a script                                                                                                                                                                                                                                                                     |
| 1.2 | role      | String         | Yes              | Role corresponding to a script <ul style="list-style-type: none"> <li>• <b>any</b>: unlimited</li> <li>• <b>staff</b>: agent</li> <li>• <b>customer</b>: user</li> </ul>                                                                                                                       |
| 1.3 | position  | String         | Yes              | Phase in a call <ul style="list-style-type: none"> <li>• <b>any</b>: unlimited</li> <li>• <b>top</b>: beginning of a call</li> <li>• <b>bottom</b>: end of a call</li> <li>• <b>set</b>: specified phase</li> </ul>                                                                            |
| 1.4 | SGType    | String         | Yes              | Logical operator of a sentence <ul style="list-style-type: none"> <li>• <b>must</b>: must say</li> <li>• <b>if</b>: if says</li> <li>• <b>must_say</b>: must say</li> <li>• <b>must_not_say</b>: cannot say</li> <li>• <b>then</b>: goes on saying</li> <li>• <b>and</b>: also says</li> </ul> |

| No. | Parameter         | Type         | Mandatory or Not | Description                                            |
|-----|-------------------|--------------|------------------|--------------------------------------------------------|
| 1.5 | position_distance | Number       | No               | Offset of a sentence. The value ranges from 1 to 9999. |
| 1.6 | sg_id             | String       | Yes              | Script ID                                              |
| 1.7 | sg_name           | String (128) | No               | Script name                                            |
| 1.8 | dialogue_flow_id  | String       | Yes              | Dialog logic ID                                        |

## Response Description

- **Status code: 200**

**Table 12-122** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>• <b>0405000</b>: success</li> <li>• Others: failure</li> </ul> |
| 1.2 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Update a script.  
Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "sentences": ["14171"],
 "role": "any",
 "position": "any",
 "SGType": "must",
 "sg_id": "923004925930115072",
 "sg_name": "Script name 98",
 "dialogue_flow_id": "923004925523267584",
 "position_distance": 0
}
```

Response parameters:

```
{
 "resultCode": "0405000",
 "resultDesc": "Operation successful."
}
```

## 12.2.4.2 POST /CCSQM/rest/ccisqm/v1/conversation-rules/getSentenceGroup

### Scenario

This interface is invoked to query script details by ID. The query criterion is **sg\_id**, which indicates the unique ID of a script and is mandatory.

### Method

POST

### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/conversation-rules/getSentenceGroup> (For example, the domain name is service.besclouds.com.)

### Request Description

**Table 12-123** Request header parameters

| No. | Parameter    | Type   | Mandatory or Not | Description                                                   |
|-----|--------------|--------|------------------|---------------------------------------------------------------|
| 1   | Content-Type | String | No               | The value is fixed to <b>application/json; charset=UTF-8.</b> |
| 2   | x-app-key    | String | No               | App key                                                       |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                          |

**Table 12-124** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description |
|-----|-----------|--------|------------------|-------------|
| 1   | sg_id     | Object | Yes              | Script ID   |

## Response Description

- **Status code: 200**

**Table 12-125** Response body parameters

| No.   | Parameter         | Type           | Mandatory or Not | Description                    |
|-------|-------------------|----------------|------------------|--------------------------------|
| 1.1   | sg_id             | String         | No               | Script ID                      |
| 1.2   | role              | String         | No               | Role corresponding to a script |
| 1.3   | dialogueFlowId    | String         | No               | Dialog logic ID                |
| 1.4   | sentences         | Array [Object] | No               | Sentence array                 |
| 1.4.1 | category_id       | String         | No               | Sentence category ID           |
| 1.4.2 | sentence_id       | String         | No               | Sentence ID                    |
| 1.4.3 | sentence_name     | String         | No               | Sentence name                  |
| 1.5   | position_distance | String         | No               | Script phase distance          |

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.6 | position   | String | No               | Script phase                                                                                                       |
| 1.7 | SGType     | String | No               | Expression type                                                                                                    |
| 1.8 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>● <b>0405000</b>: success</li> <li>● Others: failure</li> </ul> |
| 1.9 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Query script details.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "sg_id": "923004925930115072"
}
```

Response parameters:

```
{
 "sg_id": "923083618002145280",
 "role": "any",
 "dialogueFlowId": "923083617557549056",
 "sentences": [
 {
 "category_id": "925090936373907456",
 "sentence_id": "14402",
 "sentence_name": "Do you need help?"
 }
],
 "position_distance": "0",
 "resultCode": "0405000",
 "sg_name": null,
 "position": "any",
}
```

```
"SGType": "must",
"resultDesc": "Operation successful."
}
```

### 12.2.4.3 POST /CCSQM/rest/ccisqm/v1/conversation-rules/addSentenceGroup

#### Scenario

This interface is invoked to add a script.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/conversation-rules/addSentenceGroup> (For example, the domain name is service.besclouds.com.)

#### Request Description

Table 12-126 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                       |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                                    |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                           |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <b>tokenByAkSk</b> interface}</i> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                                  |



**Table 12-127** Request body parameters

| No. | Parameter         | Type           | Mandatory or Not | Description                                                                                                                                                                                                                                                                                    |
|-----|-------------------|----------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | sentences         | Array [String] | No               | Sentences used in a script                                                                                                                                                                                                                                                                     |
| 1.2 | role              | String         | Yes              | Role corresponding to a script <ul style="list-style-type: none"> <li>• <b>any</b>: unlimited</li> <li>• <b>staff</b>: agent</li> <li>• <b>customer</b>: user</li> </ul>                                                                                                                       |
| 1.3 | position          | String         | Yes              | Phase in a call <ul style="list-style-type: none"> <li>• <b>any</b>: unlimited</li> <li>• <b>top</b>: beginning of a call</li> <li>• <b>bottom</b>: end of a call</li> <li>• <b>set</b>: specified phase</li> </ul>                                                                            |
| 1.4 | SGType            | String         | Yes              | Logical operator of a sentence <ul style="list-style-type: none"> <li>• <b>must</b>: must say</li> <li>• <b>if</b>: if says</li> <li>• <b>must_say</b>: must say</li> <li>• <b>must_not_say</b>: cannot say</li> <li>• <b>then</b>: goes on saying</li> <li>• <b>and</b>: also says</li> </ul> |
| 1.5 | sg_name           | String         | No               | Script name                                                                                                                                                                                                                                                                                    |
| 1.6 | dialogue_flow_id  | String         | Yes              | Dialog logic ID                                                                                                                                                                                                                                                                                |
| 1.7 | position_distance | Number         | No               | Offset of a sentence. The value ranges from 1 to 9999.                                                                                                                                                                                                                                         |

## Response Description

- **Status code: 200**

**Table 12-128** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | sg_id      | String | No               | Script ID                                                                                                          |
| 1.2 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>● <b>0405000</b>: success</li> <li>● Others: failure</li> </ul> |
| 1.3 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Add a script.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "sentences": ["10877","10795","10795","10849","10870","10877","10877","10721","10877"],
 "role": "customer",
 "position": "set",
 "SGType": "must_say",
 "sg_name": "Script name 65",
 "dialogue_flow_id": "1068973778081419264",
 "position_distance": 2271
}
```

Response parameters:

```
{
 "sg_id": "1071513309271822336",
 "resultCode": "0405000",
 "resultDesc": "Operation successful."
}
```

## 12.2.4.4 POST /CCSQM/rest/ccisqm/v1/conversation-rules/deleteSentenceGroup

### Scenario

This interface is invoked to delete a script by ID.

### Method

POST

### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/conversation-rules/deleteSentenceGroup> (For example, the domain name is service.besclouds.com.)

### Request Description

Table 12-129 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-130** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description |
|-----|-----------|--------|------------------|-------------|
| 1   | sg_id     | String | Yes              | Script ID   |

## Response Description

- **Status code: 200**

**Table 12-131** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>• <b>0405000</b>: success</li> <li>• Others: failure</li> </ul> |
| 1.2 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Delete a script.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "sg_id": "923009221274898432"
}
```

Response parameters:

```
{
 "resultCode": "0405000",
 "resultDesc": "Operation successful."
}
```

## 12.2.5 SemanticKeywordTraining

### 12.2.5.1 POST /CCSQM/rest/ccisqm/v1/semantickeywordtraining/queryTraining

#### Scenario

This interface is invoked to obtain the module that is being trained.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/semantickeywordtraining/queryTraining> (For example, the domain name is service.besclouds.com.)

#### Request Description

Table 12-132 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

## Response Description

- **Status code: 200**

**Table 12-133** Response body parameters

| No. | Parameter   | Type    | Mandatory or Not | Description                                                                                                        |
|-----|-------------|---------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | out_of_date | Boolean | Yes              | Whether details about the module that is being trained exist.                                                      |
| 1.2 | resultCode  | String  | No               | Return code <ul style="list-style-type: none"> <li>• <b>0404000</b>: success</li> <li>• Others: failure</li> </ul> |
| 1.3 | resultDesc  | String  | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Obtain the module that is being trained.
- Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Response parameters:

```
{
 "out_of_date": true,
 "resultCode": "0404000",
 "resultDesc": "Operation successful."
}
```

## 12.2.5.2 POST /CCSQM/rest/ccisqm/v1/semantickeywordtraining/trainTags

### Scenario

This interface is invoked to train a module.

### Method

POST

### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/semantickeywordtraining/trainTags> (For example, the domain name is service.besclouds.com.)

### Request Description

Table 12-134 Request header parameters

| No. | Parameter     | Type   | Mandato<br>ry or Not | Description                                                                                                                                                                |
|-----|---------------|--------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No                   | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No                   | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes                  | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes                  | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

### Response Description

- Status code: 200

**Table 12-135** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>● <b>0404000</b>: success</li> <li>● Others: failure</li> </ul> |
| 1.2 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Train a module.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Response parameters:

```
{
 "resultCode": "0404000",
 "resultDesc": "Operation successful."
}
```

## 12.2.6 conversationflow

### 12.2.6.1 POST /CCSQM/rest/ccisqm/v1/conversation-rules/getConversationFlow

#### Scenario

This interface is invoked to query a dialog logic by ID. The query criterion is **flow\_id**, which indicates the unique ID of a dialog logic and is mandatory.



## Method

POST

## URI

/CCSQM/rest/ccisqm/v1/conversation-rules/getConversationFlow

## Request Description

**Table 12-136** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                            |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                   |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                          |

**Table 12-137** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description     |
|-----|-----------|--------|------------------|-----------------|
| 1   | flow_id   | String | Yes              | Dialog logic ID |

## Response Description

- **Status code: 200**

**Table 12-138** Response body parameters

| No.   | Parameter       | Type           | Mandatory or Not | Description                                                                                                                                 |
|-------|-----------------|----------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1   | sentence_groups | Array [Object] | No               | Sentence groups used in a dialog logic                                                                                                      |
| 1.1.1 | sg_id           | String         | No               | Sentence group ID                                                                                                                           |
| 1.2   | min             | String         | No               | Number of matched dialog logics                                                                                                             |
| 1.3   | expression      | String         | No               | Logical relationship between sentence groups, for example, <b>if 7cb411de0c5c4c8fab51e28a1ce7d3c7 then 9bb193e53de64e3a9e8545e5ce28bb2e</b> |
| 1.4   | flow_id         | String         | No               | Dialog logic ID                                                                                                                             |
| 1.5   | resultCode      | String         | No               | Return code. The value <b>0405000</b> indicates success, and other values indicate failure.                                                 |
| 1.6   | flow_name       | String         | No               | Dialog logic name                                                                                                                           |
| 1.7   | resultDesc      | String         | No               | Return description                                                                                                                          |

- **Status code: 400**

**Table 12-139** Response body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                               |
|-----|-----------|--------|------------------|-----------------------------------------------------------|
| 1   | schema    | String | Yes              | Incorrect request. Check the request path and parameters. |

- **Status code: 401**

**Table 12-140** Response body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                    |
|-----|-----------|--------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | schema    | String | Yes              | Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account. |

- **Status code: 404**

**Table 12-141** Response body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                 |
|-----|-----------|--------|------------------|-------------------------------------------------------------|
| 1   | schema    | String | Yes              | The requested content is not found. Check the request path. |

- **Status code: 500**

**Table 12-142** Response body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                      |
|-----|-----------|--------|------------------|------------------------------------------------------------------|
| 1   | schema    | String | Yes              | Business failure. Check the values of parameters in the request. |

## Error Codes

None

## Example

- Scenario: Query a dialog logic by ID.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "flow_id": "871578307970207744"
}
```

Response parameters:

```
{
 "sentence_groups": [{
 "sg_id": "923083618002145280"
 }],
 "min": null,
 "expression": "must 923083618002145280",
 "flow_id": "923083617557549056",
 "resultCode": "0405000",
 "flow_name": "wqqw",
 "resultDesc": "Operation successful."
}
```

## 12.2.6.2 POST /CCSQM/rest/ccisqm/v1/conversation-rules/deleteConversationFlow

### Scenario

This interface is invoked to delete a dialog logic by ID.

### Method

POST

### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/conversation-rules/deleteConversationFlow> (For example, the domain name is service.besclouds.com.)

### Request Description

Table 12-143 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                  |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                               |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                      |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of AccessToken returned by the tokenByAkSk interface}</b> . (A space is required after <b>Bearer</b> .) |

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                      |
|-----|-----------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | x-UserId  | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface. |

**Table 12-144** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description     |
|-----|-----------|--------|------------------|-----------------|
| 1   | flow_id   | String | Yes              | Dialog logic ID |

## Response Description

- **Status code: 200**

**Table 12-145** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                 |
|-----|------------|--------|------------------|---------------------------------------------------------------------------------------------|
| 1.1 | resultDesc | String | No               | Return description                                                                          |
| 1.2 | resultCode | String | No               | Return code. The value <b>0405000</b> indicates success, and other values indicate failure. |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Delete a dialog logic.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "flow_id": "871578307970207744"
}
```

Response parameters:

```
{
 "resultCode": "0405000",
 "resultDesc": "Operation successful."
}
```

### 12.2.6.3 POST /CCSQM/rest/ccisqm/v1/conversation-rules/ updateConversationFlow

#### Scenario

This interface is invoked to update a dialog logic.

#### Method

POST

#### URI

[https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/conversation-rules/  
updateConversationFlow](https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/conversation-rules/updateConversationFlow) (For example, the domain name is  
service.besclouds.com.)

#### Request Description

**Table 12-146** Request header parameters

| No. | Parameter    | Type   | Mandato<br>ry or Not | Description                                                    |
|-----|--------------|--------|----------------------|----------------------------------------------------------------|
| 1   | Content-Type | String | No                   | The value is fixed to <b>application/json; charset=UTF-8</b> . |
| 2   | x-app-key    | String | No                   | App key                                                        |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                          |

**Table 12-147** Request body parameters

| No. | Parameter       | Type           | Mandatory or Not | Description                                                                                                                                              |
|-----|-----------------|----------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | sentence_groups | Array [String] | No               | Sentence group ID                                                                                                                                        |
| 1.2 | expression      | String         | Yes              | Logical relationship expression between sentence groups, for example, <b>must a9d7d3ce37ec4bf0a3ef027cfbe96275 then bc049053f7fa48b688a70c296115b6cc</b> |
| 1.3 | min             | Number         | Yes              | Number of times a dialog logic occurs                                                                                                                    |
| 1.4 | flow_id         | String         | Yes              | Dialog logic ID                                                                                                                                          |
| 1.5 | flow_name       | String (128)   | Yes              | Dialog logic name                                                                                                                                        |
| 1.6 | rule_id         | String         | Yes              | Dialog rule ID                                                                                                                                           |

## Response Description

- **Status code: 200**

**Table 12-148** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                 |
|-----|------------|--------|------------------|---------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code. The value <b>0405000</b> indicates success, and other values indicate failure. |
| 1.2 | resultDesc | String | No               | Return description                                                                          |

- Status code: 400**  
 Incorrect request. Check the request path and parameters.
- Status code: 401**  
 Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- Status code: 404**  
 The requested content is not found. Check the request path.
- Status code: 500**  
 Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Update a dialog logic.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "sentence_groups": ["922942468108849152"],
 "min": 3,
 "expression": "must",
 "flow_id": "922942467681030144",
 "flow_name": "APIcs1",
 "rule_id": "894378241748373505"
}
```

Response parameters:

```
{"resultCode":"0405000","resultDesc": "Operation successful."}
```



## 12.2.6.4 POST /CCSQM/rest/ccisqm/v1/conversation-rules/ addConversationFlow

### Scenario

This interface is invoked to create a dialog logic.

### Method

POST

### URI

[https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/conversation-rules/  
addConversationFlow](https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/conversation-rules/addConversationFlow) (For example, the domain name is service.besclouds.com.)

### Request Description

Table 12-149 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-150** Request body parameters

| No. | Parameter  | Type         | Mandatory or Not | Description                                                                                                                              |
|-----|------------|--------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | flow_name  | String (128) | Yes              | Dialog logic name                                                                                                                        |
| 1.2 | min        | Number       | Yes              | Number of times a dialog logic occurs                                                                                                    |
| 1.3 | expression | String       | Yes              | Logical relationship expression between scripts in a dialog logic, for example, <b>must a9d7d3ce37ec4bf0a3ef027cfbe96275</b> (script ID) |
| 1.4 | rule_id    | String       | Yes              | Dialog rule ID                                                                                                                           |

## Response Description

- **Status code: 200**

**Table 12-151** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                 |
|-----|------------|--------|------------------|---------------------------------------------------------------------------------------------|
| 1.1 | flow_id    | String | No               | Dialog logic ID                                                                             |
| 1.2 | resultCode | String | No               | Return code. The value <b>0405000</b> indicates success, and other values indicate failure. |
| 1.3 | resultDesc | String | No               | Return description                                                                          |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Create a dialog logic.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "flow_name": "APIcs",
 "min": 2,
 "expression": "must",
 "rule_id": "894378241748373505"
}
```

Response parameters:

```
{
 "flow_id": "925093880544628736",
 "resultCode": "0405000",
 "resultDesc": "Operation successful."
}
```

## 12.2.7 conversationrules

### 12.2.7.1 POST /CCSQM/rest/ccisqm/v1/conversation-rules/getOneRule

#### Scenario

This interface is invoked to query a dialog rule by ID. The query criterion is **rule\_id**, which indicates the unique ID of a dialog rule and is mandatory.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/conversation-rules/getOneRule> (For example, the domain name is service.besclouds.com.)

#### Request Description

**Table 12-152** Request header parameters

| No. | Parameter    | Type   | Mandato<br>ry or Not | Description                                                    |
|-----|--------------|--------|----------------------|----------------------------------------------------------------|
| 1   | Content-Type | String | No                   | The value is fixed to <b>application/json; charset=UTF-8</b> . |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                   |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                          |

**Table 12-153** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description |
|-----|-----------|--------|------------------|-------------|
| 1   | rule_id   | String | Yes              | Rule ID     |

## Response Description

- **Status code: 200**

**Table 12-154** Response body parameters

| No.   | Parameter | Type   | Mandatory or Not | Description                                                     |
|-------|-----------|--------|------------------|-----------------------------------------------------------------|
| 1.1   | severity  | String | No               | Rule level. The options are <b>normal</b> and <b>critical</b> . |
| 1.2   | rule_id   | String | No               | Rule ID                                                         |
| 1.3   | score     | String | No               | Rule score                                                      |
| 1.4   | other     | Object | No               | Additional conditions                                           |
| 1.4.1 | call_end  | Number | No               | Call start timestamp, in seconds                                |

| No.    | Parameter            | Type           | Mandatory or Not | Description                                                                                                                         |
|--------|----------------------|----------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| 1.4.2  | call_from            | Number         | No               | Call end timestamp, in seconds                                                                                                      |
| 1.5    | min                  | String         | No               | Minimum number of dialog logics                                                                                                     |
| 1.6    | method               | String         | No               | The options are as follows: <ul style="list-style-type: none"> <li>• <b>positive</b></li> <li>• <b>negative</b></li> </ul>          |
| 1.7    | rule_name            | String         | No               | Rule name                                                                                                                           |
| 1.8    | flows                | Array [Object] | No               | Dialog logics used by a rule                                                                                                        |
| 1.8.1  | flow_id              | String         | No               | Dialog logic ID                                                                                                                     |
| 1.8.2  | flow_name            | String         | No               | Dialog logic name                                                                                                                   |
| 1.9    | resultCode           | String         | No               | Return code. The value <b>0405000</b> indicates success, and other values indicate failure.                                         |
| 1.10   | description          | String         | No               | Rule description                                                                                                                    |
| 1.11   | completeness         | Object         | No               | Rule integrity                                                                                                                      |
| 1.11.1 | hasConversation-Flow | Boolean        | No               | Whether dialog logics exist                                                                                                         |
| 1.11.2 | sentenceComplete     | Boolean        | No               | Whether the sentences in a rule are complete                                                                                        |
| 1.11.3 | ruleComplete         | Boolean        | No               | Whether a rule is complete. When the values of the other three items are <b>true</b> , the value of this parameter is <b>true</b> . |
| 1.11.4 | hasDescription       | Boolean        | No               | Whether the rule description exists                                                                                                 |
| 1.12   | resultDesc           | String         | No               | Return description                                                                                                                  |

- **Status code: 400**

Incorrect request. Check the request path and parameters.

- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Query a dialog rule by ID. The query criterion is **rule\_id**, which indicates the unique ID of a dialog rule and is mandatory.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "rule_id": "922202599711576064"
}
```

Response parameters:

```
{
 "severity": "normal",
 "rule_id": "922202599711576064",
 "score": "1",
 "other": {
 "call_end": 1625020693,
 "call_from": 1622515089
 },
 "min": "1",
 "method": "positive",
 "rule_name": "Dialog rule"
 "flows": [{
 "flow_id": "923000489761574912",
 "flow_name": "cs"
 }],
 "resultCode": "0405000",
 "description": "Dialog rule",
 "completeness": {
 "hasConversationFlow": true,
 "sentenceComplete": true,
 "ruleComplete": true,
 "hasDescription": true
 },
 "resultDesc": "Operation successful."
}
```

## 12.2.7.2 POST /CCSQM/rest/ccisqm/v1/conversation-rules/queryRules

### Scenario

This interface is invoked to query a dialog rule list in pagination mode. The query criteria are **limit** (number of records on each page), **page** (current page number), **keyword** (query keyword), and **completeOnly** (whether a rule is complete).

### Method

POST

### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/conversation-rules/queryRules> (For example, the domain name is service.besclouds.com.)

### Request Description

Table 12-155 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-156** Request body parameters

| No. | Parameter      | Type         | Mandatory or Not | Description                                             |
|-----|----------------|--------------|------------------|---------------------------------------------------------|
| 1.1 | limit          | Number       | Yes              | Number of records on each page. Pagination information. |
| 1.2 | page           | Number       | No               | Current page number. Pagination information.            |
| 1.3 | keyword        | String (128) | No               | Query keyword                                           |
| 1.4 | incompleteOnly | Boolean      | No               | Whether to search for complete rules                    |

## Response Description

- **Status code: 200**

**Table 12-157** Response body parameters

| No.     | Parameter    | Type           | Mandatory or Not | Description                          |
|---------|--------------|----------------|------------------|--------------------------------------|
| 1.1     | data         | Array [Object] | No               | Returned data                        |
| 1.1.1   | rule_id      | String         | No               | Rule ID                              |
| 1.1.2   | score        | String         | No               | Rule score                           |
| 1.1.3   | rule_name    | String         | No               | Rule name                            |
| 1.1.4   | flows        | Array [Object] | No               | Dialog logics associated with a rule |
| 1.1.4.1 | expression   | String         | No               | Expression                           |
| 1.1.4.2 | min          | Number         | No               | Minimum number of dialog logics      |
| 1.1.4.3 | name         | String         | No               | Dialog logic name                    |
| 1.1.4.4 | id           | String         | No               | Dialog logic ID                      |
| 1.1.4.5 | dialogRuleId | String         | No               | Rule ID                              |
| 1.1.4.6 | tenantId     | String         | No               | Tenant ID                            |



| No.     | Parameter            | Type    | Mandatory or Not | Description                                                                                 |
|---------|----------------------|---------|------------------|---------------------------------------------------------------------------------------------|
| 1.1.5   | description          | String  | No               | Rule description                                                                            |
| 1.1.6   | completeness         | Object  | No               | Rule integrity                                                                              |
| 1.1.6.1 | hasConversation-Flow | Boolean | No               | Whether dialog logics are set for a rule                                                    |
| 1.1.6.2 | sentenceComplete     | Boolean | No               | Whether applicable sentences are set for a rule                                             |
| 1.1.6.3 | ruleComplete         | Boolean | No               | Whether the rule content is set                                                             |
| 1.1.6.4 | hasDescription       | Boolean | No               | Whether the rule description is set                                                         |
| 1.2     | resultCode           | String  | No               | Return code. The value <b>0405000</b> indicates success, and other values indicate failure. |
| 1.3     | paging               | Object  | No               | Pagination information                                                                      |
| 1.3.1   | total                | Number  | No               | Total number of records                                                                     |
| 1.4     | resultDesc           | String  | No               | Return description                                                                          |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Query a dialog rule list in pagination mode.  
Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

**Request parameters:**

```
{
 "limit": 10,
 "page": 1,
 "incompleteOnly": false
}
```

**Response parameters:**

```
{
 "data": [{
 "rule_id": "922202599711576064",
 "score": "1",
 "rule_name": "Dialog rule"
 "flows": [{
 "expression": "must 923000490218754048 and 923001105690923008",
 "min": null,
 "tenantId": "202106114153",
 "name": "cs",
 "errorCode": null,
 "id": "923000489761574912",
 "ruleId": "922202599711576064",
 "errorMsg": null
 }],
 "description": "Dialog rule",
 "completeness": {
 "hasConversationFlow": true,
 "sentenceComplete": true,
 "ruleComplete": true,
 "hasDescription": true
 }
 }],
 "resultCode": "0405000",
 "paging": {
 "total": 1
 },
 "resultDesc": "Operation successful."
}
```

### 12.2.7.3 POST /CCSQM/rest/ccisqm/v1/conversation-rules/addRule

**Scenario**

This interface is invoked to create a dialog rule.

**Method**

POST

**URI**

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/conversation-rules/addRule> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-158** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                       |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                                    |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                           |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <b>tokenByAkSk</b> interface}</i> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                                  |

**Table 12-159** Request body parameters

| No. | Parameter   | Type          | Mandatory or Not | Description                                                                                           |
|-----|-------------|---------------|------------------|-------------------------------------------------------------------------------------------------------|
| 1.1 | rule_name   | String        | Yes              | Rule name                                                                                             |
| 1.2 | description | String (1024) | No               | Rule description                                                                                      |
| 1.3 | severity    | String        | Yes              | Rule level. The options are <b>normal</b> and <b>critical</b> .                                       |
| 1.4 | score_type  | String        | Yes              | Score type <ul style="list-style-type: none"> <li>• <b>valid</b></li> <li>• <b>invalid</b></li> </ul> |
| 1.5 | score       | Number        | Yes              | Rule score                                                                                            |

| No.   | Parameter | Type   | Mandatory or Not | Description                                                                                                                |
|-------|-----------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------|
| 1.6   | method    | String | Yes              | The options are as follows: <ul style="list-style-type: none"> <li>• <b>positive</b></li> <li>• <b>negative</b></li> </ul> |
| 1.7   | min       | Number | Yes              | Minimum number of dialog logics                                                                                            |
| 1.8   | other     | Object | Yes              | Other content                                                                                                              |
| 1.8.1 | call_from | Number | No               | Call start timestamp, in seconds                                                                                           |
| 1.8.2 | call_end  | Number | No               | Call end timestamp, in seconds                                                                                             |

## Response Description

- **Status code: 200**

Table 12-160 Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                 |
|-----|------------|--------|------------------|---------------------------------------------------------------------------------------------|
| 1.1 | rule_id    | String | No               | Rule ID                                                                                     |
| 1.2 | resultCode | String | No               | Return code. The value <b>0405000</b> indicates success, and other values indicate failure. |
| 1.3 | resultDesc | String | No               | Return description                                                                          |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Create a dialog rule.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "severity": "normal",
 "score_type": "valid",
 "method": "positive",
 "score": 1,
 "min": 1,
 "other": {},
 "rule_name": "aseew",
 "description": "3"
}
```

Response parameters:

```
{
 "rule_id": "923084345118298112",
 "resultCode": "0405000",
 "resultDesc": "Operation successful."
}
```

### 12.2.7.4 POST /CCSQM/rest/ccisqm/v1/conversation-rules/deleteRule

#### Scenario

This interface is invoked to delete a dialog rule by ID.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/conversation-rules/deleteRule> (For example, the domain name is service.besclouds.com.)

#### Request Description

**Table 12-161** Request header parameters

| No. | Parameter | Type   | Mandatory or Not | Description |
|-----|-----------|--------|------------------|-------------|
| 1   | x-app-key | String | No               | App key ID  |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | Yes              | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-162** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description |
|-----|-----------|--------|------------------|-------------|
| 1   | rule_id   | String | Yes              | Rule ID     |

## Response Description

- **Status code: 200**

**Table 12-163** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                 |
|-----|------------|--------|------------------|---------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code. The value <b>0405000</b> indicates success, and other values indicate failure. |
| 1.2 | resultDesc | String | No               | Return description                                                                          |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Delete a dialog rule by ID.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "severity": "normal",
 "score_type": "valid",
 "method": "positive",
 "score": 1,
 "min": 1,
 "other": {},
 "rule_name": "rutuy",
 "description": "3",
 "flows": [null]
}
```

Response parameters:

```
{
 "rule_id": "923083616903237632",
 "resultCode": "0405000",
 "resultDesc": "Operation successful."
}
```

### 12.2.7.5 POST /CCSQM/rest/ccisqm/v1/conversation-rules/updateRule

#### Scenario

This interface is invoked to update a dialog rule.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/conversation-rules/updateRule> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-164** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-165** Request body parameters

| No.   | Parameter | Type   | Mandatory or Not | Description                                                     |
|-------|-----------|--------|------------------|-----------------------------------------------------------------|
| 1.1   | severity  | String | Yes              | Rule level. The options are <b>normal</b> and <b>critical</b> . |
| 1.2   | rule_id   | String | Yes              | Rule ID                                                         |
| 1.3   | score     | Number | Yes              | Rule score                                                      |
| 1.4   | other     | Object | Yes              | Additional conditions                                           |
| 1.4.1 | call_end  | Number | No               | Call start timestamp, in seconds                                |
| 1.4.2 | call_from | Number | No               | Call end timestamp, in seconds                                  |
| 1.5   | min       | Number | Yes              | Minimum number of dialog logics                                 |



| No.  | Parameter   | Type   | Mandatory or Not | Description                                                                                       |
|------|-------------|--------|------------------|---------------------------------------------------------------------------------------------------|
| 1.6  | method      | String | Yes              | Whether a rule is a positive or negative<br>The options are <b>positive</b> and <b>negative</b> . |
| 1.7  | rule_name   | String | No               | Rule name                                                                                         |
| 1.8  | resultCode  | String | No               | Return code. The value <b>0405000</b> indicates success, and other values indicate failure.       |
| 1.9  | description | String | No               | Rule description                                                                                  |
| 1.10 | resultDesc  | String | No               | Return description                                                                                |
| 1.11 | score_type  | String | Yes              | Rule score type                                                                                   |

## Response Description

- **Status code: 200**

**Table 12-166** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                           |
|-----|------------|--------|------------------|---------------------------------------------------------------------------------------|
| 1.1 | resultDesc | String | No               | Return description                                                                    |
| 1.2 | resultCode | String | No               | Return code. The value <b>0</b> indicates success, and other values indicate failure. |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Update a dialog rule.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "severity": "normal",
 "rule_id": "923084039932350464",
 "score": 1,
 "other": {},
 "min": 1,
 "method": "positive",
 "rule_name": "tesat3",
 "flows": [],
 "resultCode": "0405000",
 "description": "4",
 "completeness": {
 "hasConversationFlow": false,
 "sentenceComplete": false,
 "ruleComplete": false,
 "hasDescription": true
 },
 "resultDesc": "Operation successful."
 "score_type": "valid"
}
```

Response parameters:

```
{
 "resultCode": "0405000",
 "resultDesc": "Operation successful."
}
```

## 12.2.8 interposalrules

### 12.2.8.1 POST /CCSQM/rest/ccisqm/v1/interposal-rules/ getInterposalRuleById

#### Scenario

This interface is invoked to query an interruption rule by ID. The query criterion is **interposal\_id**, which indicates the unique ID of an interruption rule and is mandatory.

#### Method

POST

#### URI

[https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/interposal-rules/  
getInterposalRuleById](https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/interposal-rules/getInterposalRuleById) (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-167** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                       |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                                    |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                           |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <b>tokenByAkSk</b> interface}</i> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                                  |

**Table 12-168** Request body parameters

| No. | Parameter    | Type   | Mandatory or Not | Description |
|-----|--------------|--------|------------------|-------------|
| 1   | interposl_id | String | Yes              | Rule ID     |

## Response Description

- Status code: 200

**Table 12-169** Response body parameters

| No. | Parameter | Type                          | Mandatory or Not | Description |
|-----|-----------|-------------------------------|------------------|-------------|
| 1.1 | setting   | <a href="#">InterposlRule</a> | Yes              | None        |

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                 |
|-----|------------|--------|------------------|---------------------------------------------------------------------------------------------|
| 1.2 | resultCode | String | Yes              | Return code. The value <b>0405000</b> indicates success, and other values indicate failure. |
| 1.3 | resultDesc | String | Yes              | Return description                                                                          |

- Status code: 400**  
 Incorrect request. Check the request path and parameters.
- Status code: 401**  
 Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- Status code: 404**  
 The requested content is not found. Check the request path.
- Status code: 500**  
 Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Query an interruption rule by ID.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "interposal_id": "922993405183660032"
}
```

Response parameters:

```
{
 "resultCode": "0405000",
 "resultDesc": "Operation successful."
 "setting": {
 "score": "-4",
 "seconds": "4",
 "times": "4",
 "other": {
 "call_end": 1623999504,
 "call_from": 1623913102
 }
 },
 "interposal_id": "922993405183660032",
 "name": "test0613"
}
```

## 12.2.8.2 POST /CCSQM/rest/ccisqm/v1/interposal-rules/queryInterposalRules

### Scenario

This interface is invoked to query all interruption rules. The query criteria are **limit** (number of records on each page), **page** (current page number), and **keyword** (query keyword).

### Method

POST

### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/interposal-rules/queryInterposalRules> (For example, the domain name is service.besclouds.com.)

### Request Description

Table 12-170 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-171** Request body parameters

| No. | Parameter | Type        | Mandatory or Not | Description                                             |
|-----|-----------|-------------|------------------|---------------------------------------------------------|
| 1.1 | limit     | Number      | Yes              | Number of records on each page. Pagination information. |
| 1.2 | page      | Number      | No               | Current page number. Pagination information.            |
| 1.3 | keyword   | String (64) | No               | Query keyword                                           |

## Response Description

- **Status code: 200**

**Table 12-172** Response body parameters

| No.   | Parameter  | Type                       | Mandatory or Not | Description                                                                                 |
|-------|------------|----------------------------|------------------|---------------------------------------------------------------------------------------------|
| 1.1   | data       | Array<br>[InterposaleRule] | Yes              | Rule set                                                                                    |
| 1.2   | paging     | Object                     | Yes              | Pagination information                                                                      |
| 1.2.1 | total      | Number                     | Yes              | Total number of records                                                                     |
| 1.3   | resultCode | String                     | Yes              | Return code. The value <b>0405000</b> indicates success, and other values indicate failure. |
| 1.4   | resultDesc | Number                     | Yes              | Return description                                                                          |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**

Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Query all interruption rules.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "limit": 10,
 "page": 1
}
```

Response parameters:

```
{
 "data": [{
 "score": "-1",
 "seconds": "2",
 "times": "3",
 "interposals_id": "894378242138443776",
 "name": "Interruption rule name 1"
 }, {
 "score": "-4",
 "seconds": "4",
 "times": "4",
 "interposals_id": "922992717770788864",
 "name": "test0611"
 }, {
 "score": "-4",
 "seconds": "4",
 "times": "4",
 "interposals_id": "922992795956809728",
 "name": "test0612"
 }, {
 "score": "-4",
 "seconds": "4",
 "times": "4",
 "interposals_id": "922993405183660032",
 "name": "test0613"
 }],
 "resultCode": "0405000",
 "paging": {
 "total": 4
 },
 "resultDesc": "Operation successful."
}
```

### 12.2.8.3 POST /CCSQM/rest/ccisqm/v1/interposal-rules/deleteInterposalRule

#### Scenario

This interface is invoked to delete an interruption rule by ID.

#### Method

POST

## URI

[https://Domain\\_name/apiaccess/CCSQM/rest/ccisqm/v1/interposal-rules/deleteInterposalRule](https://Domain_name/apiaccess/CCSQM/rest/ccisqm/v1/interposal-rules/deleteInterposalRule) (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-173** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                            |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                   |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                          |

**Table 12-174** Request body parameters

| No. | Parameter     | Type   | Mandatory or Not | Description |
|-----|---------------|--------|------------------|-------------|
| 1   | interposal_id | String | Yes              | Rule ID     |

## Response Description

- Status code: 200



**Table 12-175** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                 |
|-----|------------|--------|------------------|---------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code. The value <b>0405000</b> indicates success, and other values indicate failure. |
| 1.2 | resultDesc | String | No               | Return description                                                                          |

- Status code: 400**  
 Incorrect request. Check the request path and parameters.
- Status code: 401**  
 Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- Status code: 404**  
 The requested content is not found. Check the request path.
- Status code: 500**  
 Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Delete an interruption rule by ID.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "interposal_id": "922993405183660032"
}
```

Response parameters:

```
{
 "resultCode": "0405000",
 "resultDesc": "Operation successful."
}
```

### 12.2.8.4 POST /CCSQM/rest/ccism/v1/interposal-rules/addInterposalRule

#### Scenario

This interface is invoked to create an interruption rule.

## Method

POST

## URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/interposal-rules/addInterposalRule> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-176** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-177** Request body parameters

| No. | Parameter | Type        | Mandatory or Not | Description                                |
|-----|-----------|-------------|------------------|--------------------------------------------|
| 1.1 | name      | String (64) | Yes              | Rule name                                  |
| 1.2 | score     | Number      | Yes              | Rule score                                 |
| 1.3 | seconds   | Number      | Yes              | Maximum duration of crosstalks, in seconds |

| No.   | Parameter | Type   | Mandatory or Not | Description                           |
|-------|-----------|--------|------------------|---------------------------------------|
| 1.4   | times     | Number | Yes              | Maximum number of crosstalks          |
| 1.5   | other     | Object | Yes              | Inspection conditions                 |
| 1.5.1 | call_end  | Number | No               | End timestamp of a call, in seconds   |
| 1.5.2 | call_from | Number | No               | Start timestamp of a call, in seconds |

## Response Description

- **Status code: 200**

**Table 12-178** Response body parameters

| No. | Parameter      | Type   | Mandatory or Not | Description                                                                                 |
|-----|----------------|--------|------------------|---------------------------------------------------------------------------------------------|
| 1.1 | resultCode     | String | No               | Return code. The value <b>0405000</b> indicates success, and other values indicate failure. |
| 1.2 | resultDesc     | String | No               | Description                                                                                 |
| 1.3 | interposals_id | String | No               | Interruption rule ID                                                                        |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Create an interruption rule.  
Request header:  
x-app-key:\*\*\*\*\* X-UserID:1611917095665261978  
Authorization:Bearer \*\*\*\*\*  
Request parameters:  
{"other":  
{"call\_from":1623913102,"call\_end":1623999504},"name":"test0611","score":4,  
"seconds":4,"times":4}  
Response parameters:  
{"interposal\_id":"922992717770788864","resultCode":"0405000","resultDesc":  
"Operation successful."}

### 12.2.8.5 POST /CCSQM/rest/ccisqm/v1/interposal-rules/updateInterposalRule

#### Scenario

This interface is invoked to update an interruption rule.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/interposal-rules/updateInterposalRule> (For example, the domain name is service.besclouds.com.)

#### Request Description

**Table 12-179** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                      |
|-----|-----------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | x-UserId  | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface. |

**Table 12-180** Request body parameters

| No.   | Parameter     | Type   | Mandatory or Not | Description                                |
|-------|---------------|--------|------------------|--------------------------------------------|
| 1.1   | score         | Number | Yes              | Rule score                                 |
| 1.2   | seconds       | Number | Yes              | Maximum duration of crosstalks, in seconds |
| 1.3   | times         | Number | Yes              | Maximum number of crosstalks               |
| 1.4   | other         | Object | Yes              | Inspection conditions                      |
| 1.4.1 | call_end      | Number | No               | End timestamp of a call, in seconds        |
| 1.4.2 | call_from     | Number | No               | Start timestamp of a call, in seconds      |
| 1.5   | interposal_id | String | Yes              | Interruption rule ID                       |
| 1.6   | name          | String | Yes              | Rule name                                  |

## Response Description

- **Status code: 200**

**Table 12-181** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description        |
|-----|------------|--------|------------------|--------------------|
| 1.1 | resultDesc | String | No               | Return description |

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                 |
|-----|------------|--------|------------------|---------------------------------------------------------------------------------------------|
| 1.2 | resultCode | String | No               | Return code. The value <b>0405000</b> indicates success, and other values indicate failure. |

- Status code: 400**  
 Incorrect request. Check the request path and parameters.
- Status code: 401**  
 Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- Status code: 404**  
 The requested content is not found. Check the request path.
- Status code: 500**  
 Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Update an interruption rule.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "score": 4,
 "seconds": 4,
 "times": 4,
 "other": {
 "call_end": 1623999504,
 "call_from": 1623913102
 },
 "interposal_id": "922993405183660032",
 "name": "test0613"
}
```

Response parameters:

```
{
 "resultCode": "0405000",
 "resultDesc": "Operation successful."
}
```

### 12.2.8.6 Common Parameter Structure

### 12.2.8.6.1 InterposalsRule

Table 12-182 InterposalsRule Parameters

| Seq.  | Name           | Type   | Mandatory | Description                        |
|-------|----------------|--------|-----------|------------------------------------|
| 1.1   | name           | string | True      | Rule Name                          |
| 1.2   | score          | number | True      | Rule Deduction                     |
| 1.3   | seconds        | number | True      | Overlapping Seconds Limit          |
| 1.4   | times          | number | True      | Overlapping Count Limit            |
| 1.5   | interposals_id | string | True      | Rule ID                            |
| 1.6   | other          | object | False     | Inspection Condition               |
| 1.6.1 | call_end       | number | False     | End time of a one-way audio call   |
| 1.6.2 | call_from      | number | False     | Start time of a one-way audio call |

## 12.2.9 silencerule

### 12.2.9.1 POST /CCSQM/rest/ccisqm/v1/silencerule/querySilenceRule

#### Scenario

This interface is invoked to query silence rule details by ID. The query criterion is **silence\_id**, which indicates the unique ID of a silence rule and is mandatory.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/silencerule/querySilenceRule> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-183** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | No               | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-184** Request body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description     |
|-----|------------|--------|------------------|-----------------|
| 1   | silence_id | String | Yes              | Silence rule ID |

## Response Description

- Status code: 200

**Table 12-185** Response body parameters

| No.   | Parameter | Type   | Mandatory or Not | Description                       |
|-------|-----------|--------|------------------|-----------------------------------|
| 1.1   | exception | Object | No               | Exception settings                |
| 1.1.1 | before    | Object | No               | Exception settings before silence |



| No.       | Parameter     | Type           | Mandatory or Not | Description                                                                                 |
|-----------|---------------|----------------|------------------|---------------------------------------------------------------------------------------------|
| 1.1.1.1   | staff         | Array [Object] | No               | IDs of sentences said by the agent                                                          |
| 1.1.1.1.1 | category_id   | String         | No               | Sentence category ID                                                                        |
| 1.1.1.1.2 | sentence_id   | String         | No               | Sentence ID                                                                                 |
| 1.1.1.1.3 | sentence_name | String         | No               | Sentence name                                                                               |
| 1.1.1.2   | customer      | Array [Object] | No               | IDs of sentences said by the customer                                                       |
| 1.1.1.2.1 | category_id   | String         | No               | Sentence category ID                                                                        |
| 1.1.1.2.2 | sentence_id   | String         | No               | Sentence ID                                                                                 |
| 1.1.1.2.3 | sentence_name | String         | No               | Sentence name                                                                               |
| 1.1.2     | after         | Object         | No               | Exception settings after silence                                                            |
| 1.1.2.1   | staff         | Array [Object] | No               | IDs of sentences said by the agent                                                          |
| 1.1.2.1.1 | category_id   | String         | No               | Sentence category ID                                                                        |
| 1.1.2.1.2 | sentence_id   | String         | No               | Sentence ID                                                                                 |
| 1.1.2.1.3 | sentence_name | String         | No               | Sentence name                                                                               |
| 1.2       | resultCode    | String         | No               | Return code. The value <b>0405000</b> indicates success, and other values indicate failure. |
| 1.3       | resultDesc    | String         | No               | Return description                                                                          |
| 1.4       | setting       | Object         | No               | Basic silence rule information                                                              |
| 1.4.1     | score         | String         | No               | Rule score                                                                                  |
| 1.4.2     | seconds       | String         | No               | Silence duration, in seconds                                                                |

| No.     | Parameter  | Type   | Mandatory or Not | Description                           |
|---------|------------|--------|------------------|---------------------------------------|
| 1.4.3   | times      | String | No               | Number of silence times               |
| 1.4.4   | silence_id | String | No               | Silence rule ID                       |
| 1.4.5   | other      | Object | No               | Trigger conditions                    |
| 1.4.5.1 | call_end   | Number | No               | Start timestamp of a call, in seconds |
| 1.4.5.2 | call_from  | Number | No               | End timestamp of a call, in seconds   |
| 1.4.6   | name       | String | No               | Rule name                             |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Query silence rule details by ID.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "silence_id": "922988537635147776"
}
```

Response parameters:

```
{
 "exception": {
 "before": {
 "staff": [{
 "category_id": "894378237264662529",
 "sentence_id": "14161",
 "sentence_name": "Intent name demo1"
 }],
 }
 }
}
```

```

 "customer": [],
 },
 "after": {
 "staff": []
 }
},
"resultCode": "0405000",
"resultDesc": "Operation successful."
"setting": {
 "score": "-4",
 "seconds": "5",
 "times": "4",
 "silence_id": "922988537635147776",
 "other": {
 "call_end": 1624430285,
 "call_from": 1623911884
 },
 "name": "test35444"
}
}

```

### 12.2.9.2 POST /CCSQM/rest/ccisqm/v1/silencerule/createSilenceRule

#### Scenario

This interface is invoked to add a silence rule.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/silencerule/createSilenceRule> (For example, the domain name is service.besclouds.com.)

#### Request Description

**Table 12-186** Request header parameters

| No. | Parameter     | Type   | Mandato ry or Not | Description                                                                                                                                                         |
|-----|---------------|--------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No                | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                      |
| 2   | x-app-key     | String | No                | App key                                                                                                                                                             |
| 3   | Authorization | String | Yes               | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the tokenByAkSk interface}</b> . (A space is required after <b>Bearer</b> .) |

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                      |
|-----|-----------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | x-UserId  | String | No               | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface. |

**Table 12-187** Request body parameters

| No.     | Parameter | Type           | Mandatory or Not | Description                                               |
|---------|-----------|----------------|------------------|-----------------------------------------------------------|
| 1.1     | setting   | Object         | No               | Basic silence rule information                            |
| 1.1.1   | name      | String         | Yes              | Rule name                                                 |
| 1.1.2   | score     | Number         | Yes              | Rule score<br>Value range: 1-100                          |
| 1.1.3   | seconds   | Number         | Yes              | Silence duration, in seconds<br>Value range: 1-2147483647 |
| 1.1.4   | times     | Number         | Yes              | Number of silence times<br>Value range: 1-2147483647      |
| 1.1.5   | other     | Object         | No               | Trigger conditions                                        |
| 1.1.5.1 | call_from | Number         | No               | Start timestamp of a call, in seconds                     |
| 1.1.5.2 | call_end  | Number         | No               | End timestamp of a call, in seconds                       |
| 1.2     | exception | Object         | No               | Exception settings                                        |
| 1.2.1   | before    | Object         | No               | Exception settings before silence                         |
| 1.2.1.1 | staff     | Array [String] | No               | IDs of sentences said by the agent                        |
| 1.2.1.2 | customer  | Array [String] | No               | IDs of sentences said by the customer                     |

| No.     | Parameter | Type           | Mandatory or Not | Description                        |
|---------|-----------|----------------|------------------|------------------------------------|
| 1.2.2   | after     | Object         | No               | Exception settings after silence   |
| 1.2.2.1 | staff     | Array [String] | No               | IDs of sentences said by the agent |

## Response Description

- **Status code: 200**

**Table 12-188** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                 |
|-----|------------|--------|------------------|---------------------------------------------------------------------------------------------|
| 1.1 | silence_id | String | No               | Silence rule ID                                                                             |
| 1.2 | resultCode | String | No               | Return code. The value <b>0405000</b> indicates success, and other values indicate failure. |
| 1.3 | resultDesc | String | No               | Return description                                                                          |

- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 409**  
The rule name exists.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Add a silent rule.  
Request header:  
x-app-key:\*\*\*\*\*  
X-UserID:1611917095665261978  
Authorization:Bearer \*\*\*\*\*

Request parameters:

```
{
 "setting": {
 "name": "test34",
 "score": 4,
 "seconds": 5,
 "times": 4,
 "other": {
 "call_from": 1623911884,
 "call_end": 1624430285
 }
 },
 "exception": {
 "before": {
 "staff": ["14161"],
 "customer": []
 },
 "after": {}
 }
}
```

Response parameters:

```
{
 "silence_id": "922987647176019968",
 "resultCode": "0405000",
 "resultDesc": "Operation successful."
}
```

### 12.2.9.3 POST /CCSQM/rest/ccisqm/v1/silencerule/querySilenceRules

#### Scenario

This interface is invoked to query a silent rule list. The query criteria are **page** (current page number), **limit** (number of records on each page), and **keyword** (query keyword).

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/silencerule/querySilenceRules> (For example, the domain name is service.besclouds.com.)

#### Request Description

**Table 12-189** Request header parameters

| No. | Parameter    | Type   | Mandato ry or Not | Description                                                    |
|-----|--------------|--------|-------------------|----------------------------------------------------------------|
| 1   | Content-Type | String | No                | The value is fixed to <b>application/json; charset=UTF-8</b> . |
| 2   | x-app-key    | String | No                | App key                                                        |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | No               | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                          |

**Table 12-190** Request body parameters

| No. | Parameter | Type        | Mandatory or Not | Description                    |
|-----|-----------|-------------|------------------|--------------------------------|
| 1.1 | page      | Number      | No               | Current page number            |
| 1.2 | limit     | Number      | Yes              | Number of records on each page |
| 1.3 | keyword   | String (64) | No               | Query keyword                  |

## Response Description

- **Status code: 200**

**Table 12-191** Response body parameters

| No.   | Parameter | Type           | Mandatory or Not | Description                  |
|-------|-----------|----------------|------------------|------------------------------|
| 1.1   | data      | Array [Object] | No               | Return information           |
| 1.1.1 | score     | String         | No               | Rule score                   |
| 1.1.2 | seconds   | String         | No               | Silence duration, in seconds |
| 1.1.3 | times     | String         | No               | Number of silence times      |

| No.   | Parameter  | Type   | Mandatory or Not | Description                                                                                 |
|-------|------------|--------|------------------|---------------------------------------------------------------------------------------------|
| 1.1.4 | silence_id | String | No               | Silence rule ID                                                                             |
| 1.1.5 | name       | String | No               | Rule name                                                                                   |
| 1.2   | resultCode | String | No               | Return code. The value <b>0405000</b> indicates success, and other values indicate failure. |
| 1.3   | paging     | Object | No               | Pagination information                                                                      |
| 1.3.1 | total      | Number | No               | Total number of records                                                                     |
| 1.4   | resultDesc | String | No               | Return description                                                                          |

- Status code: 400**  
 Incorrect request. Check the request path and parameters.
- Status code: 401**  
 Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- Status code: 404**  
 The requested content is not found. Check the request path.
- Status code: 500**  
 Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Query a silent rule list.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "page": 1,
 "limit": 10
}
```

Response parameters:

```
{
 "data": [{
 "score": "-5",
```



```
{
 "seconds": "3",
 "times": "1",
 "silence_id": "894378242029391872",
 "name": "Silence rule name 1"
}, {
 "score": "-3",
 "seconds": "4",
 "times": "4",
 "silence_id": "922671254081638400",
 "name": "test3"
}, {
 "score": "-5",
 "seconds": "5",
 "times": "5",
 "silence_id": "922671488287379456",
 "name": "tes4"
}, {
 "score": "-4",
 "seconds": "5",
 "times": "4",
 "silence_id": "922987647176019968",
 "name": "test34"
}, {
 "score": "-4",
 "seconds": "5",
 "times": "4",
 "silence_id": "922988537635147776",
 "name": "test35444"
}],
"resultCode": "0405000",
"paging": {
 "total": 5
},
"resultDesc": "Operation successful."
}
```

## 12.2.9.4 POST /CCSQM/rest/ccisqm/v1/silencerule/updateSilenceRule

### Scenario

This interface is invoked to modify a silence rule.

### Method

POST

### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/silencerule/updateSilenceRule> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-192** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                       |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                                    |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                           |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <b>tokenByAkSk</b> interface}</i> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | No               | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                                  |

**Table 12-193** Request body parameters

| No.     | Parameter | Type   | Mandatory or Not | Description                           |
|---------|-----------|--------|------------------|---------------------------------------|
| 1.1     | setting   | Object | No               | Basic silence rule information        |
| 1.1.1   | other     | Object | No               | Trigger conditions                    |
| 1.1.1.1 | call_from | Number | No               | Start timestamp of a call, in seconds |
| 1.1.1.2 | call_end  | Number | No               | End timestamp of a call, in seconds   |
| 1.1.2   | score     | Number | Yes              | Rule score<br>Value range: 1-100      |
| 1.1.3   | name      | String | Yes              | Rule name                             |

| No.     | Parameter  | Type           | Mandatory or Not | Description                                               |
|---------|------------|----------------|------------------|-----------------------------------------------------------|
| 1.1.4   | seconds    | Number         | Yes              | Silence duration, in seconds<br>Value range: 1-2147483647 |
| 1.1.5   | times      | Number         | Yes              | Number of silence times<br>Value range: 1-2147483647      |
| 1.1.6   | silence_id | String         | Yes              | Silence rule ID                                           |
| 1.2     | exception  | Object         | No               | Exception settings                                        |
| 1.2.1   | before     | Object         | No               | Exception settings before silence                         |
| 1.2.1.1 | staff      | Array [String] | No               | IDs of sentences said by the agent                        |
| 1.2.1.2 | customer   | Array [String] | No               | IDs of sentences said by the customer                     |
| 1.2.2   | after      | Object         | No               | Exception settings after silence                          |
| 1.2.2.1 | staff      | Array [String] | No               | IDs of sentences said by the agent                        |

## Response Description

- **Status code: 200**

**Table 12-194** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                 |
|-----|------------|--------|------------------|---------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code. The value <b>0405000</b> indicates success, and other values indicate failure. |
| 1.2 | resultDesc | String | No               | Return description                                                                          |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.

- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Modify a silence rule.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "exception": {
 "before": {
 "staff": ["14161"],
 "customer": []
 },
 "after": {}
 },
 "setting": {
 "score": 4,
 "seconds": 5,
 "times": 4,
 "silence_id": "922988537635147776",
 "other": {
 "call_end": 1624430285,
 "call_from": 1623911884
 },
 "name": "test35444"
 }
}
```

Response parameters:

```
{
 "resultCode": "0405000",
 "resultDesc": "Operation successful."
}
```

### 12.2.9.5 POST /CCSQM/rest/ccisqm/v1/silencerule/deleteSilenceRule

#### Scenario

This interface is invoked to delete a silence rule by ID.

#### Method

POST

## URI

`https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/silencerule/deleteSilenceRule` (For example, the domain name is `service.besclouds.com`.)

## Request Description

**Table 12-195** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                     |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                                  |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                         |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <code>tokenByAkSk</code> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | No               | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                                |

**Table 12-196** Request body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description     |
|-----|------------|--------|------------------|-----------------|
| 1   | silence_id | String | Yes              | Silence rule ID |

## Response Description

- Status code: 200

**Table 12-197** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                 |
|-----|------------|--------|------------------|---------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code. The value <b>0405000</b> indicates success, and other values indicate failure. |
| 1.2 | resultDesc | String | No               | Return description                                                                          |

- Status code: 400**  
 Incorrect request. Check the request path and parameters.
- Status code: 401**  
 Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- Status code: 404**  
 The requested content is not found. Check the request path.
- Status code: 500**  
 Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Delete a silence rule by ID.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "silence_id": "922988537635147776"
}
```

Response parameters:

```
{
 "resultCode": "0405000",
 "resultDesc": "Operation successful."
}
```

## 12.2.10 speedrule

## 12.2.10.1 POST /CCSQM/rest/ccisqm/v1/speedrule/addSpeedRule

### Scenario

This interface is invoked to add a speed rule.

### Method

POST

### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/speedrule/addSpeedRule>  
(For example, the domain name is service.besclouds.com.)

### Request Description

**Table 12-198** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | No               | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-199** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description       |
|-----|-----------|--------|------------------|-------------------|
| 1.1 | setting   | Object | Yes              | Basic information |

| No.     | Parameter | Type           | Mandatory or Not | Description                                                                     |
|---------|-----------|----------------|------------------|---------------------------------------------------------------------------------|
| 1.1.1   | name      | String         | Yes              | Speed rule name                                                                 |
| 1.1.2   | score     | Number         | Yes              | Points deducted due to violation. The value ranges from 0 to 100.               |
| 1.1.3   | min       | Number         | Yes              | Minimum speed. The value ranges from 1 to 220.                                  |
| 1.1.4   | max       | Number         | Yes              | Maximum speed. The value ranges from 1 to 2147483647.                           |
| 1.1.5   | other     | Object         | No               | Trigger conditions                                                              |
| 1.1.5.1 | call_from | Number         | No               | Call start time<br>The value is a timestamp, in seconds.                        |
| 1.1.5.2 | call_end  | Number         | No               | Call end time<br>The value is a timestamp, in seconds.                          |
| 1.2     | exception | Object         | Yes              | Exception settings                                                              |
| 1.2.1   | under     | Object         | Yes              | Sentences said by the customer when the speed is less than the minimum limit    |
| 1.2.1.1 | customer  | Array [String] | No               | IDs of sentences said by the customer                                           |
| 1.2.2   | over      | Object         | Yes              | Sentences said by the customer when the speed is greater than the maximum limit |
| 1.2.2.1 | customer  | Array [String] | No               | IDs of sentences said by the customer                                           |

## Response Description

- **Status code: 200**



**Table 12-200** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                 |
|-----|------------|--------|------------------|---------------------------------------------------------------------------------------------|
| 1.1 | speed_id   | String | No               | ID of the added speed rule                                                                  |
| 1.2 | resultCode | String | No               | Return code. The value <b>0405000</b> indicates success, and other values indicate failure. |
| 1.3 | resultDesc | String | No               | Return description                                                                          |

- Status code: 400**  
 Incorrect request. Check the request path and parameters.
- Status code: 401**  
 Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- Status code: 404**  
 The requested content is not found. Check the request path.
- Status code: 500**  
 Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Add a speed rule.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
x-TenantSpaceId:202101124979
```

Request parameters:

```
{
 "setting": {
 "name": "APIcs",
 "score": 4,
 "min": 80,
 "max": 120,
 "other": {
 "call_from": 1622515590,
 "call_end": 1625021193
 }
 },
 "exception": {
 "under": {},
 "over": {}
 }
}
```

```
}
}
Response parameters:
{
 "resultCode": "0405000",
 "speed_id": "925095745760006144",
 "resultDesc": "Operation successful."
}
```

## 12.2.10.2 POST /CCSQM/rest/ccisqm/v1/speedrule/querySpeedRuleById

### Scenario

This interface is invoked to query speed rule details by ID. The query criterion is **speed\_id**, which indicates the unique ID of a speed rule and is mandatory.

### Method

POST

### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/speedrule/querySpeedRuleById> (For example, the domain name is service.besclouds.com.)

### Request Description

Table 12-201 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                      |
|-----|-----------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | x-UserId  | String | No               | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface. |

**Table 12-202** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description   |
|-----|-----------|--------|------------------|---------------|
| 1   | speed_id  | String | Yes              | Speed rule ID |

## Response Description

- **Status code: 200**

**Table 12-203** Response body parameters

| No.       | Parameter     | Type           | Mandatory or Not | Description                                                |
|-----------|---------------|----------------|------------------|------------------------------------------------------------|
| 1.1       | exception     | Object         | No               | Exception information                                      |
| 1.1.1     | under         | Object         | No               | Condition that the speed is less than the minimum limit    |
| 1.1.1.1   | customer      | Array [Object] | No               | Sentences said by the customer                             |
| 1.1.1.1.1 | sentence_id   | String         | No               | Sentence ID                                                |
| 1.1.1.1.2 | sentence_name | String         | No               | Sentence name                                              |
| 1.1.1.1.3 | category_id   | String         | No               | Sentence category ID                                       |
| 1.1.2     | over          | Object         | No               | Condition that the speed is greater than the maximum limit |

| No.       | Parameter     | Type           | Mandatory or Not | Description                                                                                            |
|-----------|---------------|----------------|------------------|--------------------------------------------------------------------------------------------------------|
| 1.1.2.1   | customer      | Array [Object] | No               | Sentences said by the customer                                                                         |
| 1.1.2.1.1 | sentence_id   | String         | No               | Sentence ID                                                                                            |
| 1.1.2.1.2 | sentence_name | String         | No               | Sentence name                                                                                          |
| 1.1.2.1.3 | category_id   | String         | No               | Sentence category ID                                                                                   |
| 1.2       | setting       | Object         | No               | Basic information                                                                                      |
| 1.2.1     | name          | String         | No               | Speed rule name                                                                                        |
| 1.2.2     | score         | Number         | No               | Points deducted due to violation. The value ranges from 0 to 100.                                      |
| 1.2.3     | min           | Number         | No               | Minimum speed, which is the minimum number of words per minute. The value ranges from 1 to 220.        |
| 1.2.4     | max           | Number         | No               | Maximum speed, which is the maximum number of words per minute. The value ranges from 1 to 2147483647. |
| 1.2.5     | speed_id      | String         | No               | Speed rule ID                                                                                          |
| 1.2.6     | other         | Object         | No               | Trigger conditions (start time and end time)                                                           |
| 1.2.6.1   | call_end      | Number         | No               | Call start time, in milliseconds                                                                       |
| 1.2.6.2   | call_from     | Number         | No               | Call end time, in milliseconds                                                                         |
| 1.3       | resultCode    | String         | Yes              | Return code. The value <b>0405000</b> indicates success, and other values indicate failure.            |
| 1.4       | resultDesc    | String         | Yes              | Return description                                                                                     |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Query speed rule details by ID.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
x-TenantSpaceId:202101124979
```

Request parameters:

```
{
 "speed_id": "849706874868600832"
}
```

Response parameters:

```
{
 "exception": {
 "over": {
 "customer": []
 },
 "under": {
 "customer": []
 }
 },
 "resultCode": "0405000",
 "resultDesc": "Operation successful."
 "setting": {
 "score": "-3",
 "other": {
 "call_end": 0,
 "call_from": 0
 },
 "min": "90",
 "max": "150",
 "name": "Speed rule",
 "speed_id": "925095745760006144"
 }
}
```

### 12.2.10.3 POST /CCSQM/rest/ccisqm/v1/speedrule/deleteSpeedRule

#### Scenario

This interface is invoked to delete a speed rule by ID.

## Method

POST

## URI

`https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/speedrule/deleteSpeedRule` (For example, the domain name is `service.besclouds.com`.)

## Request Description

**Table 12-204** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | No               | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-205** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description |
|-----|-----------|--------|------------------|-------------|
| 1   | speed_id  | String | Yes              | Rule ID     |

## Response Description

- **Status code: 200**

**Table 12-206** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                 |
|-----|------------|--------|------------------|---------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code. The value <b>0405000</b> indicates success, and other values indicate failure. |
| 1.2 | resultDesc | String | No               | Return description                                                                          |

- Status code: 400**  
 Incorrect request. Check the request path and parameters.
- Status code: 401**  
 Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- Status code: 404**  
 The requested content is not found. Check the request path.
- Status code: 500**  
 Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Delete a speed rule.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
x-TenantSpaceId:202101124979
```

Request parameters:

```
{
 "speed_id": "849706874868600832"
}
```

Response parameters:

```
{
 "resultCode": "0405000",
 "resultDesc": "Operation successful."
}
```

## 12.2.10.4 POST /CCSQM/rest/ccisqm/v1/speedrule/querySpeedRules

### Scenario

This interface is invoked to query speed rules in pagination mode. The query criteria are **page** (current page number), **limit** (number of records on each page), and **keyword** (query keyword).

### Method

POST

### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/speedrule/querySpeedRules> (For example, the domain name is service.besclouds.com.)

### Request Description

Table 12-207 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | No               | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |



**Table 12-208** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                             |
|-----|-----------|--------|------------------|---------------------------------------------------------|
| 1.1 | page      | Number | No               | Current page number. Pagination information.            |
| 1.2 | limit     | Number | Yes              | Number of records on each page. Pagination information. |
| 1.3 | keyword   | String | No               | Query keyword                                           |

## Response Description

- Status code: 200

**Table 12-209** Response body parameters

| No.   | Parameter | Type           | Mandatory or Not | Description                                                                                            |
|-------|-----------|----------------|------------------|--------------------------------------------------------------------------------------------------------|
| 1.1   | data      | Array [Object] | No               | Rule set                                                                                               |
| 1.1.1 | name      | String         | No               | Speed rule name                                                                                        |
| 1.1.2 | score     | Number         | No               | Points deducted due to violation. The value ranges from 0 to 100.                                      |
| 1.1.3 | min       | Number         | No               | Minimum speed, which is the minimum number of words per minute. The value ranges from 1 to 220.        |
| 1.1.4 | max       | Number         | No               | Maximum speed, which is the maximum number of words per minute. The value ranges from 1 to 2147483647. |
| 1.1.5 | speed_id  | String         | No               | Speed rule ID                                                                                          |
| 1.2   | paging    | Object         | Yes              | Pagination information                                                                                 |
| 1.2.1 | total     | Number         | Yes              | Total number of records                                                                                |

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                 |
|-----|------------|--------|------------------|---------------------------------------------------------------------------------------------|
| 1.3 | resultCode | String | No               | Return code. The value <b>0405000</b> indicates success, and other values indicate failure. |
| 1.4 | resultDesc | String | No               | Return description                                                                          |

- Status code: 400**  
 Incorrect request. Check the request path and parameters.
- Status code: 401**  
 Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- Status code: 404**  
 The requested content is not found. Check the request path.
- Status code: 500**  
 Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Query speed rules.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
x-TenantSpacId:202101124979
```

Request parameters:

```
{
 "page": 1,
 "limit": 10,
 "keyword": "APIcs"
}
```

Response parameters:

```
{
 "data": [{
 "score": -3,
 "min": 100,
 "max": "150",
 "name": "rule",
 "speed_id": "925095745760006144"
 }],
 "resultCode": "0405000",
 "paging": {
 "total": 1
 }
},
```

```

 "resultDesc": "Operation successful."
 }

```

## 12.2.10.5 POST /CCSQM/rest/ccisqm/v1/speedrule/updateSpeedRule

### Scenario

This interface is invoked to modify a speed rule.

### Method

POST

### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/speedrule/updateSpeedRule> (For example, the domain name is service.besclouds.com.)

### Request Description

**Table 12-210** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | No               | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-211** Request body parameters

| No.     | Parameter | Type   | Mandatory or Not | Description                                                                                            |
|---------|-----------|--------|------------------|--------------------------------------------------------------------------------------------------------|
| 1.1     | setting   | Object | Yes              | Basic information                                                                                      |
| 1.1.1   | name      | String | Yes              | Speed rule name                                                                                        |
| 1.1.2   | score     | Number | Yes              | Points deducted due to violation. The value ranges from 0 to 100.                                      |
| 1.1.3   | min       | Number | Yes              | Minimum speed, which is the minimum number of words per minute. The value ranges from 1 to 220.        |
| 1.1.4   | max       | Number | Yes              | Maximum speed, which is the maximum number of words per minute. The value ranges from 1 to 2147483647. |
| 1.1.5   | other     | Object | No               | Trigger conditions (start time and end time)                                                           |
| 1.1.5.1 | call_from | Number | No               | Call start time, in milliseconds                                                                       |
| 1.1.5.2 | call_end  | Number | No               | Call end time, in milliseconds                                                                         |
| 1.1.6   | speed_id  | String | Yes              | Speed rule ID                                                                                          |
| 1.2     | exception | Object | Yes              | Exception settings                                                                                     |
| 1.2.1   | under     | Object | Yes              | Sentences said by the customer when the speed is less than the minimum limit                           |
| 1.2.1.1 | customer  | array  | No               | IDs of sentences said by the customer                                                                  |
| 1.2.2   | over      | Object | Yes              | Sentences said by the customer when the speed is greater than the maximum limit                        |
| 1.2.2.1 | customer  | array  | No               | IDs of sentences said by the customer                                                                  |

## Response Description

- **Status code: 200**

**Table 12-212** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                 |
|-----|------------|--------|------------------|---------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code. The value <b>0405000</b> indicates success, and other values indicate failure. |
| 1.2 | resultDesc | String | No               | Return description                                                                          |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Modify a speed rule.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
x-TenantSpaceId:202101124979
```

Request parameters:

```
{
 "exception": {
 "under": {
 "customer": ["11064"]
 },
 "over": {
 "customer": ["11093"]
 }
 },
 "setting": {
 "score": 3,
 "other": {
 "call_end": null,

```

```

 "call_from": null
 },
 "min": 90,
 "max": 100,
 "name": "toofast",
 "speed_id": "849706874868600832"
}

```

Response parameters:

```

{
 "resultCode": "0405000",
 "resultDesc": "Operation successful."
}

```

## 12.2.11 scenariomanage

### 12.2.11.1 POST /CCSQM/rest/ccisqm/v1/scenariomanage/deleteScenario

#### Scenario

This interface is invoked to delete a business scenario based on its unique ID.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/scenariomanage/deleteScenario> (For example, the domain name is service.besclouds.com.)

#### Request Description

Table 12-213 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                      |
|-----|-----------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | x-UserId  | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface. |

Table 12-214 Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description          |
|-----|-----------|--------|------------------|----------------------|
| 1   | group_id  | String | Yes              | Business scenario ID |

## Response Description

- **Status code: 200**

Table 12-215 Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                     |
|-----|------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"><li>• <b>0406000</b>: success</li><li>• Others: failure</li></ul> |
| 1.2 | resultDesc | String | No               | Return description                                                                                              |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Delete a business scenario

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "group_id": "groupid_dc1ba2ab-9d3b-438b-be12-0f122c930cc5"
}
```

Response parameters:

```
{
 "resultCode": "0406000",
 "resultDesc": "The business scenario is deleted successfully."
}
```

### 12.2.11.2 POST /CCSQM/rest/ccisqm/v1/scenariomanage/ updateScenarioStatus

#### Scenario

This interface is invoked to update the business scenario status.

#### Method

POST

#### URI

[https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/scenariomanage/  
updateScenarioStatus](https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/scenariomanage/updateScenarioStatus) (For example, the domain name is service.besclouds.com.)

#### Request Description

Table 12-216 Request header parameters

| No. | Parameter    | Type   | Mandato<br>ry or Not | Description                                                   |
|-----|--------------|--------|----------------------|---------------------------------------------------------------|
| 1   | Content-Type | String | No                   | The value is fixed to <b>application/json; charset=UTF-8.</b> |
| 2   | x-app-key    | String | No                   | App key                                                       |



| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                          |

**Table 12-217** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                              |
|-----|-----------|--------|------------------|------------------------------------------------------------------------------------------|
| 1.1 | group_id  | String | Yes              | Business scenario ID                                                                     |
| 1.2 | is_enable | Number | Yes              | Whether to enable a business scenario. The options are <b>0</b> (no) and <b>1</b> (yes). |

## Response Description

- **Status code: 200**

**Table 12-218** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1   | schema     | String | Yes              | Successful response                                                                                                |
| 1.2 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>• <b>0406000</b>: success</li> <li>• Others: failure</li> </ul> |
| 1.3 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Update the business scenario status.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "group_id": "groupid_826b89d9-bec9-4c14-b677-1d86f16c4993",
 "is_enable": 1
}
```

Response parameters:

```
{
 "resultCode": "0406000",
 "resultDesc": "The business scenario status is updated successfully."
}
```

### 12.2.11.3 POST /CCSQM/rest/ccisqm/v1/scenariomanage/createScenario

#### Scenario

This interface is invoked to create a business scenario.

After a business scenario is created, it is unavailable. You need to invoke the interface for updating a business scenario to update it before using it normally.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/scenariomanage/createScenario> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-219** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                       |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                                    |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                           |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <b>tokenByAkSk</b> interface}</i> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                                  |

**Table 12-220** Request body parameters

| No. | Parameter        | Type   | Mandatory or Not | Description                                                                                                                                                                               |
|-----|------------------|--------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | group_name       | String | Yes              | Business scenario name                                                                                                                                                                    |
| 1.2 | description      | String | No               | Business scenario description                                                                                                                                                             |
| 1.3 | ignore_sensitive | Number | No               | Whether to calculate the points deducted for sensitive words. The options are <b>0</b> (yes) and <b>1</b> (no). If this parameter is not transferred, the default value <b>0</b> is used. |
| 1.4 | other            | Object | Yes              | Call filter conditions of a scenario                                                                                                                                                      |

| No.   | Parameter        | Type    | Mandatory or Not | Description                                                                                                    |
|-------|------------------|---------|------------------|----------------------------------------------------------------------------------------------------------------|
| 1.4.1 | call_end         | Number  | No               | Call end time. The value is a timestamp, in seconds.                                                           |
| 1.4.2 | call_from        | Number  | No               | Call start time. The value is a timestamp, in seconds.                                                         |
| 1.5   | interaction_type | Integer | No               | Inspection type <ul style="list-style-type: none"> <li>• 0 or empty: voice</li> <li>• 2: multimedia</li> </ul> |

## Response Description

- **Status code: 200**

**Table 12-221** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                 |
|-----|------------|--------|------------------|-------------------------------------------------------------------------------------------------------------|
| 1.1 | group_id   | String | Yes              | Business scenario ID                                                                                        |
| 1.2 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>• 0406000: success</li> <li>• Others: failure</li> </ul> |
| 1.3 | resultDesc | String | No               | Return description                                                                                          |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Create a business scenario.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "group_name": "Business scenario 1",
 "description": "Business scenario",
 "ignore_sensitive": 0,
 "other": {
 "type": 0,
 "connected_call_type": 0,
 "call_from": 1622536490,
 "call_end": 1625042093
 }
}
```

Response parameters:

```
{
 "group_id": "groupid_48450728-6b9d-4942-9884-2c5405e974d0",
 "resultCode": "0406000",
 "resultDesc": "The business scenario is created successfully."
}
```

### 12.2.11.4 POST /CCSQM/rest/ccisqm/v1/scenariomanage/queryScenario

#### Scenario

This interface is invoked to query details about a business scenario based on its unique ID.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/scenariomanage/queryScenario> (For example, the domain name is service.besclouds.com.)

#### Request Description

Table 12-222 Request header parameters

| No. | Parameter    | Type   | Mandatory or Not | Description                                                    |
|-----|--------------|--------|------------------|----------------------------------------------------------------|
| 1   | Content-Type | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> . |
| 2   | x-app-key    | String | No               | App key                                                        |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                          |

**Table 12-223** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description          |
|-----|-----------|--------|------------------|----------------------|
| 1   | group_id  | String | Yes              | Business scenario ID |

## Response Description

- **Status code: 200**

**Table 12-224** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                              |
|-----|------------|--------|------------------|------------------------------------------------------------------------------------------|
| 1.1 | group_id   | String | Yes              | Business scenario ID                                                                     |
| 1.2 | group_name | String | No               | Business scenario name                                                                   |
| 1.3 | is_enable  | Number | Yes              | Whether to enable a business scenario. The options are <b>0</b> (no) and <b>1</b> (yes). |
| 1.4 | other      | Object | No               | Conditions for triggering a business scenario                                            |

| No.   | Parameter        | Type           | Mandatory or Not | Description                                                                                                     |
|-------|------------------|----------------|------------------|-----------------------------------------------------------------------------------------------------------------|
| 1.4.1 | call_end         | Number         | No               | Call start time. The value is a timestamp, in seconds.                                                          |
| 1.4.2 | call_from        | Number         | No               | Call end time. The value is a timestamp, in seconds.                                                            |
| 1.5   | create_time      | Number         | No               | Creation time                                                                                                   |
| 1.6   | description      | String         | No               | Business scenario description                                                                                   |
| 1.7   | ignore_sensitive | Number         | No               | Whether to calculate the points deducted for sensitive words. The options are <b>0</b> (yes) and <b>1</b> (no). |
| 1.8   | rules            | Array [String] | No               | Dialog rules. Use commas (,) to separate multiple rules.                                                        |
| 1.9   | silence_rules    | Array [String] | No               | Silence rules. Use commas (,) to separate multiple rules.                                                       |
| 1.10  | speed_rules      | Array [String] | No               | Speed rules. Use commas (,) to separate multiple rules.                                                         |
| 1.11  | interposal_rules | Array [String] | No               | Interruption rules. Use commas (,) to separate multiple rules.                                                  |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Query details about a business scenario.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "group_id": "groupid_33bba990-c39e-4397-a649-1fdb46d54b17"
}
```

Response parameters:

```
{
 "tenant_id": "202106114153",
 "silence_rules": [{
 "rule_id": "920806740809748480",
 "rule_name": "Silence rule 1"
 }],
 "other": {},
 "speed_rules": [],
 "interposal_rules": [],
 "create_time": 1624413549,
 "group_name": "Business scenario 1",
 "group_id": "groupid_48450728-6b9d-4942-9884-2c5405e974d0",
 "ignore_sensitive": 0,
 "is_enable": 0,
 "description": "",
 "rules": []
}
```

### 12.2.11.5 POST /CCSQM/rest/ccisqm/v1/scenariomanage/updateScenario

#### Scenario

This interface is invoked to update a business scenario.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/scenariomanage/updateScenario> (For example, the domain name is service.besclouds.com.)



## Request Description

**Table 12-225** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                       |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                                    |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                           |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <b>tokenByAkSk</b> interface}</i> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                                  |

**Table 12-226** Request body parameters

| No. | Parameter   | Type   | Mandatory or Not | Description                                                                              |
|-----|-------------|--------|------------------|------------------------------------------------------------------------------------------|
| 1.1 | group_id    | String | Yes              | Business scenario ID                                                                     |
| 1.2 | group_name  | String | Yes              | Business scenario name                                                                   |
| 1.3 | description | String | No               | Business scenario description                                                            |
| 1.4 | is_enable   | Number | Yes              | Whether to enable a business scenario. The options are <b>0</b> (no) and <b>1</b> (yes). |

| No.   | Parameter        | Type           | Mandatory or Not | Description                                                                                                                                                                               |
|-------|------------------|----------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.5   | ignore_sensitive | Number         | No               | Whether to calculate the points deducted for sensitive words. The options are <b>0</b> (yes) and <b>1</b> (no). If this parameter is not transferred, the default value <b>0</b> is used. |
| 1.6   | other            | Object         | No               | Call filter conditions of a scenario                                                                                                                                                      |
| 1.6.1 | call_end         | Number         | No               | Call end time. The value is a timestamp, in seconds.                                                                                                                                      |
| 1.6.2 | call_from        | Number         | No               | Call start time. The value is a timestamp, in seconds.                                                                                                                                    |
| 1.7   | rules            | Array [String] | No               | Dialog rules. Use commas (,) to separate multiple rules.                                                                                                                                  |
| 1.8   | silence_rules    | Array [String] | No               | Silence rules. Use commas (,) to separate multiple rules.                                                                                                                                 |
| 1.9   | speed_rules      | Array [String] | No               | Speed rules. Use commas (,) to separate multiple rules.                                                                                                                                   |
| 1.10  | interposal_rules | Array [String] | No               | Interruption rules. Use commas (,) to separate multiple rules.                                                                                                                            |
| 1.11  | interaction_type | Integer        | No               | Inspection type <ul style="list-style-type: none"> <li>• <b>0</b> or empty: voice</li> <li>• <b>2</b>: multimedia</li> </ul>                                                              |

## Response Description

- Status code: 200

**Table 12-227** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>● <b>0406000</b>: success</li> <li>● Others: failure</li> </ul> |
| 1.2 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Update a business scenario.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "group_name": "OIAP",
 "description": "OIAP",
 "is_enable": 1,
 "ignore_sensitive": 0,
 "other": {
 "call_from": null,
 "call_end": null
 },
 "Speed_rules": ["919423582684057600"],
 "group_id": "groupid_826b89d9-bec9-4c14-b677-1d86f16c4993"
}
```

Response parameters:

```
{
 "resultCode": "0406000",
 "resultDesc": "The business scenario is updated successfully."
}
```

## 12.2.11.6 POST /CCSQM/rest/ccisqm/v1/scenariomanage/queryAllScenario

### Scenario

This interface is invoked to query all business scenarios.

### Method

POST

### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/scenariomanage/queryAllScenario> (For example, the domain name is service.besclouds.com.)

### Request Description

Table 12-228 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-229** Request body parameters

| No. | Parameter      | Type   | Mandatory or Not | Description                                                                              |
|-----|----------------|--------|------------------|------------------------------------------------------------------------------------------|
| 1.1 | limit          | Number | Yes              | Number of records on each page                                                           |
| 1.2 | page           | Number | Yes              | Page number                                                                              |
| 1.3 | scenarioName   | String | No               | Business scenario name                                                                   |
| 1.4 | scenarioStatus | String | No               | Whether to enable a business scenario. The options are <b>0</b> (no) and <b>1</b> (yes). |
| 1.5 | startTime      | String | No               | Creation start time                                                                      |
| 1.6 | endTime        | String | No               | Creation end time                                                                        |

## Response Description

- **Status code: 200**

**Table 12-230** Response body parameters

| No.   | Parameter   | Type           | Mandatory or Not | Description                                                                              |
|-------|-------------|----------------|------------------|------------------------------------------------------------------------------------------|
| 1.1   | total       | Number         | No               | Total number of query results                                                            |
| 1.2   | data        | Array [Object] | No               | Business scenario query result object                                                    |
| 1.2.1 | group_id    | String         | Yes              | Business scenario ID                                                                     |
| 1.2.2 | group_name  | String         | No               | Business scenario name                                                                   |
| 1.2.3 | is_enable   | Number         | Yes              | Whether to enable a business scenario. The options are <b>0</b> (no) and <b>1</b> (yes). |
| 1.2.4 | create_time | Number         | Yes              | Time when a business scenario is created                                                 |
| 1.2.5 | description | String         | No               | Business scenario description                                                            |

| No.     | Parameter        | Type   | Mandatory or Not | Description                                                                                                                  |
|---------|------------------|--------|------------------|------------------------------------------------------------------------------------------------------------------------------|
| 1.2.6   | other            | Object | No               | Overall call filter conditions of a scenario                                                                                 |
| 1.2.6.1 | call_from        | Number | No               | Call start time. The value is a timestamp, in seconds.                                                                       |
| 1.2.6.2 | call_end         | Number | No               | Call end time. The value is a timestamp, in seconds.                                                                         |
| 1.2.7   | rule_count       | Number | No               | Total number of configured inspection rules                                                                                  |
| 1.2.8   | ignore_sensitive | Number | No               | Whether to calculate the points deducted for sensitive words. The options are <b>0</b> (yes) and <b>1</b> (no).              |
| 1.2.9   | interaction_type | Number | No               | Inspection type <ul style="list-style-type: none"> <li>• <b>0</b> or empty: voice</li> <li>• <b>2</b>: multimedia</li> </ul> |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Query all business scenarios.  
Request header:  
x-app-key:\*\*\*\*\*  
X-UserID:1611917095665261978  
Authorization:Bearer \*\*\*\*\*

Request parameters:

```
{
 "limit": 10,
 "page": 1,
 "scenarioName": null,
 "startTime": null,
 "endTime": null,
 "scenarioStatus": null
}
```

Response parameters:

```
{
 "total": 1,
 "data": [{
 "tenant_id": "202106114153",
 "silence_rules": ["920806740809748480"],
 "other": {},
 "speed_rules": [],
 "interposals_rules": [],
 "create_time": 1623391966,
 "group_name": "test3",
 "ignore_sensitive": 0,
 "is_enable": 1,
 "description": "3",
 "rules": [],
 "group_id": "groupid_1760cfbb-e24c-4c9f-92f7-2701f154577c",
 "rule_count": 1
 }]
}
```

## 12.2.12 qualitycheckmanage

### 12.2.12.1 POST /CCSQM/rest/ccisqm/v1/appraisecall/details

#### Scenario

This interface is invoked to obtain the call status and ASR result.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/appraisecall/details> (For example, the domain name is service.besclouds.com.)

#### Request Description

Table 12-231 Request header parameters

| No. | Parameter    | Type   | Mandatory or Not | Description                                                    |
|-----|--------------|--------|------------------|----------------------------------------------------------------|
| 1   | Content-Type | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> . |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                   |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                          |

**Table 12-232** Request body parameters

| No. | Parameter  | Type               | Mandatory or Not | Description                                                                                    |
|-----|------------|--------------------|------------------|------------------------------------------------------------------------------------------------|
| 1.1 | call_from  | Number             | No               | Call start time<br>The value is a timestamp, in seconds.                                       |
| 1.2 | call_to    | Number             | No               | Call end time<br>The value is a timestamp, in seconds.                                         |
| 1.3 | call_types | Array<br>[Integer] | Yes              | Call file type <ul style="list-style-type: none"> <li>● 0: voice</li> <li>● 2: text</li> </ul> |
| 1.4 | limit      | Integer            | Yes              | Number of records on each page                                                                 |
| 1.5 | page       | Integer            | Yes              | Page number                                                                                    |



| No. | Parameter | Type               | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----|-----------|--------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.6 | status    | Array<br>[Integer] | Yes              | Inspection status <ul style="list-style-type: none"> <li>● <b>0:</b> The call is waiting for inspection.</li> <li>● <b>1:</b> The inspection is in progress.</li> <li>● <b>2:</b> The inspection is successful.</li> <li>● <b>3:</b> The ASR is in progress.</li> <li>● <b>9:</b> The inspection fails. An error occurs, or the data volume of inspection audio files or the number of daily inspection files reaches the upper limit.</li> <li>● <b>31:</b> The voice content of the ASR result is empty.</li> <li>● <b>32:</b> The ASR fails.</li> <li>● <b>33:</b> The voice file fails to be uploaded to the ASR.</li> <li>● <b>34:</b> The iFLYTEK ASR result transfer task fails to be submitted.</li> <li>● <b>35:</b> The multimedia inspection task fails to be executed.</li> <li>● <b>36:</b> The TUC inspection fails.</li> <li>● <b>37:</b> The ASR fails to convert the voice file to a text file.</li> <li>● <b>38:</b> The inspection result fails to be updated.</li> <li>● <b>39:</b> The inspection task fails to be executed.</li> </ul> |

| No.  | Parameter    | Type    | Mandatory or Not | Description                                                                                                                                              |
|------|--------------|---------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |              |         |                  | <ul style="list-style-type: none"> <li>40: The voice file is invalid.</li> </ul>                                                                         |
| 1.7  | keyword      | String  | No               | Dialog keyword                                                                                                                                           |
| 1.8  | staff_id     | String  | No               | User ID of an agent<br>You can sign in to the system and go to the agent management page to view the value of <b>accountId</b> returned by an interface. |
| 1.9  | staff_name   | String  | No               | Agent name                                                                                                                                               |
| 1.10 | upload_from  | Number  | Yes              | Call upload start time                                                                                                                                   |
| 1.11 | upload_to    | Number  | Yes              | Call upload end time                                                                                                                                     |
| 1.12 | duration_min | Integer | No               | Minimum call duration                                                                                                                                    |
| 1.13 | duration_max | Integer | No               | Maximum call duration                                                                                                                                    |

## Response Description

- Status code: 200

Table 12-233 Response body parameters

| No.     | Parameter | Type           | Mandatory or Not | Description            |
|---------|-----------|----------------|------------------|------------------------|
| 1.1     | paging    | Object         | No               | Page information       |
| 1.1.1   | total     | Number         | No               | Total number of calls  |
| 1.2     | data      | Array [Object] | No               | Call information list  |
| 1.2.1   | calls     | Array [Object] | No               | Multi-call information |
| 1.2.1.1 | call_id   | String         | No               | Session ID             |
| 1.2.1.2 | call_time | Number         | No               | Call time              |
| 1.2.1.3 | call_type | Number         | No               | File type              |

| No.      | Parameter          | Type   | Mandatory or Not | Description                                                                                                                                              |
|----------|--------------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.2.1.4  | call_uuid          | String | No               | Session UUID                                                                                                                                             |
| 1.2.1.5  | deal               | Number | No               | Whether the business is completed                                                                                                                        |
| 1.2.1.6  | duration           | Number | No               | Call duration                                                                                                                                            |
| 1.2.1.7  | file_name          | String | No               | File name                                                                                                                                                |
| 1.2.1.8  | left_channel       | String | No               | Channel information, which is used to identify a customer or agent                                                                                       |
| 1.2.1.9  | left_silence_time  | Number | No               | Silence time                                                                                                                                             |
| 1.2.1.10 | left_speech_ratio  | Number | No               | Left channel speaking proportion. The speaker is determined by the <b>left_channel</b> parameter.                                                        |
| 1.2.1.11 | left_speed         | Number | No               | Left channel speaking speed                                                                                                                              |
| 1.2.1.12 | right_channel      | String | No               | Channel information, which is used to identify a customer or agent                                                                                       |
| 1.2.1.13 | right_silence_time | Number | No               | Silence time                                                                                                                                             |
| 1.2.1.14 | right_speech_ratio | Number | No               | Right channel speaking proportion                                                                                                                        |
| 1.2.1.15 | right_speed        | Number | No               | Right channel speaking speed                                                                                                                             |
| 1.2.1.16 | staff_id           | String | No               | User ID of an agent<br>You can sign in to the system and go to the agent management page to view the value of <b>accountId</b> returned by an interface. |

| No.      | Parameter | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------|-----------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.2.1.17 | status    | Number | No               | <p>Status</p> <ul style="list-style-type: none"> <li>● <b>0:</b> The call is waiting for inspection.</li> <li>● <b>1:</b> The inspection is in progress.</li> <li>● <b>2:</b> The inspection is successful.</li> <li>● <b>3:</b> The ASR is in progress.</li> <li>● <b>9:</b> The inspection fails. An error occurs, or the data volume of inspection audio files or the number of daily inspection files reaches the upper limit.</li> <li>● <b>31:</b> The voice content of the ASR result is empty.</li> <li>● <b>32:</b> The ASR fails.</li> <li>● <b>33:</b> The voice file fails to be uploaded to the ASR.</li> <li>● <b>34:</b> The iFLYTEK ASR result transfer task fails to be submitted.</li> <li>● <b>35:</b> The multimedia inspection task fails to be executed.</li> <li>● <b>36:</b> The TUC inspection fails.</li> <li>● <b>37:</b> The ASR fails to convert the voice file to a text file.</li> <li>● <b>38:</b> The inspection result fails to be updated.</li> <li>● <b>39:</b> The inspection task fails to be executed.</li> </ul> |

| No.      | Parameter     | Type   | Mandatory or Not | Description                                                                               |
|----------|---------------|--------|------------------|-------------------------------------------------------------------------------------------|
|          |               |        |                  | <ul style="list-style-type: none"> <li>● <b>40:</b> The voice file is invalid.</li> </ul> |
| 1.2.1.18 | upload_time   | Number | No               | Call upload time                                                                          |
| 1.2.1.19 | staff_name    | String | No               | Agent name                                                                                |
| 1.2.2    | call_group_id | String | No               | Call group ID                                                                             |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Obtain the call status and ASR result.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "limit": 10,
 "page": 1,
 "call_types": [0, 2],
 "call_from": 1621333149,
 "call_to": 1623925149,
 "staff_id": null,
 "upload_from": null,
 "upload_to": null,
 "status": [2]
}
```

Response parameters:

```
{
 "data": [{
 "calls": [{
 "staff_name": "*****",
 "create_time": 1622633782,

```

```
"left_speed": 241.552,
"left_speech_ratio": 0.4613,
"file_name": "Consultant",
"left_channel": "customer",
"right_speech_ratio": 0.3252,
"call_time": 1622633782,
"inspect_status": 0,
"right_channel": "staff",
"complain_status": -1,
"call_id": "3b9cd7a9-d38c-4aa0-a35d-77f6abb9f497",
"left_silence_time": 88.46,
"duration": 164.22,
"upload_time": 1622633782,
"right_silence_time": 110.82,
"right_speed": 165.169,
"staff_id": "1600226440112042215",
"call_uuid": "3b9cd7a9-d38c-4aa0-a35d-77f6abb9f497",
"review_status": -1,
"call_type": 0,
"status": 2
}],
"call_group_id": "3b9cd7a9-d38c-4aa0-a35d-77f6abb9f497"
}, {
 "calls": [{
 "staff_name": "*****",
 "create_time": 1622554272,
 "left_speed": 307.127,
 "left_speech_ratio": 0.251,
 "file_name": "myvoice",
 "left_channel": "customer",
 "right_speech_ratio": 0.206,
 "call_time": 1622554272,
 "inspect_status": 0,
 "right_channel": "staff",
 "complain_status": -1,
 "call_id": "2ef38e9b-36dd-4c1f-97cb-a665a2d9de3a",
 "left_silence_time": 260.03,
 "duration": 347.16,
 "upload_time": 1622554272,
 "right_silence_time": 275.65,
 "right_speed": 318.837,
 "staff_id": "1600226440112042215",
 "call_uuid": "2ef38e9b-36dd-4c1f-97cb-a665a2d9de3a",
 "review_status": -1,
 "call_type": 0,
 "status": 2
 }],
 "call_group_id": "2ef38e9b-36dd-4c1f-97cb-a665a2d9de3a"
}, {
 "calls": [{
 "staff_name": "*****",
 "create_time": 1622552201,
 "left_speed": 305.061,
 "left_speech_ratio": 0.251,
 "file_name": "myvoice",
 "left_channel": "customer",
 "right_speech_ratio": 0.206,
 "call_time": 1622552201,
 "inspect_status": 0,
 "right_channel": "staff",
 "complain_status": -1,
 "call_id": "4aca6bb8-13e6-4fd8-ac5b-0402fbb5bef4",
 "left_silence_time": 260.03,
 "duration": 347.16,
 "upload_time": 1622552201,
 "right_silence_time": 275.65,
 "right_speed": 319.676,
 "staff_id": "1600226440112042215",
 "call_uuid": "4aca6bb8-13e6-4fd8-ac5b-0402fbb5bef4",
```

```
 "review_status": -1,
 "call_type": 0,
 "status": 2
 },
 "call_group_id": "4aca6bb8-13e6-4fd8-ac5b-0402fbb5bef4"
}, {
 "calls": [{
 "staff_name": "*****",
 "create_time": 1622552093,
 "left_speed": 324.068,
 "left_speech_ratio": 0.6081,
 "file_name": "6335",
 "left_channel": "customer",
 "right_speech_ratio": 0.185,
 "call_time": 1622552093,
 "inspect_status": 0,
 "right_channel": "staff",
 "complain_status": -1,
 "call_id": "4a8507ec-8519-46ab-9ca7-241556a6eb6c",
 "left_silence_time": 40.8,
 "duration": 104.12,
 "upload_time": 1622552093,
 "right_silence_time": 84.86,
 "right_speed": 230.53,
 "staff_id": "1600226440112042215",
 "call_uuid": "4a8507ec-8519-46ab-9ca7-241556a6eb6c",
 "review_status": -1,
 "call_type": 0,
 "status": 2
 }],
 "call_group_id": "4a8507ec-8519-46ab-9ca7-241556a6eb6c"
}, {
 "calls": [{
 "staff_name": "*****",
 "create_time": 1622528466,
 "left_speed": 307.127,
 "left_speech_ratio": 0.251,
 "file_name": "myvoice",
 "left_channel": "customer",
 "right_speech_ratio": 0.206,
 "call_time": 1622528466,
 "inspect_status": 0,
 "right_channel": "staff",
 "complain_status": -1,
 "call_id": "ead642de-fa23-4bc0-adf5-f2bac9614b01",
 "left_silence_time": 260.03,
 "duration": 347.16,
 "upload_time": 1622528466,
 "right_silence_time": 275.65,
 "right_speed": 321.354,
 "staff_id": "1600226440112042215",
 "call_uuid": "ead642de-fa23-4bc0-adf5-f2bac9614b01",
 "review_status": -1,
 "call_type": 0,
 "status": 2
 }],
 "call_group_id": "ead642de-fa23-4bc0-adf5-f2bac9614b01"
}, {
 "calls": [{
 "staff_name": "*****",
 "create_time": 1622513361,
 "left_speed": 306.439,
 "left_speech_ratio": 0.251,
 "file_name": "20208650",
 "left_channel": "customer",
 "right_speech_ratio": 0.206,
 "call_time": 1622513361,
 "inspect_status": 0,
 "right_channel": "staff",
```

```

"complain_status": -1,
"call_id": "1e158a1a-2f6d-44f6-ba44-b15d52e21651",
"left_silence_time": 260.03,
"duration": 347.16,
"upload_time": 1622513361,
"right_silence_time": 275.65,
"right_speed": 320.515,
"staff_id": "1600226440112042215",
"call_uuid": "1e158a1a-2f6d-44f6-ba44-b15d52e21651",
"review_status": -1,
"call_type": 0,
"status": 2
}},
"call_group_id": "1e158a1a-2f6d-44f6-ba44-b15d52e21651"
}},
"paging": {
 "total": 6
}
}

```

## 12.2.12.2 POST /CCSQM/rest/ccisqm/v1/appraisecall/detail

### Scenario

This interface is invoked to obtain the inspection result of a call.

### Method

POST

### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/appraisecall/complain> (For example, the domain name is service.besclouds.com.)

### Request Description

**Table 12-234** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                       |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                                    |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                           |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <b>tokenByAkSk</b> interface}</i> . (A space is required after <b>Bearer</b> .) |



| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                      |
|-----|-----------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | x-UserId  | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface. |

**Table 12-235** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                |
|-----|-----------|--------|------------------|------------------------------------------------------------------------------------------------------------|
| 1.1 | call_uuid | String | Yes              | Call ID<br>You can obtain the value of <b>call_uuid</b> from the result returned by the details interface. |

## Response Description

- **Status code: 200**

**Table 12-236** Response body parameters

| No. | Parameter         | Type   | Mandatory or Not | Description                                                                                       |
|-----|-------------------|--------|------------------|---------------------------------------------------------------------------------------------------|
| 1.1 | deal              | Number | No               | Whether a deal is made                                                                            |
| 1.2 | left_speed        | Number | No               | Left channel speaking speed. The speaker is determined by the <b>left_channel</b> parameter.      |
| 1.3 | left_speech_ratio | Number | No               | Left channel speaking proportion. The speaker is determined by the <b>left_channel</b> parameter. |
| 1.4 | file_name         | String | No               | Inspection file name                                                                              |

| No.    | Parameter                     | Type           | Mandatory or Not | Description                                                                                                              |
|--------|-------------------------------|----------------|------------------|--------------------------------------------------------------------------------------------------------------------------|
| 1.5    | left_channel                  | String         | No               | Left channel speaker. The options are <b>Customer</b> and <b>Agent</b> .                                                 |
| 1.6    | right_speech_ratio            | Number         | No               | Right channel speaking proportion. The speaker is determined by the <b>right_channel</b> parameter.                      |
| 1.7    | call_time                     | Number         | No               | Call start time                                                                                                          |
| 1.8    | right_channel                 | String         | No               | Right channel speaker. The options are <b>Customer</b> and <b>Agent</b> .                                                |
| 1.9    | call_id                       | Number         | No               | Call ID                                                                                                                  |
| 1.10   | left_silence_time             | Number         | No               | Silence duration of the speaker                                                                                          |
| 1.11   | segments                      | Array [Object] | No               | ASR text segment result                                                                                                  |
| 1.11.1 | asr_text                      | String         | No               | ASR text                                                                                                                 |
| 1.11.2 | speaker                       | String         | No               | Speaker                                                                                                                  |
| 1.11.3 | start_time                    | Number         | No               | Speaking start time                                                                                                      |
| 1.11.4 | end_time                      | Number         | No               | Speaking end time                                                                                                        |
| 1.11.5 | segment_id                    | Number         | No               | Segment ID                                                                                                               |
| 1.11.6 | status                        | Number         | No               | Call status                                                                                                              |
| 1.12   | duration                      | Number         | No               | Call duration                                                                                                            |
| 1.13   | right_silence_time            | Number         | No               | Silence duration of the speaker. The speaker is determined by the <b>right_channel</b> parameter.                        |
| 1.14   | upload_time                   | Number         | No               | Call upload time                                                                                                         |
| 1.15   | rule_severity_violation_count | Number         | No               | Total number of violated inspection rules                                                                                |
| 1.16   | left_emotions                 | Array [Object] | No               | Tone, which is applicable only to agents. This parameter is valid only when <b>left_channel</b> is set to <b>Agent</b> . |

| No.    | Parameter   | Type   | Mandatory or Not | Description                                                                                                                                              |
|--------|-------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.16.1 | type        | String | No               | Tone type. The options are <b>positive</b> and <b>negative</b> .                                                                                         |
| 1.16.2 | score       | Number | No               | Tone score                                                                                                                                               |
| 1.17   | right_speed | Number | No               | Right channel speaking speed. The speaker is determined by the <b>right_channel</b> parameter.                                                           |
| 1.18   | staff_id    | String | No               | User ID of an agent<br>You can sign in to the system and go to the agent management page to view the value of <b>accountId</b> returned by an interface. |
| 1.19   | call_uuid   | String | No               | Call ID                                                                                                                                                  |
| 1.20   | call_type   | Number | No               | Inspection call type. The options are <b>Text</b> and <b>Audio</b> .                                                                                     |

| No.  | Parameter | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------|-----------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.21 | status    | Number | No               | <p>Inspection status</p> <ul style="list-style-type: none"> <li>● <b>0:</b> The call is waiting for inspection.</li> <li>● <b>1:</b> The inspection is in progress.</li> <li>● <b>2:</b> The inspection is successful.</li> <li>● <b>3:</b> The ASR is in progress.</li> <li>● <b>9:</b> The inspection fails. An error occurs, or the data volume of inspection audio files or the number of daily inspection files reaches the upper limit.</li> <li>● <b>31:</b> The voice content of the ASR result is empty.</li> <li>● <b>32:</b> The ASR fails.</li> <li>● <b>33:</b> The voice file fails to be uploaded to the ASR.</li> <li>● <b>34:</b> The iFLYTEK ASR result transfer task fails to be submitted.</li> <li>● <b>35:</b> The multimedia inspection task fails to be executed.</li> <li>● <b>36:</b> The TUC inspection fails.</li> <li>● <b>37:</b> The ASR fails to convert the voice file to a text file.</li> <li>● <b>38:</b> The inspection result fails to be updated.</li> <li>● <b>39:</b> The inspection task fails to be executed.</li> <li>● <b>40:</b> The voice file is invalid.</li> </ul> |

| No.    | Parameter      | Type           | Mandatory or Not | Description                                                                                                               |
|--------|----------------|----------------|------------------|---------------------------------------------------------------------------------------------------------------------------|
| 1.22   | right_emotions | Array [Object] | No               | Tone, which is applicable only to agents. This parameter is valid only when <b>right_channel</b> is set to <b>Agent</b> . |
| 1.22.1 | type           | String         | No               | Tone type. The options are <b>positive</b> and <b>negative</b> .                                                          |
| 1.22.2 | score          | Number         | No               | Tone score                                                                                                                |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Obtain the inspection result of a call.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "call_uuid": "434l2j4242424jll242"
}
```

Response parameters:

```
{
 "staff_name": "xieyiling",
 "left_speed": 324.068,
 "create_time": 1635318854,
 "left_speech_ratio": 0.6081,
 "file_name": "1111",
 "right_speech_ratio": 0.185,
 "left_channel": "customer",
 "call_time": 1635318854,
```

```
"right_channel": "staff",
"call_id": "17af55af-e51d-4cc0-8a62-84222e1d1eea",
"segments": [{
 "start_time": 0.0,
 "asr_text": "Would you like to ask for the price",
 "speaker": "customer",
 "end_time": 11.32,
 "segment_id": 1
}, {
 "start_time": 13.36,
 "asr_text": "Yes",
 "speaker": "staff",
 "end_time": 13.88,
 "segment_id": 2
}, {
 "start_time": 14.56,
 "asr_text": "Are you going to buy a car in Beijing",
 "speaker": "customer",
 "end_time": 16.74,
 "segment_id": 3
}, {
 "start_time": 18.74,
 "asr_text": "Yes",
 "speaker": "staff",
 "end_time": 19.68,
 "segment_id": 4
}],
"left_silence_time": 40.8,
"duration": 104.12,
"right_emotions": [{
 "score": 32.0,
 "type": "negative"
}, {
 "score": 69.0,
 "type": "positive"
}],
"right_silence_time": 84.86,
"upload_time": 1635318854,
"left_emotions": [{
 "score": 65.0,
 "type": "negative"
}, {
 "score": 80.0,
 "type": "positive"
}],
"right_speed": 230.53,
"staff_id": "1679888582905592626",
"call_type": 0,
"status": 2
}
```

### 12.2.12.3 POST /CCSQM/rest/ccisqm/v1/appraisecall/create (Not Supported)

#### Scenario

This interface is invoked to create an inspection task.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/appraisecall/create> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-237** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                       |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                                    |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                           |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <b>tokenByAkSk</b> interface}</i> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                                  |

**Table 12-238** Request body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                                                              |
|-----|------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | call_time  | Number | No               | Call time                                                                                                                                                |
| 1.2 | call_type  | Number | Yes              | Call file type                                                                                                                                           |
| 1.3 | file_name  | String | Yes              | Name of the file to be uploaded                                                                                                                          |
| 1.4 | staff_id   | String | No               | User ID of an agent<br>You can sign in to the system and go to the agent management page to view the value of <b>accountId</b> returned by an interface. |
| 1.5 | staff_name | String | No               | Agent name                                                                                                                                               |

## Response Description

- **Status code: 200**

**Table 12-239** Response body parameters

| No. | Parameter | Type   | Mandatory or Not | Description  |
|-----|-----------|--------|------------------|--------------|
| 1.1 | call_uuid | String | No               | Call task ID |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Create an inspection task.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "call_type": 0,
 "staff_name": "0",
 "staff_id": "0",
 "file_name": "helloworld123456"
}
```

Response parameters:

```
{
 "call_uuid": "434l2j4242424jll242"
}
```

### 12.2.12.4 POST /CCSQM/rest/ccisqm/v1/appraisecall/complain

#### Scenario

This interface is invoked to initiate an appeal.



## Method

POST

## URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/appraisecall/complain> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-240** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-241** Request body parameters

| No. | Parameter   | Type    | Mandatory or Not | Description                          |
|-----|-------------|---------|------------------|--------------------------------------|
| 1.1 | callGroupId | Number  | Yes              | Call business rule ID                |
| 1.2 | callId      | Number  | Yes              | Call ID                              |
| 1.3 | isGroup     | Boolean | No               | Whether a call is an associated call |

| No.   | Parameter            | Type           | Mandatory or Not | Description                                           |
|-------|----------------------|----------------|------------------|-------------------------------------------------------|
| 1.4   | leaderRole           | String         | Yes              | Position of the leader to whom an appeal is submitted |
| 1.5   | leaderUUID           | String         | Yes              | ID of the leader to whom an appeal is submitted       |
| 1.6   | taskDescription      | String         | Yes              | Reason for an appeal                                  |
| 1.7   | chooseRuleGroup-List | Array [Object] | Yes              | List of rules to be appealed against                  |
| 1.7.1 | ruleGroupId          | String         | Yes              | Rule ID                                               |
| 1.7.2 | reviselIdList        | Array [String] | Yes              | List of rules to be appealed against                  |
| 1.8   | callType             | String         | Yes              | File/Interaction type                                 |

## Response Description

- **Status code: 200**

**Table 12-242** Response body parameters

| No. | Parameter | Type   | Mandatory or Not | Description        |
|-----|-----------|--------|------------------|--------------------|
| 1.1 | status    | String | No               | Status             |
| 1.2 | message   | String | No               | Return information |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Initiate an appeal.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "taskDescription": "remark",
 "callId": "c6a31191-6c69-486b-b8f9-c3412ef44bfd",
 "callGroupId": "c6a31191-6c69-486b-b8f9-c3412ef44bfd",
 "isGroup": false,
 "chooseRuleGroupList": [{
 "ruleGroupId": "groupid_fa1d9f72-f961-4ad6-9277-008bbe1c3802",
 "reviselIdList": ["silenceRule4a0e94cf-c357-4d53-9beb-4cefb2a81fb4", "silenceRule4aa85a8a-
f914-4488-bf11-adbbfde3fe95"]
 }],
 "leaderUUID": "1600226359041729505",
 "leaderRole": "10",
 "fileName": "766"
}
```

Response parameters:

```
{
 "callId": "c6a31191-6c69-486b-b8f9-c3412ef44bfd",
 "available": true
}
```

## 12.2.13 regularQualityTask

### 12.2.13.1 POST /CCSQM/rest/ccisqm/v1/regularqualitytask/addQualityTask

#### Scenario

This interface is invoked to add a scheduled sample inspection plan.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/regularqualitytask/addQualityTask> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-243** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                       |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                                    |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                           |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <b>tokenByAkSk</b> interface}</i> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                                  |

**Table 12-244** Request body parameters

| No.   | Parameter      | Type           | Mandatory or Not | Description               |
|-------|----------------|----------------|------------------|---------------------------|
| 1.1   | appointQuality | Object         | Yes              | Inspectors to be assigned |
| 1.1.1 | setCounts      | Array [Object] | Yes              | Inspectors                |

| No.     | Parameter     | Type    | Mandatory or Not | Description                                                                                                                                                                                                                                                                                            |
|---------|---------------|---------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1.1.1 | count         | Number  | No               | Quantity. The value can contain a maximum of eight characters. <ul style="list-style-type: none"> <li>When <b>setCountsType</b> is not set to <b>2</b>, <b>count</b> is mandatory.</li> <li>When <b>setCountsType</b> is set to <b>2</b>, the sum of all counts in <b>setCounts</b> is 100.</li> </ul> |
| 1.1.1.2 | personID      | String  | Yes              | Inspector ID. The value can contain a maximum of 64 characters.                                                                                                                                                                                                                                        |
| 1.1.2   | setCountsType | Integer | Yes              | Quantity type. The options are <b>0</b> (on average) and <b>2</b> (by percentage).                                                                                                                                                                                                                     |
| 1.2     | cronStructure | Object  | Yes              | Period                                                                                                                                                                                                                                                                                                 |
| 1.2.1   | qiqtCycleType | String  | Yes              | Repetition mode. The options are <b>1</b> (daily), <b>2</b> (weekly), and <b>3</b> (monthly).                                                                                                                                                                                                          |
| 1.2.2   | qiqtEndTime   | Integer | No               | End time, in seconds. This parameter is valid when <b>qiqtEndType</b> is set to <b>2</b> . The value can contain a maximum of 10 digits.                                                                                                                                                               |
| 1.2.3   | qiqtEndType   | String  | Yes              | End condition. The options are <b>1</b> (number of times) and <b>2</b> (time).                                                                                                                                                                                                                         |
| 1.2.4   | qiqtStartTime | Integer | Yes              | Start time, in seconds. The value can contain a maximum of 10 characters.                                                                                                                                                                                                                              |

| No.     | Parameter        | Type    | Mandatory or Not | Description                                                                                                                                                                            |
|---------|------------------|---------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.2.5   | qiqtTotalTimes   | Integer | No               | Number of times a scheduled task is executed. The value can contain a maximum of eight characters.<br>When <b>qiqtEndType</b> is set to <b>1</b> , <b>qiqtTotalTimes</b> is mandatory. |
| 1.3     | currentRole      | String  | No               | User role                                                                                                                                                                              |
| 1.4     | extractionRange  | Object  | Yes              | Sample inspection scope                                                                                                                                                                |
| 1.4.1   | currentRole      | String  | No               | User role                                                                                                                                                                              |
| 1.4.2   | fixedColumns     | Object  | Yes              | Sample inspection scope                                                                                                                                                                |
| 1.4.2.1 | qualityType      | Integer | Yes              | Sample inspection type. The options are <b>1</b> (call scope), <b>2</b> (agent quantity), and <b>3</b> (agent percentage).                                                             |
| 1.4.2.2 | durationStart    | Integer | No               | Minimum call duration, in milliseconds. The value can contain a maximum of 11 characters.                                                                                              |
| 1.4.2.3 | qualityNum       | String  | Yes              | Sample inspection quantity. The value can contain a maximum of eight characters.                                                                                                       |
| 1.4.2.4 | qualityCondition | Integer | Yes              | Sample inspection status. The options are <b>0</b> (unlimited), <b>1</b> (not sampled), and <b>2</b> (sampled).                                                                        |
| 1.4.2.5 | durationEnd      | String  | No               | Maximum call duration, in milliseconds. The value can contain a maximum of 11 characters.                                                                                              |

| No.      | Parameter       | Type           | Mandatory or Not | Description                                                                                                                                                                                                         |
|----------|-----------------|----------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.4.2.6  | maxNum          | String         | No               | Maximum sample inspection quantity. The value can contain a maximum of eight characters.<br><br>When <b>qualityType</b> is not set to <b>2</b> , <b>maxNum</b> is mandatory and must be greater than or equal to 1. |
| 1.4.2.7  | scoreEnd        | String         | No               | Maximum score. The maximum value is <b>10000</b> .                                                                                                                                                                  |
| 1.4.2.8  | scoreStart      | String         | No               | Minimum score. The maximum value is <b>10000</b> .                                                                                                                                                                  |
| 1.4.2.9  | staffIds        | Array [String] | No               | Agents                                                                                                                                                                                                              |
| 1.4.2.10 | interactionType | Integer        | Yes              | Interaction type. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0</b>: recording</li> <li>● <b>1</b>: text</li> </ul>                                                                     |
| 1.4.3    | userId          | String         | No               | User ID                                                                                                                                                                                                             |
| 1.5      | qiqtName        | String         | Yes              | Plan name. The value can contain a maximum of 64 characters.                                                                                                                                                        |
| 1.6      | userId          | String         | No               | User ID                                                                                                                                                                                                             |

## Response Description

- **Status code: 200**

**Table 12-245** Response body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                           |
|-----|-----------|--------|------------------|---------------------------------------|
| 1.1 | objId     | String | No               | Unique ID of a sample inspection plan |

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.2 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>● <b>0408000</b>: success</li> <li>● Others: failure</li> </ul> |
| 1.3 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Add a scheduled sample inspection plan.

Request header:

```
Content-Type:application/json
x-app-key:xxxx-xxxx-xxx-xxxx
x-UserId:xxxxxxxxx
Authorization:Bearer *****
```

Request parameters:

```
{
 "extractionRange": {
 "customColumns": null,
 "fixedColumns": {
 "qualityCondition": 0,
 "qualityType": 1,
 "qualityNum": 100,
 "staffIds": ["xxxxxx"],
 "maxNum": 10,
 "scoreStart": 0,
 "scoreEnd": 100,
 "durationStart": 0,
 "durationEnd": 100
 },
 "currentRole": "qualityDirector"
 },
 "appointQuality": {
 "setCounts": [{
 "personID": "xxxx",
 "count": 40
 }, {
 "personID": "xxxxx",
```



```

 "count": 60
 },
 "setCountsType": 2
 },
 "cronStructure": {
 "qiqtCycleType": 1,
 "qiqtStartTime": 1609295228.86,
 "qiqtEndTime": 2,
 "qiqtTotalTimes": 1,
 "qiqtEndTime": 1609554428
 },
 "qiqtName": "regulartask",
 "currentRole": "qualityDirector"
 }
}

```

Response header:

Content-Type: application/json;charset=UTF-8

Response parameters:

```

{
 "objId": "954637368599307266",
 "resultCode": 0,
 "resultDesc": "success"
}

```

## 12.2.13.2 POST /CCSQM/rest/ccisqm/v1/regularqualitytask/beginQualityTask

### Scenario

This interface is invoked to start a scheduled sample inspection plan.

### Method

POST

### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/regularqualitytask/bigenQualityTask> (For example, the domain name is service.besclouds.com.)

### Request Description

Table 12-246 Request header parameters

| No. | Parameter    | Type   | Mandato<br>ry or Not | Description                                                    |
|-----|--------------|--------|----------------------|----------------------------------------------------------------|
| 1   | Content-Type | String | No                   | The value is fixed to <b>application/json; charset=UTF-8</b> . |
| 2   | x-app-key    | String | No                   | App key                                                        |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                          |

**Table 12-247** Request body parameters

| No. | Parameter            | Type   | Mandatory or Not | Description                                                                  |
|-----|----------------------|--------|------------------|------------------------------------------------------------------------------|
| 1.1 | regularQualityTaskId | Number | Yes              | Sample inspection task ID. The value can contain a maximum of 20 characters. |

## Response Description

- **Status code: 200**

**Table 12-248** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>• <b>0408000</b>: success</li> <li>• Others: failure</li> </ul> |
| 1.2 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.

- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Start a scheduled sample inspection plan.

Request header:

```
Content-Type:application/json
x-app-key:xxxx-xxxx-xxxx-xxxx-xxxx
x-UserId:xxxx
Authorization:Bearer *****
```

Request parameters:

```
{
 "regularQualityTaskId": 954637368599307266
}
```

Response header:

```
Content-Type: application/json;charset=UTF-8
```

Response parameters:

```
{
 "resultCode": "0408000",
 "resultDesc": "Operation successful."
}
```

### 12.2.13.3 POST /CCSQM/rest/ccisqm/v1/regularqualitytask/updateQualityTask

#### Scenario

This interface is invoked to update a scheduled sample inspection plan.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/regularqualitytask/updateQualityTask> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-249** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                       |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                                    |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                           |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <b>tokenByAkSk</b> interface}</i> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                                  |

**Table 12-250** Request body parameters

| No.     | Parameter      | Type           | Mandatory or Not | Description                                                                                                                                                                                                                                      |
|---------|----------------|----------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1     | appointQuality | Object         | Yes              | Inspectors to be assigned                                                                                                                                                                                                                        |
| 1.1.1   | setCounts      | Array [Object] | Yes              | Inspectors                                                                                                                                                                                                                                       |
| 1.1.1.1 | count          | Number         | No               | Quantity <ul style="list-style-type: none"> <li>When <b>setCountsType</b> is not set to <b>2</b>, <b>count</b> is mandatory.</li> <li>When <b>setCountsType</b> is set to <b>2</b>, the sum of all counts in <b>setCounts</b> is 100.</li> </ul> |

| No.     | Parameter       | Type    | Mandatory or Not | Description                                                                                                                                                     |
|---------|-----------------|---------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1.1.2 | personID        | String  | Yes              | Inspector ID                                                                                                                                                    |
| 1.1.2   | setCountsType   | Integer | Yes              | Quantity type. The options are <b>0</b> (on average) and <b>2</b> (by percentage).                                                                              |
| 1.2     | cronStructure   | Object  | Yes              | Period                                                                                                                                                          |
| 1.2.1   | qiqtCycleType   | String  | Yes              | Repetition mode. The options are <b>1</b> (daily), <b>2</b> (weekly), and <b>3</b> (monthly).                                                                   |
| 1.2.2   | qiqtEndTime     | Integer | No               | End time, in seconds. This parameter is valid when <b>qiqtEndType</b> is set to <b>2</b> . The value can contain a maximum of 10 digits.                        |
| 1.2.3   | qiqtEndType     | String  | Yes              | End condition. The options are <b>1</b> (number of times) and <b>2</b> (time).                                                                                  |
| 1.2.4   | qiqtStartTime   | Integer | Yes              | Start time, in seconds. The value can contain a maximum of 10 characters.                                                                                       |
| 1.2.5   | qiqtTotalTimes  | String  | No               | Total number of times. The value can contain a maximum of eight characters.<br>When <b>qiqtEndType</b> is set to <b>1</b> , <b>qiqtTotalTimes</b> is mandatory. |
| 1.3     | currentRole     | String  | No               | User role                                                                                                                                                       |
| 1.4     | extractionRange | Object  | Yes              | Sample inspection scope                                                                                                                                         |
| 1.4.1   | currentRole     | String  | No               | User role                                                                                                                                                       |
| 1.4.2   | fixedColumns    | Object  | Yes              | Sample inspection scope                                                                                                                                         |

| No.     | Parameter        | Type           | Mandatory or Not | Description                                                                                                                                                                                    |
|---------|------------------|----------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.4.2.1 | qualityNum       | String         | Yes              | Sample inspection quantity. The maximum value is <b>10000</b> .                                                                                                                                |
| 1.4.2.2 | qualityType      | Integer        | Yes              | Sample inspection type. The options are <b>1</b> (call scope), <b>2</b> (agent quantity), and <b>3</b> (agent percentage).                                                                     |
| 1.4.2.3 | durationStart    | Integer        | No               | Minimum call duration, in milliseconds. The value can contain a maximum of 11 characters.                                                                                                      |
| 1.4.2.4 | qualityCondition | Integer        | Yes              | Sample inspection status. The options are <b>0</b> (unlimited), <b>1</b> (not sampled), and <b>2</b> (sampled).                                                                                |
| 1.4.2.5 | durationEnd      | String         | No               | Maximum call duration, in milliseconds. The value can contain a maximum of 11 characters.                                                                                                      |
| 1.4.2.6 | maxNum           | String         | No               | Maximum sample inspection quantity. The maximum value is <b>10000</b> .<br>When <b>qualityType</b> is not set to <b>2</b> , <b>maxNum</b> is mandatory and must be greater than or equal to 1. |
| 1.4.2.7 | scoreEnd         | String         | No               | Maximum score. The maximum value is <b>10000</b> .                                                                                                                                             |
| 1.4.2.8 | scoreStart       | String         | No               | Minimum score. The maximum value is <b>10000</b> .                                                                                                                                             |
| 1.4.2.9 | staffIds         | Array [String] | No               | Agents                                                                                                                                                                                         |

| No.      | Parameter       | Type    | Mandatory or Not | Description                                                                                                                                                                     |
|----------|-----------------|---------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.4.2.10 | interactionType | Integer | Yes              | Inspection type <ul style="list-style-type: none"> <li>● 0: recording</li> <li>● 1: text</li> </ul>                                                                             |
| 1.4.3    | userId          | String  | No               | User ID                                                                                                                                                                         |
| 1.5      | qiqtName        | String  | Yes              | Sample inspection task name. The value can contain a maximum of 64 characters.                                                                                                  |
| 1.6      | userId          | String  | No               | User ID                                                                                                                                                                         |
| 1.7      | qiqtId          | String  | Yes              | ID of a scheduled sample inspection plan. The value can contain a maximum of 20 characters.<br>The value is the same as those of <b>regularQualityTaskId</b> and <b>qiqId</b> . |

## Response Description

- Status code: 200

Table 12-251 Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                                                                                     |
|-----|------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>● 0408000: success</li> <li>● Others: failure</li> </ul>                                                                     |
| 1.2 | resultDesc | String | No               | Return description                                                                                                                                                              |
| 1.3 | objId      | String | No               | ID of a scheduled sample inspection plan. The value can contain a maximum of 20 characters.<br>The value is the same as those of <b>regularQualityTaskId</b> and <b>qiqId</b> . |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Update a scheduled sample inspection plan.

Request header:

```
Content-Type:application/json
x-app-key:xxxx-xxxx-xxxx-xxxx-xxxx
x-UserId:xxxx
Authorization:Bearer *****
```

Request parameters:

```
{
 "extractionRange": {
 "customColumns": null,
 "fixedColumns": {
 "qualityCondition": 0,
 "qualityType": 1,
 "qualityNum": "100",
 "staffIds": ["1661409426478500732"],
 "maxNum": "1",
 "scoreStart": "10",
 "scoreEnd": "1100",
 "durationStart": "10",
 "durationEnd": "1000",
 "interactionType": "0"
 },
 "currentRole": "qualityInspector"
 },
 "appointQuality": {
 "setCounts": [{
 "personID": "1661409288298190176",
 "count": 0
 }],
 "setCountsType": 0
 },
 "cronStructure": {
 "qiqtCycleType": "1",
 "qiqtStartTime": 1661247709,
 "qiqtEndType": "1",
 "qiqtTotalTimes": "1",
 "qiqtEndTime": null
 },
 "qiqtName": "Manual 122",
 "currentRole": "qualityInspector",
 "qiqtId": 16625163654676154791
}
```

Response header:



Content-Type: application/json;charset=UTF-8

Response parameters:

```
{
 "resultCode": "0408000",
 "objId": "16625163654676154791",
 "resultDesc": "Operation successful."
}
```

### 12.2.13.4 POST /CCSQM/rest/ccisqm/v1/regularqualitytask/deleteQualityTask

#### Scenario

This interface is invoked to delete a scheduled sample inspection plan.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/regularqualitytask/deleteQualityTask> (For example, the domain name is service.besclouds.com.)

#### Request Description

Table 12-252 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                            |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                   |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                          |

**Table 12-253** Request body parameters

| No. | Parameter            | Type   | Mandatory or Not | Description                                                                  |
|-----|----------------------|--------|------------------|------------------------------------------------------------------------------|
| 1.1 | regularQualityTaskId | Number | Yes              | Sample inspection task ID. The value can contain a maximum of 20 characters. |

## Response Description

- **Status code: 200**

**Table 12-254** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>• <b>0408000</b>: success</li> <li>• Others: failure</li> </ul> |
| 1.2 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Delete a scheduled sample inspection plan.

Request header:

```
Content-Type:application/json
x-app-key:xxxx-xxxx-xxxx-xxxx-xxxx
```

```
x-UserId:xxxx
Authorization:Bearer *****
```

Request parameters:

```
{
 "regularQualityTaskId": 954637368599307266
}
```

Response header:

```
Content-Type: application/json;charset=UTF-8
```

Response parameters:

```
{
 "resultCode": "0408000",
 "resultDesc": "Operation successful."
}
```

### 12.2.13.5 POST /CCSQM/rest/ccisqm/v1/regularqualitytask/queryQualityTask

#### Scenario

This interface is invoked to query scheduled sample inspection plans.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/regularqualitytask/queryQualityTask> (For example, the domain name is service.besclouds.com.)

#### Request Description

Table 12-255 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                  |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                               |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                      |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of AccessToken returned by the tokenByAkSk interface}</b> . (A space is required after <b>Bearer</b> .) |

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                      |
|-----|-----------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | x-UserId  | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface. |

**Table 12-256** Request body parameters

| No. | Parameter | Type    | Mandatory or Not | Description                    |
|-----|-----------|---------|------------------|--------------------------------|
| 1.1 | page      | Integer | Yes              | Page number                    |
| 1.2 | rows      | Integer | Yes              | Number of records on each page |

## Response Description

- **Status code: 200**

**Table 12-257** Response body parameters

| No.   | Parameter            | Type           | Mandatory or Not | Description                                                                                                                         |
|-------|----------------------|----------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| 1.1   | total                | Integer        | No               | Total number of records                                                                                                             |
| 1.2   | list                 | Array [Object] | Yes              | List of scheduled sample inspection plans                                                                                           |
| 1.2.1 | nextExecutionTimeStr | Number         | No               | Next execution time                                                                                                                 |
| 1.2.2 | qiqtCreateTimeStr    | Number         | No               | Creation time                                                                                                                       |
| 1.2.3 | qiqtCreator          | String         | No               | Creator                                                                                                                             |
| 1.2.4 | qiqtCycleType        | String         | No               | Repetition mode <ul style="list-style-type: none"> <li>• <b>Daily</b></li> <li>• <b>Weekly</b></li> <li>• <b>Monthly</b></li> </ul> |

| No.    | Parameter          | Type   | Mandatory or Not | Description                                                                                                     |
|--------|--------------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------|
| 1.2.5  | qiqtEndTimeStr     | String | No               | End time. This parameter is valid only when <b>qiq_end_type</b> is set to <b>2</b> .                            |
| 1.2.6  | qiqtEndType        | String | No               | End condition. The options are <b>1</b> (number of times) and <b>2</b> (time).                                  |
| 1.2.7  | qiqtEndTypeStr     | String | No               | End condition                                                                                                   |
| 1.2.8  | qiqtExecutionTimes | Number | No               | Number of execution times                                                                                       |
| 1.2.9  | qiqtId             | String | No               | ID of a scheduled sample inspection task                                                                        |
| 1.2.10 | qiqtName           | String | No               | Name of a scheduled task                                                                                        |
| 1.2.11 | qiqtStartTimeStr   | Number | No               | Start time                                                                                                      |
| 1.2.12 | qiqtStatus         | String | No               | Status. The options are <b>1</b> (stopped) and <b>2</b> (running).                                              |
| 1.2.13 | qiqtTotalTimes     | Number | No               | Number of times that a scheduled task is executed                                                               |
| 1.2.14 | interactionType    | String | No               | Inspection task type <ul style="list-style-type: none"><li>● <b>0</b>: voice</li><li>● <b>2</b>: text</li></ul> |
| 1.3    | resultCode         | String | No               | Return code <ul style="list-style-type: none"><li>● <b>0408000</b>: success</li><li>● Others: failure</li></ul> |
| 1.4    | resultDesc         | String | No               | Return description                                                                                              |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.

- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Query scheduled sample inspection plans.

Request header:

```
Content-Type:application/json
x-app-key:xxxx-xxxx-xxxx-xxxx-xxxx
x-UserId:xxxx
Authorization:Bearer *****
```

Request parameters:

```
{
 "page": 1,
 "rows": 10
}
```

Response header:

```
Content-Type: application/json;charset=UTF-8
```

Response parameters:

```
{
 "total": 2,
 "list": [{
 "qiqtStartTimeStr": "2020-12-30 10:27:08",
 "qiqtEndType": "2",
 "qiqtEndTypeStr": "Time limit",
 "qiqtId": "954637368599307266",
 "nextExecutionTimeStr": "2020-12-31 10:27:08",
 "qiqtName": "regulartask",
 "qiqtExecutionTimes": 0,
 "qiqtTotalTimes": 1,
 "qiqtCycleType": "Daily",
 "qiqtStatus": "2",
 "qiqtCreator": "xxxx",
 "qiqtCreateTimeStr": "2020-12-30 10:27:33",
 "qiqtEndTimeStr": "2021-01-02 10:27:08",
 "interactionType": "0"
 }, {
 "qiqtStartTimeStr": "2020-11-23 11:30:00",
 "qiqtEndType": "2",
 "qiqtEndTypeStr": "Time limit",
 "qiqtId": "933182094016018433",
 "nextExecutionTimeStr": "2020-12-29 11:30:00",
 "qiqtName": "long1123",
 "qiqtExecutionTimes": 9,
 "qiqtTotalTimes": 1,
 "qiqtCycleType": "Daily",
 "qiqtStatus": "1",
 "qiqtCreator": "xxxx",
 "qiqtCreateTimeStr": "2020-11-23 10:22:48",
 "qiqtEndTimeStr": "2020-12-30 10:24:50",
 "interactionType": "0"
 }
],
 "resultCode": "0408000",
 "resultDesc": "Operation successful."
}
```

## 12.2.13.6 POST /CCSQM/rest/ccisqm/v1/regularqualitytask/stopQualityTask

### Scenario

This interface is invoked to suspend a scheduled sample inspection plan.

### Method

POST

### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/regularqualitytask/stopQualityTask> (For example, the domain name is service.besclouds.com.)

### Request Description

Table 12-258 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-259** Request body parameters

| No. | Parameter            | Type   | Mandatory or Not | Description                                                                  |
|-----|----------------------|--------|------------------|------------------------------------------------------------------------------|
| 1.1 | regularQualityTaskId | Number | Yes              | Sample inspection task ID. The value can contain a maximum of 20 characters. |

## Response Description

- **Status code: 200**

**Table 12-260** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>• <b>0408000</b>: success</li> <li>• Others: failure</li> </ul> |
| 1.2 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Suspend a scheduled sample inspection plan.

Request header:

```
Content-Type:application/json
x-app-key:xxxx-xxxx-xxxx-xxxx-xxxx
x-UserId:xxxx
Authorization:Bearer *****
```

Request parameters:



```
{
 "regularQualityTaskId": 954637368599307266
}
```

Response header:

```
Content-Type: application/json;charset=UTF-8
```

Response parameters:

```
{
 "resultCode": "0408000",
 "resultDesc": "Operation successful."
}
```

## 12.2.14 qualitytask

### 12.2.14.1 POST /CCSQM/rest/ccisqm/v1/qualitytask/deleteQualityTask

#### Scenario

This interface is invoked to delete a manual review task.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/qualitytask/deleteQualityTask> (For example, the domain name is service.besclouds.com.)

#### Request Description

Table 12-261 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                  |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                               |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                      |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of AccessToken returned by the tokenByAkSk interface}</b> . (A space is required after <b>Bearer</b> .) |

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                      |
|-----|-----------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | x-UserId  | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface. |

**Table 12-262** Request body parameters

| No. | Parameter     | Type   | Mandatory or Not | Description |
|-----|---------------|--------|------------------|-------------|
| 1.1 | qualityTaskId | Number | Yes              | Task ID     |

## Response Description

- **Status code: 200**

**Table 12-263** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>• <b>0409000</b>: success</li> <li>• Others: failure</li> </ul> |
| 1.2 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Delete a manual review task.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "qualityTaskId": "16239245027406915901"
}
```

Response parameters:

```
{
 "resultCode": "0409000",
 "resultDesc": "Operation successful."
}
```

### 12.2.14.2 POST /CCSQM/rest/ccisqm/v1/qualitytask/updateQualityTask

#### Scenario

This interface is invoked to update a manual review task.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/qualitytask/updateQualityTask> (For example, the domain name is service.besclouds.com.)

#### Request Description

**Table 12-264** Request header parameters

| No. | Parameter    | Type   | Mandatory or Not | Description                                                    |
|-----|--------------|--------|------------------|----------------------------------------------------------------|
| 1   | Content-Type | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> . |
| 2   | x-app-key    | String | No               | App key                                                        |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                          |

**Table 12-265** Request body parameters

| No.   | Parameter        | Type   | Mandatory or Not | Description                                                                           |
|-------|------------------|--------|------------------|---------------------------------------------------------------------------------------|
| 1.1   | currentRole      | String | Yes              | User position                                                                         |
| 1.2   | startTimeMillis  | Number | No               | Call start time                                                                       |
| 1.3   | endTimeMillis    | Number | No               | Call end time                                                                         |
| 1.4   | fixedColumns     | Object | No               | Sample inspection details                                                             |
| 1.4.1 | maxNum           | Number | No               | Maximum sample inspection quantity. The value ranges from 0 to 10000.                 |
| 1.4.2 | qualityCondition | Number | Yes              | Sample inspection status. The options are <b>0</b> , <b>1</b> , and <b>2</b> .        |
| 1.4.3 | qualityNum       | Number | Yes              | Sample inspection quantity                                                            |
| 1.4.4 | qualityType      | Number | Yes              | Sample inspection quantity type. The options are <b>1</b> , <b>2</b> , and <b>3</b> . |

| No.    | Parameter       | Type           | Mandatory or Not | Description                                                                                  |
|--------|-----------------|----------------|------------------|----------------------------------------------------------------------------------------------|
| 1.4.5  | durationStart   | Number         | No               | Minimum call duration. The value ranges from 0 to 100000000.                                 |
| 1.4.6  | durationEnd     | Number         | No               | Maximum call duration. The value ranges from 0 to 100000000.                                 |
| 1.4.7  | staffIds        | Array [String] | No               | Agent list                                                                                   |
| 1.4.8  | scoreStart      | Number         | No               | Minimum machine score. The value ranges from 0 to 10000.                                     |
| 1.4.9  | scoreEnd        | Number         | No               | Maximum machine score. The value ranges from 0 to 10000.                                     |
| 1.4.10 | interactionType | Integer        | Yes              | Inspection type <ul style="list-style-type: none"><li>● 0: voice</li><li>● 2: text</li></ul> |
| 1.5    | qualityTask     | Object         | No               | Sample inspection tasks                                                                      |
| 1.5.1  | planName        | String         | Yes              | Sample inspection task name. The value can contain a maximum of 32 characters.               |
| 1.5.2  | id              | Number         | Yes              | Sample inspection task ID. The value is the same as that of <b>qualityTaskId</b> .           |

## Response Description

- Status code: 200

**Table 12-266** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>● <b>0409000</b>: success</li> <li>● Others: failure</li> </ul> |
| 1.2 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Update a manual review task.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "customColumns": null,
 "currentRole": "qualityDirector",
 "startTimeMillis": 1623834293,
 "endTimeMillis": 1623920692,
 "fixedColumns": {
 "maxNum": 1,
 "qualityCondition": "0",
 "qualityNum": 100,
 "qualityType": 1,
 "staffIds": []
 },
 "qualityTask": {
 "planName": "css-1623920700092",
 "id": "16239207001133382753"
 }
}
```

Response parameters:

```
{
 "resultCode": "0409000",
```

```

 "resultDesc": "Operation successful."
 }

```

### 12.2.14.3 POST /CCSQM/rest/ccisqm/v1/qualitytask/terminateQualityTask

#### Scenario

This interface is invoked to terminate an inspection task.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/qualitytask/terminateQualityTask> (For example, the domain name is service.besclouds.com.)

#### Request Description

**Table 12-267** Request header parameters

| No. | Parameter     | Type   | Mandato<br>ry or Not | Description                                                                                                                                                                |
|-----|---------------|--------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No                   | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No                   | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes                  | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes                  | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-268** Request body parameters

| No. | Parameter     | Type   | Mandatory or Not | Description               |
|-----|---------------|--------|------------------|---------------------------|
| 1.1 | qualityTaskId | Number | Yes              | Sample inspection task ID |

## Response Description

- **Status code: 200**

**Table 12-269** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>• <b>0409000</b>: success</li> <li>• Others: failure</li> </ul> |
| 1.2 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Terminate an inspection task.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "qualityTaskId": "16239241148860783173"
}
```



Response parameters:

```
{
 "resultCode": "0409000",
 "resultDesc": "Operation successful."
}
```

## 12.2.14.4 POST /CCSQM/rest/ccisqm/v1/qualitytask/takeEffectQualityTask

### Scenario

This interface is invoked to validate a manual review task.

### Method

POST

### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/qualitytask/takeEffectQualityTask> (For example, the domain name is service.besclouds.com.)

### Request Description

Table 12-270 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-271** Request body parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                      |
|-----|---------------|--------|------------------|------------------------------------------------------------------------------------------------------------------|
| 1.1 | type          | String | Yes              | Effective type <ul style="list-style-type: none"> <li>1: immediately</li> <li>2: at the reserved time</li> </ul> |
| 1.2 | qualityTaskId | Number | Yes              | Sample inspection task ID                                                                                        |
| 1.3 | reserveTime   | String | No               | Effective time                                                                                                   |

## Response Description

- **Status code: 200**

**Table 12-272** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                             |
|-----|------------|--------|------------------|---------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>0409000: success</li> <li>Others: failure</li> </ul> |
| 1.2 | resultDesc | String | No               | Return description                                                                                      |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Validate a manual review task.  
Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "type": 1,
 "reserveTime": "",
 "qualityTaskId": "16239241148860783173"
}
```

Response parameters:

```
{
 "resultCode": "0409000",
 "resultDesc": "Operation successful."
}
```

## 12.2.14.5 POST /CCSQM/rest/ccisqm/v1/qualitytask/queryQualityTask

### Scenario

This interface is invoked to query a manual review task.

### Method

POST

### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/qualitytask/queryQualityTask> (For example, the domain name is service.besclouds.com.)

### Request Description

Table 12-273 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                  |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                               |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                      |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of AccessToken returned by the tokenByAkSk interface}</b> . (A space is required after <b>Bearer</b> .) |

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                      |
|-----|-----------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | x-UserId  | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface. |

**Table 12-274** Request body parameters

| No.   | Parameter           | Type   | Mandatory or Not | Description                                                                    |
|-------|---------------------|--------|------------------|--------------------------------------------------------------------------------|
| 1.1   | fixedColumns        | Object | No               | Sample inspection task details                                                 |
| 1.1.1 | fileName            | String | No               | File name. The value can contain a maximum of 32 characters.                   |
| 1.1.2 | creatOperator       | String | No               | Creator. The value can contain a maximum of 32 characters.                     |
| 1.1.3 | reviewingOfficer    | String | No               | Reviewer. The value can contain a maximum of 32 characters.                    |
| 1.1.4 | status              | Number | No               | Effective status                                                               |
| 1.1.5 | planName            | String | No               | Sample inspection task name. The value can contain a maximum of 32 characters. |
| 1.2   | userId              | String | No               | User ID                                                                        |
| 1.3   | currentRole         | String | Yes              | User role                                                                      |
| 1.4   | startTimeMillis     | Number | Yes              | Time when a sample inspection task starts                                      |
| 1.5   | endTimeMillis       | Number | Yes              | Time when a sample inspection task ends                                        |
| 1.6   | callStartTimeMillis | Number | No               | Call start time                                                                |

| No. | Parameter         | Type   | Mandatory or Not | Description                                                                             |
|-----|-------------------|--------|------------------|-----------------------------------------------------------------------------------------|
| 1.7 | callEndTimeMillis | Number | No               | Call end time                                                                           |
| 1.8 | page              | Number | Yes              | Page number. Pagination information. The value is greater than or equal to 1.           |
| 1.9 | rows              | Number | Yes              | Number of records on each page. Pagination information. The value ranges from 1 to 100. |

## Response Description

- Status code: 200

Table 12-275 Response body parameters

| No.   | Parameter         | Type           | Mandatory or Not | Description                          |
|-------|-------------------|----------------|------------------|--------------------------------------|
| 1.1   | total             | Number         | Yes              | Total number of records              |
| 1.2   | data              | Array [Object] | Yes              | Sample inspection task list          |
| 1.2.1 | id                | Number         | No               | Sample inspection task ID            |
| 1.2.2 | planCode          | String         | Yes              | Sample inspection task               |
| 1.2.3 | planCodeStr       | String         | Yes              | Sample inspection task               |
| 1.2.4 | planName          | String         | Yes              | Sample inspection task name          |
| 1.2.5 | createTime        | Number         | Yes              | Sample inspection task creation time |
| 1.2.6 | creatOperator     | String         | Yes              | Creator                              |
| 1.2.7 | callStart         | Number         | No               | Call start time                      |
| 1.2.8 | callEnd           | Number         | No               | Call end time                        |
| 1.2.9 | inspectTotalCount | Number         | Yes              | Total number of inspected calls      |

| No.    | Parameter             | Type   | Mandatory or Not | Description                                                                                                                   |
|--------|-----------------------|--------|------------------|-------------------------------------------------------------------------------------------------------------------------------|
| 1.2.10 | inspectFinished-Count | Number | Yes              | Number of calls that have been inspected                                                                                      |
| 1.2.11 | reviewTotalCount      | Number | Yes              | Number of inspected calls to be reviewed                                                                                      |
| 1.2.12 | reviewFinishedCount   | Number | Yes              | Number of inspected calls that have been reviewed                                                                             |
| 1.2.13 | status                | String | Yes              | Effective status                                                                                                              |
| 1.2.14 | effectiveDate         | Number | No               | Effective time                                                                                                                |
| 1.2.15 | personType            | Number | Yes              | Whether a task is created by the current operator                                                                             |
| 1.2.16 | reviewingOfficer      | String | No               | Reviewer ID                                                                                                                   |
| 1.2.17 | reviewingOfficer-Name | String | No               | Reviewer name                                                                                                                 |
| 1.2.18 | isManipulate          | Number | Yes              | Whether the current inspection task can be operated                                                                           |
| 1.2.19 | interactionType       | String | false            | Interaction type. The options are as follows: <ul style="list-style-type: none"> <li>● 0: audio</li> <li>● 2: text</li> </ul> |
| 1.3    | resultCode            | Number | Yes              | Interface success flag                                                                                                        |
| 1.4    | resultDesc            | String | No               | Success or failure information                                                                                                |
| 1.5    | returnCode            | String | No               | Return code <ul style="list-style-type: none"> <li>● 0409000: success</li> <li>● Others: failure</li> </ul>                   |
| 1.6    | returnDesc            | String | No               | Return description                                                                                                            |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.

- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Query a manual review task.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "customColumns": [],
 "fixedColumns": {
 "fileName": "",
 "creatOperator": "",
 "reviewingOfficer": "",
 "status": null,
 "planName": "",
 "customerPhone": ""
 },
 "currentRole": "qualityDirector",
 "startTimeMillis": 1623319872,
 "endTimeMillis": 1623924672,
 "callStartTimeMillis": null,
 "callEndTimeMillis": null,
 "page": 1,
 "rows": 10
}
```

Response parameters:

```
{
 "total": 4,
 "data": [{
 "reviewFinishedCount": 0,
 "inspectFinishedCount": 0,
 "planName": "er32324",
 "isManipulate": 0,
 "inspectTotalCount": 10,
 "planCode": "16239241148860783173",
 "planCodeStr": "16239241148860783173",
 "creatOperator": "zjzlong",
 "createTime": 1623924115,
 "id": "16239241148860783173",
 "personType": 1,
 "reviewTotalCount": 0,
 "status": "4"
 }, {
 "reviewFinishedCount": 0,
 "inspectFinishedCount": 0,
 "planName": "234",
 "isManipulate": 0,
 "inspectTotalCount": 10,
 "planCode": "16239245027406915901",
 "planCodeStr": "16239245027406915901",
 "creatOperator": "zjzlong",
 "createTime": 1623924503,
 "id": "16239245027406915901",
 "personType": 0,
 "reviewTotalCount": 0,
 }
}
```

```

 "status": "0"
 }, {
 "reviewFinishedCount": 0,
 "inspectFinishedCount": 0,
 "planName": "tes23",
 "isManipulate": 0,
 "inspectTotalCount": 10,
 "planCode": "16238263488553287941",
 "planCodeStr": "16238263488553287941",
 "creatOperator": "zjzlong",
 "createTime": 1623826349,
 "id": "16238263488553287941",
 "personType": 1,
 "reviewTotalCount": 0,
 "effectiveDate": 1623913453,
 "status": "1"
 }, {
 "reviewFinishedCount": 0,
 "inspectFinishedCount": 0,
 "planName": "Test case",
 "isManipulate": 0,
 "inspectTotalCount": 2,
 "planCode": "16239128427437922220",
 "planCodeStr": "16239128427437922220",
 "creatOperator": "zjzlong",
 "createTime": 1623912843,
 "id": "16239128427437922220",
 "personType": 1,
 "reviewTotalCount": 0,
 "status": "1"
 }
},
"resultCode": "0409000",
"resultDesc": "Operation successful."
}

```

## 12.2.14.6 POST /CCSQM/rest/ccisqm/v1/qualitytask/appointQualityTask

### Scenario

This interface is invoked to assign a manual review task.

### Method

POST

### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/qualitytask/appointQualityTask> (For example, the domain name is service.besclouds.com.)

### Request Description

**Table 12-276** Request header parameters

| No. | Parameter    | Type   | Mandato<br>ry or Not | Description                                                             |
|-----|--------------|--------|----------------------|-------------------------------------------------------------------------|
| 1   | Content-Type | String | No                   | The value is fixed to <b>application/json;</b><br><b>charset=UTF-8.</b> |



| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                   |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                          |

**Table 12-277** Request body parameters

| No.   | Parameter     | Type           | Mandatory or Not | Description                                                                    |
|-------|---------------|----------------|------------------|--------------------------------------------------------------------------------|
| 1.1   | qualityTaskId | Number         | Yes              | Sample inspection task ID                                                      |
| 1.2   | setCountsType | Number         | Yes              | Type of the inspector to be assigned. The value can only be <b>1</b> .         |
| 1.3   | isTakeEffect  | Number         | Yes              | Whether to take effect immediately. The options are <b>0</b> and <b>1</b> .    |
| 1.4   | setCounts     | Array [Object] | Yes              | Inspector list                                                                 |
| 1.4.1 | personID      | String         | Yes              | Inspector ID                                                                   |
| 1.4.2 | count         | Number         | No               | Number of assigned tasks. The value can contain a maximum of eight characters. |

## Response Description

- **Status code: 200**

**Table 12-278** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>● <b>0409000</b>: success</li> <li>● Others: failure</li> </ul> |
| 1.2 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Assign a manual review task.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "qualityTaskId": "954645333549048833",
 "setCountsType": 1,
 "isTakeEffect": 0,
 "setCounts": [{
 "personID": "1600226476732482572",
 "count": 2
 }]
}
```

Response parameters:

```
{
 "resultCode": "0409000",
 "resultDesc": "Operation successful."
}
```

## 12.2.14.7 POST /CCSQM/rest/ccisqm/v1/qualitytask/createQualityTask

### Scenario

This interface is invoked to create a manual review task.

### Method

POST

### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/qualitytask/createQualityTask> (For example, the domain name is service.besclouds.com.)

### Request Description

**Table 12-279** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-280** Request body parameters

| No. | Parameter   | Type   | Mandatory or Not | Description |
|-----|-------------|--------|------------------|-------------|
| 1.1 | currentRole | String | Yes              | User ID     |

| No.    | Parameter        | Type           | Mandatory or Not | Description                                                                                                   |
|--------|------------------|----------------|------------------|---------------------------------------------------------------------------------------------------------------|
| 1.2    | startTimeMillis  | Number         | No               | Call start time                                                                                               |
| 1.3    | endTimeMillis    | Number         | No               | Call end time                                                                                                 |
| 1.4    | fixedColumns     | Object         | Yes              | Sample inspection details                                                                                     |
| 1.4.1  | maxNum           | Number         | No               | Maximum sample inspection quantity. The value ranges from 0 to 10000.                                         |
| 1.4.2  | qualityCondition | Integer        | No               | Sample inspection status. The options are <b>0</b> , <b>1</b> , and <b>2</b> .                                |
| 1.4.3  | qualityNum       | Number         | Yes              | Sample inspection quantity. The value is greater than 1.                                                      |
| 1.4.4  | qualityType      | Number         | Yes              | Sample inspection quantity type. The options are <b>1</b> , <b>2</b> , and <b>3</b> .                         |
| 1.4.5  | scoreStart       | Integer        | No               | Minimum machine score. The value ranges from 0 to 10000.                                                      |
| 1.4.6  | scoreEnd         | Integer        | No               | Maximum machine score. The value ranges from 0 to 10000.                                                      |
| 1.4.7  | durationStart    | Integer        | No               | Minimum call duration. The value ranges from 0 to 100000000.                                                  |
| 1.4.8  | durationEnd      | Integer        | No               | Maximum call duration. The value ranges from 0 to 100000000.                                                  |
| 1.4.9  | staffIds         | Array [String] | No               | Agent list                                                                                                    |
| 1.4.10 | interactionType  | Integer        | Yes              | Inspection type <ul style="list-style-type: none"> <li>● <b>0</b>: voice</li> <li>● <b>2</b>: text</li> </ul> |
| 1.5    | qualityTask      | Object         | Yes              | Sample inspection tasks                                                                                       |

| No.   | Parameter | Type   | Mandatory or Not | Description                                                                    |
|-------|-----------|--------|------------------|--------------------------------------------------------------------------------|
| 1.5.1 | planName  | String | Yes              | Sample inspection task name. The value can contain a maximum of 32 characters. |

## Response Description

- **Status code: 200**

**Table 12-281** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>• <b>0409000</b>: success</li> <li>• Others: failure</li> </ul> |
| 1.2 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Create a manual review task.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "customColumns": null,
```

```

"currentRole": "qualityDirector",
"startTimeMillis": "",
"endTimeMillis": "",
"fixedColumns": {
 "maxNum": 10,
 "qualityCondition": 0,
 "qualityNum": 100,
 "qualityType": 1,
 "scoreStart": 10,
 "scoreEnd": 120,
 "staffIds": []
},
"qualityTask": {
 "planName": "234"
}
}

```

Response parameters:

```

{
 "qualityTaskId": "16239245027406915901",
 "resultCode": "0409000",
 "resultDesc": "Operation successful."
}

```

## 12.2.15 qualitytaskdetail

### 12.2.15.1 POST /CCSQM/rest/ccisqm/v1/qualitytask/modifyResultQualityTask

#### Scenario

This interface is invoked to modify the inspection result.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/qualitytask/modifyResultQualityTask> (For example, the domain name is service.besclouds.com.)

#### Request Description

Table 12-282 Request header parameters

| No. | Parameter    | Type   | Mandatory or Not | Description                                                    |
|-----|--------------|--------|------------------|----------------------------------------------------------------|
| 1   | Content-Type | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> . |
| 2   | x-app-key    | String | No               | App key                                                        |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                          |

**Table 12-283** Request body parameters

| No.   | Parameter   | Type    | Mandatory or Not | Description                                                                        |
|-------|-------------|---------|------------------|------------------------------------------------------------------------------------|
| 1.1   | isGroup     | Boolean | Yes              | Whether the call is in a call group                                                |
| 1.2   | ruleType    | Number  | Yes              | Rule type                                                                          |
| 1.3   | taskId      | String  | Yes              | Task ID                                                                            |
| 1.4   | uuid        | String  | Yes              | Call UUID                                                                          |
| 1.5   | ruleInfo    | Object  | Yes              | Rule information                                                                   |
| 1.5.1 | description | String  | Yes              | Sample inspection remarks                                                          |
| 1.5.2 | revise      | Number  | Yes              | Sample inspection result. The options are <b>1</b> (valid) and <b>0</b> (invalid). |
| 1.5.3 | reviselId   | Number  | Yes              | Rule ID                                                                            |

## Response Description

- **Status code: 200**

**Table 12-284** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>● <b>0409000</b>: success</li> <li>● Others: failure</li> </ul> |
| 1.2 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Modify the inspection result.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "isGroup": false,
 "ruleType": 60,
 "taskId": "951849982538539011",
 "uuid": "6e587bea-d752-4cd7-8ce4-96b6e4c9258a",
 "ruleInfo": {
 "description": "5454",
 "revise": 1,
 "reviselid": "sentitiveWordRule735bd2f5-0037-4b22-8eb5-49e354e3bac9"
 }
}
```

Response parameters:

```
{
 "resultCode": 0409000,
 "resultDesc": "success"
}
```



## 12.2.15.2 POST /CCSQM/rest/ccisqm/v1/qualitytask/completeQualityTask

### Scenario

This interface is invoked to complete a sample inspection task.

### Method

POST

### URI

[https://Domain\\_name/apiaccess/CCSQM/rest/ccisqm/v1/qualitytask/completeQualityTask](https://Domain_name/apiaccess/CCSQM/rest/ccisqm/v1/qualitytask/completeQualityTask) (For example, the domain name is service.besclouds.com.)

### Request Description

Table 12-285 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-286** Request body parameters

| No. | Parameter         | Type    | Mandatory or Not | Description                         |
|-----|-------------------|---------|------------------|-------------------------------------|
| 1.1 | isGroup           | Boolean | Yes              | Whether the call is in a call group |
| 1.2 | callId            | Number  | Yes              | Call ID                             |
| 1.3 | callGroupId       | Number  | Yes              | Call group ID                       |
| 1.4 | qualityTaskCallId | String  | Yes              | Task ID                             |

## Response Description

- **Status code: 200**

**Table 12-287** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                     |
|-----|------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"><li>• <b>0409000</b>: success</li><li>• Others: failure</li></ul> |
| 1.2 | resultDesc | String | No               | Return description                                                                                              |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Complete a sample inspection task.  
Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "isGroup": false,
 "callId": "951849808525254658",
 "callGroupId": null,
 "qualityTaskCallId": "951849808189710338"
}
```

Response parameters:

```
{
 "resultCode": 0409000,
 "resultDesc": "success"
}
```

### 12.2.15.3 POST /CCSQM/rest/ccisqm/v1/qualitytask/callsQualityTask

#### Scenario

This interface is invoked to query sample inspection task details.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/qualitytask/callsQualityTask> (For example, the domain name is service.besclouds.com.)

#### Request Description

Table 12-288 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                            |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                   |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                      |
|-----|-----------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | x-UserId  | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface. |

**Table 12-289** Request body parameters

| No.   | Parameter            | Type    | Mandatory or Not | Description                                                                     |
|-------|----------------------|---------|------------------|---------------------------------------------------------------------------------|
| 1.1   | currentRole          | String  | Yes              | User role                                                                       |
| 1.2   | page                 | Number  | Yes              | Page number. Pagination information.                                            |
| 1.3   | rows                 | Number  | Yes              | Number of records on each page. Pagination information.                         |
| 1.4   | fixedColumns         | Object  | Yes              | Sample inspection task details                                                  |
| 1.4.1 | planCode             | String  | Yes              | Sample inspection task code. The value can contain a maximum of 128 characters. |
| 1.4.2 | showReviewingOfficer | Boolean | No               | Whether to display only tasks assigned to reviewers.                            |
| 1.4.3 | inspectStatus        | String  | No               | Sample inspection status. The options are <b>-1, 0, 1, and 3</b> .              |
| 1.4.4 | inspector            | String  | No               | Sample inspector. The value can contain a maximum of 256 characters.            |
| 1.4.5 | fileName             | String  | No               | File name. The value can contain a maximum of 256 characters.                   |

| No.    | Parameter        | Type   | Mandatory or Not | Description                                                                     |
|--------|------------------|--------|------------------|---------------------------------------------------------------------------------|
| 1.4.6  | reviewingOfficer | String | No               | Reviewer. The value can contain a maximum of 256 characters.                    |
| 1.4.7  | reviewingStates  | String | No               | Review status. The options are <b>-1</b> , <b>0</b> , <b>2</b> , and <b>3</b> . |
| 1.4.8  | staff            | String | No               | Agent. The value can contain a maximum of 256 characters.                       |
| 1.4.9  | durationFrom     | Number | No               | Start time of a call duration range                                             |
| 1.4.10 | durationTo       | Number | No               | End time of a call duration range                                               |

## Response Description

- Status code: 200

**Table 12-290** Response body parameters

| No.     | Parameter     | Type           | Mandatory or Not | Description             |
|---------|---------------|----------------|------------------|-------------------------|
| 1.1     | total         | Number         | Yes              | Total number of records |
| 1.2     | data          | Array [Object] | Yes              | Queried data            |
| 1.2.1   | id            | Number         | No               | Task ID                 |
| 1.2.2   | inspector     | String         | No               | Inspector               |
| 1.2.3   | inspectStatus | Number         | No               | Inspection status       |
| 1.2.4   | calls         | Array [Object] | No               | Call list               |
| 1.2.4.1 | call_id       | String         | No               | Call business ID        |
| 1.2.4.2 | file_name     | String         | No               | File name               |
| 1.2.4.3 | duration      | Number         | No               | Call duration           |
| 1.2.4.4 | upload_time   | Number         | No               | Upload time             |

| No.      | Parameter        | Type    | Mandatory or Not | Description                                                                                                     |
|----------|------------------|---------|------------------|-----------------------------------------------------------------------------------------------------------------|
| 1.2.4.5  | call_time        | Number  | No               | Call start time                                                                                                 |
| 1.2.4.6  | call_uuid        | String  | No               | Call business ID                                                                                                |
| 1.2.4.7  | taskId           | Number  | No               | Task ID                                                                                                         |
| 1.2.4.8  | call_type        | Number  | No               | Call type                                                                                                       |
| 1.2.4.9  | inspectStatus    | Number  | No               | Inspection status                                                                                               |
| 1.2.4.10 | leftChannel      | String  | No               | Left channel                                                                                                    |
| 1.2.4.11 | leftSpeechRatio  | Number  | No               | Left channel speaking proportion                                                                                |
| 1.2.4.12 | rightSpeechRatio | Number  | No               | Right channel speaking proportion                                                                               |
| 1.2.5    | setting          | Object  | No               | Extended information                                                                                            |
| 1.2.5.1  | call_id          | String  | No               | Call details ID                                                                                                 |
| 1.2.5.2  | taskId           | Number  | No               | Task ID                                                                                                         |
| 1.2.5.3  | staffId          | String  | No               | Agent ID                                                                                                        |
| 1.2.5.4  | staff_name       | String  | No               | Agent name                                                                                                      |
| 1.2.6    | inspectorName    | String  | No               | Sample inspector name                                                                                           |
| 1.2.7    | is_group         | Boolean | No               | Whether a call is an associated call                                                                            |
| 1.3      | resultCode       | String  | No               | Return code <ul style="list-style-type: none"><li>● <b>0409000</b>: success</li><li>● Others: failure</li></ul> |
| 1.4      | resultDesc       | String  | No               | Return description                                                                                              |

- **Status code: 400**

Incorrect request. Check the request path and parameters.

- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Query sample inspection task details.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "currentRole": "qualityDirector",
 "page": 1,
 "rows": 10,
 "fixedColumns": {
 "planCode": "125092321715122176",
 "showReviewingOfficer": false,
 "inspectStatus": "5"
 }
}
```

Response parameters:

```
{
 "total": 1,
 "pages": 0,
 "data": [{
 "calls": [{
 "duration": 347.16,
 "upload_time": 1609143922,
 "rightSpeechRatio": "0.2446",
 "file_name": "766",
 "leftSpeechRatio": "0.1933",
 "call_time": 1609143921,
 "leftChannel": "staff",
 "call_uuid": "c6a31191-6c69-486b-b8f9-c3412ef44bfd",
 "inspectStatus": 0,
 "call_type": 0,
 "taskId": "954153162039409666",
 "call_id": "954155173359172609"
 }],
 "id": "954153162039409666",
 "inspector": "1600226476732482572",
 "inspectStatus": 0,
 "inspectorName": "zjrylong",
 "is_group": false,
 "setting": {
 "staff_name": "zxrylong",
 "staffId": "1600226440112042215",
 "taskId": "954153162039409666",
 "call_id": "954155173359172609"
 }
 }
}
```

```

 }},
 "resultCode": "0409000",
 "resultDesc": "success"
 }

```

## 12.2.16 qualityitem

### 12.2.16.1 POST /CCSQM/rest/ccisqm/v1/qualityitem/reassginQualityTask

#### Scenario

This interface is invoked to reassign an appeal.

#### Method

POST

#### URI

[https://Domain\\_name/apiaccess/CCSQM/rest/ccisqm/v1/qualityitem/reassginQualityTask](https://Domain_name/apiaccess/CCSQM/rest/ccisqm/v1/qualityitem/reassginQualityTask) (For example, the domain name is service.besclouds.com.)

#### Request Description

Table 12-291 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |



**Table 12-292** Request body parameters

| No. | Parameter         | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                               |
|-----|-------------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | handler           | String | No               | Handler ID                                                                                                                                                                                                                                                                |
| 1.2 | qualityTaskInfold | String | No               | Inspection task ID                                                                                                                                                                                                                                                        |
| 1.3 | role              | String | No               | Role. The options are <b>qualityDirector</b> (inspection supervisor), <b>qualityGroupLeader</b> (inspection leader), <b>qualityInspector</b> (inspector), <b>tableDirector</b> (agent supervisor), <b>tableGroupLeader</b> (agent leader), and <b>tableStaff</b> (agent). |

## Response Description

- **Status code: 200**

**Table 12-293** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>• <b>0410000</b>: success</li> <li>• Others: failure</li> </ul> |
| 1.2 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Reassign an appeal.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "qualityTaskInfold": "16239231508327803347",
 "handler": "1623924821759623386",
 "role": "qualityDirector",
 "auditOperation": "reassign",
 "assignee": "1623924821759623386",
 "taskInfold": "16239231508327803347"
}
```

Response parameters:

```
{
 "resultCode": "0410000",
 "resultDesc": "Operation successful."
}
```

### 12.2.16.2 POST /CCSQM/rest/ccisqm/v1/qualityitem/modifyQualityItemResult

#### Scenario

This interface is invoked to modify the inspection task rating result.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/qualityitem/modifyQualityItemResult> (For example, the domain name is service.besclouds.com.)

#### Request Description

**Table 12-294** Request header parameters

| No. | Parameter    | Type   | Mandato<br>ry or Not | Description                                                             |
|-----|--------------|--------|----------------------|-------------------------------------------------------------------------|
| 1   | Content-Type | String | No                   | The value is fixed to <b>application/json;</b><br><b>charset=UTF-8.</b> |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                   |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                          |

**Table 12-295** Request body parameters

| No.   | Parameter       | Type    | Mandatory or Not | Description                                                                                                         |
|-------|-----------------|---------|------------------|---------------------------------------------------------------------------------------------------------------------|
| 1.1   | isGroup         | Boolean | No               | Whether a call is an associated call. The options are <b>true</b> (associated call) and <b>false</b> (common call). |
| 1.2   | qualityItemId   | String  | No               | Inspection task ID                                                                                                  |
| 1.3   | qualityItemType | Number  | No               | Inspection task type. The options are <b>1</b> (problem) and <b>2</b> (appeal).                                     |
| 1.4   | ruleInfo        | Object  | No               | Rule information                                                                                                    |
| 1.4.1 | reviselId       | String  | No               | Inspection rating result modification ID                                                                            |
| 1.4.2 | revise          | Number  | No               | Modification type. The options are <b>1</b> (valid) and <b>0</b> (invalid).                                         |
| 1.4.3 | description     | String  | No               | Modification description                                                                                            |

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                                                                                                   |
|-----|-----------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.5 | ruleType  | Number | No               | Rule type. The options are <b>10</b> (dialog rule), <b>11</b> (silence rule), <b>12</b> (speed rule), <b>13</b> (interruption rule), <b>60</b> (sensitive word rule), and <b>70</b> (manual inspection rule). |
| 1.6 | uuid      | String | No               | Internal call inspection ID                                                                                                                                                                                   |

## Response Description

- **Status code: 200**

**Table 12-296** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>• <b>0410000</b>: success</li> <li>• Others: failure</li> </ul> |
| 1.2 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "qualityItemId": 16239231508327803347,
 "qualityItemType": 2,
 "isGroup": false,
 "ruleType": 11,
 "uuid": "fcbd13e7-ede6-4150-8f20-1867261f313c",
 "reviselId": "silenceRule2ad54b75-7823-45f6-8117-d920510f7195",
 "reviewResult": 0,
 "modifyRemark": "1211",
 "manualRuleScore": 60,
 "groupId": "groupid_2b57d143-aa63-40f1-894b-2e7242c6da47",
 "ruleInfo": {
 "reviselId": "silenceRule2ad54b75-7823-45f6-8117-d920510f7195",
 "revise": 0,
 "description": "111",
 "ruleGroupId": null
 }
}
```

Response parameters:

```
{
 "resultCode": "0410000",
 "resultDesc": "Operation successful."
}
```

### 12.2.16.3 POST /CCSQM/rest/ccisqm/v1/qualityitem/appealItem

#### Scenario

This interface is invoked to review an appeal.

#### Method

POST

#### URI

https://*Domain name*/apiaccess/CCSQM/rest/ccisqm/v1/qualityitem/appealItem  
(For example, the domain name is service.besclouds.com.)

#### Request Description

Table 12-297 Request header parameters

| No. | Parameter    | Type   | Mandato ry or Not | Description                                                    |
|-----|--------------|--------|-------------------|----------------------------------------------------------------|
| 1   | Content-Type | String | No                | The value is fixed to <b>application/json; charset=UTF-8</b> . |
| 2   | x-app-key    | String | No                | App key                                                        |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                          |

**Table 12-298** Request body parameters

| No. | Parameter      | Type   | Mandatory or Not | Description                                                                                                               |
|-----|----------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------|
| 1.1 | auditOperation | String | No               | Review operation type. The options are <b>back</b> (reject), <b>pass</b> (approve), and <b>assign</b> (assign to others). |
| 1.2 | callId         | String | No               | Call inspection ID                                                                                                        |
| 1.3 | coment         | String | No               | Review remarks                                                                                                            |
| 1.4 | taskInfold     | String | No               | Inspection task ID                                                                                                        |
| 1.5 | assignee       | String | No               | Assignee, which is assigned by the inspection leader or supervisor                                                        |
| 1.6 | role           | String | No               | Inspector ID                                                                                                              |

## Response Description

- **Status code: 200**

**Table 12-299** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                                                                                                        |
|-----|------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------|
| 1.1 | resultCode | String | No               | Return code <ul style="list-style-type: none"> <li>● <b>0410000</b>: success</li> <li>● Others: failure</li> </ul> |
| 1.2 | resultDesc | String | No               | Return description                                                                                                 |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Review an appeal.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "assignee": "1623922081217484235",
 "auditOperation": "pass",
 "callId": "fcbd13e7-ede6-4150-8f20-1867261f313c",
 "comment": "aaa",
 "taskInfold": "16239231508327803347"
}
```

Response parameters:

```
{
 "resultCode": "0410000",
 "resultDesc": "Operation successful."
}
```

### 12.2.16.4 POST /CCSQM/rest/ccisqm/v1/qualityitem/queryQualityItem

#### Scenario

This interface is invoked to query inspection tasks.

## Method

POST

## URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/qualityitem/queryQualityItem> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-300** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                  |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                               |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                      |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of AccessToken returned by the tokenByAkSk interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.             |

**Table 12-301** Request body parameters

| No.   | Parameter      | Type   | Mandatory or Not | Description                                   |
|-------|----------------|--------|------------------|-----------------------------------------------|
| 1.1   | fixedColumns   | Object | No               | Conditions for advanced query                 |
| 1.1.1 | agentUserIds   | Array  | No               | User IDs of agents in an agent group          |
| 1.1.2 | qualityUserIds | Array  | No               | User IDs of inspectors in an inspection group |



| No.   | Parameter       | Type   | Mandatory or Not | Description                                                                                                                            |
|-------|-----------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 1.1.3 | taskType        | String | No               | Inspection task type. The options are <b>1</b> (problem) and <b>2</b> (appeal).                                                        |
| 1.1.4 | taskStatus      | Number | No               | Inspection task status. The options are <b>21</b> (reviewing), <b>22</b> (completed), <b>24</b> (handling), and <b>27</b> (verifying). |
| 1.2   | startTimeMillis | Number | No               | Inspection task start time. The value is a timestamp, in seconds.                                                                      |
| 1.3   | endTimeMillis   | Number | No               | Inspection task end time. The value is a timestamp, in seconds.                                                                        |
| 1.4   | rows            | Number | No               | Number of records on each page. The maximum value is 1000000.                                                                          |
| 1.5   | page            | Number | No               | Page number. The minimum value is <b>1</b> . The page size is determined by <b>rows</b> .                                              |

## Response Description

- **Status code: 200**

**Table 12-302** Response body parameters

| No.   | Parameter | Type           | Mandatory or Not | Description             |
|-------|-----------|----------------|------------------|-------------------------|
| 1.1   | total     | Number         | No               | Total number of records |
| 1.2   | pages     | Number         | No               | Total number of pages   |
| 1.3   | data      | Array [Object] | No               | Inspection task data    |
| 1.3.1 | id        | Number         | No               | Inspection task ID      |

| No.      | Parameter             | Type           | Mandatory or Not | Description                                |
|----------|-----------------------|----------------|------------------|--------------------------------------------|
| 1.3.2    | taskTypeName          | String         | No               | Appeal task type name                      |
| 1.3.3    | inspectorName         | String         | No               | Inspector name                             |
| 1.3.4    | reviewingOfficer-Name | String         | No               | Reviewer name                              |
| 1.3.5    | initiatorName         | String         | No               | Initiator name                             |
| 1.3.6    | taskOperatorName      | String         | No               | Handler name                               |
| 1.3.7    | agentName             | String         | No               | Previous node handler                      |
| 1.3.8    | taskStatusName        | String         | No               | Appeal task status name                    |
| 1.3.9    | calls                 | Array [Object] | No               | Call details list                          |
| 1.3.9.1  | call_uuid             | String         | No               | Call inspection ID                         |
| 1.3.10   | createTimeStr         | String         | No               | Creation time, in <i>yyyy-MM-dd</i> format |
| 1.3.11   | updateTimeStr         | String         | No               | Update time, in <i>yyyy-MM-dd</i> format   |
| 1.3.12   | setting               | Object         | No               | Call details list                          |
| 1.3.12.1 | file_name             | String         | No               | File name                                  |
| 1.4      | pageSize              | Number         | No               | Number of records on each page             |
| 1.5      | pageNum               | Number         | No               | Page number                                |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Query inspection tasks.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "rows": 10000,
 "page": 1,
 "startTimeMillis": 1623318494,
 "endTimeMillis": 1623923294,
 "fixedColumns": {
 "agentUserIds": [],
 "qualityUserIds": [],
 "taskType": null,
 "taskStatus": null
 }
}
```

Response parameters:

```
{
 "data": [{
 "taskType": "APPEAL",
 "calls": [{
 "call_uuid": "8b595000-b02a-4290-9548-a4915001e89f"
 }],
 "initiatorName": "zxry0611",
 "taskOperatorName": "zxzg0611",
 "id": "16237434242323475065",
 "taskStatus": "reviewed",
 "createTimeStr": "2021-06-15 15:50:24",
 "updateTimeStr": "2021-06-15 15:50:25",
 "setting": {
 "file_name": "a1"
 }
 }, {
 "taskType": "APPEAL",
 "calls": [{
 "call_uuid": "473fbc39-f231-43f4-b1d7-7fc415c6e990"
 }],
 "initiatorName": "zxry0611",
 "taskOperatorName": "",
 "id": "16233956459326867354",
 "taskStatus": "processing",
 "createTimeStr": "2021-06-11 15:14:06",
 "updateTimeStr": "2021-06-15 15:26:00",
 "setting": {
 "file_name": "a3"
 }
 }, {
 "taskType": "APPEAL",
 "calls": [{
 "call_uuid": "473fbc39-f231-43f4-b1d7-7fc415c6e990"
 }],
 "initiatorName": "zxry0611",
 "taskOperatorName": "zxry0611",
 "id": "16233929966871311191",
 "taskStatus": "end",
 "createTimeStr": "2021-06-11 14:29:57",
 "updateTimeStr": "2021-06-11 15:06:20",
 }
}
```

```

 "setting": {
 "file_name": "a3"
 }
]]
}

```

## 12.2.16.5 POST /CCSQM/rest/ccisqm/v1/qualityitem/queryQualityItemDetail

### Scenario

This interface is invoked to query inspection task details.

### Method

POST

### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/qualityitem/queryQualityItemDetail> (For example, the domain name is service.besclouds.com.)

### Request Description

Table 12-303 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                             |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                    |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of <i>AccessToken</i> returned by the <i>tokenByAkSk</i> interface}</b> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-304** Request body parameters

| No. | Parameter     | Type   | Mandatory or Not | Description        |
|-----|---------------|--------|------------------|--------------------|
| 1.1 | qualityItemId | Number | Yes              | Inspection task ID |

## Response Description

- **Status code: 200**

**Table 12-305** Response body parameters

| No.   | Parameter           | Type           | Mandatory or Not | Description                                                                                                                                                                                                   |
|-------|---------------------|----------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1   | agentIsNull         | Boolean        | No               | Whether the previous node handler is empty. The options are <b>true</b> (yes) and <b>false</b> (no).                                                                                                          |
| 1.2   | qualityItemRule-Hit | Array [Object] | No               | Inspection rule details                                                                                                                                                                                       |
| 1.2.1 | id                  | Number         | No               | List ID                                                                                                                                                                                                       |
| 1.2.2 | callId              | Number         | No               | Call inspection ID                                                                                                                                                                                            |
| 1.2.3 | ruleId              | Number         | No               | Rule ID                                                                                                                                                                                                       |
| 1.2.4 | ruleName            | String         | No               | Rule name                                                                                                                                                                                                     |
| 1.2.5 | ruleDescribe        | String         | No               | Rule description                                                                                                                                                                                              |
| 1.2.6 | valid               | Number         | No               | Inspection result. The options are <b>1</b> (valid), <b>0</b> (invalid), and <b>-1</b> (not evaluated).                                                                                                       |
| 1.2.7 | type                | Number         | No               | Rule type. The options are <b>10</b> (dialog rule), <b>11</b> (silence rule), <b>12</b> (speed rule), <b>13</b> (interruption rule), <b>60</b> (sensitive word rule), and <b>70</b> (manual inspection rule). |
| 1.2.8 | createTime          | Number         | No               | Start time. The value is a timestamp, in seconds.                                                                                                                                                             |

| No.    | Parameter   | Type   | Mandatory or Not | Description                                                                                                              |
|--------|-------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------|
| 1.2.9  | updateTime  | Number | No               | Update time. The value is a timestamp, in seconds.                                                                       |
| 1.2.10 | description | String | No               | Handling description                                                                                                     |
| 1.2.11 | appealId    | Number | No               | Handling ID                                                                                                              |
| 1.2.12 | reviselId   | String | No               | Inspection result modification ID                                                                                        |
| 1.2.13 | ruleGroupId | Number | No               | Rule ID                                                                                                                  |
| 1.2.14 | revise      | Number | No               | Inspection result modification type. The options are <b>1</b> (valid), <b>0</b> (invalid), and <b>-1</b> (not modified). |
| 1.3    | title       | String | No               | Inspection task title                                                                                                    |
| 1.4    | qualityItem | Object | No               | Inspection task details                                                                                                  |
| 1.4.1  | callId      | Number | No               | Call inspection ID                                                                                                       |
| 1.4.2  | taskType    | Number | No               | Inspection task type. The options are <b>1</b> (problem) and <b>2</b> (appeal).                                          |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Query inspection task details.  
Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "qualityItemId": 16239231508327803347
}
```

Response parameters:

```
{
 "qualityItemRuleHit": [{
 "valid": 1,
 "revise": 1,
 "ruleType": 11,
 "reviselId": "silenceRule0c2ce60b-449a-423e-ada5-c69409e6dbab",
 "ruleName": "Silence rule 1",
 "description": "11",
 "id": 16233929967205038091,
 "ruleId": "920806740809748480",
 "ruleGroupId": "groupid_1760cfbb-e24c-4c9f-92f7-2701f154577c"
 }],
 "qualityItem": {
 "callId": "473fbc39-f231-43f4-b1d7-7fc415c6e990",
 "taskType": 2
 }
}
```

## 12.2.16.6 POST /CCSQM/rest/ccisqm/v1/qualityitem/queryQualityItemResult

### Scenario

This interface is invoked to obtain the score of an inspection task.

### Method

POST

### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/qualityitem/queryQualityItemResult> (For example, the domain name is service.besclouds.com.)

### Request Description

Table 12-306 Request header parameters

| No. | Parameter    | Type   | Mandatory or Not | Description                                                    |
|-----|--------------|--------|------------------|----------------------------------------------------------------|
| 1   | Content-Type | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> . |
| 2   | x-app-key    | String | No               | App key                                                        |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the tokenByAkSk interface}</i> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                           |

**Table 12-307** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description        |
|-----|-----------|--------|------------------|--------------------|
| 1.1 | qualityId | Number | No               | Inspection task ID |

## Response Description

- **Status code: 200**

**Table 12-308** Response body parameters

| No. | Parameter      | Type   | Mandatory or Not | Description             |
|-----|----------------|--------|------------------|-------------------------|
| 1.1 | manuallyScore  | Number | No               | Manual inspection score |
| 1.2 | automaticScore | Number | No               | AI inspection score     |
| 1.3 | ruleGroupId    | Number | No               | Rule ID                 |
| 1.4 | ruleGroupName  | String | No               | Business scenario name  |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.



- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Obtain the score of an inspection task.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "qualityId": 16239231508327803347,
 "call_uuid": "fcbd13e7-ede6-4150-8f20-1867261f313c"
}
```

Response parameters:

```
[{
 "createTime": 1623743005,
 "ruleGroupName": "test3",
 "manuallyScore": 100,
 "automaticScore": 60,
 "credit": {
 "silence_rule": [{
 "valid": true,
 "score": 0,
 "invalid_segment": [],
 "revise_id": "silenceRulec305afb4-d9bf-49ec-8d76-5ea03ef61ab7",
 "revise": -1,
 "name": "Silence rule 1",
 "setting": {
 "silence_id": "920806740809748480",
 "name": "Silence rule 1"
 }
 }
],
 "score": 60,
 "setting": {
 "group_id": "groupid_1760cfbb-e24c-4c9f-92f7-2701f154577c",
 "group_name": "test3",
 "ignore_sensitive": 0,
 "description": "3"
 }
},
 "ruleGroupId": "groupid_1760cfbb-e24c-4c9f-92f7-2701f154577c"
}]
```

## 12.2.16.7 POST /CCSQM/rest/ccisqm/v1/qualityitem/queryQualityHistory

### Scenario

This interface is invoked to query historical handling records of an appeal.

### Method

POST

### URI

<https://Domain name/apiaccess/CCSQM/rest/ccisqm/v1/qualityitem/queryQualityHistory> (For example, the domain name is service.besclouds.com.)

### Request Description

**Table 12-309** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                                       |
|-----|---------------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                                                    |
| 2   | x-app-key     | String | No               | App key                                                                                                                                                                           |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> <i>{Value of <b>AccessToken</b> returned by the <b>tokenByAkSk</b> interface}</i> . (A space is required after <b>Bearer</b> .) |
| 4   | x-UserId      | String | Yes              | Operator ID<br>You can sign in to the system and go to the employee management page to view the value of <b>userId</b> returned by an interface.                                  |

**Table 12-310** Request body parameters

| No. | Parameter         | Type   | Mandatory or Not | Description    |
|-----|-------------------|--------|------------------|----------------|
| 1.1 | qualityTaskInfold | String | Yes              | Appeal task ID |

## Response Description

- Status code: 200

Table 12-311 Response body parameters

| No.     | Parameter         | Type           | Mandatory or Not | Description                                                                                                                   |
|---------|-------------------|----------------|------------------|-------------------------------------------------------------------------------------------------------------------------------|
| 1.1     | showAssgin        | Boolean        | No               | Whether to display the button for assigning a previous node handler. The options are <b>true</b> (yes) and <b>false</b> (no). |
| 1.2     | workflowNodeList  | Array [Object] | No               | Handling flow history                                                                                                         |
| 1.2.1   | nodeName          | String         | No               | Handling node name                                                                                                            |
| 1.2.2   | nodeId            | String         | No               | Handling node ID                                                                                                              |
| 1.2.3   | remark            | String         | No               | Remarks                                                                                                                       |
| 1.2.4   | createTime        | String         | No               | Handling time, in <i>yyyy-MM-dd</i> format                                                                                    |
| 1.2.5   | handler           | String         | No               | Current node handler                                                                                                          |
| 1.2.6   | conclusion        | String         | No               | Handling result. The options are <b>Approve</b> and <b>Reject</b> .                                                           |
| 1.2.7   | assignHistoryList | Array [Object] | No               | Flow reassignment history                                                                                                     |
| 1.2.7.1 | assignee          | String         | No               | Reassignment initiator                                                                                                        |
| 1.2.7.2 | newHandler        | String         | No               | New handler (assignee)                                                                                                        |
| 1.2.7.3 | originalHandler   | String         | No               | Original handler                                                                                                              |
| 1.2.7.4 | assignTime        | String         | No               | Reassignment time, in <i>yyyy-MM-dd</i> format                                                                                |
| 1.3     | canHandle         | Boolean        | No               | Whether the approval permission is available. The options are <b>true</b> (yes) and <b>false</b> (no).                        |

| No. | Parameter    | Type    | Mandatory or Not | Description                                                                                                       |
|-----|--------------|---------|------------------|-------------------------------------------------------------------------------------------------------------------|
| 1.4 | showReassgin | Boolean | No               | Whether to display the button for reassigning a handler. The options are <b>true</b> (yes) and <b>false</b> (no). |

- Status code: 400**  
 Incorrect request. Check the request path and parameters.
- Status code: 401**  
 Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- Status code: 404**  
 The requested content is not found. Check the request path.
- Status code: 500**  
 Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Query historical handling records of an appeal.

Request header:

```
x-app-key:*****
X-UserID:1611917095665261978
Authorization:Bearer *****
```

Request parameters:

```
{
 "qualityTaskInfold": "16239231508327803347"
}
```

Response parameters:

```
{
 "showAssgin": false,
 "workflowNodeList": [{
 "nodeName": "Create complaint",
 "handler": "zxry0611",
 "createTime": "2021-06-11 14:29:57",
 "remark": "aa"
 }, {
 "conclusion": "Approve",
 "nodeName": "Review",
 "handler": "zxzg0611",
 "createTime": "2021-06-11 14:29:58",
 "assignHistoryList": [{
 "originalHandler": "zxzg0611",
 "newHandler": "zxzg0611",
 "assignee": "zxzg0611",
 "assignTime": "2021-06-11 14:34:20"
 }],
 }],
}
```

```

 "remark": "a1"
 }, {
 "conclusion": "Approve",
 "nodeName": "Process",
 "handler": "zjzg0611",
 "createTime": "2021-06-11 14:53:10",
 "assignHistoryList": [{
 "originalHandler": "zjzg0611",
 "newHandler": "zjzg0611",
 "assignee": "zjzg0611",
 "assignTime": "2021-06-11 15:05:27"
 }],
 "remark": "a1"
 }, {
 "conclusion": "Approve",
 "nodeName": "Check",
 "handler": "zxry0611",
 "createTime": "2021-06-11 15:05:34",
 "remark": "11"
 }, {
 "nodeName": "Finish",
 "handler": "zxry0611",
 "createTime": "2021-06-11 15:06:20",
 "remark": null
 }],
 "canHandle": false,
 "showReassign": false
}

```

## 12.2.17 asrtrans

### 12.2.17.1 POST /CCISQM/rest/ccisqm/v1/openapi/getTextByTaskId

#### Scenario

This interface is invoked to obtain the text converted from a recording file.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCISQM/rest/ccisqm/v1/openapi/getTextByTaskId>  
(For example, the domain name is service.besclouds.com.)

#### Request Description

**Table 12-312** Request header parameters

| No. | Parameter    | Type   | Mandato<br>ry or Not | Description                                                             |
|-----|--------------|--------|----------------------|-------------------------------------------------------------------------|
| 1   | Content-Type | String | No                   | The value is fixed to <b>application/json;</b><br><b>charset=UTF-8.</b> |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | x-app-key     | String | No               | App key. Contact operations personnel to obtain it.                                                                                                                       |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |

**Table 12-313** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                       |
|-----|-----------|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | taskId    | String | Yes              | ID of a created task<br><b>NOTE</b><br>The value of <b>taskId</b> must be the ID of an inspection task created within three days. |
| 1.2 | language  | String | Yes              | Language of the recording file. The options are <b>zh_CN</b> (Chinese) and <b>en_US</b> (English).                                |

## Response Description

- **Status code: 200**

**Table 12-314** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description             |
|-----|------------|--------|------------------|-------------------------|
| 1.1 | resultCode | String | No               | Response status code    |
| 1.2 | bytesZip   | String | No               | ZIP package             |
| 1.3 | resultDesc | String | No               | Response status message |

- **Status code: 400**  
The requested content is not found. Check the request path and parameter values.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Obtain the text converted from a recording file.

Request header:

```
x-app-key:*****
Authorization:Bearer *****
```

Request parameters:

```
{
 "language": "zh_CN",
 "taskId": "605d5aff00000927"
}
```

Response parameters:

```
{
 "errorMessage": "Failed to obtain the task id is {}605d5aff00000927",
 "errorCode": 1010404
}
```

### 12.2.17.2 POST /CCISQM/rest/ccisqm/v1/openapi/voice2Text

#### Scenario

This interface is invoked to convert a recording file to text.

#### Method

POST

#### URI

<https://Domain name/apiaccess/CCISQM/rest/ccisqm/v1/openapi/voice2Text> (For example, the domain name is service.besclouds.com.)

## Request Description

**Table 12-315** Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                  |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                               |
| 2   | x-app-key     | String | No               | App key. Contact operations personnel to obtain it.                                                                                                          |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of AccessToken returned by the tokenByAkSk interface}</b> . (A space is required after <b>Bearer</b> .) |

**Table 12-316** Request body parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                        |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------|
| 1.1 | language      | String | Yes              | Language of the recording file. The options are <b>zh_CN</b> (Chinese) and <b>en_US</b> (English). |
| 1.2 | voiceFilePath | String | Yes              | Recording file path                                                                                |
| 1.3 | agentId       | Number | Yes              | Agent ID                                                                                           |
| 1.4 | beginTime     | String | Yes              | Call start time, in <i>yyyy-MM-dd HH:mm:ss</i> format                                              |
| 1.5 | endTime       | String | Yes              | Call end time, in <i>yyyy-MM-dd HH:mm:ss</i> format                                                |

## Response Description

- **Status code: 200**



**Table 12-317** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description                |
|-----|------------|--------|------------------|----------------------------|
| 1.1 | resultCode | String | Yes              | Response status code       |
| 1.2 | resultDesc | String | Yes              | Response status message    |
| 1.3 | taskId     | String | No               | ID of the created task     |
| 1.4 | duration   | String | No               | Audio duration, in seconds |

- Status code: 400**  
 The requested content is not found. Check the request path and parameter values.
- Status code: 401**  
 Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- Status code: 404**  
 Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- Status code: 500**  
 Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Convert a recording file to text.

Request header:

```
x-app-key:*****
Authorization:Bearer *****
```

Request parameters:

```
{
 "language": "zh_CN",
 "voiceFilePath": "Y:\27\0\20210201\1118\0951044.V3",
 "agentId": 1118,
 "beginTime": "2021-02-01 09:51:07",
 "endTime": "2021-02-01 09:57:57"
}
```

Response parameters:

```
{
 "resultCode": "1010200",
 "resultDesc": "success",
 "taskId": "608ba63d00000982",
 "duration": "20",
}
```

### 12.2.17.3 POST /CCISQM/rest/ccisqm/v1/appraisecall/detail

#### Scenario

The interface is invoked to obtain the inspection result of a call.

#### Method

POST

#### URI

[https://Domain\\_name/apiaccess/CCISQM/rest/ccisqm/v1/appraisecall/detail](https://Domain_name/apiaccess/CCISQM/rest/ccisqm/v1/appraisecall/detail) (For example, the domain name is service.besclouds.com.)

#### Request Description

Table 12-318 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                  |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                               |
| 2   | x-app-key     | String | No               | App key. Contact operations personnel to obtain it.                                                                                                          |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of AccessToken returned by the tokenByAkSk interface}</b> . (A space is required after <b>Bearer</b> .) |

Table 12-319 Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description                                                                                                                          |
|-----|-----------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | call_uuid | String | Yes              | Call ID<br>You can obtain the value of <b>call_uuid</b> from the result returned by the <code>appraisecall/details</code> interface. |

## Response Description

- Status code: 200

**Table 12-320** Response body parameters

| No.    | Parameter          | Type           | Mandatory or Not | Description                                                                                         |
|--------|--------------------|----------------|------------------|-----------------------------------------------------------------------------------------------------|
| 1.1    | left_speed         | Number         | No               | Left channel speaking speed. The speaker is determined by the <b>left_channel</b> parameter.        |
| 1.2    | left_speech_ratio  | Number         | No               | Left channel speaking proportion. The speaker is determined by the <b>left_channel</b> parameter.   |
| 1.3    | file_name          | String         | No               | Inspection file name                                                                                |
| 1.4    | left_channel       | String         | No               | Left channel speaker. The options are <b>Customer</b> and <b>Agent</b> .                            |
| 1.5    | right_speech_ratio | Number         | No               | Right channel speaking proportion. The speaker is determined by the <b>right_channel</b> parameter. |
| 1.6    | call_time          | Number         | No               | Call start time.                                                                                    |
| 1.7    | right_channel      | String         | No               | Right channel speaker. The options are <b>Customer</b> and <b>Agent</b> .                           |
| 1.8    | call_id            | Number         | No               | Call ID                                                                                             |
| 1.9    | left_silence_time  | Number         | No               | Silence duration of the speaker                                                                     |
| 1.10   | segments           | Array [Object] | No               | ASR text segment result                                                                             |
| 1.10.1 | asr_text           | String         | No               | ASR text                                                                                            |
| 1.10.2 | speaker            | Number         | No               | Speaker                                                                                             |
| 1.10.3 | start_time         | Number         | No               | Speaking start time                                                                                 |
| 1.10.4 | end_time           | Number         | No               | Speaking end time                                                                                   |
| 1.10.5 | segment_id         | Number         | No               | ASR text segment ID                                                                                 |

| No.    | Parameter          | Type           | Mandatory or Not | Description                                                                                                                                              |
|--------|--------------------|----------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.11   | duration           | Number         | No               | Call duration                                                                                                                                            |
| 1.12   | right_silence_time | Number         | No               | Silence duration of the speaker. The speaker is determined by the <b>right_channel</b> parameter.                                                        |
| 1.13   | upload_time        | Number         | No               | Call upload time.                                                                                                                                        |
| 1.14   | left_emotions      | Array [Object] | No               | Tone, which is applicable only to agents. This parameter is valid only when <b>left_channel</b> is set to <b>Agent</b> .                                 |
| 1.14.1 | type               | String         | No               | Tone type. The options are <b>positive</b> and <b>negative</b> .                                                                                         |
| 1.14.2 | score              | Number         | No               | Tone score                                                                                                                                               |
| 1.15   | right_speed        | Number         | No               | Right channel speaking speed. The speaker is determined by the <b>right_channel</b> parameter.                                                           |
| 1.16   | staff_id           | String         | No               | User ID of an agent<br>You can sign in to the system and go to the agent management page to view the value of <b>accountId</b> returned by an interface. |
| 1.17   | call_uuid          | String         | No               | Call ID                                                                                                                                                  |
| 1.18   | call_type          | Number         | No               | Inspection call type <ul style="list-style-type: none"> <li>• <b>2</b>: text</li> <li>• <b>0</b>: voice call</li> </ul>                                  |

| No.  | Parameter | Type   | Mandatory or Not | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------|-----------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.19 | status    | String | No               | <p>Inspection status</p> <ul style="list-style-type: none"> <li>● <b>0:</b> The call is waiting for inspection.</li> <li>● <b>1:</b> The inspection is in progress.</li> <li>● <b>2:</b> The inspection is successful.</li> <li>● <b>3:</b> The ASR is in progress.</li> <li>● <b>9:</b> The inspection fails. An error occurs, or the data volume of inspection audio files or the number of daily inspection files reaches the upper limit.</li> <li>● <b>31:</b> The voice content of the ASR result is empty.</li> <li>● <b>32:</b> The ASR fails.</li> <li>● <b>33:</b> The voice file fails to be uploaded to the ASR.</li> <li>● <b>34:</b> The iFLYTEK ASR result transfer task fails to be submitted.</li> <li>● <b>35:</b> The multimedia inspection task fails to be executed.</li> <li>● <b>36:</b> The TUC inspection fails.</li> <li>● <b>37:</b> The ASR fails to convert the voice file to a text file.</li> <li>● <b>38:</b> The inspection result fails to be updated.</li> <li>● <b>39:</b> The inspection task fails to be executed.</li> </ul> |

| No.    | Parameter      | Type           | Mandatory or Not | Description                                                                                                               |
|--------|----------------|----------------|------------------|---------------------------------------------------------------------------------------------------------------------------|
|        |                |                |                  | <ul style="list-style-type: none"> <li>● <b>40</b>: The voice file is invalid.</li> </ul>                                 |
| 1.20   | right_emotions | Array [Object] | No               | Tone, which is applicable only to agents. This parameter is valid only when <b>right_channel</b> is set to <b>Agent</b> . |
| 1.20.1 | type           | String         | No               | Tone type. The options are <b>positive</b> and <b>negative</b> .                                                          |
| 1.20.2 | score          | Number         | No               | Tone score                                                                                                                |
| 1.21   | staff_name     | String         | No               | Agent name                                                                                                                |
| 1.22   | create_time    | String         | No               | Creation time                                                                                                             |

- **Status code: 400**  
Incorrect request. Check the request path and parameters.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Obtain the inspection result of a call.

Request header:

```
x-app-key:XXXXXXXXXX
Authorization:Bearer XXXXXXXXXXXX
```

Request parameters:

```
{
 "call_uuid": "822bbf4d-c4f8-473a-9144-199058375be8"
}
```

Response parameters:

```
{
 "staff_name": "xieyiling",
```

```
"left_speed": 324.068,
"create_time": 1635318854,
"left_speech_ratio": 0.6081,
"file_name": "1111",
"right_speech_ratio": 0.185,
"left_channel": "customer",
"call_time": 1635318854,
"right_channel": "staff",
"call_id": "17af55af-e51d-4cc0-8a62-84222e1d1eea",
"segments": [{
 "start_time": 0.0,
 "asr_text": "Would you like to ask for the price",
 "speaker": "customer",
 "end_time": 11.32,
 "segment_id": 1
}, {
 "start_time": 13.36,
 "asr_text": "Yes",
 "speaker": "staff",
 "end_time": 13.88,
 "segment_id": 2
}, {
 "start_time": 14.56,
 "asr_text": "Are you going to buy a car in Beijing",
 "speaker": "customer",
 "end_time": 16.74,
 "segment_id": 3
}, {
 "start_time": 18.74,
 "asr_text": "Yes",
 "speaker": "staff",
 "end_time": 19.68,
 "segment_id": 4
}, {
 "start_time": 20.28,
 "asr_text": "Are you going to apply for a local license",
 "speaker": "customer",
 "end_time": 23.66,
 "segment_id": 5
}, {
 "start_time": 25.76,
 "asr_text": "Can I get Hebei license in Beijing",
 "speaker": "staff",
 "end_time": 28.4,
 "segment_id": 6
}, {
 "start_time": 29.24,
 "asr_text": "Different cities have different license requirements",
 "speaker": "customer",
 "end_time": 37.48,
 "segment_id": 7
}, {
 "start_time": 38.04,
 "asr_text": "I'll call you back later",
 "speaker": "customer",
 "end_time": 47.42,
 "segment_id": 8
}, {
 "start_time": 49.12,
 "asr_text": "OK",
 "speaker": "staff",
 "end_time": 50.22,
 "segment_id": 9
}, {
 "start_time": 51.0,
 "asr_text": "Are you going to buy a car in Beijing",
 "speaker": "customer",
 "end_time": 53.22,
 "segment_id": 10
}
```

```
}, {
 "start_time": 56.26,
 "asr_text": "Is there any discount",
 "speaker": "staff",
 "end_time": 62.96,
 "segment_id": 11
}, {
 "start_time": 61.7,
 "asr_text": "Yes, it is",
 "speaker": "customer",
 "end_time": 62.64,
 "segment_id": 12
}, {
 "start_time": 63.74,
 "asr_text": "Some vehicles are available with zero down payment",
 "speaker": "customer",
 "end_time": 73.28,
 "segment_id": 13
}, {
 "start_time": 73.76,
 "asr_text": "I'll ask our professional consultant to introduce you in detail later",
 "speaker": "customer",
 "end_time": 78.34,
 "segment_id": 14
}, {
 "start_time": 80.1,
 "asr_text": "OK",
 "speaker": "staff",
 "end_time": 81.68,
 "segment_id": 15
}, {
 "start_time": 82.54,
 "asr_text": "When will you be available",
 "speaker": "customer",
 "end_time": 85.48,
 "segment_id": 16
}, {
 "start_time": 86.7,
 "asr_text": "Anytime",
 "speaker": "staff",
 "end_time": 91.28,
 "segment_id": 17
}, {
 "start_time": 91.72,
 "asr_text": "OK",
 "speaker": "staff",
 "end_time": 92.04,
 "segment_id": 18
}, {
 "start_time": 92.16,
 "asr_text": "I'll ask my colleague to contact you later",
 "speaker": "customer",
 "end_time": 95.68,
 "segment_id": 19
}, {
 "start_time": 93.76,
 "asr_text": "All right",
 "speaker": "staff",
 "end_time": 94.04,
 "segment_id": 20
}, {
 "start_time": 96.18,
 "asr_text": "Do you have any other questions",
 "speaker": "customer",
 "end_time": 97.82,
 "segment_id": 21
}, {
 "start_time": 99.52,
 "asr_text": "No",
```



```

 "speaker": "staff",
 "end_time": 100.12,
 "segment_id": 22
 }, {
 "start_time": 100.68,
 "asr_text": "Ok I'll hang up Have a nice life Goodbye",
 "speaker": "customer",
 "end_time": 104.12,
 "segment_id": 23
 }],
 "left_silence_time": 40.8,
 "duration": 104.12,
 "right_emotions": [{
 "score": 32.0,
 "type": "negative"
 }, {
 "score": 69.0,
 "type": "positive"
 }],
 "right_silence_time": 84.86,
 "upload_time": 1635318854,
 "left_emotions": [{
 "score": 65.0,
 "type": "negative"
 }, {
 "score": 80.0,
 "type": "positive"
 }],
 "right_speed": 230.53,
 "staff_id": "xieyiling",
 "call_type": 0,
 "status": 2
}

```

## 12.2.17.4 POST /CCISQM/rest/ccisqm/v1/appraisecall/credit

### Scenario

This interface invoked to query recording inspection results.

### Method

POST

### URI

<https://Domain name/apiaccess/CCISQM/rest/ccisqm/v1/appraisecall/credit> (For example, the domain name is service.besclouds.com.)

### Request Description

**Table 12-321** Request header parameters

| No. | Parameter    | Type   | Mandato<br>ry or Not | Description                                                   |
|-----|--------------|--------|----------------------|---------------------------------------------------------------|
| 1   | Content-Type | String | No                   | The value is fixed to <b>application/json; charset=UTF-8.</b> |

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                               |
|-----|---------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | x-app-key     | String | No               | App key. Contact operations personnel to obtain it.                                                                                                                       |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer</b> {Value of <b>AccessToken</b> returned by the <i>tokenByAkSk</i> interface}. (A space is required after <b>Bearer</b> .) |

**Table 12-322** Request body parameters

| No. | Parameter | Type   | Mandatory or Not | Description |
|-----|-----------|--------|------------------|-------------|
| 1.1 | call_uuid | String | Yes              | Call ID     |

## Response Description

- **Status code: 200**

**Table 12-323** Response body parameters

| No.     | Parameter       | Type           | Mandatory or Not | Description                                                               |
|---------|-----------------|----------------|------------------|---------------------------------------------------------------------------|
| 1.1     | create_time     | Number         | No               | Creation time                                                             |
| 1.2     | credit          | Array [Object] | No               | Inspection results of related business scenarios                          |
| 1.2.1   | score           | Number         | No               | Inspection score                                                          |
| 1.2.2   | rules           | Array [Object] | No               | Dialog rule inspection result                                             |
| 1.2.2.1 | valid           | Boolean        | No               | Validity. The options are <b>true</b> (valid) and <b>false</b> (invalid). |
| 1.2.2.2 | score           | Number         | No               | Rule score                                                                |
| 1.2.2.3 | invalid_segment | Array [Object] | No               | List of violation segments                                                |

| No.       | Parameter        | Type           | Mandatory or Not | Description                                                                              |
|-----------|------------------|----------------|------------------|------------------------------------------------------------------------------------------|
| 1.2.2.3.1 | start_time       | Number         | No               | Start time of a segment                                                                  |
| 1.2.2.3.2 | end_time         | Number         | No               | End time of a segment                                                                    |
| 1.2.2.3.3 | call_id          | String         | No               | TTS segment ID                                                                           |
| 1.2.2.4   | revise_id        | String         | No               | Rule instance ID                                                                         |
| 1.2.2.5   | revise           | Number         | No               | Revision status<br>-1: not revised<br>0: revised to be invalid<br>1: revised to be valid |
| 1.2.2.6   | setting          | Object         | No               | Dialog rule object                                                                       |
| 1.2.2.6.1 | rule_id          | String         | No               | Rule ID                                                                                  |
| 1.2.2.6.2 | rule_name        | String         | No               | Rule name                                                                                |
| 1.2.3     | setting          | Object         | No               | Business scenarios                                                                       |
| 1.2.3.1   | group_id         | String         | No               | Business scenario ID                                                                     |
| 1.2.3.2   | group_name       | String         | No               | Business scenario name                                                                   |
| 1.2.3.3   | ignore_sensitive | Number         | No               | Whether to ignore sensitive words. The options are <b>0</b> (no) and <b>1</b> (yes).     |
| 1.2.3.4   | description      | String         | No               | Business scenario description                                                            |
| 1.2.4     | silence_rule     | Array [Object] | No               | Silence rules                                                                            |
| 1.2.4.1   | valid            | Boolean        | No               | Validity. The options are <b>true</b> (valid) and <b>false</b> (invalid).                |
| 1.2.4.2   | score            | Number         | No               | Rule score                                                                               |
| 1.2.4.3   | invalid_segment  | Array [Object] | No               | List of violation segments                                                               |

| No.       | Parameter       | Type           | Mandatory or Not | Description                                                                                                                                               |
|-----------|-----------------|----------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.2.4.3.1 | start_time      | Number         | No               | Start time of a segment                                                                                                                                   |
| 1.2.4.3.2 | end_time        | Number         | No               | End time of a segment                                                                                                                                     |
| 1.2.4.3.3 | call_id         | String         | No               | TTS segment ID                                                                                                                                            |
| 1.2.4.4   | revise_id       | String         | No               | Rule instance ID                                                                                                                                          |
| 1.2.4.5   | revise          | Number         | No               | Revision status <ul style="list-style-type: none"> <li>• -1: not revised</li> <li>• 0: revised to be invalid</li> <li>• 1: revised to be valid</li> </ul> |
| 1.2.4.6   | name            | String         | No               | Rule name                                                                                                                                                 |
| 1.2.4.7   | setting         | Object         | No               | Silence rule object                                                                                                                                       |
| 1.2.4.7.1 | silence_id      | String         | No               | Rule ID                                                                                                                                                   |
| 1.2.4.7.2 | name            | String         | No               | Rule name                                                                                                                                                 |
| 1.2.5     | speed_rule      | Array [Object] | No               | Speed rules                                                                                                                                               |
| 1.2.5.1   | valid           | Boolean        | No               | Validity. The options are <b>true</b> (valid) and <b>false</b> (invalid).                                                                                 |
| 1.2.5.2   | score           | Number         | No               | Rule score                                                                                                                                                |
| 1.2.5.3   | invalid_segment | Array [Object] | No               | List of violation segments                                                                                                                                |
| 1.2.5.3.1 | start_time      | Number         | No               | Start time of a segment                                                                                                                                   |
| 1.2.5.3.2 | end_time        | Number         | No               | End time of a segment                                                                                                                                     |
| 1.2.5.3.3 | call_id         | String         | No               | TTS segment ID                                                                                                                                            |

| No.       | Parameter       | Type           | Mandatory or Not | Description                                                                                                                                               |
|-----------|-----------------|----------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.2.5.4   | revise_id       | String         | No               | Rule instance ID                                                                                                                                          |
| 1.2.5.5   | revise          | Number         | No               | Revision status <ul style="list-style-type: none"> <li>• -1: not revised</li> <li>• 0: revised to be invalid</li> <li>• 1: revised to be valid</li> </ul> |
| 1.2.5.6   | name            | String         | No               | Rule name                                                                                                                                                 |
| 1.2.5.7   | setting         | Object         | No               | Speed rule object                                                                                                                                         |
| 1.2.5.7.1 | name            | String         | No               | Rule name                                                                                                                                                 |
| 1.2.5.7.2 | speed_id        | String         | No               | Rule ID                                                                                                                                                   |
| 1.2.6     | interposal_rule | Array [Object] | No               | Interruption rules                                                                                                                                        |
| 1.2.6.1   | valid           | Boolean        | No               | Validity. The options are <b>true</b> (valid) and <b>false</b> (invalid).                                                                                 |
| 1.2.6.2   | score           | Number         | No               | Rule score                                                                                                                                                |
| 1.2.6.3   | invalid_segment | Array [Object] | No               | List of violation segments                                                                                                                                |
| 1.2.6.3.1 | start_time      | Number         | No               | Start time of a segment                                                                                                                                   |
| 1.2.6.3.2 | end_time        | Number         | No               | End time of a segment                                                                                                                                     |
| 1.2.6.3.3 | call_id         | String         | No               | TTS segment ID                                                                                                                                            |
| 1.2.6.4   | revise_id       | String         | No               | Rule instance ID                                                                                                                                          |
| 1.2.6.5   | revise          | Number         | No               | Revision status <ul style="list-style-type: none"> <li>• -1: not revised</li> <li>• 0: revised to be invalid</li> <li>• 1: revised to be valid</li> </ul> |

| No.       | Parameter       | Type           | Mandatory or Not | Description                                                                                                                                                                    |
|-----------|-----------------|----------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.2.6.6   | name            | String         | No               | Rule name                                                                                                                                                                      |
| 1.2.6.7   | setting         | Object         | No               | Interruption rule object                                                                                                                                                       |
| 1.2.6.7.1 | interposal_id   | String         | No               | Rule ID                                                                                                                                                                        |
| 1.2.6.7.2 | name            | String         | No               | Rule name                                                                                                                                                                      |
| 1.3       | sensitive_words | Array [Object] | No               | Sensitive words                                                                                                                                                                |
| 1.3.1     | valid           | Boolean        | No               | Validity. The options are <b>true</b> (valid) and <b>false</b> (invalid).                                                                                                      |
| 1.3.2     | score           | Number         | No               | Sensitive word score                                                                                                                                                           |
| 1.3.3     | invalid_segment | Array [Number] | No               | List of the IDs of TTS segments with sensitive words, for example, <b>[1,34]</b>                                                                                               |
| 1.3.4     | revise_id       | String         | No               | Rule instance ID                                                                                                                                                               |
| 1.3.5     | revise          | Number         | No               | Revision status <ul style="list-style-type: none"> <li>• <b>-1</b>: not revised</li> <li>• <b>0</b>: revised to be invalid</li> <li>• <b>1</b>: revised to be valid</li> </ul> |
| 1.3.6     | setting         | Object         | No               | Sensitive word rule object                                                                                                                                                     |
| 1.3.6.1   | sw_id           | String         | No               | Sensitive word ID                                                                                                                                                              |
| 1.3.6.2   | sw_name         | String         | No               | Sensitive word name                                                                                                                                                            |

- **Status code: 400**  
The requested content is not found. Check the request path and parameter values.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.

- **Status code: 404**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Query recording inspection results.

Request header:

```
x-app-key:XXXXXXXXXX
Authorization:Bearer XXXXXXXXXXXX
```

Request parameters:

```
{
 "call_uuid": "822bbf4d-c4f8-473a-9144-199058375be8"
}
```

Response parameters:

```
[{
 "create_time": 1635410113,
 "credit": [{
 "score": 77,
 "rules": [{
 "valid": false,
 "score": -3,
 "invalid_segment": [],
 "revise_id": "dialogRule153309ee-7031-4322-a8d4-3682bd6f09ac",
 "revise": -1,
 "setting": {
 "rule_id": "967510375224315904",
 "rule_name": "Dialog rule test"
 }
 }
]
}, {
 "setting": {
 "group_id": "groupid_cbe2442c-471a-4da3-a43b-5ae67960b648",
 "group_name": "Business scenario 1",
 "ignore_sensitive": 0,
 "description": ""
 }
}, {
 "silence_rule": [{
 "valid": true,
 "score": 0,
 "invalid_segment": [],
 "revise_id": "silenceRule09c8ea6a-03a7-4302-a246-1accf1f7257e",
 "revise": -1,
 "name": "Silence rule 1",
 "setting": {
 "silence_id": "966506182489411584",
 "name": "Silence rule 1"
 }
 }
}, {
 "score": 75,
 "rules": [{
 "valid": false,
 "score": -2,
 "invalid_segment": [],
 "revise_id": "dialogRule0a217e0b-fdb1-4819-a6db-b7e4765d6825",
```

```
"revise": -1,
"setting": {
 "rule_id": "952280134373609472",
 "rule_name": "Dialog rule"
}
}],
"speed_rule": [{
 "valid": false,
 "score": -3,
 "invalid_segment": [{
 "start_time": 26.14,
 "end_time": 32.67,
 "call_id": "5"
 }, {
 "start_time": 38.58,
 "end_time": 46.52,
 "call_id": "7"
 }, {
 "start_time": 50.9,
 "end_time": 62.04,
 "call_id": "8"
 }, {
 "start_time": 69.28,
 "end_time": 71.9,
 "call_id": "11"
 }, {
 "start_time": 100.42,
 "end_time": 105.24,
 "call_id": "16"
 }, {
 "start_time": 113.76,
 "end_time": 114.32,
 "call_id": "19"
 }, {
 "start_time": 115.74,
 "end_time": 122.0,
 "call_id": "22"
 }, {
 "start_time": 128.52,
 "end_time": 130.2,
 "call_id": "24"
 }, {
 "start_time": 131.76,
 "end_time": 132.54,
 "call_id": "25"
 }, {
 "start_time": 133.52,
 "end_time": 157.72,
 "call_id": "27"
 }, {
 "start_time": 159.52,
 "end_time": 161.0,
 "call_id": "29"
 }
}],
"revise_id": "speedRulec4879869-5a0e-48b8-987f-217f7e08eb32",
"revise": -1,
"name": "Speech speed rule",
"setting": {
 "name": "Speech speed rule",
 "speed_id": "966506320519761920"
}
}],
"interposal_rule": [{
 "valid": true,
 "score": 0,
 "invalid_segment": [],
 "revise_id": "interposalRule488e82e6-7d43-429b-9ce7-4c9043d8f8de",
 "revise": -1,
 "name": "Interruption rule",
```



```
"setting": {
 "interposal_id": "966506430926426112",
 "name": "Interruption rule"
},
},
"setting": {
 "group_id": "groupid_5cbec488-23d1-4551-a41a-6f81e501dcf7",
 "group_name": "Answer on phone",
 "ignore_sensitive": 0,
 "description": "Answer on phone"
},
},
"sensitive_words": []
}]
```

## 12.2.17.5 POST /CCISQM/rest/ccisqm/v1/openapi/qualityInspect

### Scenario

This interface is invoked to create an inspection task.

### Method

POST

### URI

[https://Domain name/apiaccess/CCISQM/rest/ccisqm/v1/openapi/qualityInspect](https://Domain%20name/apiaccess/CCISQM/rest/ccisqm/v1/openapi/qualityInspect)  
(For example, the domain name is service.besclouds.com.)

### Request Description

Table 12-324 Request header parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                                                                                  |
|-----|---------------|--------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | No               | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                               |
| 2   | x-app-key     | String | No               | App key. Contact operations personnel to obtain it.                                                                                                          |
| 3   | Authorization | String | Yes              | Authentication field. The format is <b>Bearer {Value of AccessToken returned by the tokenByAkSk interface}</b> . (A space is required after <b>Bearer</b> .) |

**Table 12-325** Request body parameters

| No. | Parameter     | Type   | Mandatory or Not | Description                                                                                        |
|-----|---------------|--------|------------------|----------------------------------------------------------------------------------------------------|
| 1.1 | language      | String | Yes              | Language of the recording file. The options are <b>zh_CN</b> (Chinese) and <b>en_US</b> (English). |
| 1.2 | voiceFilePath | String | Yes              | Recording file path                                                                                |
| 1.3 | agentId       | Number | Yes              | Agent ID                                                                                           |
| 1.4 | beginTime     | String | Yes              | Call start time, in <i>yyyy-MM-dd HH:mm:ss</i> format                                              |
| 1.5 | endTime       | String | Yes              | Call end time, in <i>yyyy-MM-dd HH:mm:ss</i> format                                                |

## Response Description

- **Status code: 200**

**Table 12-326** Response body parameters

| No. | Parameter  | Type   | Mandatory or Not | Description             |
|-----|------------|--------|------------------|-------------------------|
| 1.1 | resultCode | String | Yes              | Response status code    |
| 1.2 | resultDesc | String | Yes              | Response status message |
| 1.3 | call_uuid  | String | No               | Call ID                 |

- **Status code: 400**  
The requested content is not found. Check the request path and parameter values.
- **Status code: 401**  
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**  
The requested content is not found. Check the request path.
- **Status code: 500**  
Business failure. Check the values of parameters in the request.

## Error Codes

None

## Example

- Scenario: Create an inspection task.

Request header:

```
x-app-key:XXXXXXXXXX
Authorization:Bearer XXXXXXXXXXXX
```

Request parameters:

```
{
 "language": "zh_CN",
 "voiceFilePath": "Y:\27\0\20210201\1118\0951044.V3",
 "agentId": 1118,
 "beginTime": "2021-02-01 09:51:07",
 "endTime": "2021-02-01 09:57:57"
}
```

Response parameters:

```
{
 "resultCode": "1010200",
 "call_uuid": "822bbf4d-c4f8-473a-9144-199058375be8",
 "resultDesc": "success"
}
```

# 12.3 Monitoring and Statistics Collection

## 12.3.1 Real-Time Data Query

### 12.3.1.1 Real-Time Interfaces for VDNs

#### 12.3.1.1.1 Querying Information About System Access Codes in a Specified VDN

### Description

This interface is invoked to query system access codes of a specified VDN. (VDN: virtual directory number. A tenant corresponds to a VDN after being created and configured.)

For details about system access codes, see *(For Engineer) ICD VxxxRxxxCxx Product Documentation 01 (ICD)*.

### Interface Method

The request method must be set to POST. This interface supports only the POST method.

### Request URL

<https://ip:port/rest/cmsapp/v1/openapi/vdn/queryaccesscodeinfo>

In the URL, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-327** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-328** Parameters in the request message body

| No. | Parameter | Value Type | Mandatory | Description                                               |
|-----|-----------|------------|-----------|-----------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535. |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.          |

## Response Description

**Table 12-329** Parameters in the response message body

| No. | Parameter  | Value Type | Description                                                                                                                                                                                                                                                |
|-----|------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> <li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul> |

| No. | Parameter  | Value Type | Description                                                                                                                                                       |
|-----|------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | resultDesc | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of this object in the array, see <a href="#">Table 12-330</a> . |

**Table 12-330** Parameters of resultDesc

| No. | Parameter       | Value Type | Description                                                                   |
|-----|-----------------|------------|-------------------------------------------------------------------------------|
| 2.1 | acId            | Integer    | Access code ID.                                                               |
| 2.2 | mediatypeId     | Integer    | Media type. For details about this object, see <a href="#">Table 12-695</a> . |
| 2.3 | accessCode      | String     | Access code.                                                                  |
| 2.4 | codeDescription | String     | Description of an access code.                                                |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  

```
{
 "cclId":1,
 "vdn":170
}
```
- Response parameters  

```
{
 "resultDesc":[
 {
 "acId":289,
 "mediatypeId":5,
 "accessCode":"650114",
 "codeDescription":"Voice access"
 },
 {
 "acId":288,
 "mediatypeId":5,
 "accessCode":"650115",
 "codeDescription":"Voice access"
 }
],
 "resultCode":"0100000"
}
```

### 12.3.1.1.2 Querying Agent Rest Information in a Specified VDN

#### Scenario

This interface is invoked to query all agent rest information in a specified VDN.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interface

BMS interfaces:

- /ccbms/ws/monitor/teamrestinfo
- /ccbms/ws/monitor/teamrestagentinfo
- /ccbms/ws/monitor/agentstatusinfofobyagentids

#### Request URL

https://ip:port/rest/cmsapp/v1/openapi/vdn/queryagentreststate

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values.

In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-331** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-332** Parameters in the request message body

| No. | Parameter | Value Type | Mandatory | Description                                                                                                                                                                                                                                         |
|-----|-----------|------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | cclid     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535.                                                                                                                                                                                           |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.                                                                                                                                                                                                    |
| 3   | limit     | Integer    | Yes       | Number of query records on each page.<br>The value ranges from 1 to 1000.                                                                                                                                                                           |
| 4   | offset    | Integer    | Yes       | Parameter for determining the start page of the query. Value of <b>offset</b> = Value of <b>limit</b> x (Value of <b>page</b> - 1). The value of <b>offset</b> is greater than or equal to 0.<br><b>page</b> indicates the start page of the query. |

## Response Description

**Table 12-333** Parameters in the response message body

| No. | Parameter | Value Type | Description                                                                                                                                                                                                                                                                                                                                                            |
|-----|-----------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result    | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                |
|-----|-------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | resultCode  | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> <li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul>                 |
| 3   | resultDatas | Object     | Object in the returned result after a successful query.<br>For details about the parameters of this object, see <a href="#">Table 12-334</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |
| 4   | resultDesc  | Object     | Object in the returned result after a successful query.<br>For details about the parameters of this object, see <a href="#">Table 12-334</a> .                                                                                                                             |
| 5   | count       | Integer    | Total number of agents in the VDN.                                                                                                                                                                                                                                         |

**Table 12-334** Parameters of resultDesc/resultDatas

| No.                                                                                                                                                                                                                                                                                                                                                                     | Parameter         | Value Type | Description                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------|----------------------------------------------------------------------------------------------------------------------|
| 2.1                                                                                                                                                                                                                                                                                                                                                                     | onRestAgentNum    | Integer    | Number of resting agents.                                                                                            |
| 2.2                                                                                                                                                                                                                                                                                                                                                                     | allowRestAgentNum | Integer    | Number of agents who are allowed to have a rest but still at work.                                                   |
| 2.3                                                                                                                                                                                                                                                                                                                                                                     | waitRestAgentNum  | Integer    | Number of agents who apply for a rest.                                                                               |
| 2.4                                                                                                                                                                                                                                                                                                                                                                     | details           | Array      | Agent rest details. For details about the parameters of the object in this array, see <a href="#">Table 12-335</a> . |
| <p><b>NOTE</b><br/>The response result is the agent rest data obtained based on the pagination parameters <b>limit</b> and <b>offset</b> in the request.<br/>For example, if both <b>limit</b> and <b>offset</b> are set to <b>10</b>, the 10 agents on the second page (10 agents per page) are obtained, and then rest statistics on the 10 agents are collected.</p> |                   |            |                                                                                                                      |



**Table 12-335** Agent rest details

| No.   | Parameter       | Value Type | Description                                                                                                                                                                                               |
|-------|-----------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.4.1 | agentId         | Integer    | Agent ID.                                                                                                                                                                                                 |
| 2.4.2 | cantRestCause   | Integer    | Reason why agents are not allowed to have a rest. This parameter is valid only for the agents who wait for a rest.<br>For details about the parameters of this object, see <a href="#">Table 12-336</a> . |
| 2.4.3 | vdnId           | Integer    | ID of a VDN.                                                                                                                                                                                              |
| 2.4.4 | cclId           | Integer    | ID of a call center.                                                                                                                                                                                      |
| 2.4.5 | beginTime       | Long       | Start time. This parameter indicates the rest start time for resting agents, and the start time of applying for or approving a rest for agents not resting. The time format is timestamp.                 |
| 2.4.6 | applyRestLength | Integer    | Requested rest duration, in seconds.                                                                                                                                                                      |
| 2.4.7 | name            | String     | Agent name.                                                                                                                                                                                               |
| 2.4.8 | reqRestDuration | Long       | Rest duration, that is, the rest duration of an agent who is taking a rest, in seconds.                                                                                                                   |
| 2.4.9 | skillIds        | String     | Skill queue to which an agent waiting for a rest signs in. The value is returned only when the value of <b>cantRestCause</b> is 4.                                                                        |

**Table 12-336** Reason for not allowing rest

| Value of the Reason for Not Allowing Rest | Description                        |
|-------------------------------------------|------------------------------------|
| 0                                         | The agent is waiting for approval. |
| 1                                         | The agent is in busy state.        |

| Value of the Reason for Not Allowing Rest | Description                                                                                          |
|-------------------------------------------|------------------------------------------------------------------------------------------------------|
| 2                                         | The number of agents who can take a rest in the VDN reaches the maximum.                             |
| 3                                         | The agent does not answer any inbound calls, because the agent does not sign in to any skill queues. |
| 4                                         | The number of resting agents in a skill queue the agent signs in reaches the maximum.                |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters  
{  
  "ccld":1,  
  "vdn":170,  
  "offset":0,  
  "limit":3  
}

- Response parameters  
{  
  "result": "0",  
  "resultCode": "0100000",  
  "resultDatas": {  
    "onRestAgentNum": 2,  
    "allowRestAgentNum": 0,  
    "details": [  
      {  
        "agentId": 1034,  
        "cantRestCause": 2,  
        "vdnId": 170,  
        "ccld": 1,  
        "beginTime": 1602830642000,  
        "applyRestLength": 600,  
        "name": "zhang1130user"  
      },  
      {  
        "agentId": 1039,  
        "cantRestCause": 0,  
        "vdnId": 170,  
        "ccld": 1,  
        "beginTime": 1602830613000,  
        "applyRestLength": 600,  
        "name": "HW285601039",  
        "reqRestDura": 238  
      },  
      {  
        "agentId": 1099,  
        "cantRestCause": 0,  
        "vdnId": 170,  
        "ccld": 1,  
        "beginTime": 1602830638000,  
        "applyRestLength": 600,  
        "name": "HW285601099",  
        "reqRestDura": 213  
      }  
    ]  
  }  
}

```
 }
],
 "waitRestAgentNum": 1
},
"resultDesc": {
 "onRestAgentNum": 2,
 "allowRestAgentNum": 0,
 "details": [
 {
 "agentId": 1034,
 "cantRestCause": 2,
 "vdnId": 170,
 "ccl": 1,
 "beginTime": 1602830642000,
 "applyRestLength": 600,
 "name": "zhang1130user"
 },
 {
 "agentId": 1039,
 "cantRestCause": 0,
 "vdnId": 170,
 "ccl": 1,
 "beginTime": 1602830613000,
 "applyRestLength": 600,
 "name": "HW285601039",
 "reqRestDura": 238
 },
 {
 "agentId": 1099,
 "cantRestCause": 0,
 "vdnId": 170,
 "ccl": 1,
 "beginTime": 1602830638000,
 "applyRestLength": 600,
 "name": "HW285601099",
 "reqRestDura": 213
 }
]
},
"waitRestAgentNum": 1
},
"count": 30
}
```

### 12.3.1.1.3 Querying Agent Phone Numbers in a Specified VDN

#### Scenario

This interface is used to query all agent phone numbers in a specified VDN.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interface

BMS interface: /ccbms/ws/monitor/siteagentinfobyagentids

#### Request URL

<https://ip:port/rest/cmsapp/v1/openapi/vdn/allagentphones>

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the

administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-337** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-338** Parameters in the request message body

| No. | Parameter | Value Type | Mandatory | Description                                                                                                                                                                                                                                            |
|-----|-----------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535.                                                                                                                                                                                              |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.                                                                                                                                                                                                       |
| 3   | limit     | Integer    | Yes       | Number of query records on each page.<br>The value ranges from 1 to 1000.                                                                                                                                                                              |
| 4   | offset    | Integer    | Yes       | Parameter for determining the start page of the query.<br>Value of <b>offset</b> = Value of <b>limit</b> x (Value of <b>page</b> - 1). The value of <b>offset</b> is greater than or equal to 0.<br><b>page</b> indicates the start page of the query. |

## Response Description

**Table 12-339** Parameters in the response message body

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                                                                                            |
|-----|-------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result      | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |
| 1   | resultCode  | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> <li>• For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul>                                                                                                             |
| 3   | resultDatas | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-340</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.                                                                          |
| 2   | resultDesc  | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-340</a> .                                                                                                                                                                                                      |
| 3   | count       | Integer    | Total number of agents in the VDN.                                                                                                                                                                                                                                                                                                                                     |

**Table 12-340** Parameters of resultDesc/resultDatas

| No. | Parameter | Value Type | Description         |
|-----|-----------|------------|---------------------|
| 2.1 | agentId   | Integer    | Agent ID.           |
| 2.2 | phone     | String     | Agent phone number. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters

```
{
 "ccld":1,
 "vdn":170,
 "offset":0,
 "limit":4
}
```

- Response parameters

```
{
 "result": "0",
 "resultCode": "0100000",
 "count": 30,
 "resultDatas": [
 {
 "agentId": 55002,
 "phone": 620001
 },
 {
 "agentId": 833,
 "phone": 620002
 },
 {
 "agentId": 834,
 "phone": 620003
 },
 {
 "agentId": 835,
 "phone": 620004
 }
],
 "resultDesc": [
 {
 "agentId": 55002,
 "phone": 620001
 },
 {
 "agentId": 833,
 "phone": 620002
 },
 {
 "agentId": 834,
 "phone": 620003
 },
 {
 "agentId": 835,
 "phone": 620004
 }
]
}
```

### 12.3.1.1.4 Querying Information About All Agents in a Specified VDN

#### Scenario

This interface is invoked to query information about all agents in a specified VDN.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

## Internal Encapsulation Interface

BMS interface: /ccbms/ws/monitor/siteagentinfoobyagentids

### Request URL

https://ip:port/rest/cmsapp/v1/openapi/vdn/totalagentabstractex3

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

### Request Description

**Table 12-341** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-342** Parameters in the request message body

| No. | Parameter | Value Type | Mandatory | Description                                                               |
|-----|-----------|------------|-----------|---------------------------------------------------------------------------|
| 1   | cclid     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535.                 |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.                          |
| 3   | limit     | Integer    | Yes       | Number of query records on each page.<br>The value ranges from 1 to 1000. |

| No. | Parameter | Value Type | Mandatory | Description                                                                                                                                                                                                                                            |
|-----|-----------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | offset    | Integer    | Yes       | Parameter for determining the start page of the query.<br>Value of <b>offset</b> = Value of <b>limit</b> x (Value of <b>page</b> - 1). The value of <b>offset</b> is greater than or equal to 0.<br><b>page</b> indicates the start page of the query. |

## Response Description

**Table 12-343** Parameters in the response message body

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                                                                                            |
|-----|-------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result      | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |
| 1   | resultCode  | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> <li>• For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul>                                                                                                             |
| 3   | resultDatas | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-344</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.                                                                          |



| No. | Parameter  | Value Type | Description                                                                                                                                                       |
|-----|------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | resultDesc | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-344</a> . |
| 3   | count      | Integer    | Total number of agents in the VDN.                                                                                                                                |

**Table 12-344** Parameters of resultDesc/resultDatas

| No. | Parameter        | Value Type | Description                                                                                                      |
|-----|------------------|------------|------------------------------------------------------------------------------------------------------------------|
| 2.1 | agentId          | Integer    | Agent ID.                                                                                                        |
| 2.2 | currentState     | Integer    | Current status of an agent. For details, see <a href="#">12.3.8.3 CTI Platform Agent Status Code Reference</a> . |
| 2.3 | currentStateTime | Long       | Duration of the current state, in seconds.                                                                       |
| 2.4 | locationId       | Integer    | Home distributed access node.<br>This parameter is a CTI reserved field and has no actual meaning.               |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters

```
{
 "cclid":1,
 "vdn":170,
 "offset":0,
 "limit":2
}
```

- Response parameters

```
{
 "result": "0",
 "resultCode": "0100000",
 "count": 30,
 "resultDatas": [
 {
 "agentId": 55002,
 "locationId": 65535,
 "currentStateTime": 153282,

```

```
 "currentState": 0
 },
 {
 "agentId": 833,
 "locationId": 65535,
 "currentStateTime": 153293,
 "currentState": 0
 }
],
"resultDesc": [
 {
 "agentId": 55002,
 "locationId": 65535,
 "currentStateTime": 153282,
 "currentState": 0
 },
 {
 "agentId": 833,
 "locationId": 65535,
 "currentStateTime": 153293,
 "currentState": 0
 }
]
}
```

### 12.3.1.1.5 Querying Information About the Current Status of All Agents in a Specified VDN

#### Scenario

This interface is invoked to query information about the current status of all agents in a specified VDN.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interface

BMS interface: /ccbms/ws/monitor/siteagentinfobyagentids

#### Request URL

<https://ip:port/rest/cmsapp/v1/openapi/vdn/totalagentdynamicinfo>

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-345** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-346** Parameters in the request message body

| No. | Parameter | Value Type | Mandatory | Description                                                                                                                                                                                                                                            |
|-----|-----------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535.                                                                                                                                                                                              |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.                                                                                                                                                                                                       |
| 3   | limit     | Integer    | Yes       | Number of query records on each page.<br>The value ranges from 1 to 100.                                                                                                                                                                               |
| 4   | offset    | Integer    | Yes       | Parameter for determining the start page of the query.<br>Value of <b>offset</b> = Value of <b>limit</b> x (Value of <b>page</b> - 1). The value of <b>offset</b> is greater than or equal to 0.<br><b>page</b> indicates the start page of the query. |

## Response Description

**Table 12-347** Parameters in the response message body

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                                                                                                              |
|-----|-------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result      | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> <p>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p> |
| 2   | resultCode  | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> <li>• For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul>                                                                                                                        |
| 3   | resultDatas | Array      | <p>Object array in the returned result after a successful query.</p> <p>For details about the parameters of the object in this array, see <a href="#">Table 12-348</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p>                                                                             |
| 4   | resultDesc  | Array      | <p>Object array in the returned result after a successful query.</p> <p>For details about the parameters of the object in this array, see <a href="#">Table 12-348</a>.</p>                                                                                                                                                                                                              |
| 5   | count       | Integer    | Total number of agents in the VDN.                                                                                                                                                                                                                                                                                                                                                       |

**Table 12-348** Parameters of resultDesc/resultDatas

| No. | Parameter | Value Type | Description |
|-----|-----------|------------|-------------|
| 2.1 | agentId   | Integer    | Agent ID.   |

| No. | Parameter | Value Type | Description                                                                                        |
|-----|-----------|------------|----------------------------------------------------------------------------------------------------|
| 2.2 | state     | Integer    | Agent status. For details, see <a href="#">12.3.8.3 CTI Platform Agent Status Code Reference</a> . |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters  
{  
  "ccld":1,  
  "vdn":170,  
  "offset":0,  
  "limit":4  
}

- Response parameters  
{  
  "result": "0",  
  "resultCode": "0100000",  
  "count": 30,  
  "resultDatas": [  
    {  
      "agentId": 55002,  
      "state": 0  
    },  
    {  
      "agentId": 833,  
      "state": 0  
    },  
    {  
      "agentId": 834,  
      "state": 0  
    },  
    {  
      "agentId": 835,  
      "state": 0  
    }  
  ],  
  "resultDesc": [  
    {  
      "agentId": 55002,  
      "state": 0  
    },  
    {  
      "agentId": 833,  
      "state": 0  
    },  
    {  
      "agentId": 834,  
      "state": 0  
    },  
    {  
      "agentId": 835,  
      "state": 0  
    }  
  ]  
}

### 12.3.1.1.6 Querying Information About Static Configurations of All Agents in a Specified VDN

#### Scenario

This interface is invoked to query information about static configurations of all agents in a specified VDN.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

`https://ip:port/rest/cmsapp/v1/openapi/vdn/queryagentstaticconfinfo`

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-349** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-350** Parameters in the request message body

| No. | Parameter | Value Type | Mandatory | Description                                               |
|-----|-----------|------------|-----------|-----------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535. |

| No. | Parameter | Value Type | Mandatory | Description                                                    |
|-----|-----------|------------|-----------|----------------------------------------------------------------|
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.               |
| 3   | offset    | Integer    | Yes       | Pagination offset.<br>The value is greater than or equal to 0. |
| 4   | limit     | Integer    | Yes       | Pagination limit.<br>The value ranges from 1 to 100.           |

## Response Description

**Table 12-351** Parameters in the response message body

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                                                                                 |
|-----|-------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result      | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>0: success</li> <li>Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |
| 2   | resultCode  | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>0100000: success</li> <li>Other values: failure</li> <li>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul>                                                                                                               |
| 3   | resultDatas | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-352</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.                                                               |

| No. | Parameter  | Value Type | Description                                                                                                                                                       |
|-----|------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | resultDesc | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-361</a> . |
| 5   | count      | Integer    | Total number of agents in the VDN.                                                                                                                                |

**Table 12-352** Parameters of resultDesc/resultDatas

| No. | Parameter | Value Type | Description                                                                                                                                                                                                                                                                                                                                                                     |
|-----|-----------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.1 | agentId   | Integer    | Agent ID.                                                                                                                                                                                                                                                                                                                                                                       |
| 2.2 | groupId   | Integer    | ID of the group to which an agent belongs. Currently, the value of this field is <b>-1</b> .<br>Group: To facilitate the management of agents, the agents of a VDN are usually grouped. Agents in a group form an agent group. Currently, the AICC does not support the return value <b>-1</b> of this field, which indicates that the agents do not belong to any agent group. |
| 2.3 | rights    | String     | Permission value of an agent. The value <b>0</b> indicates that the agent has no permission, and <b>1</b> indicates that the agent has permission. <a href="#">Table 12-353</a> describes the role permission.                                                                                                                                                                  |
| 2.4 | name      | String     | Agent name.                                                                                                                                                                                                                                                                                                                                                                     |



| No. | Parameter | Value Type | Description                                                                                                                                                                |
|-----|-----------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.5 | realFlag  | Integer    | Whether an agent is a network agent. The value <b>0</b> indicates network agent, and <b>1</b> indicates common agent. Currently, all agents in the AICC are common agents. |

**Table 12-353** Agent permission value

| Bit | Description                                                       |
|-----|-------------------------------------------------------------------|
| 1   | Showing busy/idle.                                                |
| 2   | Muting/Unmuting calls.                                            |
| 3   | Holding calls/Canceling to hold calls.                            |
| 4   | Connecting held calls.                                            |
| 5   | Making common outbound calls.                                     |
| 6   | Making internal calls.                                            |
| 7   | Transferring calls internally.                                    |
| 8   | Answering transferred inbound calls.                              |
| 9   | Making three-party calls.                                         |
| 10  | Transferring out calls.                                           |
| 11  | Transferring calls from the agent service to automatic service.   |
| 12  | Rejecting inbound calls.                                          |
| 13  | Listening/Listening and inserting/Whispering.                     |
| 14  | Intercepting calls.                                               |
| 15  | Forcibly signing out/Forcibly showing busy/Forcibly showing idle. |
| 16  | Inspecting recordings/Inspecting voice playing.                   |
| 17  | Monitoring inspections.                                           |
| 18  | Appraisal administrator.                                          |
| 19  | Ordinary appraisal personnel.                                     |

| Bit    | Description                                                  |
|--------|--------------------------------------------------------------|
| 20     | Alarm console.                                               |
| 21     | Report handler.                                              |
| 22     | Reserved value.                                              |
| 23     | Monitoring console.                                          |
| 24     | Configuration administrator.                                 |
| 25     | Report administrator.                                        |
| 26     | Making national outbound toll calls.                         |
| 27     | Making international outbound toll calls.                    |
| 28     | Making outbound calls using access codes of the call center. |
| 29     | Performing inspections in fullscreen mode.                   |
| 30     | Picking up calls for the agents in the same agent group.     |
| 31     | Reserved value.                                              |
| 32     | Configuring agents.                                          |
| 33     | Configuring skills.                                          |
| 34     | Not setting the outbound call.                               |
| 35     | Configuring the audit.                                       |
| 36-128 | Reserved value.                                              |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters

```
{
 "cclid":1,
 "vdn":170,
 "offset":0,
 "limit":100
}
```
- Response parameters

```
{
 "result": "0",
 "resultCode": "0100000",
 "count": 30,
 "resultDatas": [
 {
```



In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-354** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-355** Parameters in the request message body

| No. | Parameter | Value Type | Mandatory | Description                                                                                                                                                                                                                                                                    |
|-----|-----------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from <b>1</b> to <b>65535</b> .                                                                                                                                                                                                       |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.                                                                                                                                                                                                                               |
| 3   | flowId    | Integer    | Yes       | ID of an IVR flow. Enter the ID of an existing IVR flow. The value ranges from 1 to 1500. (To obtain the IVR flow ID, log in to the web configuration console as a VDN administrator and choose <b>Web Configuration Console &gt; VDN Configuration &gt; Flow &gt; Flow</b> .) |

## Response Description

**Table 12-356** Parameters in the response message body

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                                                                                     |
|-----|-------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result      | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• 0: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |
| 2   | resultCode  | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• 0100000: success</li> <li>• Other values: failure</li> <li>• For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul>                                                                                                             |
| 3   | resultDatas | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-357</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.                                                                   |
| 4   | resultDesc  | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-357</a> .                                                                                                                                                                                               |

**Table 12-357** Parameters of resultDesc/resultDatas

| No. | Parameter | Value Type | Description |
|-----|-----------|------------|-------------|
| 2.1 | callId    | String     | Call ID.    |

| No. | Parameter     | Value Type | Description                                                                                                                              |
|-----|---------------|------------|------------------------------------------------------------------------------------------------------------------------------------------|
| 2.2 | customerLevel | Integer    | Level of the customer making a call.<br>The sequence number ranges from 1 to 254. A larger value indicates the importance of a customer. |
| 2.3 | requestType   | Integer    | Call feature.<br>For details about this object, see <a href="#">Table 12-699</a> .                                                       |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters  

```
{
 "ccld":1,
 "vdn":170,
 "flowId":1
}
```

- Response parameters  

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": [
 {
 "callId": "1453724606-576",
 "customerLevel": 1,
 "requestType": 0
 }
],
 "resultDesc": [
 {
 "callId": "1453724606-576",
 "customerLevel": 1,
 "requestType": 0
 }
]
}
```

### 12.3.1.1.8 Querying Information About IVR Flow Access Codes in a Specified VDN

#### Scenario

This interface is invoked to query information about IVR flow access codes in a specified VDN.

## Interface Method

The request method must be set to POST. This interface supports only the POST method.

## Internal Encapsulation Interface

BMS interface: /ccbms/ws/monitor/queryivrInfo

## Request URL

https://ip:port/rest/cmsapp/v1/openapi/vdn/queryivrprocessinnoinfo

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-358** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-359** Parameters in the request message body

| No. | Parameter | Value Type | Mandatory | Description                                               |
|-----|-----------|------------|-----------|-----------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535. |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.          |

## Response Description

**Table 12-360** Parameters in the response message body

| No | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                                                                                                              |
|----|-------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | result      | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> <p>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p> |
| 2  | resultCode  | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> <li>• For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul>                                                                                                                        |
| 3  | resultDatas | Array      | <p>Object array in the returned result after a successful query.</p> <p>For details about the parameters of the object in this array, see <a href="#">Table 12-361</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p>                                                                             |
| 3  | resultDesc  | Array      | <p>Object array in the returned result after a successful query.</p> <p>For details about the parameters of the object in this array, see <a href="#">Table 12-361</a>.</p>                                                                                                                                                                                                              |

**Table 12-361** Parameters of resultDesc/resultDatas

| No. | Parameter | Value Type | Description       |
|-----|-----------|------------|-------------------|
| 2.1 | id        | Integer    | IVR flow ID.      |
| 2.2 | serviceNo | Integer    | Business type ID. |



| No. | Parameter   | Value Type | Description                                                                                |
|-----|-------------|------------|--------------------------------------------------------------------------------------------|
| 2.3 | realFlag    | Integer    | Virtual or real queue. The options are <b>1</b> (real queue) and <b>2</b> (virtual queue). |
| 2.4 | accessNo    | String     | Access code.                                                                               |
| 2.5 | description | String     | Access code function description.                                                          |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  

```
{
 "cclId":1,
 "vdn":170
}
```
- Response parameters  

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": [
 {
 "id": 1,
 "serviceNo": 1,
 "realFlag": 1,
 "accessNo": "85000",
 "description": "Exception handling flow"
 },
 {
 "id": 2,
 "serviceNo": 1,
 "realFlag": 1,
 "accessNo": "85001",
 "description": "Main flow"
 }
],
 "resultDesc": [
 {
 "id": 1,
 "serviceNo": 1,
 "realFlag": 1,
 "accessNo": "85000",
 "description": "Exception handling flow"
 },
 {
 "id": 2,
 "serviceNo": 1,
 "realFlag": 1,
 "accessNo": "85001",
 "description": "Main flow"
 }
]
}
```

### 12.3.1.1.9 Querying Information about Each Skill Queue in a Specified VDN

#### Description

This interface is invoked to query information about each skill queue in a specified VDN.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

`https://ip:port/rest/cmsapp/v1/openapi/configures/skills`

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-362** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-363** Parameters in the request message body

| No. | Parameter | Value Type | Mandatory | Description                                               |
|-----|-----------|------------|-----------|-----------------------------------------------------------|
| 1   | cclid     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535. |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.          |

## Response Message

**Table 12-364** Parameters in the response message body

| No. | Parameter  | Value Type | Description                                                                                                                                                                                                                                      |
|-----|------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> . |
| 2   | resultDesc | Array      | Object array in the returned result after a successful query. For details about the parameters of this object in the array, see <a href="#">Table 12-365</a> .                                                                                   |

**Table 12-365** Parameters of resultDesc

| No. | Parameter | Value Type | Description                                                 |
|-----|-----------|------------|-------------------------------------------------------------|
| 2.1 | id        | Integer    | Skill queue ID.                                             |
| 2.2 | mediaType | Integer    | Media type. For details, see <a href="#">Table 12-695</a> . |
| 2.3 | name      | String     | Skill queue description.                                    |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters

```
{
 "queryParam":{
 "ccld":1,
 "vdn":1
 }
}
```
- Response parameters

```
{
 "resultCode": "0100000",
 "resultDesc": [
 {"id": 1, "mediaType": 1, "name": "text chat 1"},
 {"id": 10, "mediaType": 1, "name": "text chat 2"}
]
}
```

```
]
}
```

### 12.3.1.1.10 Querying All Rest Reason Codes in a Specific VDN

#### Scenario

This interface is invoked to query all rest reason codes in a specific VDN.

For details about how to configure the rest reason code, see "Configuring Rest Reason Codes" in *(For Engineer) ICD VxxxRxxxCxx Product Documentation 01 (ICD)*.

#### Interface Method

The request method must be set to GET. This interface supports only the GET method.

#### Internal Encapsulation Interface

BMS interface: /ccbms/ws/monitor/restreason

#### Request URL

https://ip:port/rest/cmsapp/v1/openapi/agentgroup/restreasons/{cclid}/{vdn}

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-366** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

No request body exists.

**Table 12-367** Path parameters

| No. | Parameter | Value Type | Mandatory | Description                                               |
|-----|-----------|------------|-----------|-----------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535. |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.          |

## Response Description

**Table 12-368** Parameters in the message body

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                                                                                            |
|-----|-------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result      | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.12 and earlier versions. |
| 2   | resultCode  | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> <li>• For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul>                                                                                                             |
| 3   | resultDatas | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-369</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.12 and earlier versions.                                                                          |

| No. | Parameter  | Value Type | Description                                                                                                                                                       |
|-----|------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | resultDesc | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-369</a> . |

**Table 12-369** Parameters of resultDesc/resultDatas

| No. | Parameter    | Value Type | Description                  |
|-----|--------------|------------|------------------------------|
| 2.1 | restReasonId | Integer    | Rest cause code.             |
| 2.2 | restReason   | String     | Description of a rest cause. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters  
None

- Response parameters  

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": [
 {
 "restReasonId": 100,
 "restReason": "Uncomfortable"
 }
],
 "resultDesc": [
 {
 "restReasonId": 100,
 "restReason": "Uncomfortable"
 }
]
}
```

### 12.3.1.1.11 Querying Information About Calls of a Specified Access Code

#### Description

This interface is invoked to query information about calls of a specified access code. (CTI 3.6 does not support this interface.)

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

## Internal Encapsulation Interfaces

BMS interface: /ccbms/ws/monitor/querycallstatbyinno

### Request URL

https://ip:port/rest/cmsapp/v1/openapi/vdn/queryaccesscodecallinfo

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

### Request Description

**Table 12-370** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-371** Parameters in the request message body

| No. | Parameter | Type    | Mandatory | Description                                                                  |
|-----|-----------|---------|-----------|------------------------------------------------------------------------------|
| 1   | cclId     | Integer | Yes       | ID of a call center.<br>The value ranges from <b>1</b> to <b>65535</b> .     |
| 2   | vdn       | Integer | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.                             |
| 3   | innolds   | Array   | Yes       | Array of access code IDs on the WAS. The maximum length of the array is 500. |

## Response Message

**Table 12-372** Parameters in the response message body

| No. | Parameter  | Type   | Description                                                                                                                                                                                                                                                |
|-----|------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> <li>• For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul> |
| 2   | resultDesc | Array  | Object array in the returned result after a successful query.<br>For details about the parameters of this object in the array, see <a href="#">Table 12-373</a> .                                                                                          |

**Table 12-373** Parameters of resultDesc

| No. | Parameter       | Type    | Description                                                                         |
|-----|-----------------|---------|-------------------------------------------------------------------------------------|
| 2.1 | innold          | Integer | Access code ID.                                                                     |
| 2.2 | allCallCount    | Long    | Total number of online customers using the access code.                             |
| 2.3 | ivrCallCount    | Long    | Total number of online customers using the access code in the IVR.                  |
| 2.4 | agentCallCount  | Long    | Total number of online customers who are handled by agents and use the access code. |
| 2.5 | queueCallCount  | Long    | Total number of online customers who are in a queue and use the access code.        |
| 2.6 | longestWaitTime | Long    | Maximum call waiting duration among the calls using the access code, in seconds.    |



## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters  

```
{
 "ccld":1,
 "vdn":170,
 "innolds":[1,2]
}
```

- Response parameters  

```
{
 "resultCode":"0100000",
 "resultDesc":[
 {
 "innold": 1,
 "allCallCount": 1,
 "ivrCallCount": 0,
 "agentCallCount": 1,
 "queueCallCount": 0,
 "longestWaitTime": 0
 },
 {
 "innold": 2,
 "allCallCount": 1,
 "ivrCallCount": 1,
 "agentCallCount": 0,
 "queueCallCount": 0,
 "longestWaitTime": 0
 }
]
}
```

### 12.3.1.1.12 Querying Call Information in a Specified VDN

#### Description

This interface is invoked to query call information in a specified VDN based on the calling number, called number, and time segment.

This interface is invoked to query only the inbound call information of a specified VDN.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

<https://ip:port/rest/cmsapp/v1/openapi/vdn/querycalls>

In the URL, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-374** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-375** Parameters in the request message body

| Parameter | Type    | Mandatory | Description                                                                                                                                                     |
|-----------|---------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclId     | Integer | Yes       | ID of a call center.<br>The value ranges from <b>1</b> to <b>65535</b> .                                                                                        |
| vdn       | Integer | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.                                                                                                                |
| callerNo  | String  | No        | Calling number. The value can be empty, indicating that all calling numbers are queried.<br>The value consists of digits and must comply with the number rules. |
| calleeNo  | String  | No        | Called number. The value can be empty, indicating that all called numbers are queried.<br>The value consists of digits and must comply with the number rules.   |

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                     |
|-----------|---------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| beginDate | Long    | Yes       | <p>Start time of a query period.</p> <p>The value is a timestamp in milliseconds. The time cannot be earlier than 00:00:00 of the previous day.</p> <p>The data source is time zone 0. During query, the time zone needs to be converted based on the specific time zone. For example, GMT+8 is 8 hours ahead the GMT time.</p> |
| endDate   | Long    | Yes       | <p>End time of a query period.</p> <p>The value is a timestamp in milliseconds. The time cannot be later than 23:59:59 on the current day.</p> <p>The data source is time zone 0. During query, the time zone needs to be converted based on the specific time zone. For example, GMT+8 is 8 hours ahead the GMT time.</p>      |
| limit     | Integer | No        | <p>Number of query records on each page.</p> <p>The maximum value is <b>100</b>.</p>                                                                                                                                                                                                                                            |
| offset    | Integer | No        | <p><b>offset</b> specifies the start page of the query.</p> <p>The value range of <b>offset</b> is as follows: The value of <b>offset</b> is equal to limit x (page - 1). The value is greater than or equal to 0.</p> <p><b>page</b> indicates the start page to be queried.</p>                                               |

## Response Message

**Table 12-376** Parameters in the response message body

| Parameter  | Type   | Description                                                                                                                                                                                                                                                |
|------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | String | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> <li>• For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul> |
| resultDesc | Object | Object in the returned result after a successful query.<br>For details about the parameters of this object, see <a href="#">Table 12-377</a> .                                                                                                             |

**Table 12-377** Parameters of resultDesc

| Parameter | Type                 | Description                                                                                                              |
|-----------|----------------------|--------------------------------------------------------------------------------------------------------------------------|
| data      | Array <callinDetail> | Object array in the returned result. For details about the parameters of this object, see <a href="#">Table 12-378</a> . |
| count     | Integer              | Number of data records that can be queried.                                                                              |

**Table 12-378** Parameters of data

| Parameter | Type   | Description                                                                           |
|-----------|--------|---------------------------------------------------------------------------------------|
| logDate   | Long   | Time when data is imported to the database. The value is a timestamp in milliseconds. |
| callerNo  | String | Calling number.                                                                       |
| calleeNo  | String | Called number.                                                                        |
| callId    | String | Call ID.                                                                              |

| Parameter    | Type    | Description                                                                                      |
|--------------|---------|--------------------------------------------------------------------------------------------------|
| callType     | Integer | Call type. For details, see <a href="#">12.3.8.6 Description of Call Types</a> .                 |
| waitBegin    | Long    | Waiting start time in millisecond-level timestamp.                                               |
| ackBegin     | Long    | Response start time in millisecond-level timestamp.                                              |
| callBegin    | Long    | Start time of a call in millisecond-level timestamp.                                             |
| callEnd      | Long    | End time of a call in millisecond-level timestamp.                                               |
| vdn          | Integer | ID of a VDN.                                                                                     |
| leaveReason  | Integer | Reason why a call is disconnected from a device. For details, see <a href="#">Table 12-700</a> . |
| mediaType    | Integer | Media type. For details, see <a href="#">Table 12-695</a> .                                      |
| subMediaType | Integer | Submedia type. For details, see <a href="#">Table 12-696</a> .                                   |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters

```
{
 "cclid":1,
 "vdn":170,
 "callerNo": "12345",
 "calleeNo": "23131",
 "beginDate": "14511111111",
 "endDate": "14522222222",
 "limit": 10,
 "offset": 0
}
```

- Response parameters

```
{
 "resultCode":"0100000",
 "resultDesc":{
 "data":[
```

```

 {
 "logDate": "1615717765000", //Statistics collection time
 "callerNo": "1212", //Calling number
 "calleeNo": "12121212", //Called number
 "callId": "167789709-33", //Call ID
 "callType": "1", //Call type
 "waitBegin": "1615717765000", //Start time of call waiting
 "ackBegin": "1615717765000", //Time when a call is answered
 "callBegin": "1615717765000", //Start time of a call
 "callEnd": "1615717765000", //End time of a call
 "vdn": 170, //VDN ID
 "leaveReason": "1", //Reason why a call is disconnected from a device
 "mediaType": 53, //Media type
 "subMediaType": 1 //Submedia type
 }
],
 count: 5
}

```

### 12.3.1.1.13 (V2) Querying Call Information in a Specified VDN

#### Scenario

This interface is invoked to query call information in a specified VDN based on the calling number, called number, and time segment.

In the V1 version, this interface provides only information about inbound calls. In the V2 version, the **isCallIn** parameter is added to query information about inbound or outbound calls.

#### Interface Method

This interface supports only the POST method.

#### URI

<https://ip:port/rest/cmsapp/v2/openapi/vdn/querycalls>

In the URL, *ip* indicates the IP address of the server where the CC-CMS is installed, and *port* indicates the HTTPS port number of the CC-CMS.

If the request is routed through the NSLB, set *ip* to the IP address of the NSLB server and *port* to the HTTPS port number of the CC-CMS service mapped on the NSLB.

#### Request Description

**Table 12-379** Parameters in the request header

| Parameter    | Mandatory | Type   | Default Value | Description                                                    |
|--------------|-----------|--------|---------------|----------------------------------------------------------------|
| Content-Type | Yes       | String | None          | The value is fixed at <b>application/json; charset=UTF-8</b> . |

| Parameter     | Mandatory | Type   | Default Value | Description                                                                                                                                            |
|---------------|-----------|--------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Authorization | Yes       | String | None          | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-380** Parameters in the request body

| Parameter | Mandatory | Type    | Default Value | Description                                                                                                                                                     |
|-----------|-----------|---------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclId     | Yes       | Integer | None          | ID of a call center.<br>The value ranges from 1 to 65535.                                                                                                       |
| vdn       | Yes       | Integer | None          | ID of a VDN.<br>The value ranges from 1 to 5000.                                                                                                                |
| callerNo  | No        | String  | None          | Calling number. The value can be empty, indicating that all calling numbers are queried.<br>The value consists of digits and must comply with the number rules. |
| calleeNo  | No        | String  | None          | Called number. The value can be empty, indicating that all called numbers are queried.<br>The value consists of digits and must comply with the number rules.   |
| beginDate | Yes       | Long    | None          | Start time of a query period.<br>The value is a timestamp in milliseconds.<br>The time cannot be earlier than 00:00:00 of the previous day.                     |
| endDate   | Yes       | Long    | None          | End time of a query period.<br>The value is a timestamp in milliseconds.<br>The time cannot be later than 23:59:59 on the current day.                          |
| isCallIn  | Yes       | String  | None          | If the value is <b>true</b> , inbound call information is queried. If the value is <b>false</b> , outbound call information is queried.                         |

| Parameter | Mandatory | Type    | Default Value | Description                                                                                                                                                                                                                                                                   |
|-----------|-----------|---------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| limit     | No        | Integer | None          | Limit of records in a query result.<br>The maximum value is <b>100</b> .                                                                                                                                                                                                      |
| offset    | No        | Integer | None          | <b>offset</b> is used to determine the start page of the query.<br>The value range of <b>offset</b> is as follows: The value of <b>offset</b> is equal to limit x (page - 1). The value is greater than or equal to 0.<br><b>page</b> indicates the start page to be queried. |

## Response Description

**Table 12-381** Parameters in the response message body

| Parameter  | Type                 | Description                                                                                                                                                                                                                                                |
|------------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | String               | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> <li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul> |
| resultDesc | Object               | Object in the returned result after a successful query.                                                                                                                                                                                                    |
| data       | Array <callinDetail> | Object array in the returned result. For details about the parameters of this object, see <a href="#">Table 12-382</a> .                                                                                                                                   |
| count      | Integer              | Number of data records that can be queried.                                                                                                                                                                                                                |



**Table 12-382** Parameters of data

| Parameter    | Type    | Description                                                                                      |
|--------------|---------|--------------------------------------------------------------------------------------------------|
| logDate      | Long    | Time when data is imported to the database. The value is a timestamp in milliseconds.            |
| callerNo     | String  | Calling number.                                                                                  |
| calleeNo     | String  | Called number.                                                                                   |
| callId       | String  | Call ID.                                                                                         |
| callType     | Integer | Call type. For details, see <a href="#">12.3.8.6 Description of Call Types</a> .                 |
| waitBegin    | Long    | Waiting start time in millisecond-level timestamp.                                               |
| ackBegin     | Long    | Response start time in millisecond-level timestamp.                                              |
| callBegin    | Long    | Start time of a call in millisecond-level timestamp.                                             |
| callEnd      | Long    | End time of a call in millisecond-level timestamp.                                               |
| vdn          | Integer | ID of a VDN.                                                                                     |
| leaveReason  | Integer | Reason why a call is disconnected from a device. For details, see <a href="#">Table 12-700</a> . |
| mediaType    | Integer | Media type. For details, see <a href="#">Table 12-695</a> .                                      |
| subMediaType | Integer | Submedia type. For details, see <a href="#">Table 12-696</a> .                                   |

## Error Codes

For details, see [12.3.8.2 Error Code Reference](#).

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  

```
{
 "ccld":1,
 "vdn":170,
 "callerNo": "12345",
 "calleeNo": "23131",
 "beginDate": "14511111111",
 "endDate": "14522222222",
 "isCallIn":"true"
 "limit": 10,
 "offset": 0
}
```
- Response header  
HTTP/1.1 200 OK  
Content-Type: application/json;charset=UTF-8  
Date: Mon, 02 Jul 2018 02:43:03 GMT
- Response parameters  

```
{
 "resultCode":"0100000",
 "resultDesc":{
 "data":[
 {
 "logDate": "1615717765000", //Statistics collection time
 "callerNo": "1212", //Calling number
 "calleeNo": "12121212", //Called number
 "callId": "167789709-33", //Call ID
 "callType": "1", //Call type
 "waitBegin": "1615717765000", //Start time of call waiting
 "ackBegin": "1615717765000", //Time when a call is answered
 "callBegin": "1615717765000", //Start time of a call
 "callEnd": "1615717765000", //End time of a call
 "vdn": 170, //VDN ID
 "leaveReason": "1", //Reason why a call is disconnected from a device
 "mediaType":53, //Media type
 "subMediaType":1 //Submedia type
 }
],
 count: 5
 }
}
```

### 12.3.1.1.14 Querying the Call track Data in a Specific VDN

#### Description

This interface is invoked to query call track data in a specified VDN based on the call ID.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

<https://ip:port/rest/cmsapp/v1/openapi/vdn/querycalltracedetail>

In the URL, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-383** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-384** Parameters in the request message body

| No. | Parameter | Type    | Mandatory | Description                                                                                                           |
|-----|-----------|---------|-----------|-----------------------------------------------------------------------------------------------------------------------|
| 1   | cclId     | Integer | Yes       | ID of a call center.<br>The value ranges from <b>1</b> to <b>65535</b> .                                              |
| 2   | vdn       | Integer | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.                                                                      |
| 3   | callId    | string  | Yes       | Call ID.                                                                                                              |
| 4   | logDate   | long    | Yes       | Query time, which is used to parse the month and query the specified table. The value is a timestamp in milliseconds. |

## Response Message

**Table 12-385** Parameters in the response message body

| No. | Parameter  | Type            | Description                                                                                                                                                                                                                                            |
|-----|------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | string          | Query result. The options are as follows: <ul style="list-style-type: none"><li>• <b>0100000</b>: success</li><li>• Other values: failure</li><li>• For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li></ul> |
| 2   | resultDesc | array<tbilllog> | Object array in the returned result after a successful query.<br>For details about the parameters of this object, see <a href="#">Table 12-386</a> .                                                                                                   |

**Table 12-386** Parameters of resultDesc

| No. | Parameter | Type    | Description                                                                                                                                                                  |
|-----|-----------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.1 | callId    | string  | Call ID.                                                                                                                                                                     |
| 2.2 | mediaType | Integer | Media type. For details, see <a href="#">Table 12-695</a> .                                                                                                                  |
| 2.3 | callIdNum | Integer | CDR sequence number. Sequence number of multiple CDRs generated for a call. The value starts from 1 and indicates the first CDR. The value <b>-1</b> indicates the last CDR. |
| 2.4 | callerNo  | string  | Calling number.                                                                                                                                                              |
| 2.5 | calleeNo  | string  | Called number.                                                                                                                                                               |
| 2.6 | waitBegin | long    | Waiting start time in millisecond-level timestamp.                                                                                                                           |
| 2.7 | ackBegin  | long    | Response start time in millisecond-level timestamp.                                                                                                                          |

| No.      | Parameter    | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------|--------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.8      | callBegin    | long    | Start time of a call in millisecond-level timestamp.                                                                                                                                                                                                                                                                                                                                                              |
| 2.9      | callEnd      | long    | End time of a call in millisecond-level timestamp.                                                                                                                                                                                                                                                                                                                                                                |
| 2.1<br>0 | subCcNo      | Integer | ID of a call center in a network call center.                                                                                                                                                                                                                                                                                                                                                                     |
| 2.1<br>1 | deviceType   | Integer | Type of a device that processes calls. For details, see <a href="#">Table 12-701</a> .                                                                                                                                                                                                                                                                                                                            |
| 2.1<br>2 | deviceNo     | string  | ID of the device that processes the current call. <ul style="list-style-type: none"><li>• For an agent device, the device ID is the agent ID.</li><li>• For a queue or virtual device, the device ID is the queue ID configured on the configuration console or the ID of the network shared device corresponding to the virtual device.</li><li>• For other device types, the value is an internal ID.</li></ul> |
| 2.1<br>3 | deviceIn     | string  | Device description.                                                                                                                                                                                                                                                                                                                                                                                               |
| 2.1<br>4 | callType     | Integer | Call type. For details, see <a href="#">Table 12-695</a> .                                                                                                                                                                                                                                                                                                                                                        |
| 2.1<br>5 | releaseCause | Integer | Call release cause code. For details, see <a href="#">12.3.8.10 Cause Code</a> .                                                                                                                                                                                                                                                                                                                                  |
| 2.1<br>6 | EnterReason  | Integer | Reason why a call accesses a device. For details, see <a href="#">Table 12-700</a> .                                                                                                                                                                                                                                                                                                                              |

| No.      | Parameter      | Type    | Description                                                                                      |
|----------|----------------|---------|--------------------------------------------------------------------------------------------------|
| 2.1<br>7 | LeaveReason    | Integer | Reason why a call is disconnected from a device. For details, see <a href="#">Table 12-700</a> . |
| 2.1<br>8 | CurrentSkillID | string  | ID of the skill queue that processes the current call.                                           |
| 2.2<br>0 | subMediaType   | Integer | Submedia type. For details, see <a href="#">Table 12-696</a> .                                   |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters

```
{
 "ccld":1,
 "vdn":170,
 "callId": "1678978542-92",
 "logDate": "1615717765000"
}
```
- Response parameters

```
{
 "resultCode":"0100000",
 "resultDesc":
 [
 {
 "callId": "1678978542-92",
 "mediaType": "1",
 "subMediaType": "1",
 "callIdNum": "-1",
 "callerNo": "80000888",
 "calleeNo": "624192",
 "waitBegin": "1615717765000", //Start time of call waiting
 "ackBegin": "1615717765000", //Time when a call is answered
 "callBegin": "1615717765000", //Start time of a call
 "callEnd": "1615717765000", //End time of a call
 "subCcNo": "0",
 "deviceType": "1",
 "deviceNo": "1",
 "deviceIn": "1",
 "callType": "1",
 "releaseCause": "1", //Valid only when callIdNum is set to -1
 "EnterReason": "11",
 "LeaveReason": "11",
 "CurrentSkillID": "0", //ID of the skill queue that is processing a call
 "mediaType":53, //Media type
 "subMediaType":1 //Submedia type
 }
]
}
```

### 12.3.1.1.15 Querying Static Configuration Information About All Agents in a Specified VDN (Not Supported by CTI 3.6)

#### Scenario

This interface is invoked to query static configuration information about all agents in a specified VDN. Pagination is not supported. (CTI 3.6 does not support this interface.)

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interface

BMS interface: /ccbms/ws/monitor/querytotalagentinfo

#### Request URL

https://ip:port/rest/cmsapp/v1/openapi/vdn/querytotalagentinfo

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-387** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-388** Parameters in the request message body

| No. | Parameter | Value Type | Mandatory | Description                                               |
|-----|-----------|------------|-----------|-----------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535. |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.          |

## Response Description

**Table 12-389** Parameters in the response message body

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                                                                                            |
|-----|-------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result      | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0</b>: success</li> <li>● Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |
| 2   | resultCode  | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>010000</b>: success</li> <li>● Other values: failure</li> <li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul>                                                                                                              |
| 3   | resultDatas | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-390</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.                                                                          |



| No. | Parameter  | Value Type | Description                                                                                                                                                       |
|-----|------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | resultDesc | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-390</a> . |

**Table 12-390** Parameters of resultDesc/resultDatas

| No. | Parameter | Value Type | Description                                                                                                                                                                                                    |
|-----|-----------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.1 | agentId   | Integer    | Agent ID.                                                                                                                                                                                                      |
| 2.2 | groupId   | Integer    | Agent group ID.<br>Group: To facilitate the management of agents, the agents of a VDN are usually grouped. Agents in a group form an agent group.                                                              |
| 2.3 | rights    | String     | Permission value of an agent. The value <b>0</b> indicates that the agent has no permission, and <b>1</b> indicates that the agent has permission. <a href="#">Table 12-391</a> describes the role permission. |
| 2.4 | name      | String     | Agent name.                                                                                                                                                                                                    |
| 2.5 | realFlag  | Integer    | Whether an agent is a network agent. The value <b>0</b> indicates network agent, and <b>1</b> indicates common agent. Currently, all agents in the AICC are common agents.                                     |

**Table 12-391** Agent permission value

| Bit | Description                                                       |
|-----|-------------------------------------------------------------------|
| 1   | Showing busy/idle.                                                |
| 2   | Muting/Unmuting calls.                                            |
| 3   | Holding/Unholding calls.                                          |
| 4   | Connecting held calls.                                            |
| 5   | Common outbound call.                                             |
| 6   | Internal call.                                                    |
| 7   | Transferring calls internally.                                    |
| 8   | Answering transferred inbound calls.                              |
| 9   | Making three-party calls.                                         |
| 10  | Transferring out calls.                                           |
| 11  | Transferring calls from the agent service to automatic service.   |
| 12  | Rejecting inbound calls.                                          |
| 13  | Listening/Listening and inserting/<br>Whispering.                 |
| 14  | Intercepting calls.                                               |
| 15  | Forcibly signing out/Forcibly showing busy/Forcibly showing idle. |
| 16  | Inspecting recordings/Inspecting voice playing.                   |
| 17  | Monitoring inspections.                                           |
| 18  | Appraisal administrator.                                          |
| 19  | Ordinary appraisal personnel.                                     |
| 20  | Alarm console.                                                    |
| 21  | Report handler.                                                   |
| 22  | Reserved value.                                                   |
| 23  | Monitoring console.                                               |
| 24  | Configuration administrator.                                      |
| 25  | Report administrator.                                             |
| 26  | Making national outbound toll calls.                              |





## Request Description

**Table 12-392** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-393** Parameters in the request message body

| No. | Parameter | Value Type | Mandatory | Description                                               |
|-----|-----------|------------|-----------|-----------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535. |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.          |

## Response Description

**Table 12-394** Parameters in the response message body

| No. | Parameter | Value Type | Description                                                                                                                                                                                                                                                                                                                                                                              |
|-----|-----------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result    | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> <p>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p> |

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                   |
|-----|-------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode  | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> <li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul>                                    |
| 3   | resultDatas | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-395</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |
| 2   | resultDesc  | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-395</a> .                                                                                                                             |

**Table 12-395** Parameters of resultDesc/resultDatas

| No. | Parameter | Value Type | Description                                                                                        |
|-----|-----------|------------|----------------------------------------------------------------------------------------------------|
| 2.1 | agentId   | Integer    | Agent ID.                                                                                          |
| 2.2 | state     | Integer    | Agent status. For details, see <a href="#">12.3.8.3 CTI Platform Agent Status Code Reference</a> . |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  
{  
  "ccld":1,  
  "vdn":170  
}
- Response parameters  
{  
  "result": "0",

```
"resultCode": "0100000",
"resultDatas": [
 {
 "agentId": 55002,
 "state": 0
 },
 {
 "agentId": 833,
 "state": 0
 }
],
"resultDesc": [
 {
 "agentId": 55002,
 "state": 0
 },
 {
 "agentId": 833,
 "state": 0
 }
]
}
```

### 12.3.1.1.17 Obtaining Real-Time Monitoring Indicators by VDN

#### Description

This interface is invoked to obtain real-time monitoring indicators by VDN. (CTI 3.6 does not support this interface.)

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interfaces

BMS interfaces:

- /ccbms/ws/monitor/rindexSkill
- /ccbms/ws/monitor/queryivrInfo
- /ccbms/ws/monitor/queryivrdevicestatus
- /ccbms/ws/monitor/teamagentstatusinfobyvdns

#### Request URL

<https://ip:port/rest/cmsapp/v1/openapi/rindex/vdn>

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-396** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |



**Table 12-397** Parameters in the request message body

| No. | Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----|-----------|---------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | cclId     | Integer | No        | <p>ID of a call center.</p> <ul style="list-style-type: none"><li>• In the integration environment, the default value is the value of <b>Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; CMS System Configuration</b> page after a system administrator signs in to the AICC. If this parameter is empty, the data whose <b>sys_key</b> is <b>default_cc_id</b> and <b>sys_type</b> is <b>cms_system_config</b> in the <b>t_cms_sysparam</b> database table is used.</li><li>• In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li></ul> |
| 2   | vdnIds    | Array   | Yes       | <p>Array of VDN IDs. The maximum length of the array is 100. The VDN ID is of the integer type.</p> <p>The value of <b>vdn</b> ranges from 1 to 5000.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| No. | Parameter | Type  | Mandatory | Description                                                                                                                           |
|-----|-----------|-------|-----------|---------------------------------------------------------------------------------------------------------------------------------------|
| 3   | indexIds  | Array | Yes       | Array of VDN real-time monitoring indicators. The indicator is of the string type.<br>For details, see <a href="#">Table 12-693</a> . |

## Response Message

**Table 12-398** Parameters in the response message body

| No. | Parameter  | Type   | Description                                                                                                                                                                                                                                   |
|-----|------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | string | Query result. The options are as follows: <ul style="list-style-type: none"><li>• <b>0100000</b>: success</li><li>• Other values: failure</li></ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> . |
| 2   | resultDesc | Array  | Object array in the returned result after a successful query.<br>For details about the parameters of this object in the array, see <a href="#">Table 12-399</a> .                                                                             |

**Table 12-399** Parameters of resultDesc

| No. | Parameter | Type              | Description                                                                                                 |
|-----|-----------|-------------------|-------------------------------------------------------------------------------------------------------------|
| 2.1 | id        | string            | ID of a VDN.                                                                                                |
| 2.2 | idxs      | List< JSONObject> | Group of indicators.<br>For details about the parameters of this object, see <a href="#">Table 12-400</a> . |

**Table 12-400** Parameters of idx

| No.   | Parameter | Type   | Description       |
|-------|-----------|--------|-------------------|
| 2.2.1 | id        | string | Indicator ID.     |
| 2.2.2 | val       | object | Indicator result. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  

```
{
 "ccld":1,
 "vdnIds":[170,185],
 "indexIds":["IDX_COUNT_REAL_VDN_CONNECT","IDX_COUNT_REAL_VDN_CALL"]
}
```
- Response parameters  

```
{
 "resultCode":"0100000",
 "resultDesc":[
 {
 "idxs":[
 {
 "val":0,
 "id":"IDX_COUNT_REAL_VDN_CONNECT"
 },
 {
 "val":0,
 "id":"IDX_COUNT_REAL_VDN_CALL"
 }
],
 "id":"170"
 },
 {
 "idxs":[
 {
 "val":0,
 "id":"IDX_COUNT_REAL_VDN_CONNECT"
 },
 {
 "val":0,
 "id":"IDX_COUNT_REAL_VDN_CALL"
 }
],
 "id":"185"
 }
]
}
```

### 12.3.1.2 Real-Time Interfaces for Skill Queues

### 12.3.1.2.1 Querying Signed-in Agents in Skill Queues in Batches

#### Scenario

This interface is invoked to query signed-in agents in skill queues in batches.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interface

BMS interface: /ccbms/ws/monitor/agentskillstatusinfo

#### Request URL

https://ip:port/rest/cmsapp/v1/openapi/realindex/agent/agentsinskill

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-401** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-402** Parameters in the request message body

| No. | Parameter | Value Type | Mandatory | Description                                               |
|-----|-----------|------------|-----------|-----------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535. |

| No. | Parameter | Value Type | Mandatory | Description                                                                                                                          |
|-----|-----------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------|
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.                                                                                     |
| 3   | skillIds  | Array      | Yes       | Object array of skill queue ID information.<br>The array cannot exceed 1000 characters.<br>The skill queue ID ranges from 1 to 2000. |

## Response Description

**Table 12-403** Parameters in the response message body

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                                                                                            |
|-----|-------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result      | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0</b>: success</li> <li>● Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.12 and earlier versions. |
| 2   | resultCode  | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> <li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul>                                                                                                             |
| 3   | resultDatas | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-404</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.12 and earlier versions.                                                                          |

| No. | Parameter  | Value Type | Description                                                                                                                                                       |
|-----|------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | resultDesc | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-404</a> . |

**Table 12-404** Parameters of resultDesc/resultDatas

| No. | Parameter | Value Type | Description                                                |
|-----|-----------|------------|------------------------------------------------------------|
| 2.1 | skillId   | Integer    | Skill queue ID.                                            |
| 2.2 | agentIds  | Array      | Array of IDs of the agents who sign in to the skill queue. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters

```
{
 "queryParam":
 {
 "ccId":1,
 "vdn":1,
 "skillIds":[1,2]
 }
}
```

- Response parameters

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": [
 {
 "skillId": 1,
 "agentIds": [
 291
]
 },
 {
 "skillId": 2,
 "agentIds": []
 }
],
 "resultDesc": [
 {
 "skillId": 1,
 "agentIds": [
 291
]
 },
 {
 "skillId": 2,
 "agentIds": []
 }
]
}
```

```
}
]
}
```

### 12.3.1.2.2 Querying Extended Information About Skill Queues in Batches

#### Scenario

This interface is invoked to query extended information about skill queues in batches. (CTI 3.6 does not support this interface.)

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interface

BMS interface: /ccbms/ws/monitor/querytotalskillstatusex3

#### Request URL

https://ip:port/rest/cmsapp/v1/openapi/skill/totalskillstatusex3

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-405** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-406** Parameters in the request message body

| No. | Parameter | Value Type | Mandatory | Description                                                                                                                          |
|-----|-----------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from <b>1</b> to <b>65535</b> .                                                             |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.                                                                                     |
| 3   | skillIds  | Array      | Yes       | Object array of skill queue ID information.<br>The array cannot exceed 1000 characters.<br>The skill queue ID ranges from 1 to 2000. |

## Response Description

**Table 12-407** Parameters in the response message body

| No. | Parameter  | Value Type | Description                                                                                                                                                                                                                                                                                                                                                            |
|-----|------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result     | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |
| 2   | resultCode | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> <li>• For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul>                                                                                                             |



| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                   |
|-----|-------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | resultDatas | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-408</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |
| 4   | resultDesc  | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-408</a> .                                                                                                                             |

**Table 12-408** Parameters of resultDesc/resultDatas

| No. | Parameter      | Value Type | Description                                                  |
|-----|----------------|------------|--------------------------------------------------------------|
| 2.1 | skillId        | Integer    | Skill queue ID.                                              |
| 2.2 | queueSize      | Integer    | Number of calls in waiting queue.                            |
| 2.3 | queueTime      | Long       | Maximum waiting duration of a call in the queue, in seconds. |
| 2.4 | loggedOnAgents | Integer    | Number of agents who currently sign in to the skill queue.   |
| 2.5 | availAgents    | Integer    | Number of agents available in a skill queue.                 |
| 2.6 | skillDescrip   | String     | Skill description.                                           |
| 2.7 | callId         | String     | ID of the call that waits for the longest time.              |

| No. | Parameter    | Value Type | Description                                                                                                                                                                                                       |
|-----|--------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.8 | maxQueueSize | Integer    | Maximum number of calls that can wait in a queue.<br><br>For details, see "Configuring Queue Processing and Completion Rate Parameters" in <i>(For Engineer) ICD VxxxRxxxCxx Product Documentation 01 (ICD)</i> . |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters

```
{
 "ccld":1,
 "vdn":170,
 "skillIds":[1,2]
}
```

- Response parameters

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": [
 {
 "skillId": 1,
 "queueSize": 0,
 "loggedOnAgents": 0,
 "queueTime": 0,
 "availAgents": 0,
 "skillDescrip": "defaultVedioSkill",
 "callId": "4294967295-4294967295",
 "maxQueueSize": 100
 },
 {
 "skillId": 2,
 "queueSize": 0,
 "loggedOnAgents": 1,
 "queueTime": 0,
 "availAgents": 0,
 "skillDescrip": "defaultAudioSkill",
 "callId": "4294967295-4294967295",
 "maxQueueSize": 100
 }
],
 "resultDesc": [
 {
 "skillId": 1,
 "queueSize": 0,
 "loggedOnAgents": 0,
 "queueTime": 0,
 "availAgents": 0,
 "skillDescrip": "defaultVedioSkill",

```

```

 "callId": "4294967295-4294967295",
 "maxQueueSize": 100
 },
 {
 "skillId": 2,
 "queueSize": 0,
 "loggedOnAgents": 1,
 "queueTime": 0,
 "availAgents": 0,
 "skillDescrip": "defaultAudioSkill",
 "callId": "4294967295-4294967295",
 "maxQueueSize": 100
 }
]
}

```

### 12.3.1.2.3 Querying Call Statistics of Skill Queues in the Current 5 Minutes in Batches

#### Scenario

This interface is invoked to query the call statistics of skill queues in the current 5 minutes in batches. (CTI 3.6 does not support this interface.)

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interface

BMS interface: /ccbms/ws/monitor/querycurrentcallstatinfo

#### Request URL

<https://ip:port/rest/cmsapp/v1/openapi/skill/currentcallstateinfo>

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-409** Parameters in the request header

| No. | Parameter    | Value Type | Mandatory | Description                                                    |
|-----|--------------|------------|-----------|----------------------------------------------------------------|
| 1   | Content-Type | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> . |

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-410** Parameters in the request message body

| No. | Parameter | Value Type | Mandatory | Description                                                                                                                 |
|-----|-----------|------------|-----------|-----------------------------------------------------------------------------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535.                                                                   |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.                                                                            |
| 3   | skillIds  | Array      | Yes       | Object array of skill queue ID information.<br>The array cannot exceed 1000 characters.<br>The value ranges from 1 to 2000. |

## Response Description

**Table 12-411** Parameters in the response message body

| No. | Parameter | Value Type | Description                                                                                                                                                                                                                                                                                                                                                     |
|-----|-----------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result    | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● 0: success</li> <li>● Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                   |
|-----|-------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | resultCode  | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> <li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul>                                    |
| 3   | resultDatas | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-412</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |
| 4   | resultDesc  | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-412</a> .                                                                                                                             |

**Table 12-412** Parameters of resultDesc/resultDatas

| No. | Parameter     | Value Type | Description                                                      |
|-----|---------------|------------|------------------------------------------------------------------|
| 2.1 | id            | Integer    | Skill queue ID.                                                  |
| 2.2 | startTime     | Long       | Statistics start time. The value is a timestamp in milliseconds. |
| 2.3 | allCallCount  | Long       | Total number of inbound calls in the current 5 minutes.          |
| 2.4 | cnndCallCount | Long       | Total number of connected calls in the current 5 minutes.        |
| 2.5 | abanCallCount | Long       | Total number of lost calls in the current 5 minutes.             |

| No.      | Parameter          | Value Type | Description                                                                                                                                           |
|----------|--------------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.6      | callEndCount       | Long       | Total number of finished calls in the current 5 minutes.                                                                                              |
| 2.7      | talkTimeOnlvr      | Long       | Call duration in the IVR system, in seconds. (When a suspended call is transferred to an agent, the suspension time is counted in the call duration.) |
| 2.8      | cnndIn20sCallCount | Long       | Total number of calls that are connected in 20 seconds in the current 5 minutes.                                                                      |
| 2.9      | clearUpCallCount   | Long       | Total number of calls that have been wrapped up in the current 5 minutes.                                                                             |
| 2.1<br>0 | clearUpTime        | Long       | Total wrap-up duration in the current 5 minutes, in seconds.                                                                                          |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  

```
{
 "cclId":1,
 "vdn":170,
 "skillIds":[1,2]
}
```
- Response parameters  

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": [
 {
 "id": 1,
 "startTime": 1607390702000,
 "allCallCount": 0,
 "cnndCallCount": 0,
 "abanCallCount": 0,
 "callEndCount": 0,
 "talkTimeOnlvr": 0,
 "cnndIn20sCallCount": 0,
 "clearUpCallCount": 0,
 "clearUpTime": 0
 },
 {
 "id": 2,
```

```
"startTime": 1607390702000,
"allCallCount": 0,
"cnnedCallCount": 0,
"abanCallCount": 0,
"callEndCount": 0,
"talkTimeOnIvr": 0,
"cnnedIn20sCallCount": 0,
"clearUpCallCount": 0,
"clearUpTime": 0
}
],
"resultDesc": [
{
 "id": 1,
 "startTime": 1607390702000,
 "allCallCount": 0,
 "cnnedCallCount": 0,
 "abanCallCount": 0,
 "callEndCount": 0,
 "talkTimeOnIvr": 0,
 "cnnedIn20sCallCount": 0,
 "clearUpCallCount": 0,
 "clearUpTime": 0
},
{
 "id": 2,
 "startTime": 1607390702000,
 "allCallCount": 0,
 "cnnedCallCount": 0,
 "abanCallCount": 0,
 "callEndCount": 0,
 "talkTimeOnIvr": 0,
 "cnnedIn20sCallCount": 0,
 "clearUpCallCount": 0,
 "clearUpTime": 0
}
]
}
```

### 12.3.1.2.4 Querying Information About Status of a Specified Skill Queue

#### Scenario

This interface is invoked to query information about the status of a specified skill queue. (CTI 3.6 does not support this interface.)

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interface

BMS interface: /ccbms/ws/monitor/querybatchmultiskillqueue

#### Request URL

<https://ip:port/rest/cmsapp/v1/openapi/skill/queuedevicestatus>

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the

NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-413** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-414** Parameters in the request message body

| No. | Parameter | Value Type | Mandatory | Description                                               |
|-----|-----------|------------|-----------|-----------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535. |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.          |
| 3   | skillId   | Integer    | Yes       | Skill queue ID.<br>The value ranges from 1 to 2000.       |



## Response Description

**Table 12-415** Parameters in the response message body

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                                                                                                              |
|-----|-------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result      | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> <p>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p> |
| 2   | resultCode  | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> <li>• For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul>                                                                                                                        |
| 3   | resultDatas | Array      | <p>Object array in the returned result after a successful query.</p> <p>For details about the parameters of the object in this array, see <a href="#">Table 12-416</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p>                                                                             |
| 4   | resultDesc  | Array      | <p>Object array in the returned result after a successful query.</p> <p>For details about the parameters of the object in this array, see <a href="#">Table 12-416</a>.</p>                                                                                                                                                                                                              |

**Table 12-416** Parameters of resultDesc/resultDatas

| No. | Parameter | Value Type | Description |
|-----|-----------|------------|-------------|
| 2.1 | callId    | String     | Call ID.    |

| No. | Parameter     | Value Type | Description                                                                                                            |
|-----|---------------|------------|------------------------------------------------------------------------------------------------------------------------|
| 2.2 | customerLevel | Integer    | Customer level.<br>The sequence number ranges from 1 to 254.<br>A larger value indicates the importance of a customer. |
| 2.3 | requestType   | Integer    | Call feature. For details, see <a href="#">Table 12-699</a> .                                                          |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters  
{  
  "ccld":1,  
  "vdn":170,  
  "skillId":2  
}

- Response parameters  
{  
  "result": "0",  
  "resultCode": "0100000",  
  "resultDatas": [  
    {  
      "callId": "1604285072000-840",  
      "requestType": 0,  
      "customerLevel": 0  
    }  
  ],  
  "resultDesc": [  
    {  
      "callId": "1604285072000-840",  
      "requestType": 0,  
      "customerLevel": 0  
    }  
  ]  
}

### 12.3.1.2.5 Querying Information About Skill Queue Configurations in Batches

#### Scenario

This interface is invoked to query information about skill queue configurations in batches.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

## Internal Encapsulation Interface

BMS interface: /ccbms/ws/monitor/skillstatusinfo

### Request URL

https://ip:port/rest/cmsapp/v1/openapi/skill/skillcfginfo

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

### Request Description

**Table 12-417** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-418** Parameters in the request message body

| No. | Parameter | Value Type | Mandatory | Description                                                                                                                 |
|-----|-----------|------------|-----------|-----------------------------------------------------------------------------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535.                                                                   |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.                                                                            |
| 3   | skillIds  | Array      | Yes       | Object array of skill queue ID information.<br>The array cannot exceed 1000 characters.<br>The value ranges from 1 to 2000. |

## Response Description

**Table 12-419** Parameters in the response message body

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                                                                                                              |
|-----|-------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result      | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> <p>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p> |
| 1   | resultCode  | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> <li>• For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul>                                                                                                                        |
| 3   | resultDatas | Array      | <p>Object array in the returned result after a successful query.</p> <p>For details about the parameters of the object in this array, see <a href="#">Table 12-420</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p>                                                                             |
| 2   | resultDesc  | Array      | <p>Object array in the returned result after a successful query.</p> <p>For details about the parameters of the object in this array, see <a href="#">Table 12-420</a>.</p>                                                                                                                                                                                                              |

**Table 12-420** Parameters of resultDesc/resultDatas

| No. | Parameter      | Value Type | Description                           |
|-----|----------------|------------|---------------------------------------|
| 2.1 | skillId        | Integer    | Skill queue ID.                       |
| 2.2 | maxCallNum     | Integer    | Maximum number of queuing calls.      |
| 2.3 | maxHoldCallNum | Integer    | Maximum number of held calls.         |
| 2.4 | maxWaitTime    | Long       | Maximum waiting duration, in seconds. |

| No. | Parameter          | Value Type | Description                                               |
|-----|--------------------|------------|-----------------------------------------------------------|
| 2.5 | maxAnswerWaitTime  | Long       | Maximum ringing duration, in seconds.                     |
| 2.6 | maxTalkTime        | Long       | Maximum call duration, in seconds.                        |
| 2.7 | maxRestAgentNum    | Integer    | Maximum number of agents that are allowed to have a rest. |
| 2.8 | maxAgentWrapupTime | Integer    | Maximum agent wrap-up duration, in seconds.               |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters

```
{
 "cclid":1,
 "vdn":170,
 "skilllds":[1,2]
}
```

- Response parameters

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": [
 {
 "skillld": 1,
 "maxHoldCallNum": 5,
 "maxTalkTime": 86400,
 "maxAgentWrapupTime": 5,
 "maxWaitTime": 60,
 "maxRestAgentNum": 2,
 "maxCallNum": 100,
 "maxAnswerWaitTime": 30
 },
 {
 "skillld": 2,
 "maxHoldCallNum": 5,
 "maxTalkTime": 86400,
 "maxAgentWrapupTime": 5,
 "maxWaitTime": 60,
 "maxRestAgentNum": 2,
 "maxCallNum": 100,
 "maxAnswerWaitTime": 30
 }
],
 "resultDesc": [
 {
 "skillld": 1,
 "maxHoldCallNum": 5,
 "maxTalkTime": 86400,
 "maxAgentWrapupTime": 5,
 "maxWaitTime": 60,
 "maxRestAgentNum": 2,
 "maxCallNum": 100,
 "maxAnswerWaitTime": 30
 }
]
}
```

```

 "maxAnswerWaitTime": 30
 },
 {
 "skillId": 2,
 "maxHoldCallNum": 5,
 "maxTalkTime": 86400,
 "maxAgentWrapupTime": 5,
 "maxWaitTime": 60,
 "maxRestAgentNum": 2,
 "maxCallNum": 100,
 "maxAnswerWaitTime": 30
 }
]
}

```

### 12.3.1.2.6 Querying Statistics Details of Skill Queues in Batches

#### Scenario

This interface is invoked to query statistics details of skill queues in batches. (CTI 3.6 does not support this interface.)

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interface

BMS interfaces:

- /ccbms/ws/monitor/querycurrentcallstatinfo
- /ccbms/ws/monitor/queryStatInfoOfEverySkill

#### Request URL

https://ip:port/rest/cmsapp/v1/openapi/skill/stateinfo

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-421** Parameters in the request header

| No. | Parameter    | Value Type | Mandatory | Description                                                    |
|-----|--------------|------------|-----------|----------------------------------------------------------------|
| 1   | Content-Type | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> . |

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-422** Parameters in the request message body

| No. | Parameter | Value Type | Mandatory | Description                                                                                                                 |
|-----|-----------|------------|-----------|-----------------------------------------------------------------------------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from <b>1</b> to <b>65535</b> .                                                    |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.                                                                            |
| 3   | skillIds  | Array      | Yes       | Object array of skill queue ID information.<br>The array cannot exceed 1000 characters.<br>The value ranges from 1 to 2000. |

## Response Description

**Table 12-423** Parameters in the response message body

| No. | Parameter | Value Type | Description                                                                                                                                                                                                                                                                                                                                                            |
|-----|-----------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result    | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.12 and earlier versions. |

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                   |
|-----|-------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | resultCode  | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> <li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul>                                    |
| 3   | resultDatas | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-424</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.12 and earlier versions. |
| 4   | resultDesc  | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-424</a> .                                                                                                                             |

**Table 12-424** Parameters of resultDesc/resultDatas

| No. | Parameter           | Value Type | Description                                                                                                                             |
|-----|---------------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 2.1 | skillId             | Integer    | Skill queue ID.                                                                                                                         |
| 2.2 | agentLoginNums      | Long       | Number of signed-in agents.                                                                                                             |
| 2.3 | agentTalkingNums    | Long       | Number of agents in talking state.                                                                                                      |
| 2.4 | agentIdleNums       | Long       | Number of idle agents.                                                                                                                  |
| 2.5 | agentAvailableNums  | Long       | Number of available agents. The value may be different from the number of idle agents when an agent can have one-to-many conversations. |
| 2.6 | agentSetBusyNums    | Long       | Number of agents who indicate busy.                                                                                                     |
| 2.7 | agentRestNums       | Long       | Number of agents who take a rest.                                                                                                       |
| 2.8 | agentMaxIdleTimeIn5 | Long       | Maximum idle duration of agents in 5 minutes.                                                                                           |
| 2.9 | agentWorkNums       | Long       | Number of agents in after-call processing state, including agents in wrap-up state.                                                     |



| No.  | Parameter          | Value Type | Description                                                                      |
|------|--------------------|------------|----------------------------------------------------------------------------------|
| 2.10 | agentStudyNums     | Long       | Number of agents who are in the <b>Study</b> state.                              |
| 2.11 | agentOccupyNums    | Long       | Number of agents in the occupied state.                                          |
| 2.12 | agentPreOccupyNums | Long       | Number of preoccupied agents.                                                    |
| 2.13 | totalCallNums      | Long       | Total number of processed calls, including the calls that are being processed.   |
| 2.14 | processingCallNums | Long       | Number of calls that are being processed.                                        |
| 2.15 | maxCallWaitTimeIn5 | Long       | Maximum time that a call can wait in 5 minutes.                                  |
| 2.16 | callWaitNums       | Long       | Number of queuing calls (number of calls that are waiting).                      |
| 2.17 | evenCallTimeIn5    | Long       | Average call duration in 5 minutes.                                              |
| 2.18 | evenWaitTimeIn5    | Long       | Average call waiting duration in 5 minutes.                                      |
| 2.19 | allCallCount       | Long       | Total number of inbound calls in the current 5 minutes.                          |
| 2.20 | cnndIn20sCallCount | Long       | Total number of calls that are connected in 20 seconds in the current 5 minutes. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters

```
{
 "queryParam":
 {
 "ccld":1,
 "vdn":1,
 "skillIds":[1,2]
 }
}
```

- Response parameters

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": [
 {
 "skillId": 1,
```

```
"agentLoginNums": 1,
"agentTalkingNums": 0,
"agentIdleNums": 0,
"agentAvailableNums": 0,
"agentSetBusyNums": 1,
"agentRestNums": 0,
"agentMaxIdleTimeIn5": 0,
"agentWorkNums": 0,
"agentStudyNums": 0,
"agentOccupyNums": 0,
"agentPreOccupyNums": 0,
"totalCallNums": 0,
"processingCallNums": 0,
"maxCallWaitTimesIn5": 0,
"callWaitNums": 0,
"evenCallTimeIn5": 0,
"evenWaitTimeIn5": 0,
"allCallCount": 0,
"cnndIn20sCallCount": 0
},
{
 "skillId": 2,
 "agentLoginNums": 0,
 "agentTalkingNums": 0,
 "agentIdleNums": 0,
 "agentAvailableNums": 0,
 "agentSetBusyNums": 0,
 "agentRestNums": 0,
 "agentMaxIdleTimeIn5": 0,
 "agentWorkNums": 0,
 "agentStudyNums": 0,
 "agentOccupyNums": 0,
 "agentPreOccupyNums": 0,
 "totalCallNums": 0,
 "processingCallNums": 0,
 "maxCallWaitTimesIn5": 0,
 "callWaitNums": 0,
 "evenCallTimeIn5": 0,
 "evenWaitTimeIn5": 0,
 "allCallCount": 0,
 "cnndIn20sCallCount": 0
}
],
"resultDesc": [
 {
 "skillId": 1,
 "agentLoginNums": 1,
 "agentTalkingNums": 0,
 "agentIdleNums": 0,
 "agentAvailableNums": 0,
 "agentSetBusyNums": 1,
 "agentRestNums": 0,
 "agentMaxIdleTimeIn5": 0,
 "agentWorkNums": 0,
 "agentStudyNums": 0,
 "agentOccupyNums": 0,
 "agentPreOccupyNums": 0,
 "totalCallNums": 0,
 "processingCallNums": 0,
 "maxCallWaitTimesIn5": 0,
 "callWaitNums": 0,
 "evenCallTimeIn5": 0,
 "evenWaitTimeIn5": 0,
 "allCallCount": 0,
 "cnndIn20sCallCount": 0
 },
 {
 "skillId": 2,
 "agentLoginNums": 0,
```

```
"agentTalkingNums": 0,
"agentIdleNums": 0,
"agentAvailableNums": 0,
"agentSetBusyNums": 0,
"agentRestNums": 0,
"agentMaxIdleTimeIn5": 0,
"agentWorkNums": 0,
"agentStudyNums": 0,
"agentOccupyNums": 0,
"agentPreOccupyNums": 0,
"totalCallNums": 0,
"processingCallNums": 0,
"maxCallWaitTimesIn5": 0,
"callWaitNums": 0,
"evenCallTimeIn5": 0,
"evenWaitTimeIn5": 0,
"allCallCount": 0,
"cnnedIn20sCallCount": 0
}
]
}
```

### 12.3.1.2.7 Querying All Calls Queuing in a Skill Queue in Batches

#### Description

This interface is invoked to query all calls queuing in a skill queue in batches. (CTI 3.6 does not support this interface.)

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interfaces

BMS interfaces:

- /ccbms/ws/monitor/querybatchmultiskillqueue
- /ccbms/ws/monitor/skillcallqueueinfos

#### Request URL

<https://ip:port/rest/cmsapp/v1/openapi/skill/batchmultiskill>

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-425** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-426** Parameters in the request message body

| No. | Parameter | Value Type | Mandatory | Description                                                                                                                 |
|-----|-----------|------------|-----------|-----------------------------------------------------------------------------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535.                                                                   |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.                                                                            |
| 3   | skillIds  | Array      | Yes       | Object array of skill queue ID information.<br>The array cannot exceed 1000 characters.<br>The value ranges from 1 to 2000. |

## Response Message

**Table 12-427** Parameters in the response message body

| No. | Parameter  | Value Type | Description                                                                                                                                                                                                                                                |
|-----|------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> <li>• For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul> |
| 2   | resultDesc | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of this object in the array, see <a href="#">Table 12-428</a> .                                                                                          |

**Table 12-428** Parameters of resultDesc

| No. | Parameter       | Value Type | Description                                                                                                                                    |
|-----|-----------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.1 | skillId         | Integer    | Skill queue ID.                                                                                                                                |
| 2.2 | callPropertyExs | Array      | Array of calls queuing in the skill queue.<br>For details about the parameters of this object in the array, see <a href="#">Table 12-429</a> . |

**Table 12-429** Parameters of callPropertyExs

| No.   | Parameter | Value Type | Description |
|-------|-----------|------------|-------------|
| 2.2.1 | callId    | String     | Call ID.    |

| No.        | Parameter     | Value Type | Description                                                                                                                                            |
|------------|---------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.2.<br>2  | customerLevel | Integer    | Level of the customer making a call.<br>The sequence number ranges from 1 to 254. A larger value indicates the importance of a customer.               |
| 2.2.<br>3  | requestType   | Integer    | Call feature. For details, see <a href="#">Table 12-699</a> .                                                                                          |
| 2.2.<br>4  | calling       | Array      | Calling number.                                                                                                                                        |
| 2.2.<br>5  | called        | Array      | Called number.                                                                                                                                         |
| 2.2.<br>6  | mediaType     | String     | Media type of a call. For details, see <a href="#">Table 12-695</a> .                                                                                  |
| 2.2.<br>7  | orgiCalled    | String     | Original called number. If the called number changes before the call accesses the system, this parameter records the number of the first called party. |
| 2.2.<br>8  | callInTime    | Integer    | Call arrival time (millisecond-level timestamp).                                                                                                       |
| 2.2.<br>9  | callPriority  | Long       | Call priority. For details, see "Configuring Skill Groups" in <i>(For Engineer) ICD VxxxRxxxCxx Product Documentation 01 (ICD)</i> .                   |
| 2.2.<br>10 | waitTime      | Long       | Duration that a call waits in the current queue.                                                                                                       |

| No.    | Parameter     | Value Type | Description                                                                                                                                      |
|--------|---------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.2.11 | callQueueFlag | Long       | Whether the current queue is the main queue of a call. <ul style="list-style-type: none"> <li>• <b>1</b>: yes</li> <li>• <b>0</b>: no</li> </ul> |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters

```
{
 "cclId":1,
 "vdn":170,
 "skillIds":[1,2]
}
```

- Response parameters

```
{
 "resultCode": "0100000",
 "resultDesc": [
 {
 "skillId": 1,
 "callPropertyExs": []
 },
 {
 "skillId": 2,
 "callPropertyExs": [
 {
 "requestType": 0,
 "callPriority": 0,
 "waitTime": 0,
 "callQueueFlag": 1,
 "callId": "1607392439000-379",
 "customerLevel": 0,
 "calling": "1233",
 "called": "34565",
 "mediaType": "MEDIA_TYPE_PHONE",
 "orgiCalled": "234545",
 "callInTime": 1223455666,
 }
]
 }
]
}
```

### 12.3.1.2.8 Querying the Number of Calls that Each Queue Answers from Other Queues in Batches When Calls are Queuing in Multiple Skill Queues

#### Scenario

This interface is invoked to query the number of calls that each queue answers from other queues in batches when calls are queuing in multiple skill queues.

## Interface Method

The request method must be set to POST. This interface supports only the POST method.

## Internal Encapsulation Interface

BMS interface: /ccbms/ws/monitor/calloverloadstatus

## Request URL

https://ip:port/rest/cmsapp/v1/openapi/skill/batchskilloverload

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-430** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-431** Parameters in the request message body

| No. | Parameter | Value Type | Mandatory | Description                                               |
|-----|-----------|------------|-----------|-----------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535. |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.          |



| No. | Parameter | Value Type | Mandatory | Description                                                                                                                 |
|-----|-----------|------------|-----------|-----------------------------------------------------------------------------------------------------------------------------|
| 3   | skillIds  | Array      | Yes       | Object array of skill queue ID information.<br>The array cannot exceed 1000 characters.<br>The value ranges from 1 to 2000. |

## Response Description

Table 12-432 Parameters in the response message body

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                                                                                     |
|-----|-------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result      | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• 0: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |
| 2   | resultCode  | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• 0100000: success</li> <li>• Other values: failure</li> <li>• For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul>                                                                                                             |
| 3   | resultDatas | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-433</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.                                                                   |

| No. | Parameter  | Value Type | Description                                                                                                                                                       |
|-----|------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | resultDesc | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-433</a> . |

**Table 12-433** Parameters of resultDesc/resultDatas

| No. | Parameter       | Value Type | Description                                                                                                                                            |
|-----|-----------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.1 | skillId         | Integer    | Skill queue ID.                                                                                                                                        |
| 2.2 | overloadDetails | Array      | Details about the number of calls in other queues.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-434</a> . |

**Table 12-434** Parameter description of overloadDetails

| No.   | Parameter | Value Type | Description               |
|-------|-----------|------------|---------------------------|
| 2.2.1 | queueId   | Integer    | Skill queue ID.           |
| 2.2.2 | callNum   | Long       | Number of answered calls. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  

```
{
 "ccId":1,
 "vdn":170,
 "skillIds":[1,2]
}
```
- Response parameters  

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": [
 {
 "skillId": 1,
```

```
 "overloadDetails": [
 {
 "queueId": 2,
 "callNum": 1
 }
],
 {
 "skillId": 2,
 "overloadDetails": []
 }
],
 "resultDesc": [
 {
 "skillId": 1,
 "overloadDetails": [
 {
 "queueId": 2,
 "callNum": 1
 }
]
 },
 {
 "skillId": 2,
 "overloadDetails": []
 }
]
}
```

### 12.3.1.2.9 Querying the Number of Agents in Each State in a Skill Group

#### Scenario

This interface is invoked to query the number of agents in each state in a skill group.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interface

BMS interface: /ccbms/ws/monitor/agentstatusinfobyskillids

#### Request URL

<https://ip:port/rest/cmsapp/v1/openapi/skill/agentstatusbyskill>

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-435** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-436** Parameters in the request message body

| No. | Parameter | Value Type | Mandatory | Description                                                                                                                          |
|-----|-----------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535.                                                                            |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.                                                                                     |
| 3   | skillIds  | Array      | Yes       | Object array of skill queue ID information.<br>The array cannot exceed 1000 characters.<br>The skill queue ID ranges from 1 to 2000. |

| No. | Parameter       | Value Type | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----|-----------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | isSkillAllMatch | String     | No        | <p>Whether the agent skill queue is fully matched. The value is of the Boolean type. The default value is <b>false</b>. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>true</b>: yes. The statistics are collected only when the skill queue to which an agent logs in completely matches the queried skill queue.</li> <li>• <b>false</b>: no. The statistics are collected if the skill queue to be queried is contained in the skill queues to which the agent logs in.</li> </ul> |

## Response Description

Table 12-437 Parameters in the response message body

| No. | Parameter | Value Type | Description                                                                                                                                                                                                                                                                                                                                                                              |
|-----|-----------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result    | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> <p>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p> |

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                   |
|-----|-------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | resultCode  | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> <li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul>                                    |
| 3   | resultDatas | object     | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-438</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |
| 4   | resultDesc  | Object     | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-438</a> .                                                                                                                             |

**Table 12-438** Parameters of resultDesc/resultDatas

| No. | Parameter         | Value Type | Description                         |
|-----|-------------------|------------|-------------------------------------|
| 2.1 | workSubStateBegin | Integer    | Number of agents in wrap-up state   |
| 2.2 | lateAdjust        | Integer    | Number of agents in wrap-up state.  |
| 2.3 | usable            | Integer    | Number of available agents          |
| 2.4 | rest              | Integer    | Number of agents in rest state      |
| 2.5 | studying          | Integer    | Number of agents in study state.    |
| 2.6 | setBusy           | Integer    | Number of agents in busy state      |
| 2.7 | occupy            | Integer    | Number of agents in occupied state. |
| 2.8 | idle              | Integer    | Number of agents in idle state      |

| No.      | Parameter | Value Type | Description                               |
|----------|-----------|------------|-------------------------------------------|
| 2.9      | preoccupy | Integer    | Number of agents in preoccupied state.    |
| 2.1<br>0 | answering | Integer    | Number of agents in answering state       |
| 2.1<br>1 | talking   | Integer    | Number of agents in talking state         |
| 2.1<br>2 | loginEd   | Integer    | Number of sign-in agents                  |
| 2.1<br>3 | callOut   | Integer    | Number of agents who make outbound calls. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters  

```
{
 "ccld":1,
 "vdn":170,
 "skillIds":[1,2],
 "isSkillAllMatch":"true"
}
```

- Response parameters  

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": {
 "workSubStateBegin": 0,
 "lateAdjust": 0,
 "usable": 0,
 "rest": 0,
 "studying": 0,
 "setBusy": 1,
 "occupy": 0,
 "idle": 0,
 "preoccupy": 0,
 "answering": 0,
 "talking": 0,
 "loginEd": 1,
 "callOut": 1
 },
 "resultDesc": {
 "workSubStateBegin": 0,
 "lateAdjust": 0,
 "usable": 0,
 "rest": 0,
 "studying": 0,
 "setBusy": 1,
 "occupy": 0,
 "idle": 0,
 "preoccupy": 0,
 "answering": 0,
 "talking": 0,
 "loginEd": 1,
 "callOut": 1
 }
}
```

```
}
}
```

### 12.3.1.2.10 Querying Details About Signed-in Agents in a Skill Queue

#### Description

This interface is invoked to return details about signed-in agents in a skill queue based on the skill queue ID.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interfaces

BMS interface: /ccbms/ws/monitor/agentstatusinfo

#### Request URL

https://ip:port/rest/cmsapp/v1/openapi/skill/agentbyconfigedskill

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-439** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |



**Table 12-440** Parameters in the message body

| No. | Parameter | Value Type | Mandatory | Description                                                              |
|-----|-----------|------------|-----------|--------------------------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from <b>1</b> to <b>65535</b> . |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.                         |
| 3   | skillId   | Integer    | Yes       | Skill queue ID.<br>The value ranges from <b>1</b> to <b>2000</b> .       |

## Response Message

**Table 12-441** Parameters in the message body

| No. | Parameter  | Value Type | Description                                                                                                                                                                                                                                                |
|-----|------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> <li>• For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul> |
| 2   | resultDesc | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of this object, see <a href="#">Table 12-442</a> .                                                                                                       |

**Table 12-442** Parameters of resultDesc

| No. | Parameter | Value Type | Description                                                   |
|-----|-----------|------------|---------------------------------------------------------------|
| 2.1 | workNo    | Integer    | Agent ID.                                                     |
| 2.2 | name      | String     | Agent name.                                                   |
| 2.3 | status    | Integer    | Agent status. For details, see <a href="#">Table 12-443</a> . |

| No.      | Parameter        | Value Type | Description                                                                                                 |
|----------|------------------|------------|-------------------------------------------------------------------------------------------------------------|
| 2.4      | ctiStatus        | Integer    | Platform agent status. For details, see <a href="#">12.3.8.3 CTI Platform Agent Status Code Reference</a> . |
| 2.5      | groupId          | Integer    | Agent group ID.                                                                                             |
| 2.6      | mediaType        | Integer    | Agent media type. For details, see <a href="#">Table 12-695</a> .                                           |
| 2.7      | vdnId            | Integer    | ID of the VDN to which a call belongs.                                                                      |
| 2.8      | phoneNumber      | String     | Agent phone number.                                                                                         |
| 2.9      | currentStateTime | Long       | Duration of the current state, in seconds.                                                                  |
| 2.1<br>0 | loginDate        | Long       | Sign-in time. The value is a timestamp in milliseconds.                                                     |

**Table 12-443** Agent status

| Value | Description                                                                  |
|-------|------------------------------------------------------------------------------|
| 0     | Unknown. The value corresponds to status 9 on the CTI platform.              |
| 2     | An exception occurs when the interface is invoked.                           |
| 3     | Showing busy. The value corresponds to status 7 on the CTI platform.         |
| 4     | Idle. The value corresponds to status 1 on the CTI platform.                 |
| 5     | Wrap-up. The value corresponds to status 6 on the CTI platform.              |
| 7     | Talking. The value corresponds to states 2, 3, 4, and 5 on the CTI platform. |
| 8     | Rest. The value corresponds to status 8 on the CTI platform.                 |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters
 

```
{
 "queryParam":
 {
 "cclId":1,
 "vdn":1,
 "skillId":1
 }
}
```

```
}
}
• Request parameters
{
 "resultCode": "0100000",
 "resultDesc": [{
 "workNo": 20011,
 "name": "20011",
 "status": 4,
 "ctiStatus": 1,
 "groupId": 1,
 "mediaType": 1,
 "vdnId": 1,
 "phoneNumber": "70942",
 "currentStateTime": 1505,
 "loginDate": 1501125758000
]
}
```

### 12.3.1.2.11 Querying Service Quality for Skill Queues in Batches

#### Description

This interface is invoked to query the service quality data of the skill queue in the current 5 minutes.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interfaces

BMS interface: /ccbms/ws/monitor/callStatInfos

#### Request URL

<https://ip:port/rest/cmsapp/v1/openapi/skill/servicequality>

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-444** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-445** Parameters in the request message body

| No. | Parameter | Value Type | Mandatory | Description                                                                                                                                |
|-----|-----------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | cclid     | Integer    | Yes       | ID of a call center.<br>The value ranges from <b>1</b> to <b>65535</b> .                                                                   |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from <b>1</b> to <b>5000</b> .                                                                            |
| 3   | skilllds  | Array      | Yes       | Object array of skill queue ID information.<br>The array cannot exceed 1000 characters.<br>The value ranges from <b>1</b> to <b>2000</b> . |

## Response Message

**Table 12-446** Parameters in the response message body

| No. | Parameter  | Value Type | Description                                                                                                                                                                                                                                                |
|-----|------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> <li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul> |
| 2   | resultDesc | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of this object in the array, see <a href="#">Table 12-447</a> .                                                                                          |

**Table 12-447** Parameters of resultDesc

| No. | Parameter     | Value Type | Description                                                                           |
|-----|---------------|------------|---------------------------------------------------------------------------------------|
| 2.1 | skillId       | Integer    | Skill queue ID.                                                                       |
| 2.2 | statStartTime | Long       | Time when the statistics collection starts. The value is a timestamp in milliseconds. |
| 2.3 | inCallNum     | Long       | Total number of inbound calls in the current 5 minutes in a skill queue.              |
| 2.4 | connectedNum  | Long       | Total number of connected calls in the current 5 minutes in a skill queue.            |
| 2.5 | callLostNum   | Long       | Total number of lost calls in the current 5 minutes in a skill queue.                 |

| No. | Parameter      | Value Type | Description                                                                                                          |
|-----|----------------|------------|----------------------------------------------------------------------------------------------------------------------|
| 2.6 | in15sCallNum   | Long       | Total number of calls that are connected in 15 seconds in the current 5 minutes in a skill queue.                    |
| 2.7 | wait15sLostNum | Long       | Total number of lost calls whose queuing duration is less than 15 seconds in the current 5 minutes in a skill queue. |
| 2.8 | in20sCallNum   | Long       | Total number of calls that are connected within 20 seconds in the last 5 minutes in a skill queue.                   |
| 2.9 | wait20sLostNum | Long       | Total number of lost calls whose queuing duration is less than 20 seconds in the current 5 minutes in a skill queue. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  

```
{
 "cclid":1,
 "vdn":1,
 "skillIds":[1,2]
}
```
- Response parameters  

```
{
 "resultCode": "0100000",
 "resultDesc": [
 {
 "in15sCallNum": 0,
 "skillId": 1,
 "wait15sLostNum": 0,
 "callLostNum": 0,
 "in20sCallNum": 0,
 "statStartTime": 1611714900000,
 "wait20sLostNum": 0,
 "inCallNum": 0,
 "connectedNum": 0
 }
]
}
```

### 12.3.1.2.12 Obtaining Real-Time Monitoring Indicators by Skill Queue

#### Description

This interface is invoked to obtain real-time monitoring indicators by skill queue.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interfaces

BMS interface: /ccbms/ws/monitor/rindexSkill

#### Request URL

https://ip:port/rest/cmsapp/v1/openapi/skill/rindex

In the URL, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

Table 12-448 Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

Table 12-449 Parameter description

| Parameter | Type    | Mandatory | Description                                               |
|-----------|---------|-----------|-----------------------------------------------------------|
| cclid     | Integer | Yes       | ID of a call center.<br>The value ranges from 1 to 65535. |
| vdn       | Integer | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.          |

| Parameter | Type  | Mandatory | Description                                                                                                                                                                                                                                       |
|-----------|-------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| skillIds  | Array | Yes       | Object array of skill queue ID information.<br>The array cannot exceed 1000 characters.<br>The value ranges from 1 to 2000.                                                                                                                       |
| indexIds  | Array | Yes       | Array of indicators. The maximum length of the array depends on the number of real-time monitoring indicators by skill. The maximum value is 12 currently.<br>For details about the parameters of this object, see <a href="#">Table 12-687</a> . |

## Response Message

**Table 12-450** Parameter description

| Parameter  | Type   | Description                                                                                                                                                                                                                                      |
|------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | String | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> . |
| resultDesc | Array  | Object array in the returned result after a successful query.<br>For details about the parameters of this object in the array, see <a href="#">Table 12-451</a> .                                                                                |



**Table 12-451** Parameters of resultDesc

| Parameter | Type    | Description                                                                                                 |
|-----------|---------|-------------------------------------------------------------------------------------------------------------|
| id        | Integer | Skill queue ID.                                                                                             |
| idxs      | Array   | Group of indicators.<br>For details about the parameters of this object, see <a href="#">Table 12-452</a> . |

**Table 12-452** Parameter description of idxs

| Parameter | Type   | Description                                                                                              |
|-----------|--------|----------------------------------------------------------------------------------------------------------|
| id        | String | Indicator ID.                                                                                            |
| val       | Object | Indicator result.<br>For details about the parameters of this object, see <a href="#">Table 12-687</a> . |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters
 

```
{
 "cclId":1,
 "vdn":170,
 "skillIds":[1,2],
 "indexIds":
 ["IDX_COUNT_REAL_SKILL_QUEUE","IDX_COUNT_REAL_SKILL_HANDLE","IDX_DURATION_SKILL_MAX_QUEUE_ACK",
 "IDX_COUNT_20S_CALL_FOR_5MIN","IDX_COUNT_REAL_AGENT_SIGN_IN","IDX_COUNT_REAL_AGENT_CONNECT",
 "IDX_COUNT_REAL_AGENT_SET_IDLE","IDX_COUNT_REAL_AGENT_USABLE","IDX_COUNT_REAL_AGENT_SET_BUSY",
 "IDX_COUNT_REAL_AGENT_ACW","IDX_COUNT_REAL_AGENT_REST","IDX_COUNT_REAL_AGENT_STUDY"]
}
```
- Response parameters
 

```
{
 "resultCode": "0100000",
 "resultDesc": [
 {
 "id": "1",
 "idxs": [
 {
 "id": "IDX_COUNT_REAL_SKILL_QUEUE",
 "val": "0"
 },
 {
 "id": "IDX_COUNT_REAL_SKILL_HANDLE",
 "val": "0"
 }
]
 }
]
}
```

```
 },
 {
 "id": "IDX_DURATION_SKILL_MAX_QUEUE_ACK",
 "val": "0"
 },
 {
 "id": "IDX_COUNT_20S_CALL_FOR_5MIN",
 "val": "0"
 },
 {
 "id": "IDX_COUNT_REAL_AGENT_SIGN_IN",
 "val": "0"
 },
 {
 "id": "IDX_COUNT_REAL_AGENT_CONNECT",
 "val": "0"
 },
 {
 "id": "IDX_COUNT_REAL_AGENT_SET_IDLE",
 "val": "0"
 },
 {
 "id": "IDX_COUNT_REAL_AGENT_USABLE",
 "val": "0"
 },
 {
 "id": "IDX_COUNT_REAL_AGENT_SET_BUSY",
 "val": "0"
 },
 {
 "id": "IDX_COUNT_REAL_AGENT_ACW",
 "val": "0"
 },
 {
 "id": "IDX_COUNT_REAL_AGENT_REST",
 "val": "0"
 },
 {
 "id": "IDX_COUNT_REAL_AGENT_STUDY",
 "val": "0"
 }
]
},
{
 "id": "2",
 "idxs": [
 {
 "id": "IDX_COUNT_REAL_SKILL_QUEUE",
 "val": "0"
 },
 {
 "id": "IDX_COUNT_REAL_SKILL_HANDLE",
 "val": "0"
 },
 {
 "id": "IDX_DURATION_SKILL_MAX_QUEUE_ACK",
 "val": "0"
 },
 {
 "id": "IDX_COUNT_20S_CALL_FOR_5MIN",
 "val": "0"
 },
 {
 "id": "IDX_COUNT_REAL_AGENT_SIGN_IN",
 "val": "1"
 },
 {
 "id": "IDX_COUNT_REAL_AGENT_CONNECT",
 "val": "0"
 }
]
}
```

```
 },
 {
 "id": "IDX_COUNT_REAL_AGENT_SET_IDLE",
 "val": "0"
 },
 {
 "id": "IDX_COUNT_REAL_AGENT_USABLE",
 "val": "0"
 },
 {
 "id": "IDX_COUNT_REAL_AGENT_SET_BUSY",
 "val": "1"
 },
 {
 "id": "IDX_COUNT_REAL_AGENT_ACW",
 "val": "0"
 },
 {
 "id": "IDX_COUNT_REAL_AGENT_REST",
 "val": "0"
 },
 {
 "id": "IDX_COUNT_REAL_AGENT_STUDY",
 "val": "0"
 }
]
}
```

### 12.3.1.3 Real-Time Interfaces for Agents

#### 12.3.1.3.1 Querying Skill Queues to Which Agents Sign In in Batches

##### Scenario

This interface is invoked to query skill queues to which specified agents sign in in batches.

##### Interface Method

The request method must be set to POST. This interface supports only the POST method.

##### Internal Encapsulation Interface

CTI3.6: BMS interface: /ccbms/ws/monitor/siteagentcallandskillinfobyagentids

CTI3.8: BMS interface: /ccbms/ws/monitor/queryAgentsLoginSkills

##### Request URL

<https://ip:port/rest/cmsapp/v1/openapi/agentgroup/siteagentcallandskillinfobyagentids>

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port*

indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-453** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-454** Parameters in the message body

| No. | Parameter | Value Type | Mandatory | Description                                                                                            |
|-----|-----------|------------|-----------|--------------------------------------------------------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535.                                              |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.                                                       |
| 3   | agentIds  | Array      | Yes       | Array of agent IDs.<br>The maximum length of the array is 6000.<br>The value ranges from 101 to 59999. |

## Response Description

**Table 12-455** Parameters in the message body

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                                                                                                              |
|-----|-------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result      | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> <p>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p> |
| 2   | resultCode  | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> <li>• For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul>                                                                                                                        |
| 3   | resultDatas | Array      | <p>Object array in the returned result after a successful query.</p> <p>For details about the parameters of the object in this array, see <a href="#">Table 12-456</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p>                                                                             |
| 3   | resultDesc  | Array      | <p>Object array in the returned result after a successful query.</p> <p>For details about the parameters of the object in this array, see <a href="#">Table 12-456</a>.</p>                                                                                                                                                                                                              |

**Table 12-456** Parameters of resultDesc/resultDatas

| No. | Parameter | Value Type | Description                                                                                                                                  |
|-----|-----------|------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 2.1 | agentId   | Integer    | Agent ID.                                                                                                                                    |
| 2.2 | skills    | Array      | <p>Skill queue array of an agent.</p> <p>For details about the parameters of the object in this array, see <a href="#">Table 12-457</a>.</p> |

**Table 12-457** Parameters of skills

| No.   | Parameter | Value Type | Description                                                                                                                                        |
|-------|-----------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.2.1 | skillId   | Integer    | Skill queue ID.                                                                                                                                    |
| 2.2.2 | isLogin   | Integer    | Whether an agent has signed in. The value <b>1</b> indicates that the agent has signed in, and <b>0</b> indicates that the agent does not sign in. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters  

```
{
 "ccld":1,
 "vdn":170,
 "agentIds":[1031,1099]
}
```

- Response parameters  

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": [
 {
 "skills": [
 {
 "skillId": 2,
 "isLogin": 0
 }
],
 "agentId": 1031
 },
 {
 "skills": [
 {
 "skillId": 2,
 "isLogin": 0
 },
 {
 "skillId": 4,
 "isLogin": 0
 }
],
 "agentId": 1099
 }
],
 "resultDesc": [
 {
 "skills": [
 {
 "skillId": 2,
 "isLogin": 0
 }
],
 "agentId": 1031
 },

```

```

{
 "skills": [
 {
 "skillId": 2,
 "isLogin": 0
 },
 {
 "skillId": 4,
 "isLogin": 0
 }
],
 "agentId": 1099
}

```

### 12.3.1.3.2 Querying Agent Information in Batches

#### Scenario

This interface is invoked to query information about specified agents in batches.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interface

CTI3.6: BMS interface: /ccbms/ws/monitor/agentstatusinfobyagentids

CTI3.8: BMS interface: /ccbms/ws/monitor/queryAgentStatusEx3Message

#### Request URL

https://ip:port/rest/cmsapp/v1/openapi/agentgroup/agentstatusinfobyagentids

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-458** Parameters in the request header

| No. | Parameter    | Value Type | Mandatory | Description                                                    |
|-----|--------------|------------|-----------|----------------------------------------------------------------|
| 1   | Content-Type | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> . |

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-459** Parameters in the message body

| No. | Parameter | Value Type | Mandatory | Description                                                                                            |
|-----|-----------|------------|-----------|--------------------------------------------------------------------------------------------------------|
| 1   | cclid     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535.                                              |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.                                                       |
| 3   | agentIds  | Array      | Yes       | Array of agent IDs.<br>The maximum length of the array is 6000.<br>The value ranges from 101 to 59999. |

## Response Description

**Table 12-460** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                                                                                                                                                                                                                                                                                                 |
|-----|-----------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result    | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>0: success</li> <li>Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |



| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                   |
|-----|-------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | resultCode  | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> <li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul>                                    |
| 3   | resultDatas | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-461</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |
| 2   | resultDesc  | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-461</a> .                                                                                                                             |

**Table 12-461** Parameters of resultDesc/resultDatas

| No. | Parameter          | Value Type | Description                                                                                           |
|-----|--------------------|------------|-------------------------------------------------------------------------------------------------------|
| 2.1 | agentId            | Integer    | Agent ID.                                                                                             |
| 2.2 | locationId         | Integer    | Home distributed access node.                                                                         |
| 2.3 | currentStateReason | Integer    | Reason for the current state. Currently, this parameter is valid for only the rest state.             |
| 2.4 | prevState          | Integer    | Previous status. For details, see <a href="#">12.3.8.3 CTI Platform Agent Status Code Reference</a> . |
| 2.5 | prevStateTime      | Long       | Duration of the previous state, in seconds.                                                           |
| 2.6 | currentState       | Integer    | Current status. For details, see <a href="#">12.3.8.3 CTI Platform Agent Status Code Reference</a> .  |
| 2.7 | currentStateTime   | Long       | Duration of the current state, in seconds.                                                            |

| No.      | Parameter                  | Value Type | Description                                                                                                                                            |
|----------|----------------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.8      | logonTime                  | Long       | Sign-in time (millisecond-level timestamp).<br><b>NOTE</b><br>If an agent in the query result has not signed in, the value is a future time (in 2106). |
| 2.9      | agentRelease               | Integer    | Number of times that an agent proactively releases calls.                                                                                              |
| 2.1<br>0 | currentPrivateCall-<br>Num | Integer    | Number of private calls of an agent.                                                                                                                   |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters

```
{
 "ccld":1,
 "vdn":170,
 "agentIds":[1031,1099]
}
```

- Response parameters

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": [
 {
 "prevState": 1,
 "agentId": 1031,
 "logonTime": 4294967295000,
 "agentRelease": 0,
 "locationId": 65535,
 "currentPrivateCallNum": 0,
 "currentStateTime": 2224439,
 "currentStateReason": 65535,
 "prevStateTime": 4294967295,
 "currentState": 0
 },
 {
 "prevState": 1,
 "agentId": 1099,
 "logonTime": 4294967295000,
 "agentRelease": 0,
 "locationId": 65535,
 "currentPrivateCallNum": 0,
 "currentStateTime": 230703,
 "currentStateReason": 258,
 "prevStateTime": 4294967295,
 "currentState": 0
 }
],
 "resultDesc": [
 {
 "prevState": 1,
 "agentId": 1031,
 "logonTime": 4294967295000,
 "agentRelease": 0,

```

```
 "locationId": 65535,
 "currentPrivateCallNum": 0,
 "currentStateTime": 2224439,
 "currentStateReason": 65535,
 "prevStateTime": 4294967295,
 "currentState": 0
 },
 {
 "prevState": 1,
 "agentId": 1099,
 "logonTime": 4294967295000,
 "agentRelease": 0,
 "locationId": 65535,
 "currentPrivateCallNum": 0,
 "currentStateTime": 230703,
 "currentStateReason": 258,
 "prevStateTime": 4294967295,
 "currentState": 0
 }
] } }
```

### 12.3.1.3.3 Querying the Current Call ID of a Specified Agent

#### Scenario

This interface is invoked to query information about the current call ID of a specified agent.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interface

BMS interface: /ccbms/ws/monitor/queryagentCalls

#### Request URL

<https://ip:port/rest/cmsapp/v1/openapi/agent/queryagentcalls>

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-462** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-463** Parameters in the message body

| No. | Parameter | Value Type | Mandatory | Description                                               |
|-----|-----------|------------|-----------|-----------------------------------------------------------|
| 1   | cclid     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535. |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.          |
| 3   | agentId   | Integer    | Yes       | Agent ID.<br>The value ranges from 101 to 59999.          |

## Response Description

**Table 12-464** Parameters in the message body

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                                                                                                              |
|-----|-------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result      | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>● <b>0</b>: success</li> <li>● Other values: failure</li> </ul> <p>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p> |
| 2   | resultCode  | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> <li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul>                                                                                                                        |
| 3   | resultDatas | Array      | <p>Array of IDs of calls that are being handled by an agent in the returned result after a successful query.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p>                                                                                                                                        |
| 2   | resultDesc  | Array      | <p>Array of IDs of calls that are being handled by an agent in the returned result after a successful query.</p>                                                                                                                                                                                                                                                                         |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  

```
{
 "ccld":1,
 "vdn":170,
 "agentId":1099
}
```
- Response parameters  

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": [
 "1605492949-1447"
],
}
```

```
"resultDesc": [
 "1605492949-1447"
]
```

### 12.3.1.3.4 Querying Call Information About All Agents in Batches

#### Description

This interface is invoked to query real-time call information about all agents in batches.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interfaces

BMS interface: /ccbms/ws/monitor/queryagentCalls

#### Request URL

https://ip:port/rest/cmsapp/v1/openapi/agentgroup/queryagentcalls

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-465** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-466** Parameters in the message body

| No. | Parameter | Value Type | Mandatory | Description                                                                                                           |
|-----|-----------|------------|-----------|-----------------------------------------------------------------------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from <b>1</b> to <b>65535</b> .                                              |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.                                                                      |
| 3   | agentIds  | Array      | Yes       | Array of agent IDs.<br>The maximum length of the array is 3000.<br>The value ranges from <b>101</b> to <b>59999</b> . |

## Response Message

**Table 12-467** Parameters in the message body

| No. | Parameter  | Value Type | Description                                                                                                                                                                                                                                                |
|-----|------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> <li>• For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul> |
| 2   | resultDesc | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of this object in the array, see <a href="#">Table 12-468</a> .                                                                                          |

**Table 12-468** Parameters of resultDesc

| No. | Parameter | Value Type | Description |
|-----|-----------|------------|-------------|
| 2.1 | agentId   | Integer    | Agent ID.   |

| No. | Parameter | Value Type | Description                                                                                                    |
|-----|-----------|------------|----------------------------------------------------------------------------------------------------------------|
| 2.2 | callList  | Array      | Call information array.<br>For details about the parameters of this object, see <a href="#">Table 12-469</a> . |

**Table 12-469** Parameters of callList

| No.   | Parameter  | Value Type | Description                                                                                                          |
|-------|------------|------------|----------------------------------------------------------------------------------------------------------------------|
| 2.2.1 | callId     | String     | Call ID.                                                                                                             |
| 2.2.2 | callStatus | Integer    | Call status. For details, see <a href="#">Table 12-470</a> .                                                         |
| 2.2.3 | callInOut  | Integer    | Inbound and outbound call flags.<br>The value <b>0</b> indicates inbound call, and <b>1</b> indicates outbound call. |
| 2.2.4 | mediaType  | Integer    | Media type. For details, see <a href="#">Table 12-695</a> .                                                          |

**Table 12-470** Call status

| No. | Call Type     | Description                                                                       |
|-----|---------------|-----------------------------------------------------------------------------------|
| 0   | IDLE          | Indicates that the called party is idle (no call).                                |
| 1   | OCCUPY        | Indicates that the called party is occupied.                                      |
| 2   | QUEUE         | Indicates that the call is queuing in a skill queue.                              |
| 3   | PRIVATE_QUEUE | Indicates that the call is queuing in a private skill queue.                      |
| 4   | ALERTING      | Indicates that the phone of the called party rings and waits for answer.          |
| 5   | TALK          | Indicates that the calling and called parties are in conversation or interaction. |



| No. | Call Type | Description                                     |
|-----|-----------|-------------------------------------------------|
| 6   | HOLD      | Indicates that the call is held.                |
| 7   | SUSPEND   | Indicates that the call is suspended.           |
| 8   | MUTE      | Indicates that the call is muted.               |
| 9   | TRITALK   | Indicates that a three-party call is initiated. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters

```
{
 "cclId":1,
 "vdn":170,
 "agentIds":[1031,1099]
}
```

- Response parameters

```
{
 "resultCode": "0100000",
 "resultDesc": [
 {
 "agentId": 1034,
 "callList": []
 },
 {
 "agentId": 1099,
 "callList": [
 {
 "callId": "1605494261-1449",
 "callStatus": 5,
 "callInOut": 0,
 "mediaType": 5
 }
]
 }
]
}
```

### 12.3.1.3.5 Querying Private Calls of a Specified Agent

#### Scenario

This interface is invoked to query private calls of a specified agent. To access a private skill queue, perform the following steps.

If both of the following conditions are met, the system transfers a call to the private skill queue of an agent. When an agent is idle, the agent first answers the calls in the private queue.

- The call is transferred to the agent.  
Generally, a call is assigned to an agent in the following cases:
  - When a call is in a special situation (such as **Skill Timeout**, **Skill Busy**, **Skill NoAgents**, or **Canceling queuing**), the call is transferred to another agent.
  - A call is transferred by an agent to another agent for a certain reason.
- The agent is in talking or working state and cannot handle calls.

## Interface Method

The request method must be set to POST. This interface supports only the POST method.

## Internal Encapsulation Interface

BMS interface: /ccbms/ws/monitor/agentprivatecall

## Request URL

https://ip:port/rest/cmsapp/v1/openapi/agent/agentprivatecall

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-471** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-472** Parameters in the message body

| No. | Parameter | Value Type | Mandatory | Description                                               |
|-----|-----------|------------|-----------|-----------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535. |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.          |
| 3   | agentId   | Integer    | Yes       | Agent ID.<br>The value ranges from 101 to 59999.          |

## Response Description

**Table 12-473** Parameters in the message body

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                                                                                            |
|-----|-------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result      | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0</b>: success</li> <li>● Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |
| 2   | resultCode  | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> <li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul>                                                                                                             |
| 3   | resultDatas | Array      | Array of IDs of private calls made by an agent in the returned result after a successful query.<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.                                                                                                                                            |

| No. | Parameter  | Value Type | Description                                                                                     |
|-----|------------|------------|-------------------------------------------------------------------------------------------------|
| 4   | resultDesc | Array      | Array of IDs of private calls made by an agent in the returned result after a successful query. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  

```
{
 "cclid":1,
 "vdn":170,
 "agentId":1099
}
```
- Response parameters  

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": [
 "1605492949-1447"
],
 "resultDesc": [
 "1605492949-1447"
]
}
```

### 12.3.1.3.6 Querying the Number of Agents in the Agent State in batches

#### Scenario

This interface is invoked to query the number of agents in the agent state based on the agent ID list.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interface

BMS interface: /ccbms/ws/monitor/teamagentstatusinfo

#### Request URL

https://ip:port/rest/cmsapp/v1/openapi/agentgroup/teamagentstatusinfo

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port*

indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-474** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-475** Parameters in the message body

| No. | Parameter | Value Type | Mandatory | Description                                                                                            |
|-----|-----------|------------|-----------|--------------------------------------------------------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535.                                              |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.                                                       |
| 3   | agentIds  | Array      | Yes       | Array of agent IDs.<br>The maximum length of the array is 6000.<br>The value ranges from 101 to 59999. |

## Response Description

**Table 12-476** Parameters in the message body

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                                                                                                              |
|-----|-------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result      | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> <p>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p> |
| 2   | resultCode  | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> <li>• For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul>                                                                                                                        |
| 3   | resultDatas | object     | <p>Object array in the returned result after a successful query.</p> <p>For details about the parameters of the object in this array, see <a href="#">Table 12-477</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p>                                                                             |
| 2   | resultDesc  | Object     | <p>Object in the returned result after a successful query.</p> <p>For details about the parameters of this object, see <a href="#">Table 12-477</a>.</p>                                                                                                                                                                                                                                 |

**Table 12-477** Parameters of resultDesc/resultDatas

| No. | Parameter | Value Type | Description                        |
|-----|-----------|------------|------------------------------------|
| 2.1 | loginEd   | Integer    | Number of signed-in agents.        |
| 2.2 | talking   | Integer    | Number of agents in talking state. |
| 2.3 | idle      | Integer    | Number of agents in idle state     |
| 2.4 | usable    | Integer    | Number of available agents         |
| 2.5 | setBusy   | Integer    | Number of agents in busy state     |

| No.  | Parameter         | Value Type | Description                            |
|------|-------------------|------------|----------------------------------------|
| 2.6  | workSubstateBegin | Integer    | Number of agents in wrap-up state      |
| 2.7  | rest              | Integer    | Number of agents in rest state         |
| 2.8  | studying          | Integer    | Number of agents in study state.       |
| 2.9  | occupy            | Integer    | Number of agents in occupied state.    |
| 2.10 | preoccupy         | Integer    | Number of agents in preoccupied state. |
| 2.11 | answering         | Integer    | Number of agents in answering state    |
| 2.12 | lateAdjust        | Integer    | Number of agents in wrap-up state.     |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters  

```
{
 "ccld":1,
 "vdn":170,
 "agentIds":[1031,1099]
}
```

- Response parameters  

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": {
 "workSubStateBegin": 0,
 "lateAdjust": 0,
 "usable": 1,
 "rest": 0,
 "setBusy": 0,
 "studying": 0,
 "occupy": 0,
 "idle": 1,
 "preoccupy": 0,
 "answering": 0,
 "talking": 0,
 "loginEd": 1
 },
 "resultDesc": {
 "workSubStateBegin": 0,
 "lateAdjust": 0,
 "usable": 1,
 "rest": 0,
 "setBusy": 0,
 "studying": 0,
 "occupy": 0,
 "idle": 1,
 "preoccupy": 0,
 "answering": 0,
 }
}
```

```

 "talking": 0,
 "loginEd": 1
 }
}

```

### 12.3.1.3.7 Querying Details of a Specified Agent

#### Description

This interface is invoked to query details of a specified agent.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interfaces

BMS interface: /ccbms/ws/monitor/siteagentinfoobyagentids

#### Request URL

https://ip:port/rest/cmsapp/v1/openapi/agent/agentbyworkno

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-478** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |



**Table 12-479** Parameters in the message body

| No. | Parameter | Value Type | Mandatory | Description                                               |
|-----|-----------|------------|-----------|-----------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535. |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.          |
| 3   | agentId   | Integer    | Yes       | Agent ID.<br>The value ranges from 101 to 59999.          |

## Response Message

**Table 12-480** Parameters in the message body

| No. | Parameter  | Value Type | Description                                                                                                                                                                                                                                                |
|-----|------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> <li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul> |
| 2   | resultDesc | Object     | Object in the returned result after a successful query.<br>For details about the parameters of this object, see <a href="#">Table 12-481</a> .                                                                                                             |

**Table 12-481** Parameters of resultDesc

| No. | Parameter | Value Type | Description                            |
|-----|-----------|------------|----------------------------------------|
| 2.1 | workNo    | Integer    | Agent ID.                              |
| 2.2 | vdnId     | Integer    | ID of the VDN to which a call belongs. |

| No. | Parameter        | Value Type | Description                                                                                                       |
|-----|------------------|------------|-------------------------------------------------------------------------------------------------------------------|
| 2.3 | citStatus        | Integer    | Platform status of an agent. For details, see <a href="#">12.3.8.3 CTI Platform Agent Status Code Reference</a> . |
| 2.4 | name             | String     | Agent name.                                                                                                       |
| 2.5 | phoneNumber      | String     | Agent phone number.                                                                                               |
| 2.6 | loginDate        | Long       | Sign-in time (millisecond-level timestamp).                                                                       |
| 2.7 | currentStateTime | Long       | Duration of the current state, in seconds.                                                                        |
| 2.8 | mediaType        | Integer    | Agent media type. For details, see <a href="#">Table 12-695</a> .                                                 |
| 2.9 | status           | Integer    | Agent status. For details, see <a href="#">Table 12-482</a> .                                                     |

**Table 12-482** Agent status

| Value | Description                                                                  |
|-------|------------------------------------------------------------------------------|
| 0     | Unknown. The value corresponds to status 9 on the CTI platform.              |
| 1     | Sign-in. The value is not used.                                              |
| 2     | Sign-out. The value corresponds to status 0 on the CTI platform.             |
| 3     | Showing busy. The value corresponds to status 7 on the CTI platform.         |
| 4     | Idle. The value corresponds to status 1 on the CTI platform.                 |
| 5     | Wrap-up. The value corresponds to status 6 on the CTI platform.              |
| 6     | Same as the idle state. The value is not used.                               |
| 7     | Talking. The value corresponds to states 2, 3, 4, and 5 on the CTI platform. |
| 8     | Rest. The value corresponds to status 8 on the CTI platform.                 |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  
{  
  "queryParam":

```
{
 "ccld":1,
 "vdn":1,
 "agentId":101
}
```

- Response parameters

```
{
 "resultCode": "0100000",
 "resultDesc": {
 "workNo": 101,
 "vdnId": 1,
 "citStatus": 0,
 "name": "HW35154101",
 "phoneNumber": null,
 "loginDate": 4294967295000,
 "currentStateTime": 436879,
 "mediaType": 0,
 "status": 2
 }
}
```

### 12.3.1.3.8 Querying Agent Rest Information

#### Scenario

This interface is invoked to query all agent rest information.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interface

- CTI3.6 BMS interface: /ccbms/ws/monitor/teamrestinfo
- CTI3.6 BMS interface: /ccbms/ws/monitor/teamrestagentinfo
- CTI3.8 BMS interface: /ccbms/ws/monitor/queryAgentRestDetailInfo

#### Request URL

<https://ip:port/rest/cmsapp/v1/openapi/agentgroup/agentrestinfos>

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-483** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-484** Parameters in the message body

| No. | Parameter | Value Type | Mandatory | Description                                                                                                                                                                                                                                                                                      |
|-----|-----------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535.                                                                                                                                                                                                                                        |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.                                                                                                                                                                                                                                                 |
| 3   | offset    | Integer    | No        | Parameter for determining the start page of the query.<br>Value of <b>offset</b> = Value of <b>limit</b> x (Value of <b>page</b> - 1).<br>The value of <b>offset</b> is greater than or equal to 0.<br><b>page</b> indicates the start page of the query.<br>This field is valid only in CTI3.6. |

| No. | Parameter | Value Type | Mandatory | Description                                                                                                                                                                                                    |
|-----|-----------|------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | limit     | Integer    | No        | <p>Number of query records on each page.</p> <p>The value ranges from 1 to 100.</p> <p><b>limit</b> and <b>offset</b> must exist or not exist at the same time.</p> <p>This field is valid only in CTI3.6.</p> |

## Response Description

**Table 12-485** Parameters in the message body

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                                                                                                              |
|-----|-------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result      | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>● <b>0</b>: success</li> <li>● Other values: failure</li> </ul> <p>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p> |
| 2   | resultCode  | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> </ul> <p>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</p>                                                                                                                            |
| 3   | resultDatas | Object     | <p>Object array in the returned result after a successful query.</p> <p>For details about the parameters of the object in this array, see <a href="#">Table 12-486</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p>                                                                             |

| No. | Parameter  | Value Type | Description                                                                                                                                    |
|-----|------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | resultDesc | Object     | Object in the returned result after a successful query.<br>For details about the parameters of this object, see <a href="#">Table 12-486</a> . |

**Table 12-486** Parameters of resultDesc/resultDatas

| No. | Parameter         | Value Type | Description                                                                                                                                                  |
|-----|-------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.1 | allowRestNum      | Integer    | Number of agents who are allowed to have a rest but still at work.                                                                                           |
| 2.2 | onRestNum         | Integer    | Number of agents that are resting.                                                                                                                           |
| 2.3 | waitRestNum       | Integer    | Number of agents who apply for a rest.                                                                                                                       |
| 2.4 | agentsRestDetails | Array      | List of details about agents who take a rest in the VDN.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-487</a> . |

**Table 12-487** Parameters of agentsrestdetails

| No.   | Parameter      | Value Type | Description                                                                                                                                                                                               |
|-------|----------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.4.1 | agentName      | String     | Agent name.                                                                                                                                                                                               |
| 2.4.2 | workNo         | Integer    | Agent ID.                                                                                                                                                                                                 |
| 2.4.3 | cantRestReason | Integer    | Reason why agents are not allowed to have a rest. This parameter is valid only for the agents who wait for a rest.<br>For details about the parameters of this object, see <a href="#">Table 12-488</a> . |

| No.   | Parameter    | Value Type | Description                                                                                                                                                                                                             |
|-------|--------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.4.4 | beginTime    | Long       | Start time. For resting agents, this parameter indicates the rest start time. For agents who are not in rest, this parameter indicates the requested or approved rest start time. The value is in the timestamp format. |
| 2.4.5 | restDuration | Long       | Requested rest duration, in seconds.                                                                                                                                                                                    |

**Table 12-488** Reason for not allowing rest

| No.     | Value of the Reason for Not Allowing Rest | Description                                                                                          |
|---------|-------------------------------------------|------------------------------------------------------------------------------------------------------|
| 2.4.3.1 | 0                                         | The agent is waiting for approval.                                                                   |
| 2.4.3.2 | 1                                         | The agent is in busy state.                                                                          |
| 2.4.3.3 | 2                                         | The number of agents who can take a rest in the VDN reaches the maximum.                             |
| 2.4.3.4 | 3                                         | The agent does not answer any inbound calls, because the agent does not sign in to any skill queues. |
| 2.4.3.5 | 4                                         | The number of resting agents in a skill queue the agent signs in reaches the maximum.                |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  

```
{
 "queryParam":
 {
 "ccld":1,
 "vdn":1,
 "offset":0,
 "limit":100
 }
}
```
- Response parameters  

```
{
 "result": "0",
```

```
"resultCode": "0100000",
"resultDatas": {
 "allowRestNum": 101,
 "onRestNum": 1,
 "waitRestNum": 0,
 "agentsRestDetails": [
 {
 "agentName": "z1",
 "workNo": 55001,
 "cantRestReason": 1,
 "beginTime": 2345,
 "restDuration": 22333
 }
]
},
"resultDesc": {
 "allowRestNum": 101,
 "onRestNum": 1,
 "waitRestNum": 0,
 "agentsRestDetails": [
 {
 "agentName": "z1",
 "workNo": 55001,
 "cantRestReason": 1,
 "beginTime": 2345,
 "restDuration": 22333
 }
]
}
}
```

### 12.3.1.3.9 Checking Whether an Agent Is Processing a Call

#### Scenario

This interface is invoked to check whether a specified agent is processing a call.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interface

BMS interface: /ccbms/ws/monitor/siteagentinfobyagentids

#### Request URL

<https://ip:port/rest/cmsapp/v1/openapi/calldata/isprocesscall>

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.



## Request Description

**Table 12-489** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-490** Parameters in the message body

| No. | Parameter | Value Type | Mandatory | Description                                               |
|-----|-----------|------------|-----------|-----------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535. |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.          |
| 3   | agentId   | Integer    | Yes       | Agent ID.<br>The value ranges from 101 to 59999.          |

## Response Description

**Table 12-491** Parameters in the message body

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                                                                                                              |
|-----|-------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result      | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> <p>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p> |
| 2   | resultCode  | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> </ul> <p>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</p>                                                                                                                            |
| 3   | resultDatas | boolean    | <p>If the query is successful, <b>true</b> (yes) or <b>false</b> (no) is returned.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p>                                                                                                                                                                  |
| 4   | resultDesc  | Boolean    | <p>If the query is successful, <b>true</b> (yes) or <b>false</b> (no) is returned.</p>                                                                                                                                                                                                                                                                                                   |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters

```
{
 "queryParam":
 {
 "cclid":1,
 "vdn":1,
 "agentId":101
 }
}
```

- Response parameters

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": false,
 "resultDesc": false
}
```

### 12.3.1.3.10 Querying System Status by Agent

#### Scenario

This interface is invoked to query system status by agent.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interface

BMS interface: /ccbms/ws/monitor/teamagentstatusinfo

#### Request URL

https://ip:port/rest/cmsapp/v1/openapi/agentgroup/systemstate

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values.

In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-492** Parameters in the request header

| No. | Parameter    | Value Type | Mandatory | Description                                                    |
|-----|--------------|------------|-----------|----------------------------------------------------------------|
| 1   | Content-Type | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> . |

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-493** Parameters in the message body

| No. | Parameter | Value Type | Mandatory | Description                                                                                                                                                                                                                                               |
|-----|-----------|------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535.                                                                                                                                                                                                 |
| 2   | vdn       | Integer    | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.                                                                                                                                                                                                          |
| 3   | offset    | Integer    | Yes       | Parameter for determining the start page of the query.<br>Value of <b>offset</b> = Value of <b>limit</b> x (Value of <b>page</b> - 1).<br>The value of <b>offset</b> is greater than or equal to 0.<br><b>page</b> indicates the start page of the query. |
| 4   | limit     | Integer    | Yes       | Number of query records on each page.<br>The value ranges from 1 to 100.                                                                                                                                                                                  |

## Response Description

**Table 12-494** Parameters in the message body

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                                                                                                              |
|-----|-------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result      | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> <p>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p> |
| 2   | resultCode  | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> </ul> <p>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</p>                                                                                                                            |
| 3   | resultDatas | Object     | <p>Object in the returned result after a successful query.</p> <p>For details about the parameters of this object, see <a href="#">Table 12-495</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p>                                                                                                |
| 4   | resultDesc  | Object     | <p>Object in the returned result after a successful query.</p> <p>For details about the parameters of this object, see <a href="#">Table 12-495</a>.</p>                                                                                                                                                                                                                                 |

**Table 12-495** Parameters of resultDesc/resultDatas

| No. | Parameter       | Value Type | Description                        |
|-----|-----------------|------------|------------------------------------|
| 2.1 | busyAgent       | Integer    | Number of busy agents.             |
| 2.2 | talkingNum      | Integer    | Number of agents in talking state. |
| 2.3 | idleAgent       | Integer    | Number of idle agents.             |
| 2.4 | totalLoginAgent | Integer    | Number of signed-in agents.        |

| No.                                                                                                                                                                                                                                                                                                                                                                            | Parameter | Value Type | Description |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------|-------------|
| <p><b>NOTE</b><br/>The response result is the agent status data obtained based on the pagination parameters <b>limit</b> and <b>offset</b> in the request.</p> <p>For example, if both <b>limit</b> and <b>offset</b> are set to <b>10</b>, the 10 agents on the second page (10 agents per page) are obtained, and then status statistics on the 10 agents are collected.</p> |           |            |             |

## Message Example

- Message body

The following provides an example of the request message body of this interface:

```
{
 "queryParam":
 {
 "ccId":1,
 "vdn":1,
 "offset":0,
 "limit":100
 }
}
```

- The following provides an example of the response message body of this interface:

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": {
 "busyAgent": 0,
 "talkingNum": 0,
 "idleAgent": 0,
 "totalLoginAgent": 0
 },
 "resultDesc": {
 "busyAgent": 0,
 "talkingNum": 0,
 "idleAgent": 0,
 "totalLoginAgent": 0
 }
}
```

### 12.3.1.3.11 Obtaining Real-Time Monitoring Indicators by Agent

#### Description

This interface is used to obtain real-time monitoring indicators by agent.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interfaces

BMS interface: /ccbms/ws/monitor/agentstatusinfobyagentids

## Request URL

`https://ip:port/rest/cmsapp/v1/openapi/agentgroup/rindex`

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-496** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-497** Parameter description

| Parameter | Type    | Mandatory | Description                                                                                 |
|-----------|---------|-----------|---------------------------------------------------------------------------------------------|
| cclid     | Integer | Yes       | ID of a call center.<br>The value ranges from 1 to 65535.                                   |
| vdn       | Integer | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.                                            |
| agentIds  | Array   | Yes       | Array of agent IDs. The maximum array length is 100.<br>The value ranges from 101 to 59999. |

| Parameter | Type  | Mandatory | Description                                                                                                                                                                                                                            |
|-----------|-------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| indexIds  | Array | Yes       | Array of indicators. The maximum length of the array depends on the number of real-time monitoring indicators by agent. The maximum value is 4.<br>For details about the parameters of this object, see <a href="#">Table 12-690</a> . |

## Response Message

**Table 12-498** Parameter description

| Parameter  | Type   | Description                                                                                                                                                                                                                                      |
|------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | String | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> . |
| resultDesc | Array  | Object array in the returned result after a successful query.<br>For details about the parameters of this object in the array, see <a href="#">Table 12-499</a> .                                                                                |

**Table 12-499** Parameters of resultDesc

| Parameter | Type    | Description                                                                                                 |
|-----------|---------|-------------------------------------------------------------------------------------------------------------|
| id        | Integer | Agent ID.                                                                                                   |
| idxs      | Array   | Group of indicators.<br>For details about the parameters of this object, see <a href="#">Table 12-500</a> . |



**Table 12-500** Parameter description of idxs

| Parameter | Type   | Description                                                                                              |
|-----------|--------|----------------------------------------------------------------------------------------------------------|
| id        | String | Indicator ID.                                                                                            |
| val       | Object | Indicator result.<br>For details about the parameters of this object, see <a href="#">Table 12-690</a> . |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  

```
{
 "cclid":1,
 "vdn":170,
 "agentIds":[1032,1099],
 "indexIds":
 ["IDX_AGENT_PHONE","IDX_AGENT_CURRENT_STATE","IDX_DURATION_AGENT_CURRENT_STATE","IDX_AGENT_LOGIN_SKILLS"]
}
```
- Response parameters  

```
{
 "resultCode": "0100000",
 "resultDesc": [
 {
 "idxs": [
 {
 "val": "88880103",
 "id": "IDX_AGENT_PHONE"
 },
 {
 "val": 7,
 "id": "IDX_AGENT_CURRENT_STATE"
 },
 {
 "val": 17728,
 "id": "IDX_DURATION_AGENT_CURRENT_STATE"
 },
 {
 "val": [
 3
],
 "id": "IDX_AGENT_LOGIN_SKILLS"
 }
],
 "id": 1032
 },
 {
 "idxs": [
 {
 "val": "88881609",
 "id": "IDX_AGENT_PHONE"
 },
 {
 "val": 1,
 "id": "IDX_AGENT_CURRENT_STATE"
 },
 {
 "val": 1414,
```

```

 "id": "IDX_DURATION_AGENT_CURRENT_STATE"
 },
 {
 "val": [
 2,
 4
],
 "id": "IDX_AGENT_LOGIN_SKILLS"
 }
],
"id": 1099
}
]
}

```

### 12.3.1.3.12 Obtaining Agent Operation Details

#### Scenario

This interface is invoked to query agent operation details.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

`https://ip:port/rest/cmsapp/v1/openapi/agent/agentoprinfo`

In the URL, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-501** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-502** Parameters in the message body

| Parameter      | Type    | Mandatory | Description                                                                                                                                                                                                                        |
|----------------|---------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| currentAgentId | Integer | Yes       | Agent ID. The value ranges from 0 to 99999.                                                                                                                                                                                        |
| operateType    | Integer | No        | Operation type. For details, see <a href="#">Table 12-702</a> .                                                                                                                                                                    |
| beginTime      | String  | Yes       | Statistics start time. The value must be in <i>yyyy-MM-dd HH:mm:ss</i> format. The time in the UTC time zone is used. The time range must be an integer multiple of 15 minutes, and the time span cannot be greater than 24 hours. |
| endTime        | String  | Yes       | Statistics end time. The value must be in <i>yyyy-MM-dd HH:mm:ss</i> format. The time in the UTC time zone is used. The time range must be an integer multiple of 15 minutes, and the time span cannot be greater than 24 hours.   |

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------|---------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclId     | Integer | No        | <p>ID of a call center.</p> <ul style="list-style-type: none"><li>In the integration environment, the default value is the value of <b>Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; CMS System Configuration</b> page after a system administrator signs in to the AICC. If this parameter is empty, the data whose <b>sys_key</b> is <b>default_cc_id</b> and <b>sys_type</b> is <b>cms_system_config</b> in the <b>t_cms_sysparam</b> database table is used.</li><li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li></ul> |

 **NOTE**

The operation objects and operation reasons are marked "-", indicating that the agent operation table does not need to be recorded for the corresponding operation types.

## Response Message

**Table 12-503** Parameters in the message body

| Parameter  | Type   | Description                                                                                                                                                                                                                                                |
|------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | String | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> <li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul> |
| resultDesc | List   | Object list in the returned result after a successful query.<br>For details about the parameters of this object in the array, see the following table.                                                                                                     |

**Table 12-504** Parameters of resultDesc

| Parameter      | Type    | Description                                                                             |
|----------------|---------|-----------------------------------------------------------------------------------------|
| id             | String  | Configuration ID.                                                                       |
| callId         | String  | Call ID.                                                                                |
| phoneNo        | String  | Agent phone number or conference ID.                                                    |
| subCcNo        | Integer | Subsystem ID.                                                                           |
| currentAgentId | Integer | ID of an agent.                                                                         |
| currentSkillId | Integer | ID of the skill queue to which a call belongs.                                          |
| mediaType      | Integer | Media type. For details, see <a href="#">12.3.8.4 Description of Call Media Types</a> . |
| beginTime      | String  | Start time of the statistics collection operation. The UTC time zone is used.           |

| Parameter     | Type    | Description                                                                                                                                                             |
|---------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| endTime       | String  | End time of the statistics collection operation. The UTC time zone is used.                                                                                             |
| vdn           | Integer | ID of the VDN that processes a call.                                                                                                                                    |
| callType      | Integer | Call type. For details, see <a href="#">12.3.8.6 Description of Call Types</a> .                                                                                        |
| serviceNo     | Integer | Business type ID.                                                                                                                                                       |
| operateType   | Integer | Operation type. For details, see <a href="#">Table 12-702</a> .                                                                                                         |
| operateObject | Integer | Operation object. For details, see <a href="#">Table 12-702</a> .                                                                                                       |
| operateCause  | Integer | Operation reason. For details, see <a href="#">Table 12-702</a> .                                                                                                       |
| agentType     | Integer | Agent type. For details, see <a href="#">12.3.8.7 Description of Agent Types</a> .                                                                                      |
| locationId    | Integer | Distributed node ID.                                                                                                                                                    |
| logonSn       | String  | Sign-in SN.                                                                                                                                                             |
| skillInfoSn   | String  | Index of the skills owned by an agent.<br><br>If this field is empty, the agent does not have the task skill. For example, when an agent signs in, this field is empty. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  

```
{
 "currentAgentId": 12,
 "operateType": 46,
 "beginTime": "2020-08-22 05:00:00",
 "endTime": "2020-08-23 05:00:00",
 "cclid": 1
}
```

- Response parameters

```
{
 "resultCode": "0100000",
 "resultDesc": [
 {
 "id": "45648",
 "callId": "5",
 "phoneNo": "05276789",
 "operateType": 46,
 "operateObject": 23,
 "operateCause": 0,
 "agentType": 3,
 "beginTime": "2020-08-22T05:49:36.000+0000",
 "endTime": "2020-08-22T09:49:37.000+0000",
 "callType": 0,
 "vdn": 4,
 "serviceNo": 21,
 "subCcNo": 10,
 "currentAgentId": 12,
 "currentSkillId": 10,
 "mediaType": 10,
 "locationId": null,
 "logonSn": null,
 "skillInfoSn": null
 },
 {
 "id": "45649",
 "callId": "5",
 "phoneNo": "05276789",
 "operateType": 46,
 "operateObject": 23,
 "operateCause": 0,
 "agentType": 3,
 "beginTime": "2020-08-22T05:49:36.000+0000",
 "endTime": "2020-08-22T09:49:37.000+0000",
 "callType": 0,
 "vdn": 4,
 "serviceNo": 21,
 "subCcNo": 10,
 "currentAgentId": 12,
 "currentSkillId": 10,
 "mediaType": 10,
 "locationId": null,
 "logonSn": null,
 "skillInfoSn": null
 }
]
}
```

### 12.3.1.3.13 Querying Agent Information by Agent Status in Pagination Mode

#### Scenario

This interface is invoked to query agent information in pagination mode by agent status.

#### Interface Method

This interface supports only the POST method.

#### Internal Encapsulation Interfaces

BMS interface: /ccbms/ws/monitor/siteagentinfoobyagentids

## URI

`https://ip:port/rest/cmsapp/v1/openapi/vdn/queryAgentByStatus`

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values.

In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-505** Parameters in the request header

| Parameter     | Mandatory | Type   | Default Value | Description                                                                                                                                            |
|---------------|-----------|--------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Content-Type  | Yes       | String | None          | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| Authorization | Yes       | String | None          | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-506** Parameters in the request body

| Parameter | Mandatory | Type          | Default Value | Description                                                                                                           |
|-----------|-----------|---------------|---------------|-----------------------------------------------------------------------------------------------------------------------|
| cclid     | Yes       | String (1-25) | None          | Call center ID.<br>The value ranges from 1 to 65535.                                                                  |
| vdn       | Yes       | String        | None          | ID of a virtual call center.<br>The value ranges from 1 to 5000.                                                      |
| status    | Optional  | String        | None          | Agent status.<br>For details about the value, see <a href="#">12.3.8.3 CTI Platform Agent Status Code Reference</a> . |



| Parameter | Mandatory | Type   | Default Value | Description                                                                                                                                                                                                                                                                        |
|-----------|-----------|--------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| offset    | Yes       | Number | None          | <b>offset</b> is used to determine the start page of the query.<br>The value range of <b>offset</b> is as follows: The value of <b>offset</b> is equal to limit x (page - 1). The value is greater than or equal to <b>0</b> . <b>page</b> indicates the start page to be queried. |
| limit     | Yes       | Number | None          | Number of records on each page. The maximum value is <b>1000</b> .                                                                                                                                                                                                                 |

## Response Description

**Table 12-507** Parameters in the response message

| Parameter   | Type   | Description                                                          |
|-------------|--------|----------------------------------------------------------------------|
| returnCode  | String | Result code returned.<br><b>0</b> : success<br>Other values: failure |
| description | String | Request result description.                                          |
| data        | Array  | Response data.                                                       |

**Table 12-508** Parameters in the response message body

| Parameter        | Type   | Description                                                                                                  |
|------------------|--------|--------------------------------------------------------------------------------------------------------------|
| agentId          | Number | Agent ID.                                                                                                    |
| locationId       | Number | Home distributed access node.<br>This parameter is a CTI reserved field and has no actual meaning.           |
| currentState     | Number | Agent status.<br><a href="#">12.3.8.3 CTI Platform Agent Status Code Reference</a> describes the parameters. |
| currentStateTime | Number | Duration of the current state, in seconds.                                                                   |

## Error Codes

None

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  

```
{
 "ccld": "1", "vdn": "3", "status": "0", "limit": 10, "offset": 0
}
```
- Response parameters  

```
{
 "returnCode": "0",
 "data": [
 {
 "agentId": 108,
 "locationId": 65535,
 "currentStateTime": 426849,
 "currentState": 0
 },
 {
 "agentId": 109,
 "locationId": 65535,
 "currentStateTime": 426849,
 "currentState": 0
 }
],
 "description": "success"
}
```

### 12.3.1.4 Real-Time Interfaces for Call Details

#### 12.3.1.4.1 Querying Basic Information About a Call with a Specified Call ID

##### Scenario

This interface is invoked to query basic information about a call with a specified call ID. (CTI 3.6 does not support this interface.)

##### Interface Method

The request method must be set to POST. This interface supports only the POST method.

##### Internal Encapsulation Interfaces

BMS interface: /ccbms/ws/monitor/querybasecallinfo

##### Request URL

<https://ip.port/rest/cmsapp/v1/openapi/calldata/querybasiccallinfo>

In the URL, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-509** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-510** Parameters in the message body

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                               |
|-----------|---------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclid     | Integer | Yes       | ID of a call center. The value ranges from <b>1</b> to <b>65535</b> .                                                                                                                                                     |
| vdn       | Integer | Yes       | ID of a VDN. The value ranges from 1 to 5000.                                                                                                                                                                             |
| callid    | String  | Yes       | Call ID. The value contains a maximum of 20 characters. The value is in the format of <i>Call start time-Call ID</i> . <i>Call start time</i> is a timestamp in milliseconds. An example is <b>1659513159000-546750</b> . |

## Response Message

**Table 12-511** Parameters in the message body

| Parameter   | Type   | Description                                                                                                                                                                                                                                                                                                                                                            |
|-------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| result      | String | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |
| resultCode  | String | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .                                                                                                                       |
| resultDatas | Object | Object in the returned result after a successful query.<br>For details about the parameters of this object, see <a href="#">Table 12-512</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.                                                                                             |
| resultDesc  | Object | Object in the returned result after a successful query.<br>For details about the parameters of this object, see <a href="#">Table 12-512</a> .                                                                                                                                                                                                                         |

**Table 12-512** Parameters of resultDesc or resultDatas

| Parameter | Type    | Description                                                    |
|-----------|---------|----------------------------------------------------------------|
| time      | Date    | Time when a call enters the platform. The unit is millisecond. |
| dsn       | Integer | Call task ID.                                                  |
| handle    | Integer | Number of times that a call task control block is reused.      |
| server    | Integer | ID of a media server that processes calls.                     |

| Parameter     | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| keyId         | String  | Unique ID of a call.                                                                                                                                                                                                                                                                                                                                                                                        |
| callingNum    | String  | Calling number.                                                                                                                                                                                                                                                                                                                                                                                             |
| calledNum     | String  | Called number.                                                                                                                                                                                                                                                                                                                                                                                              |
| mid           | Integer | UAP module ID.                                                                                                                                                                                                                                                                                                                                                                                              |
| trunkNo       | Integer | Trunk ID.                                                                                                                                                                                                                                                                                                                                                                                                   |
| priority      | Integer | User level.                                                                                                                                                                                                                                                                                                                                                                                                 |
| deviceType    | Integer | Type of the device that is being processed. For details, see <a href="#">Table 12-701</a> .                                                                                                                                                                                                                                                                                                                 |
| deviceNo      | Integer | ID of the device that is processing a call. <ul style="list-style-type: none"><li>• For an agent device, the device ID is the agent ID.</li><li>• For a queue or virtual device, the device ID is the queue ID configured on the configuration console or the ID of the network shared device corresponding to the virtual device.</li><li>• For other device types, the value is an internal ID.</li></ul> |
| callSkill     | Integer | Skill queue description.                                                                                                                                                                                                                                                                                                                                                                                    |
| partyNum      | Integer | Number of devices involved in a call track.                                                                                                                                                                                                                                                                                                                                                                 |
| callFeature   | Integer | Call feature. For details, see <a href="#">Table 12-699</a> .                                                                                                                                                                                                                                                                                                                                               |
| orgiCalledNum | Integer | Original called number. If the called number changes before the call accesses the system, this parameter records the number of the first called party.                                                                                                                                                                                                                                                      |
| mediaType     | Integer | Media type. For details, see <a href="#">Table 12-695</a> .                                                                                                                                                                                                                                                                                                                                                 |

| Parameter         | Type    | Description                                                                      |
|-------------------|---------|----------------------------------------------------------------------------------|
| place             | Integer | User location (call access place).                                               |
| waitTime          | Long    | Waiting time in a queue.                                                         |
| totalTalkingTimes | Long    | Call duration.                                                                   |
| logonTimes        | Long    | Total sign-in duration.                                                          |
| serviceType       | Integer | Business type.                                                                   |
| callInCause       | Integer | Reason for an inbound call.                                                      |
| enterReason       | Integer | Reason for accessing the device. For details, see <a href="#">Table 12-700</a> . |
| mediaBillType     | String  | Multimedia report type.                                                          |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters  

```
{
 "cclid":1,
 "vdn":1,
 "callId":"1453723531-574"
}
```

- Response parameters  

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": {
 "time": 1606115215000,
 "dsn": 0,
 "handle": 0,
 "server": 0,
 "keyId": "",
 "callingNum": "88881364",
 "calledNum": "650550",
 "mid": 5,
 "trunkNo": 582,
 "priority": 0,
 "deviceType": 2,
 "deviceNo": 1177,
 "callSkill": "defaultAudioSkill",
 "partyNum": 1,
 "callFeature": 0,
 "orgiCalledNum": "",
 "mediaType": 5,
 "place": 0,
 "waitTime": 0,
 "totalTalkingTimes": 275,
 "logonTimes": 284,
 "serviceType": 2,
 "callInCause": 65535,
 }
}
```

```
"enterReason": 0,
"mediaBillType": 0
},
"resultDesc": {
 "time": 1606115215000,
 "dsn": 0,
 "handle": 0,
 "server": 0,
 "keyId": "",
 "callingNum": "88881364",
 "calledNum": "650550",
 "mid": 5,
 "trunkNo": 582,
 "priority": 0,
 "deviceType": 2,
 "deviceNo": 1177,
 "callSkill": "defaultAudioSkill",
 "partyNum": 1,
 "callFeature": 0,
 "orgiCalledNum": "",
 "mediaType": 5,
 "place": 0,
 "waitTime": 0,
 "totalTalkingTimes": 275,
 "logonTimes": 284,
 "serviceType": 2,
 "callInCause": 65535,
 "enterReason": 0,
 "mediaBillType": 0
}
```

### 12.3.1.4.2 Querying Private Call Details of a Specified Agent

#### Scenario

This interface is used to query private call details of a specified agent.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interfaces

BMS interface: /ccbms/ws/monitor/callinfo

#### Request URL

<https://ip.port/rest/cmsapp/v1/openapi/calldata/querydetailcallinfo>

In the URL, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-513** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-514** Parameters in the message body

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                        |
|-----------|---------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclid     | Integer | Yes       | ID of a call center. The value ranges from 1 to 65535.                                                                                                                                                                             |
| vdn       | Integer | Yes       | ID of a VDN. The value ranges from 1 to 5000.                                                                                                                                                                                      |
| callid    | String  | Yes       | Call ID, which is the private call ID of a specified agent. The value contains a maximum of 20 characters. For details about how to obtain the value, see <a href="#">12.3.1.3.5 Querying Private Calls of a Specified Agent</a> . |



## Response Message

**Table 12-515** Parameters in the message body

| Parameter   | Type   | Description                                                                                                                                                                                                                                                                                                                                                                              |
|-------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| result      | String | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>● <b>0</b>: success</li> <li>● Other values: failure</li> </ul> <p>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p> |
| resultCode  | String | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> </ul> <p>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</p>                                                                                                                            |
| resultDatas | Object | <p>Object in the returned result after a successful query.</p> <p>For details about the parameters of this object, see <a href="#">Table 12-516</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p>                                                                                                |
| resultDesc  | Object | <p>Object in the returned result after a successful query.</p> <p>For details about the parameters of this object, see <a href="#">Table 12-516</a>.</p>                                                                                                                                                                                                                                 |

**Table 12-516** Parameters of resultDesc or resultDatas

| Parameter   | Type    | Description                                                                                                                                                                                                                                                                                                                                                                |
|-------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cb          | Long    | Internal ID.                                                                                                                                                                                                                                                                                                                                                               |
| time        | Long    | Time when a call enters the platform.                                                                                                                                                                                                                                                                                                                                      |
| dsn         | Integer | Call task ID.                                                                                                                                                                                                                                                                                                                                                              |
| handle      | Integer | Number of times that a call task control block is reused.                                                                                                                                                                                                                                                                                                                  |
| server      | Integer | ID of a media server that processes calls.                                                                                                                                                                                                                                                                                                                                 |
| keyId       | String  | Business ID of a call.                                                                                                                                                                                                                                                                                                                                                     |
| callingNum  | String  | Calling number.                                                                                                                                                                                                                                                                                                                                                            |
| calledNum   | String  | Called number.                                                                                                                                                                                                                                                                                                                                                             |
| mid         | Integer | Module ID.                                                                                                                                                                                                                                                                                                                                                                 |
| trunkNo     | Integer | Trunk ID.                                                                                                                                                                                                                                                                                                                                                                  |
| priority    | Integer | User level.                                                                                                                                                                                                                                                                                                                                                                |
| deviceType  | Integer | Device type. For details, see <a href="#">Table 12-701</a> .                                                                                                                                                                                                                                                                                                               |
| deviceNo    | Integer | Device ID. <ul style="list-style-type: none"><li>• For an agent device, the device ID is the agent ID.</li><li>• For a queue or virtual device, the device ID is the queue ID configured on the configuration console or the ID of the network shared device corresponding to the virtual device.</li><li>• For other device types, the value is an internal ID.</li></ul> |
| callData    | String  | Call data.                                                                                                                                                                                                                                                                                                                                                                 |
| callDataLen | Integer | Valid length of call data.                                                                                                                                                                                                                                                                                                                                                 |
| callSkill   | String  | Call skill description.                                                                                                                                                                                                                                                                                                                                                    |

| Parameter         | Type    | Description                                                                                                                                            |
|-------------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| partyNum          | Integer | Number of devices involved in a call track.                                                                                                            |
| callFeature       | String  | Call feature. For details, see <a href="#">Table 12-699</a> .                                                                                          |
| orgiCalledNum     | String  | Original called number. If the called number changes before the call accesses the system, this parameter records the number of the first called party. |
| mediaType         | String  | Call media type. For details, see <a href="#">Table 12-695</a> .                                                                                       |
| place             | Integer | User location (call access place).                                                                                                                     |
| waitTime          | Long    | Queuing time, in seconds.                                                                                                                              |
| totalTalkingTimes | Long    | Call duration, in seconds.                                                                                                                             |
| logonTimes        | Long    | Total sign-in duration, in seconds.                                                                                                                    |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters  

```
{
 "cclId":1,
 "vdn":1,
 "callId":"1453723531-574"
}
```

- Response parameters  

```
{
 "result": "0",
 "resultDatas": {
 "trunkNo": 582,
 "deviceType": 2,
 "deviceNo": 1177,
 "dsn": 49,
 "callData": "",
 "totalTalkingTimes": 116,
 "cb": 1,
 "keyId": "",
 "callingNum": "88881363",
 "calledNum": "650550",
 "orgiCalledNum": "",
 "callDataLen": 0,
 }
}
```

```
"callSkill": "defaultAudioSkill",
"partyNum": 2,
"callFeature": 0,
"place": 0,
"waitTime": 0,
"logonTimes": 127,
"handle": 0,
"time": 1606120429,
"mediaType": "MEDIA_TYPE_PHONE",
"server": 0,
"mid": 5,
"priority": 0
},
"resultDesc": {
"trunkNo": 582,
"deviceType": 2,
"deviceNo": 1177,
"dsn": 49,
"callData": "",
"totalTalkingTimes": 116,
"cb": 1,
"keyId": "",
"callingNum": "88881363",
"calledNum": "650550",
"orgiCalledNum": "",
"callDataLen": 0,
"callSkill": "defaultAudioSkill",
"partyNum": 2,
"callFeature": 0,
"place": 0,
"waitTime": 0,
"logonTimes": 127,
"handle": 0,
"time": 1606120429,
"mediaType": "MEDIA_TYPE_PHONE",
"server": 0,
"mid": 5,
"priority": 0
}
}
```

### 12.3.1.4.3 Querying CDRs of a Specified Call ID

#### Scenario

This interface is invoked to query CDRs by call SNs.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

<https://ip:port/rest/cmsapp/v1/openapi/calldata/querycalldetailbyid>

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values.

In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-517** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-518** Parameters in the message body

| No. | Parameter | Value Type | Mandatory | Description                                                                                                                                                                        |
|-----|-----------|------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535.                                                                                                                          |
| 2   | isCallin  | String     | Yes       | Whether a call is an inbound call.<br>The options are as follows: <ul style="list-style-type: none"> <li><b>true:</b> inbound call</li> <li><b>false:</b> outbound call</li> </ul> |
| 3   | callId    | String     | Yes       | Call ID.                                                                                                                                                                           |

## Response Description

**Table 12-519** Parameters in the message body

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                                                                                                              |
|-----|-------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result      | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>● <b>0</b>: success</li> <li>● Other values: failure</li> </ul> <p>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p> |
| 2   | resultCode  | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> </ul> <p>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</p>                                                                                                                            |
| 3   | resultDatas | Object     | <p>Object in the returned result after a successful query.</p> <p>For details about the parameters of this object, see <a href="#">Table 12-520</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p>                                                                                                |
| 2   | resultDesc  | Object     | <p>Object in the returned result after a successful query.</p> <p>For details about the parameters of this object, see <a href="#">Table 12-520</a>.</p>                                                                                                                                                                                                                                 |

**Table 12-520** Parameters of resultDesc/resultDatas

| No. | Parameter | Value Type | Description     |
|-----|-----------|------------|-----------------|
| 2.1 | vdn       | Integer    | ID of a VDN.    |
| 2.2 | callId    | String     | Call ID.        |
| 2.3 | callerNo  | String     | Calling number. |
| 2.4 | calleeNo  | String     | Called number.  |

| No.      | Parameter     | Value Type | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------|---------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.5      | callType      | Integer    | Call type. For details, see <a href="#">Table 12-697</a> .                                                                                                                                                                                                                                                                                                                                                                                                       |
| 2.6      | agentId       | Integer    | Agent ID.                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 2.7      | skillId       | Integer    | Skill queue ID.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 2.8      | anonyCall     | Integer    | Anonymous call identifier. (This parameter is valid only for inbound calls.)                                                                                                                                                                                                                                                                                                                                                                                     |
| 2.9      | queueWaitTime | Integer    | Queue waiting duration, in seconds.                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 2.1<br>0 | ivrCallTime   | Integer    | IVR call duration, in seconds.                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 2.1<br>1 | ackTime       | Integer    | Ring duration, in seconds.                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 2.1<br>2 | callTime      | Integer    | Call duration, in seconds.                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 2.1<br>3 | releaseCause  | Integer    | Call release cause code. For details, see <a href="#">12.3.8.10 Cause Code</a> .                                                                                                                                                                                                                                                                                                                                                                                 |
| 2.1<br>4 | beginTime     | String     | Call start time. (This parameter is valid only for predicted and preempted outbound calls.)<br>The format is <i>yyyy-MM-dd HH:mm:ss</i> .                                                                                                                                                                                                                                                                                                                        |
| 2.1<br>5 | endTime       | String     | Call end time. (This parameter is valid only for predicted and preempted outbound calls.)<br>The format is <i>yyyy-MM-dd HH:mm:ss</i> .                                                                                                                                                                                                                                                                                                                          |
| 2.1<br>6 | result        | String     | Call result. (This parameter is valid only for predicted and preempted outbound calls.)<br><b>0000</b> : The OBS successfully makes an outbound call before the call is transferred to the automatic flow.<br><b>0900</b> : The OBS successfully makes an outbound call before the call is transferred to an agent.<br><b>0101</b> : The outbound call fails.<br><b>-1</b> : No number can be called in the current task.<br><b>0601</b> : The call is returned. |

| No.      | Parameter     | Value Type | Description                                                                                                                                                                                                                                                                                               |
|----------|---------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.1<br>7 | resultCode    | String     | Call result code. (This parameter is valid only for predicted and preempted outbound calls.)<br>This parameter indicates an external result code corresponding to the failure cause code. The external result code can be customized. The failure cause code is associated with the external result code. |
| 2.1<br>8 | busiResult    | String     | Outbound call business result code. (This parameter is valid only for predicted and preempted outbound calls.)<br>For details about how to configure the iSales frontend page, see the operation guide.                                                                                                   |
| 2.1<br>9 | busiSubStatus | String     | Outbound call business result sub-status code. (This parameter is valid only for predicted and preempted outbound calls.)<br>For details about how to configure the iSales frontend page, see the operation guide.                                                                                        |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters  

```
{
 "queryParam":
 {
 "ccId":1,
 "isCallin":"true",
 "callId":"1000000000-0001"
 }
}
```

- Response parameters  

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": {
 "vdn": 1,
 "callId": "1000000000-0001",
 "callerNo": "10000",
 "calleeNo": "10001",
 "callType": 0,
 "agentId": 100,
 "skillId": 1,
 "anonyCall": 0,
 }
}
```



```
"queueWaitTime": 10,
"ivrCallTime": 0,
"ackTime": 5,
"callTime": 30,
"releaseCause": 0
},
"resultDesc": {
 "vdn": 1,
 "callId": "1000000000-0001",
 "callerNo": "10000",
 "calleeNo": "10001",
 "callType": 0,
 "agentId": 100,
 "skillId": 1,
 "anonyCall": 0,
 "queueWaitTime": 10,
 "ivrCallTime": 0,
 "ackTime": 5,
 "callTime": 30,
 "releaseCause": 0
}
}
```

## 12.3.2 Historical Data Query

### 12.3.2.1 Obtaining Historical Monitoring Indicators by VDN

#### Scenario

This interface is invoked to obtain historical monitoring indicators by VDN.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

`https://ip.port/rest/cmsapp/v1/openapi/hisindex/vdn`

In the URL, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

Table 12-521 Parameters in the request header

| No. | Parameter    | Type   | Mandatory | Description                                                    |
|-----|--------------|--------|-----------|----------------------------------------------------------------|
| 1   | Content-Type | String | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> . |

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-522** Parameters in the request message body

| No. | Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----|-----------|---------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | cclid     | Integer | No        | <p>ID of a call center.</p> <ul style="list-style-type: none"> <li>In the integration environment, the default value is the value of <b>Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; CMS System Configuration</b> page after a system administrator signs in to the AICC. If this parameter is empty, the data whose <b>sys_key</b> is <b>default_cc_id</b> and <b>sys_type</b> is <b>cms_system_config</b> in the <b>t_cms_sysparam</b> database table is used.</li> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li> </ul> |

| No. | Parameter    | Type    | Mandatory | Description                                                                                                                                                                                                                                                                              |
|-----|--------------|---------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | vdnIds       | Array   | Yes       | Array of VDN IDs. The maximum length of the array is 100. The VDN ID is of the integer type.                                                                                                                                                                                             |
| 3   | indexIds     | Array   | Yes       | Array of indicators. The indicator is of the string type. For details, see <a href="#">Table 12-692</a> .                                                                                                                                                                                |
| 4   | timeGrain    | String  | No        | This parameter can be used to collect statistics on historical monitoring indicators by minute. The options are <b>15MIN</b> , <b>30MIN</b> , and <b>60MIN</b> . If this parameter is not passed, statistics on the current day in the time zone where the VDN is located are collected. |
| 5   | anonyCall    | Integer | No        | Anonymous call identifier. This parameter is available only for inbound calls. The value <b>1</b> indicates anonymous calls, and the value <b>0</b> indicates non-anonymous calls. If this parameter is not passed, all anonymous calls and non-anonymous calls are queried.             |
| 6   | calleeNo     | String  | No        | Called number.                                                                                                                                                                                                                                                                           |
| 7   | mediaType    | Integer | No        | Call media type. For details, see <a href="#">Table 12-695</a> .                                                                                                                                                                                                                         |
| 8   | subMediaType | Integer | No        | Submedia type. For details, see <a href="#">Table 12-523</a> .                                                                                                                                                                                                                           |

| No. | Parameter    | Type   | Mandatory | Description                                                                                                                                                                                                                                      |
|-----|--------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9   | enableOffset | String | No        | The options are <b>Y</b> and <b>N</b> . If <b>Y</b> is transferred, the data of the previous day is queried. If <b>N</b> is transferred, the data of the current day is queried. If no value is transferred, the default value <b>N</b> is used. |

**Table 12-523** Submedia types

| No. | Description         |
|-----|---------------------|
| 1   | Web.                |
| 2   | WhatsApp.           |
| 3   | LINE.               |
| 4   | WeChat.             |
| 5   | Facebook Messenger. |
| 6   | Twitter.            |
| 7   | 5G message.         |
| 8   | Email.              |
| 9   | SMS message.        |

## Response Message

**Table 12-524** Parameters in the response message body

| No. | Parameter | Type   | Description                                                                                                                                                                                                                                                                                                                                                                              |
|-----|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result    | String | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>● <b>0</b>: success</li> <li>● Other values: failure</li> </ul> <p>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p> |

| No. | Parameter   | Type               | Description                                                                                                                                                                                                                                                                                   |
|-----|-------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | resultCode  | String             | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .                                              |
| 3   | resultDatas | List <JSON object> | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-525</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |
| 4   | resultDesc  | List <JSON object> | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-525</a> .                                                                                                                             |

**Table 12-525** Parameters of resultDesc or resultDatas

| No. | Parameter | Type               | Description                                                                                                              |
|-----|-----------|--------------------|--------------------------------------------------------------------------------------------------------------------------|
| 2.1 | id        | String             | ID of a VDN.                                                                                                             |
| 2.2 | idxs      | List <JSON object> | Group of indicators.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-526</a> . |

**Table 12-526** Parameters of idx

| No.   | Parameter | Type   | Description   |
|-------|-----------|--------|---------------|
| 2.1.1 | id        | String | Indicator ID. |

| No.   | Parameter | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.1.2 | val       | Object | <p>Indicator result collected by minute. The UTC time zone is used.</p> <p>The value is in the format of "<i>Time</i>":"<i>Indicator result</i>", indicating the indicator result collected in a time range starting from <i>Time</i>. The time range is determined by the <b>timeGrain</b> parameter in the request.</p> <p>For example, "2020-11-11 09:15:00.0": "1" indicates that the indicator result is 1 from 09:15 to 09:30. In this example, the value of <b>timeGrain</b> in the request is 15.</p> |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters
 

```
{
 "cclid":1,
 "vdnIds":[29,30],
 "indexIds":["IDX_COUNT_TOTAL_CALL","IDX_COUNT_CONNECTED_CALL"],
 "timeGrain":"15MIN",
 "anonyCall":1,
 "calleeNo":"640001",
 "mediaType":53,
 "subMediaType":3
}
```

- Response parameters
 

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": [
 {
 "idxs": [
 {
 "val": {
 "2020-11-11 09:15:00.0": "2",
 "2020-11-11 10:15:00.0": "1"
 },
 },
],
 "id": "IDX_COUNT_TOTAL_CALL"
 }
]
}
```

```
 },
 {
 "val": {
 "2020-11-11 09:15:00.0": "2",
 "2020-11-11 10:15:00.0": "1"
 },
 "id": "IDX_COUNT_CONNECTED_CALL"
 }
],
 "id": "29"
},
{
 "idxs": [
 {
 "val": {
 "2020-11-11 09:15:00.0": "1",
 "2020-11-11 10:15:00.0": "1"
 },
 "id": "IDX_COUNT_TOTAL_CALL"
 },
 {
 "val": {
 "2020-11-11 09:15:00.0": "1",
 "2020-11-11 10:15:00.0": "1"
 },
 "id": "IDX_COUNT_CONNECTED_CALL"
 }
],
 "id": "30"
}
],
"resultDesc": [
 {
 "idxs": [
 {
 "val": {
 "2020-11-11 09:15:00.0": "2",
 "2020-11-11 10:15:00.0": "1"
 },
 "id": "IDX_COUNT_TOTAL_CALL"
 },
 {
 "val": {
 "2020-11-11 09:15:00.0": "2",
 "2020-11-11 10:15:00.0": "1"
 },
 "id": "IDX_COUNT_CONNECTED_CALL"
 }
],
 "id": "29"
 },
 {
 "idxs": [
 {
 "val": {
 "2020-11-11 09:15:00.0": "1",
 "2020-11-11 10:15:00.0": "1"
 },
 "id": "IDX_COUNT_TOTAL_CALL"
 },
 {
 "val": {
 "2020-11-11 09:15:00.0": "1",
 "2020-11-11 10:15:00.0": "1"
 },
 "id": "IDX_COUNT_CONNECTED_CALL"
 }
],
 "id": "30"
 }
]
```

```
}
]
}
```

### 12.3.2.2 Querying Information About Missed Calls in a Specified VDN

#### Scenario

This interface is invoked to query information about all missed calls in a specified VDN.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

`https://ip:port/rest/cmsapp/v1/callin/queryMissedCalls`

If the CC-CMS is directly connected instead of passing through the NSLB, set *ip* to the IP address of the CC-CMS server and *port* to the HTTPS port number of the CC-CMS server.

If the CC-CMS passes through the NSLB, set *ip* to the IP address of the NSLB server and *port* to the HTTPS port number of the CC-CMS service mapped on the NSLB.

#### Request Description

**Table 12-527** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-528** Parameters in the request body

| No. | Parameter | Type    | Mandatory | Description                              |
|-----|-----------|---------|-----------|------------------------------------------|
| 1   | vdn       | Integer | Yes       | VDN ID. The value ranges from 1 to 5000. |



| No. | Parameter | Type   | Mandatory | Description                                                                                                                           |
|-----|-----------|--------|-----------|---------------------------------------------------------------------------------------------------------------------------------------|
| 2   | offset    | Number | Yes       | Parameter for determining the start page of the query.<br>Value of <b>offset</b> = Value of <b>limit</b> x (Value of <b>page</b> - 1) |
| 3   | limit     | Number | Yes       | Number of queried records. A maximum of 5000 records can be queried at a time.                                                        |
| 4   | beginTime | String | No        | Start time for the query (zero-zone time).<br>The format is <i>yyyy-MM-dd HH:mm:ss</i> .                                              |
| 5   | endTime   | String | No        | End time for the query (zero-zone time).<br>The format is <i>yyyy-MM-dd HH:mm:ss</i> .                                                |

## Response Description

Table 12-529 Response parameters

| Parameter   | Type         | Mandatory | Description                                                                                                                                      |
|-------------|--------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| returnCode  | String       | Yes       | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0</b>: success</li> <li>● Other values: failure</li> </ul> |
| total       | Number       | Yes       | Total number of missed calls.                                                                                                                    |
| missedCalls | MissedCall[] | Yes       | List of details about missed calls. For details, see <a href="#">Table 12-530</a> .                                                              |
| returnDesc  | String       | No        | Query result description.                                                                                                                        |

**Table 12-530** Parameters of MissedCall

| Parameter    | Type     | Mandatory | Description                                                    |
|--------------|----------|-----------|----------------------------------------------------------------|
| callId       | String   | Yes       | Call ID.                                                       |
| callerNo     | String   | Yes       | Calling number.                                                |
| calleeNo     | String   | Yes       | Called number.                                                 |
| waitBegin    | Datetime | Yes       | Call waiting start time.                                       |
| callEnd      | Datetime | Yes       | Call end time.                                                 |
| mediaType    | Integer  | No        | Media type. For details, see <a href="#">Table 12-695</a> .    |
| subMediaType | Integer  | No        | Submedia type. For details, see <a href="#">Table 12-696</a> . |

## Message Example

- Request header:  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters:

```
{
 "vdn":159,
 "offset":0,
 "limit":3,
 "beginTime":"2022-11-17 00:13:43",
 "endTime":"2022-11-17 23:44:13"
}
```
- Response parameters:

```
{
 "returnCode": "0",
 "total": 2,
 "missedCalls": [
 {
 "callId": "1668048253-16797218",
 "callerNo": "1659960139858526939",
 "calleeNo": "6300111010",
 "waitBegin": "2022-11-17 23:44:13",
 "callEnd": "2022-11-17 23:44:25",
 "mediaType":53,
 "subMediaType":1
 },
 {
 "callId": "1668050023-1859",
 "callerNo": "88880990",
 "calleeNo": "31045665",
 "waitBegin": "2022-11-17 00:13:43",
 "callEnd": "2022-11-17 00:13:47",
 "mediaType":53,
 "subMediaType":1
 }
],
 "returnDesc": "query success"
}
```

### 12.3.2.3 Obtaining Historical IVR Monitoring Indicators

#### Scenario

This interface is invoked to obtain historical monitoring indicators by IVR.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

`https://ip.port/rest/cmsapp/v1/openapi/hisindex/ivr`

In the URL, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-531** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-532** Parameters in the request message body

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------|---------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclid     | Integer | No        | <p>ID of a call center.</p> <ul style="list-style-type: none"><li>• In the integration environment, the default value is the value of <b>Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; CMS System Configuration</b> page after a system administrator signs in to the AICC. If this parameter is empty, the data whose <b>sys_key</b> is <b>default_cc_id</b> and <b>sys_type</b> is <b>cms_system_config</b> in the <b>t_cms_sysparam</b> database table is used.</li><li>• In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li></ul> |
| vdn       | Integer | Yes       | ID of a VDN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| Parameter    | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------|---------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| serviceNos   | Array   | Yes       | <p>Array of business type IDs. The maximum length of the array is 500. The business type is of the integer type.</p> <p>In public cloud mode, the value is <b>1</b> by default. To change the value, contact the system administrator.</p> <p>In independent deployment mode, log in to the WAS as a VDN administrator, choose <b>Web Configuration Console &gt; VDN1 Configuration &gt; Flow &gt; Flow</b>, and check the value of <b>Flow Service Type</b> corresponding to the IVR flow. For example, <b>1 Voice</b> indicates that the business type code corresponding to the IVR flow is <b>1</b>.</p> |
| indexIds     | Array   | Yes       | <p>Array of indicators. The indicator is of the string type. For details, see <a href="#">Table 12-694</a>.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| timeGrain    | String  | No        | <p>This parameter can be used to collect statistics on historical monitoring indicators by minute. The options are <b>15MIN</b>, <b>30MIN</b>, and <b>60MIN</b>. If this parameter is not passed, statistics on the current day in the time zone where the VDN is located are collected.</p>                                                                                                                                                                                                                                                                                                                 |
| mediaType    | Integer | No        | <p>Call media type. For details, see <a href="#">Table 12-695</a>.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| subMediaType | Integer | No        | <p>Submedia type. For details, see <a href="#">Table 12-696</a>.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| Parameter    | Type   | Mandatory | Description                                                                                                                                                                                                                                      |
|--------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| enableOffset | String | No        | The options are <b>Y</b> and <b>N</b> . If <b>Y</b> is transferred, the data of the previous day is queried. If <b>N</b> is transferred, the data of the current day is queried. If no value is transferred, the default value <b>N</b> is used. |

## Response Message

**Table 12-533** Parameters in the response message body

| Parameter   | Type                  | Description                                                                                                                                                                                                                                                                                                                                                            |
|-------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| result      | String                | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |
| resultCode  | String                | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .                                                                                                                       |
| resultDatas | List<br><JSON object> | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-534</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.                                                                          |
| resultDesc  | List<br><JSON object> | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-534</a> .                                                                                                                                                                                                      |

**Table 12-534** Parameters of resultDesc or resultDatas

| Parameter | Type               | Description                                                                                                              |
|-----------|--------------------|--------------------------------------------------------------------------------------------------------------------------|
| id        | String             | Business type ID.                                                                                                        |
| idxs      | List <JSON object> | Group of indicators.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-535</a> . |

**Table 12-535** Parameters of idx

| Parameter | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| id        | String | Indicator ID.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| val       | Object | Indicator result collected by minute. The UTC time zone is used.<br>The value is in the format of " <i>Time</i> ":" <i>Indicator result</i> ", indicating the indicator result collected in a time range starting from <i>Time</i> . The time range is determined by the <b>timeGrain</b> parameter in the request.<br>For example, " <b>2020-11-11 09:15:00.0</b> ": " <b>1</b> " indicates that the indicator result is 1 from 09:15 to 09:30. In this example, the value of <b>timeGrain</b> in the request is <b>15</b> . |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  
{  
  "ccId":1,  
  "vdn":170,

```
"timeGrain": "15MIN",
"serviceNos": [3, 2],
"indexIds": ["IDX_COUNT_IVR_INBOUND_CALL"],
"mediaType": 53,
"subMediaType": 3
}
```

- Response parameters

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": [
 {
 "idxs": [
 {
 "val": {
 "2020-11-11 09:15:00.0": "1",
 "2020-11-11 10:15:00.0": "1"
 },
 "id": "IDX_COUNT_IVR_INBOUND_CALL"
 }
],
 "id": "3"
 }
],
 "resultDesc": [
 {
 "idxs": [
 {
 "val": {
 "2020-11-11 09:15:00.0": "1",
 "2020-11-11 10:15:00.0": "1"
 },
 "id": "IDX_COUNT_IVR_INBOUND_CALL"
 }
],
 "id": "3"
 }
]
}
```

### 12.3.2.4 Obtaining Historical Monitoring Indicators by Skill

#### Scenario

This interface is invoked to query historical monitoring indicators by skill.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

<https://ip.port/rest/cmsapp/v1/openapi/hisindex/skill>

In the URL, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.



## Request Description

**Table 12-536** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-537** Parameters in the request message body

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------|---------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclid     | Integer | No        | <p>Call center ID. The value ranges from 1 to 65535.</p> <ul style="list-style-type: none"> <li>In the integration environment, the default value is the value of <b>Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; CMS System Configuration</b> page after a system administrator signs in to the AICC. If this parameter is empty, the data whose <b>sys_key</b> is <b>default_cc_id</b> and <b>sys_type</b> is <b>cms_system_config</b> in the <b>t_cms_sysparam</b> database table is used.</li> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li> </ul> |
| vdn       | Integer | Yes       | VDN ID. The value ranges from 1 to 5000.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| timeGrain | String  | No        | This parameter can be used to collect statistics on historical monitoring indicators by minute. The options are <b>15MIN</b> , <b>30MIN</b> , and <b>60MIN</b> . If this parameter is not passed, statistics on the current day in the time zone where the VDN is located are collected.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| Parameter    | Type           | Mandatory | Description                                                                                                                                                                                                                                      |
|--------------|----------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| skillIds     | List <Integer> | Yes       | Array of skill queue IDs. The array contains a maximum of 1000 characters. The skill queue is of the integer type.                                                                                                                               |
| indexIds     | List <String>  | Yes       | Array of indicators. The indicator is of the string type. The maximum length of the array depends on the number of historical monitoring indicators by skill.<br><br>For details about the indicators, see <a href="#">Table 12-686</a> .        |
| mediaType    | Integer        | No        | Call media type. For details, see <a href="#">Table 12-695</a> .                                                                                                                                                                                 |
| subMediaType | Integer        | No        | Submedia type. For details, see <a href="#">Table 12-696</a> .                                                                                                                                                                                   |
| enableOffset | String         | No        | The options are <b>Y</b> and <b>N</b> . If <b>Y</b> is transferred, the data of the previous day is queried. If <b>N</b> is transferred, the data of the current day is queried. If no value is transferred, the default value <b>N</b> is used. |

## Response Message

**Table 12-538** Parameters in the response message body

| Parameter | Type   | Description                                                                                                                                                                                                                                                                                                                                                                |
|-----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| result    | String | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .<br><br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |

| Parameter   | Type               | Description                                                                                                                                                                                                                                                                                   |
|-------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode  | String             | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .                                              |
| resultDatas | List <JSON object> | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-539</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |
| resultDesc  | List <JSON object> | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-539</a> .                                                                                                                             |

**Table 12-539** Parameters of resultDesc or resultDatas

| Parameter | Type               | Description                                                                                                              |
|-----------|--------------------|--------------------------------------------------------------------------------------------------------------------------|
| id        | String             | Skill queue ID.                                                                                                          |
| idxs      | List <JSON object> | Group of indicators.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-686</a> . |

**Table 12-540** Parameters of idx

| Parameter | Type   | Description   |
|-----------|--------|---------------|
| id        | String | Indicator ID. |

| Parameter | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| val       | Object | <p>Indicator result collected by minute. The UTC time zone is used.</p> <p>The value is in the format of "<i>Time</i>":"<i>Indicator result</i>", indicating the indicator result collected in a time range starting from <i>Time</i>. The time range is determined by the <b>timeGrain</b> parameter in the request.</p> <p>For example, "<b>2020-11-11 09:15:00.0</b>": "<b>1</b>" indicates that the indicator result is 1 from 09:15 to 09:30. In this example, the value of <b>timeGrain</b> in the request is <b>15</b>.</p> |

## Message Example

- Request header

```
Content-Type: application/json;charset=UTF-8
Authorization: *****
```
- Request parameters

```
{
 "cclId":1,
 "vdn":1,
 "skillIds":[11,24],
 "timeGrain":"15MIN",
 "indexIds":["IDX_COUNT_SKILL_REQUEST","IDX_COUNT_SKILL_CONNECTED"],
 "mediaType":53,
 "subMediaType":3
}
```
- Response parameters

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": [
 {
 "idxs": [
 {
 "val": {
 "2020-08-24 10:30:00.0": "15",
 "2020-08-24 10:45:00.0": "19"
 },
 "id": "IDX_COUNT_SKILL_REQUEST"
 },
 {
 "val": {
```

```
 "2020-08-24 10:30:00.0": "6",
 "2020-08-24 10:45:00.0": "4"
 },
 "id": "IDX_COUNT_SKILL_CONNECTED"
 }
],
"id": "12"
},
{
 "idxs": [
 {
 "val": {
 "2020-08-24 10:00:00.0": "16",
 "2020-08-24 10:15:00.0": "14"
 },
 "id": "IDX_COUNT_SKILL_REQUEST"
 },
 {
 "val": {
 "2020-08-24 10:00:00.0": "5",
 "2020-08-24 10:15:00.0": "4"
 },
 "id": "IDX_COUNT_SKILL_CONNECTED"
 }
],
 "id": "13"
}
],
"resultDesc": [
 {
 "idxs": [
 {
 "val": {
 "2020-08-24 10:30:00.0": "15",
 "2020-08-24 10:45:00.0": "19"
 },
 "id": "IDX_COUNT_SKILL_REQUEST"
 },
 {
 "val": {
 "2020-08-24 10:30:00.0": "6",
 "2020-08-24 10:45:00.0": "4"
 },
 "id": "IDX_COUNT_SKILL_CONNECTED"
 }
],
 "id": "12"
 },
 {
 "idxs": [
 {
 "val": {
 "2020-08-24 10:00:00.0": "16",
 "2020-08-24 10:15:00.0": "14"
 },
 "id": "IDX_COUNT_SKILL_REQUEST"
 },
 {
 "val": {
 "2020-08-24 10:00:00.0": "5",
 "2020-08-24 10:15:00.0": "4"
 },
 "id": "IDX_COUNT_SKILL_CONNECTED"
 }
],
 "id": "13"
 }
]
}
```

## 12.3.2.5 Obtaining Historical Monitoring Indicators by Agent

### Scenario

This interface is invoked to query historical monitoring indicators by agent.

### Interface Method

The request method must be set to POST. This interface supports only the POST method.

### Request URL

`https://ip.port/rest/cmsapp/v1/openapi/hisindex/agent`

In the URL, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

### Request Description

**Table 12-541** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-542** Parameters in the request message body

| Parameter | Type           | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------|----------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclid     | Integer        | No        | <p>Call center ID. The value ranges from 1 to 65535.</p> <ul style="list-style-type: none"><li>In the integration environment, the default value is the value of <b>Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; CMS System Configuration</b> page after a system administrator signs in to the AICC. If this parameter is empty, the data whose <b>sys_key</b> is <b>default_cc_id</b> and <b>sys_type</b> is <b>cms_system_config</b> in the <b>t_cms_sysparam</b> database table is used.</li><li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li></ul> |
| vdn       | Integer        | Yes       | VDN ID. The value ranges from 1 to 5000.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| agentIds  | List <Integer> | Yes       | Array of agent IDs. The array can contain a maximum of 100 characters. The agent ID is of the integer type, and the value ranges from 0 to 99999.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |



| Parameter    | Type          | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------|---------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| timeGrain    | String        | No        | This parameter can be used to collect statistics on historical monitoring indicators by minute. The options are <b>15MIN</b> , <b>30MIN</b> , and <b>60MIN</b> . If this parameter is not passed or left empty, statistics on the current day in the time zone where the VDN is located are collected. Some historical monitoring indicators of the agent operation type cannot be queried by minute. For details, see <a href="#">Table 12-689</a> . |
| indexIds     | List <String> | Yes       | Array of indicators. The indicator is of the string type. The maximum length of the array depends on the number of historical agent monitoring indicators. For details, see <a href="#">Table 12-689</a> .                                                                                                                                                                                                                                            |
| mediaType    | Integer       | No        | Call media type. For details, see <a href="#">Table 12-695</a> .                                                                                                                                                                                                                                                                                                                                                                                      |
| subMediaType | Integer       | No        | Submedia type. For details, see <a href="#">Table 12-696</a> .                                                                                                                                                                                                                                                                                                                                                                                        |
| enableOffset | String        | No        | The options are <b>Y</b> and <b>N</b> . If <b>Y</b> is transferred, the data of the previous day is queried. If <b>N</b> is transferred, the data of the current day is queried. If no value is transferred, the default value <b>N</b> is used.                                                                                                                                                                                                      |

## Response Message

**Table 12-543** Parameters in the response message body

| Parameter   | Type   | Description                                                                                                                                                                                                                                                                                                                                                                              |
|-------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| result      | String | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> <p>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p> |
| resultCode  | String | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> </ul> <p>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</p>                                                                                                                            |
| resultDatas | Array  | <p>Object array in the returned result after a successful query.</p> <p>For details about the parameters of the object in this array, see <a href="#">Table 12-544</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p>                                                                             |
| resultDesc  | Array  | <p>Object array in the returned result after a successful query.</p> <p>For details about the parameters of the object in this array, see <a href="#">Table 12-544</a>.</p>                                                                                                                                                                                                              |

**Table 12-544** Parameters of resultDesc or resultDatas

| Parameter | Type   | Description                                                                                                              |
|-----------|--------|--------------------------------------------------------------------------------------------------------------------------|
| id        | String | Agent ID.                                                                                                                |
| idxs      | Array  | Group of indicators.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-545</a> . |

**Table 12-545** Parameters of idx

| Parameter | Type   | Description                                  |
|-----------|--------|----------------------------------------------|
| id        | String | Indicator ID.                                |
| val       | Object | Indicator result. The UTC time zone is used. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters
 

```
{
 "cclId":1,
 "vdn":22,
 "agentIds":[295],
 "timeGrain":"15MIN",
 "indexIds":
 ["IDX_COUNT_AGENT_COLLATION","IDX_COUNT_AGENT_SET_BUSY","IDX_DURATION_AGENT_CALL_I
 N"],
 "mediaType":53,
 "subMediaType":3
}
```
- Response parameters
 

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": [
 {
 "idxs": [
 {
 "val": {
 "2020-08-24 10:30:00.0": "15",
 "2020-08-24 10:45:00.0": "19"
 },
 "id": "IDX_COUNT_AGENT_COLLATION"
 },
 {
 "val": {
 "2020-08-24 10:30:00.0": "15",
 "2020-08-24 10:45:00.0": "19"
 },
 "id": "IDX_DURATION_AGENT_AVG_COLLATION"
 }
]
 }
]
}
```

```
 },
 {
 "val": {
 "2020-08-24 10:30:00.0": "15",
 "2020-08-24 10:45:00.0": "19"
 },
 "id": "IDX_COUNT_AGENT_SET_BUSY"
 }
],
 "id": "11"
},
{
 "idxs": [
 {
 "val": {
 "2020-08-24 10:30:00.0": "15",
 "2020-08-24 10:45:00.0": "19"
 },
 "id": "IDX_COUNT_AGENT_COLLATION"
 },
 {
 "val": {
 "2020-08-24 10:30:00.0": "15",
 "2020-08-24 10:45:00.0": "19"
 },
 "id": "IDX_DURATION_AGENT_AVG_COLLATION"
 },
 {
 "val": {
 "2020-08-24 10:30:00.0": "15",
 "2020-08-24 10:45:00.0": "19"
 },
 "id": "IDX_COUNT_AGENT_SET_BUSY"
 }
],
 "id": "12"
}
],
"resultDesc": [
 {
 "idxs": [
 {
 "val": {
 "2020-08-24 10:30:00.0": "15",
 "2020-08-24 10:45:00.0": "19"
 },
 "id": "IDX_COUNT_AGENT_COLLATION"
 },
 {
 "val": {
 "2020-08-24 10:30:00.0": "15",
 "2020-08-24 10:45:00.0": "19"
 },
 "id": "IDX_DURATION_AGENT_AVG_COLLATION"
 },
 {
 "val": {
 "2020-08-24 10:30:00.0": "15",
 "2020-08-24 10:45:00.0": "19"
 },
 "id": "IDX_COUNT_AGENT_SET_BUSY"
 }
],
 "id": "11"
 },
 {
 "idxs": [
 {
 "val": {
```

```

 "2020-08-24 10:30:00.0": "15",
 "2020-08-24 10:45:00.0": "19"
 },
 "id": "IDX_COUNT_AGENT_COLLATION"
},
{
 "val": {
 "2020-08-24 10:30:00.0": "15",
 "2020-08-24 10:45:00.0": "19"
 },
 "id": "IDX_DURATION_AGENT_AVG_COLLATION"
},
{
 "val": {
 "2020-08-24 10:30:00.0": "15",
 "2020-08-24 10:45:00.0": "19"
 },
 "id": "IDX_COUNT_AGENT_SET_BUSY"
}
],
"id": "12"
}
]
}

```

### 12.3.2.6 Obtaining Historical Monitoring Indicators in a Specified Time Range by Skill

#### Description

This interface is invoked to obtain historical monitoring indicators in specified time range by skill.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

<https://ip:port/rest/cmsapp/v1/openapi/hisindex/skillforday>

In the URL, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-546** Parameters in the request header

| No. | Parameter    | Type   | Mandatory | Description                                                    |
|-----|--------------|--------|-----------|----------------------------------------------------------------|
| 1   | Content-Type | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> . |

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-547** Parameters in the message body

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------|---------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclid     | Integer | No        | <p>ID of a call center.</p> <ul style="list-style-type: none"> <li>In the integration environment, the default value is the value of <b>Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; CMS System Configuration</b> page after a system administrator signs in to the AICC. If this parameter is empty, the data whose <b>sys_key</b> is <b>default_cc_id</b> and <b>sys_type</b> is <b>cms_system_config</b> in the <b>t_cms_sysparam</b> database table is used.</li> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li> </ul> |
| vdn       | Integer | Yes       | ID of a VDN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

| Parameter    | Type          | Mandatory | Description                                                                                                                                                                                                                                                                 |
|--------------|---------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| skillIds     | List<Integer> | Yes       | Array of skill queue IDs. The array contains a maximum of 1000 characters. The skill queue is of the integer type.                                                                                                                                                          |
| indexIds     | List<String>  | Yes       | Indicator code array. The indicator is of the string type. The maximum length of the array depends on the number of historical monitoring indicators by skill.<br><br>For details about the indicators, see <a href="#">Table 12-686</a> and <a href="#">Table 12-688</a> . |
| beginDayTime | String        | Yes       | Start time, which is the time in the time zone where the VDN is located.                                                                                                                                                                                                    |
| endDayTime   | String        | Yes       | End time, which is the time in the time zone where the VDN is located.                                                                                                                                                                                                      |
| mediaType    | Integer       | No        | Call media type. For details, see <a href="#">Table 12-695</a> .                                                                                                                                                                                                            |
| subMediaType | Integer       | No        | Submedia type. For details, see <a href="#">Table 12-696</a> .                                                                                                                                                                                                              |

## Response Message

**Table 12-548** Parameters in the message body

| Parameter  | Type   | Description                                                                                                                                                                                                                                      |
|------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | String | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> . |

| Parameter  | Type              | Description                                                                                                                                                       |
|------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultDesc | List< JSONObject> | Object array in the returned result after a successful query.<br>For details about the parameters of this object in the array, see <a href="#">Table 12-549</a> . |

**Table 12-549** Parameters of resultDesc

| Parameter | Type              | Description                                                                                                 |
|-----------|-------------------|-------------------------------------------------------------------------------------------------------------|
| id        | String            | Skill queue ID.                                                                                             |
| idxs      | List< JSONObject> | Group of indicators.<br>For details about the parameters of this object, see <a href="#">Table 12-550</a> . |

**Table 12-550** Parameters of idxs

| Parameter | Type   | Description       |
|-----------|--------|-------------------|
| id        | String | Indicator name.   |
| val       | object | Indicator result. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters
 

```
{
 "ccid":1,
 "vdn":4,
 "skillIds":[11,12],
 "indexIds":["IDX_DURATION_SKILL_AVG_ABANDON_ACK","IDX_COUNT_SKILL_REQUEST"],
 "beginDayTime":"2020-08-21 00:00:00",
 "endDayTime":"2020-08-22 00:00:00",
 "mediaType":53,
 "subMediaType":3
}
```
- Response parameters
 

```
{
 "resultCode": "0100000",
 "resultDesc": [
 {
 "idxs": [
 {
```



```

 "val": "3",
 "id": "IDX_COUNT_SKILL_REQUEST"
 },
 {
 "val": "35",
 "id": "IDX_DURATION_SKILL_AVG_ABANDON_ACK"
 }
],
"id": "11"
},
{
 "idxs": [
 {
 "val": "5",
 "id": "IDX_COUNT_SKILL_REQUEST"
 },
 {
 "val": "15",
 "id": "IDX_DURATION_SKILL_AVG_ABANDON_ACK"
 }
],
 "id": "12"
}
]
}

```

### 12.3.2.7 Obtaining Historical Monitoring Indicators in a Specified Month Range by Skill

#### Description

This interface is invoked to obtain historical monitoring indicators in specified month by skill.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

<https://ip:port/rest/cmsapp/v1/openapi/hisindex/skillformonth>

In the URL, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-551** Parameters in the request header

| No. | Parameter    | Type   | Mandatory | Description                                                    |
|-----|--------------|--------|-----------|----------------------------------------------------------------|
| 1   | Content-Type | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> . |

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-552** Parameters in the message body

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------|---------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclid     | Integer | No        | <p>ID of a call center.</p> <ul style="list-style-type: none"> <li>In the integration environment, the default value is the value of <b>Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; CMS System Configuration</b> page after a system administrator signs in to the AICC. If this parameter is empty, the data whose <b>sys_key</b> is <b>default_cc_id</b> and <b>sys_type</b> is <b>cms_system_config</b> in the <b>t_cms_sysparam</b> database table is used.</li> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li> </ul> |
| vdn       | Integer | Yes       | ID of a VDN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

| Parameter      | Type          | Mandatory | Description                                                                                                                                                                                                                                                                |
|----------------|---------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| skillIds       | List<Integer> | Yes       | Array of skill queue IDs. The array contains a maximum of 1000 characters. The skill queue is of the integer type.                                                                                                                                                         |
| indexIds       | List<String>  | Yes       | Array of indicators. The indicator is of the string type. The maximum length of the array depends on the number of historical monitoring indicators by skill.<br><br>For details about the indicators, see <a href="#">Table 12-686</a> and <a href="#">Table 12-688</a> . |
| beginMonthTime | String        | Yes       | Start month. The time zone of the VDN is used.                                                                                                                                                                                                                             |
| endMonthTime   | String        | Yes       | End month. The time zone of the VDN is used.                                                                                                                                                                                                                               |
| mediaType      | Integer       | No        | Call media type. For details, see <a href="#">Table 12-695</a> .                                                                                                                                                                                                           |
| subMediaType   | Integer       | No        | Submedia type. For details, see <a href="#">Table 12-696</a> .                                                                                                                                                                                                             |

## Response Message

**Table 12-553** Parameters in the message body

| Parameter  | Type   | Description                                                                                                                                                                                                                                      |
|------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | String | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> . |

| Parameter  | Type              | Description                                                                                                                                                       |
|------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultDesc | List< JSONObject> | Object array in the returned result after a successful query.<br>For details about the parameters of this object in the array, see <a href="#">Table 12-554</a> . |

**Table 12-554** Parameters of resultDesc

| Parameter | Type              | Description                                                                                                 |
|-----------|-------------------|-------------------------------------------------------------------------------------------------------------|
| id        | String            | Skill queue ID.                                                                                             |
| idxs      | List< JSONObject> | Group of indicators.<br>For details about the parameters of this object, see <a href="#">Table 12-555</a> . |

**Table 12-555** Parameters of idxs

| Parameter | Type   | Description       |
|-----------|--------|-------------------|
| id        | String | Indicator name.   |
| val       | Object | Indicator result. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters
 

```
{
 "ccId":1,
 "vdn":4,
 "skillIds":[11,12],
 "indexIds":["IDX_DURATION_SKILL_AVG_ABANDON_ACK","IDX_COUNT_SKILL_REQUEST"],
 "beginMonthTime":"202007",
 "endMonthTime":"202008",
 "mediaType":53,
 "subMediaType":3
}
```
- Response parameters
 

```
{
 "resultCode": "0100000",
 "resultDesc": [
 {
 "idxs": [
 {
```

```

 "val": "3",
 "id": "IDX_COUNT_SKILL_REQUEST"
 },
 {
 "val": "35",
 "id": "IDX_DURATION_SKILL_AVG_ABANDON_ACK"
 }
],
"id": "11"
},
{
 "idxs": [
 {
 "val": "10",
 "id": "IDX_COUNT_SKILL_REQUEST"
 },
 {
 "val": "35",
 "id": "IDX_DURATION_SKILL_AVG_ABANDON_ACK"
 }
],
 "id": "12"
}
]
}

```

### 12.3.2.8 Obtaining Historical Monitoring Indicators in a Specified Time Range by Agent

#### Scenario

This interface is invoked to obtain historical monitoring indicators in specified time range by agent.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

<https://ip:port/rest/cmsapp/v1/openapi/hisindex/agentforday>

In the URL, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-556** Parameters in the request header

| No. | Parameter    | Type   | Mandatory | Description                                                    |
|-----|--------------|--------|-----------|----------------------------------------------------------------|
| 1   | Content-Type | String | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> . |

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-557** Parameters in the message body

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------|---------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclid     | Integer | No        | <p>ID of a call center.</p> <ul style="list-style-type: none"> <li>In the integration environment, the default value is the value of <b>Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; CMS System Configuration</b> page after a system administrator signs in to the AICC. If this parameter is empty, the data whose <b>sys_key</b> is <b>default_cc_id</b> and <b>sys_type</b> is <b>cms_system_config</b> in the <b>t_cms_sysparam</b> database table is used.</li> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li> </ul> |
| vdn       | Integer | Yes       | ID of a VDN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

| Parameter    | Type           | Mandatory | Description                                                                                                                                                                                                                                  |
|--------------|----------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| agentIds     | List <Integer> | Yes       | Array of agent queue IDs. The array contains a maximum of 1000 characters. The agent queue is of the integer type, and the value ranges from 0 to 99999.                                                                                     |
| indexIds     | List <String>  | Yes       | Indicator code array. The indicator is of the string type. The maximum length of the array depends on the number of historical agent monitoring indicators. For details, see <a href="#">Table 12-689</a> and <a href="#">Table 12-691</a> . |
| beginDayTime | String         | Yes       | Start date. The time zone of the VDN is used.                                                                                                                                                                                                |
| endDayTime   | String         | Yes       | End date. The time zone of the VDN is used.                                                                                                                                                                                                  |
| mediaType    | Integer        | No        | Call media type. For details, see <a href="#">Table 12-695</a> .                                                                                                                                                                             |
| subMediaType | Integer        | No        | Submedia type. For details, see <a href="#">Table 12-696</a> .                                                                                                                                                                               |

## Response Message

**Table 12-558** Parameters in the message body

| Parameter  | Type   | Description                                                                                                                                                                                                                                   |
|------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | String | Query result. The options are as follows: <ul style="list-style-type: none"><li>● <b>0100000</b>: success</li><li>● Other values: failure</li></ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> . |

| Parameter  | Type              | Description                                                                                                                                                           |
|------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultDesc | List <JSONObject> | Object array in the returned result after a successful query.<br><br>For details about the parameters of this object in the array, see <a href="#">Table 12-559</a> . |

**Table 12-559** Parameters of resultDesc

| Parameter | Type              | Description                                                                                                     |
|-----------|-------------------|-----------------------------------------------------------------------------------------------------------------|
| id        | String            | Agent ID.                                                                                                       |
| idxs      | List <JSONObject> | Group of indicators.<br><br>For details about the parameters of this object, see <a href="#">Table 12-560</a> . |

**Table 12-560** Parameters of idxs

| Parameter | Type   | Description       |
|-----------|--------|-------------------|
| id        | String | Indicator name.   |
| val       | Object | Indicator result. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters
 

```
{
 "ccld":1,
 "vdn":4,
 "agentIds":[11,12],
 "indexIds":["IDX_DURATION_AGENT_REST","IDX_COUNT_AGENT_REQUEST"],
 "beginDayTime":"2020-08-21 00:00:00",
 "endDayTime":"2020-08-22 00:00:00",
 "mediaType":53,
 "subMediaType":3
}
```
- Response parameters
 

```
{
 "resultCode": "0100000",
 "resultDesc": [
 {
 "idxs": [
 {
```



```

 "val": "3",
 "id": "IDX_COUNT_AGENT_REQUEST"
 },
 {
 "val": "35",
 "id": "IDX_DURATION_AGENT_REST"
 }
],
"id": "11"
},
{
 "idxs": [
 {
 "val": "5",
 "id": "IDX_COUNT_AGENT_REQUEST"
 },
 {
 "val": "15",
 "id": "IDX_DURATION_AGENT_REST"
 }
],
 "id": "12"
}
]
}

```

### 12.3.2.9 Obtaining Historical Monitoring Indicators in Specified Month by Agent

#### Scenario

This interface is invoked to obtain historical monitoring indicators in specified month by agent.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

<https://ip:port/rest/cmsapp/v1/openapi/hisindex/agentformonth>

In the URL, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-561** Parameters in the request header

| No. | Parameter    | Type   | Mandatory | Description                                                    |
|-----|--------------|--------|-----------|----------------------------------------------------------------|
| 1   | Content-Type | String | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> . |

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-562** Parameters in the message body

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------|---------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclid     | Integer | No        | <p>ID of a call center.</p> <ul style="list-style-type: none"> <li>In the integration environment, the default value is the value of <b>Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; CMS System Configuration</b> page after a system administrator signs in to the AICC. If this parameter is empty, the data whose <b>sys_key</b> is <b>default_cc_id</b> and <b>sys_type</b> is <b>cms_system_config</b> in the <b>t_cms_sysparam</b> database table is used.</li> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li> </ul> |
| vdn       | Integer | Yes       | ID of a VDN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

| Parameter      | Type           | Mandatory | Description                                                                                                                                                                                                                                 |
|----------------|----------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| agentIds       | List <Integer> | Yes       | Array of agent IDs. The array contains a maximum of 1000 characters. The agent queue is of the integer type, and the value ranges from 0 to 99999.                                                                                          |
| indexIds       | List <String>  | Yes       | Array of indicators. The indicator is of the string type. The maximum length of the array depends on the number of historical agent monitoring indicators. For details, see <a href="#">Table 12-689</a> and <a href="#">Table 12-691</a> . |
| beginMonthTime | String         | Yes       | Start month. The time zone of the VDN is used.                                                                                                                                                                                              |
| endMonthTime   | String         | Yes       | End month. The time zone of the VDN is used.                                                                                                                                                                                                |
| mediaType      | Integer        | No        | Call media type. For details, see <a href="#">Table 12-695</a> .                                                                                                                                                                            |
| subMediaType   | Integer        | No        | Submedia type. For details, see <a href="#">Table 12-696</a> .                                                                                                                                                                              |

## Response Message

**Table 12-563** Parameters in the message body

| Parameter  | Type   | Description                                                                                                                                                                                                                                      |
|------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | String | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> . |

| Parameter  | Type              | Description                                                                                                                                                       |
|------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultDesc | List <JSONObject> | Object array in the returned result after a successful query.<br>For details about the parameters of this object in the array, see <a href="#">Table 12-564</a> . |

**Table 12-564** Parameters of resultDesc

| Parameter | Type              | Description                                                                                                 |
|-----------|-------------------|-------------------------------------------------------------------------------------------------------------|
| id        | String            | Agent ID.                                                                                                   |
| idxs      | List <JSONObject> | Group of indicators.<br>For details about the parameters of this object, see <a href="#">Table 12-565</a> . |

**Table 12-565** Parameters of idxs

| Parameter | Type   | Description       |
|-----------|--------|-------------------|
| id        | String | Indicator name.   |
| val       | Object | Indicator result. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters
 

```
{
 "ccld":1,
 "vdn":4,
 "agentIds":[11,12],
 "indexIds":["IDX_DURATION_AGENT_REST","IDX_COUNT_AGENT_REQUEST"],
 "beginMonthTime":"202007",
 "endMonthTime":"202008",
 "mediaType":53,
 "subMediaType":3
}
```
- Response parameters
 

```
{
 "resultCode": "0100000",
 "resultDesc": [
 {
 "idxs": [
 {
```

```
 "val": "3",
 "id": "IDX_COUNT_AGENT_REQUEST"
 },
 {
 "val": "35",
 "id": "IDX_DURATION_AGENT_REST"
 }
],
"id": "11"
},
{
 "idxs": [
 {
 "val": "10",
 "id": "IDX_COUNT_AGENT_REQUEST"
 },
 {
 "val": "35",
 "id": "IDX_DURATION_AGENT_REST"
 }
],
 "id": "12"
}
]
```

### 12.3.2.10 Collecting Statistics on Result Sets in Daily Settlement Table for Inbound Calls

#### Scenario

This interface is invoked to collect statistics on result sets in the daily settlement table for inbound calls based on conditions.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

<https://ip:port/rest/cmsapp/v1/callinday/querymanualindexesbycondition>

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-566** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-567** Parameters in the message body

| Parameter   | Type   | Mandatory | Description                                                                                                                                                  |
|-------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| calleeNos   | Array  | Yes       | Array of called numbers. The statistics are collected for each number in the array. The called number consists of only digits. The array size is up to 1000. |
| beginLogDay | String | Yes       | Start call time for statistics collection. The value must be in the <i>yyyy-MM-dd</i> format and in the time zone of the VDN.                                |
| endLogDay   | String | Yes       | End call time for statistics collection. The value must be in the <i>yyyy-MM-dd</i> format and in the time zone of the VDN.                                  |

| Parameter | Type    | Mandatory                                                             | Description                                                                                                                                                      |
|-----------|---------|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| callTypes | Array   | Yes                                                                   | Call type array of the integer type. Statistics are collected based on each type in the array. The call type is only the digit.<br>The array size is up to 1000. |
| skillIds  | Array   | No                                                                    | Skill queue IDs. An array of integers. Statistics are collected by type in the array. The array size is up to 1000.                                              |
| subCcNo   | Integer | Either this parameter or <b>tenantId</b> must be set.                 | Subsystem number.                                                                                                                                                |
| vdn       | Integer | Either this parameter or <b>tenantId</b> must be set.                 | ID of a VDN.                                                                                                                                                     |
| tenantId  | String  | Either this parameter or <b>subCcNo</b> (or <b>vdn</b> ) must be set. | Tenant ID.                                                                                                                                                       |

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------|---------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ccId      | Integer | No        | <p>ID of a call center.</p> <ul style="list-style-type: none"> <li>In the integration environment, the default value is the value of <b>Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; CMS System Configuration</b> page after a system administrator signs in to the AICC. If this parameter is empty, the data whose <b>sys_key</b> is <b>default_cc_id</b> and <b>sys_type</b> is <b>cms_system_config</b> in the <b>t_cms_sysparam</b> database table is used.</li> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator</li> </ul> |



| Parameter | Type | Mandatory | Description           |
|-----------|------|-----------|-----------------------|
|           |      |           | signs in to the AICC. |

## Response Message

**Table 12-568** Parameters in the message body

| Parameter  | Type   | Description                                                                                                                                                                                                                                      |
|------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | String | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> . |
| resultDesc | Array  | Object in the returned result after a successful query.<br>For details about the parameters of this object, see <a href="#">Table 12-569</a> .                                                                                                   |

**Table 12-569** Parameters of resultDesc

| Parameter   | Type    | Description                                                |
|-------------|---------|------------------------------------------------------------|
| beginLogDay | String  | Start call time, which is the same as the input parameter. |
| endLogDay   | String  | End call time, which is the same as the input parameter.   |
| calleeNo    | String  | Called number.                                             |
| callType    | Integer | Call type.                                                 |
| vdn         | Integer | ID of a VDN.                                               |
| serviceNo   | Integer | Business type.                                             |
| orgCcNo     | Integer | Subsystem number of the original call center.              |
| subCcNo     | Integer | Subsystem number.                                          |

| Parameter         | Type    | Description                                                                                                     |
|-------------------|---------|-----------------------------------------------------------------------------------------------------------------|
| serCcNo           | Integer | Subsystem number of the service party.                                                                          |
| currentAgentId    | Integer | Agent ID.<br>Agent ID in the last CDR of a call, which is not recommended for indicator settlement.             |
| currentSkillId    | Integer | Skill queue ID.<br>Skill queue ID in the last CDR of a call, which is not recommended for indicator settlement. |
| failQueueWaitNum  | Integer | Number of waits for lost calls.                                                                                 |
| failQueueWaitTime | Integer | Waiting duration of lost calls, in seconds.                                                                     |
| waitAnsNum        | Integer | Number of calls that are waiting for answers.                                                                   |
| waitAnsTime       | Integer | Ring duration, in seconds.                                                                                      |
| succWaitAnsTime   | Integer | Duration of waiting for the answer in a successful call, in seconds.                                            |
| noAckNum          | Integer | Number of calls that are not answered.                                                                          |
| succQueueWaitTime | Integer | Queuing duration of a successful call, in seconds.                                                              |
| succQueueWaitNum  | Integer | Number of queuing times for a successful call.                                                                  |
| queOverToIvrNum   | Integer | Number of hang-up calls transferred from a queue to the IVR.                                                    |
| queOverToIvrTime  | Integer | Total hang-up duration for transferring calls from a queue to the IVR, in seconds.                              |
| hangUpNum         | Integer | Number of manual-to-IVR calls.                                                                                  |
| hangUpTime        | Integer | Total duration of manual-to-IVR calls.                                                                          |
| hangUpReleaseNum  | Integer | Number of hang-up calls that are transferred from the manual service to the IVR.                                |
| inOccupyNum       | Integer | Number of manual requests.                                                                                      |
| inCallSuccNum     | Integer | Number of manual calls.                                                                                         |

| Parameter        | Type    | Description                                                                |
|------------------|---------|----------------------------------------------------------------------------|
| inCallTime       | Integer | Manual call duration, in seconds.                                          |
| maxQueueWaitTime | Integer | Maximum queuing duration, in seconds.                                      |
| minQueueWaitTime | Integer | Minimum queuing duration, in seconds.                                      |
| maxWaitAnsTime   | Integer | Maximum ring duration, in seconds.                                         |
| minWaitAnsTime   | Integer | Minimum ring duration, in seconds.                                         |
| maxCallTime      | Integer | Maximum call duration, in seconds.                                         |
| minCallTime      | Integer | Minimum call duration, in seconds.                                         |
| succAckTimeLt3   | Integer | Number of successful calls that are answered within 3 seconds.             |
| callTimeLt3      | Integer | Number of successful calls whose call duration is shorter than 3 seconds.  |
| failTimeLt3      | Integer | Number of failed calls whose waiting duration is shorter than 3 seconds.   |
| succAckTimeLt5   | Integer | Number of successful calls that are answered within 5 seconds.             |
| callTimeLt5      | Integer | Number of successful calls whose call duration is shorter than 5 seconds.  |
| failTimeLt5      | Integer | Number of failed calls whose waiting duration is shorter than 5 seconds.   |
| succAckTimeLt10  | Integer | Number of successful calls that are answered within 10 seconds.            |
| callTimeLt10     | Integer | Number of successful calls whose call duration is shorter than 10 seconds. |
| failTimeLt10     | Integer | Number of failed calls whose waiting duration is shorter than 10 seconds.  |
| succAckTimeLt30  | Integer | Number of successful calls that are answered within 30 seconds.            |
| callTimeLt30     | Integer | Number of successful calls whose call duration is shorter than 30 seconds. |

| Parameter           | Type    | Description                                                                |
|---------------------|---------|----------------------------------------------------------------------------|
| failTimeLt30        | Integer | Number of failed calls whose waiting duration is shorter than 30 seconds.  |
| succAckTimeLt60     | Integer | Number of successful calls that are answered within 60 seconds.            |
| callTimeLt60        | Integer | Number of successful calls whose call duration is shorter than 60 seconds. |
| failTimeLt60        | Integer | Number of failed calls whose waiting duration is shorter than 60 seconds.  |
| succAckTimeGt10     | Integer | Number of successful calls that are answered after 10 seconds.             |
| callTimeGt10        | Integer | Number of successful calls whose call duration is longer than 10 seconds.  |
| failTimeGt10        | Integer | Number of failed calls whose waiting duration is longer than 10 seconds.   |
| succAckTimeGt60     | Integer | Number of successful calls that are answered after 60 seconds.             |
| callTimeGt60        | Integer | Number of successful calls whose call duration is longer than 60 seconds.  |
| failTimeGt60        | Integer | Number of failed calls whose waiting duration is longer than 60 seconds.   |
| minIvrCallTime      | Integer | Minimum IVR call duration, in seconds.                                     |
| agentToQueueNum     | Integer | Number of manual-to-queue calls.                                           |
| inVdnTime           | Integer | Total duration of VDN occupation by inbound calls, in seconds.             |
| succWaitAnsNum      | Integer | Number of successful call responses.                                       |
| ivrOccupyNum        | Integer | Number of IVR inbound call requests.                                       |
| autoUserAbandon-Num | Integer | Number of calls that are hung up by users during IVR voice playing.        |
| autoAnsTime         | Integer | System-level IVR inbound call ringing duration, in seconds.                |

| Parameter           | Type    | Description                                                                                                      |
|---------------------|---------|------------------------------------------------------------------------------------------------------------------|
| ivrOnlySuccNum      | Integer | Number of successful calls that are connected using only the IVR.                                                |
| autoCallSuccNum     | Integer | Number of system-level IVR calls.                                                                                |
| maxIvrCallTime      | Integer | Maximum IVR call duration, in seconds.                                                                           |
| ivrOnlyTime         | Integer | Total duration of inbound calls that are connected using only the IVR, in seconds.                               |
| netCallSuccNum      | Integer | Number of successful inbound calls through network devices.                                                      |
| ivrOnlyNum          | Integer | Number of inbound calls that are connected using only the IVR.                                                   |
| autoCallNum         | Integer | Number of system-level IVR inbound calls.                                                                        |
| failWaitAnsTime     | Integer | Ring duration for lost calls, in seconds.                                                                        |
| queueWaitTime       | Integer | Queuing duration, in seconds.                                                                                    |
| ivrCallTime         | Integer | IVR inbound call duration, in seconds.                                                                           |
| netCallNum          | Integer | Number of inbound calls through network devices.                                                                 |
| ivrCallSuccNum      | Integer | Number of IVR inbound calls.                                                                                     |
| agentToAgentNum     | Integer | Number of calls that are transferred from the manual service to the manual service.                              |
| autoTransferNum     | Integer | Number of system-level IVR inbound calls that are transferred out.                                               |
| inCallCostMinute    | Integer | Charging duration of a manual call, in minutes.                                                                  |
| inCallAllCostMinute | Integer | Total charging duration of each call, in minutes, including the charging duration of manual calls and IVR calls. |

| Parameter                        | Type    | Description                                                                                                                                                                                                                                                                          |
|----------------------------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| reserved_col1-<br>reserved_col20 | Integer | Reserved field. The service meaning is determined based on the configuration in the <b>t_cms_custom_indicator_config</b> table. By default, the reserved field <b>3</b> indicates the number of inbound calls whose waiting duration for answer is less than or equal to 15 seconds. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters  

```
{
 "queryParam": {
 "calleeNos": ["10000"],
 "beginLogDay": "2020-01-01",
 "endLogDay": "2020-01-01",
 "callTypes": [0],
 "skillIds": [1],
 "subCcNo": 1,
 "vdn": 3,
 "cclid": 1 }
}
```

- Response parameters  

```
{
 "resultCode": "0100000",
 "resultDesc": [
 {
 "callTimeGt10": 6,
 "vdn": 152,
 "minIvrCallTime": 0,
 "queOverToIvrNum": 0,
 "failTimeGt10": 0,
 "inCallTime": 6584,
 "agentToQueueNum": 0,
 "inVdnTime": 0,
 "callType": 6,
 "maxQueueWaitTime": 0,
 "succWaitAnsNum": 0,
 "ivrOccupyNum": 0,
 "beginLogDay": "2020-08-24",
 "autoUserAbandonNum": 0,
 "callTimeLt60": 2,
 "maxCallTime": 5702,
 "failTimeLt60": 0,
 "hangUpTime": 0,
 "failTimeLt10": 0,
 "succAckTimeGt10": 0,
 "minWaitAnsTime": 2,
 "autoAnsTime": 0,
 "ivrOnlySuccNum": 0,
 "autoCallSuccNum": 0,
 "hangUpNum": 0,
 "callTimeLt10": 1,
 "currentSkillId": -1,
 "failQueueWaitNum": 0,
 }
]
}
```

```
"minQueueWaitTime": 0,
"succQueueWaitNum": 0,
"inOccupyNum": 7,
"maxIvrCallTime": 0,
"currentAgentId": 1133,
"ivrOnlyTime": 0,
"subCcNo": 1,
"succAckTimeLt30": 7,
"succAckTimeGt60": 0,
"serviceNo": 65535,
"maxWaitAnsTime": 3,
"netCallSuccNum": 0,
"failTimeLt5": 0,
"ivrOnlyNum": 0,
"minCallTime": 5,
"failTimeLt3": 0,
"inCallSuccNum": 7,
"queOverToIvrTime": 0,
"autoCallNum": 0,
"failWaitAnsTime": 0,
"succAckTimeLt60": 7,
"queueWaitTime": 0,
"hangUpReleaseNum": 0,
"endLogDay": "2020-08-25",
"ivrCallTime": 0,
"orgCcNo": 1,
"calleeNo": "1134",
"failTimeLt30": 0,
"failTimeGt60": 0,
"succWaitAnsTime": 20,
"callTimeGt60": 5,
"callTimeLt5": 0,
"netCallNum": 0,
"callTimeLt30": 1,
"callTimeLt3": 0,
"serCcNo": 1,
"succAckTimeLt5": 7,
"ivrCallSuccNum": 0,
"succQueueWaitTime": 0,
"agentToAgentNum": 0,
"failQueueWaitTime": 0,
"succAckTimeLt10": 7,
"noAckNum": 0,
"waitAnsNum": 7,
"waitAnsTime": 20,
"succAckTimeLt3": 1,
"autoTransferNum": 0,
"inCallCostMinute": 10,
"reserved_col1": 0,
"inCallAllCostMinute": 1,
.....
},
{...}
]
}
```

### 12.3.2.11 Collecting Statistics on Result Sets in Daily Settlement Table for Outbound Calls

#### Interface Function

This interface is invoked to collect statistics on result sets in the daily settlement table for outbound calls based on conditions.

## Interface Method

The request method must be set to POST. This interface supports only the POST method.

## Request URL

`https://ip:port/rest/cmsapp/v1/calloutday/querymanualindexesbycondition`

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-570** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-571** Parameters in the message body

| Parameter | Type  | Mandatory | Description                                                                                                                                                                            |
|-----------|-------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| callerNos | Array | Yes       | Array of calling numbers of a call. The statistics are collected by group based on each number in the array. The calling number consists of only digits. The array size is up to 1000. |



| Parameter   | Type    | Mandatory                                                             | Description                                                                                                                                                      |
|-------------|---------|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| beginLogDay | String  | Yes                                                                   | Start call time for statistics collection. The value must be in the <i>yyyy-MM-dd</i> format and in the time zone of the VDN.                                    |
| endLogDay   | String  | Yes                                                                   | End call time for statistics collection. The value must be in the <i>yyyy-MM-dd</i> format and in the time zone of the VDN.                                      |
| callTypes   | Array   | Yes                                                                   | Call type array of the integer type. Statistics are collected based on each type in the array. The call type is only the digit.<br>The array size is up to 1000. |
| skillIds    | Array   | No                                                                    | Skill queue IDs. An array of integers. Statistics are collected by type in the array.<br>The array size is up to 1000.                                           |
| subCcNo     | Integer | Either this parameter or <b>tenantId</b> must be set.                 | Subsystem number.                                                                                                                                                |
| vdn         | Integer | Either this parameter or <b>tenantId</b> must be set.                 | ID of a VDN.                                                                                                                                                     |
| tenantId    | String  | Either this parameter or <b>subCcNo</b> (or <b>vdn</b> ) must be set. | Tenant ID.                                                                                                                                                       |

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------|---------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ccId      | Integer | No        | <p>ID of a call center.</p> <ul style="list-style-type: none"> <li>In the integration environment, the default value is the value of <b>Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; CMS System Configuration</b> page after a system administrator signs in to the AICC. If this parameter is empty, the data whose <b>sys_key</b> is <b>default_cc_id</b> and <b>sys_type</b> is <b>cms_system_config</b> in the <b>t_cms_sysparam</b> database table is used.</li> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator</li> </ul> |

| Parameter | Type | Mandatory | Description           |
|-----------|------|-----------|-----------------------|
|           |      |           | signs in to the AICC. |

## Response Message

**Table 12-572** Parameters in the message body

| Parameter  | Type   | Description                                                                                                                                                                                                                                      |
|------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | String | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> . |
| resultDesc | Array  | Object in the returned result after a successful query. For details about the parameters of this object, see <a href="#">Table 12-573</a> .                                                                                                      |

**Table 12-573** Parameters of resultDesc

| Parameter   | Type    | Description                                                |
|-------------|---------|------------------------------------------------------------|
| beginLogDay | String  | Start call time, which is the same as the input parameter. |
| endLogDay   | String  | End call time, which is the same as the input parameter.   |
| callerNo    | String  | Calling number.                                            |
| callType    | Integer | Call type.                                                 |
| vdn         | Integer | ID of a VDN.                                               |
| serviceNo   | Integer | Business type.                                             |
| orgCcNo     | Integer | Subsystem number of the original call center.              |
| subCcNo     | Integer | Subsystem number.                                          |

| Parameter         | Type    | Description                                                                                                           |
|-------------------|---------|-----------------------------------------------------------------------------------------------------------------------|
| serCcNo           | Integer | Subsystem number of the service party.                                                                                |
| currentAgentId    | Integer | Outbound agent ID.<br>Outbound agent ID in the last CDR of a call, which is not recommended for indicator settlement. |
| currentSkillId    | Integer | Skill queue ID.<br>Skill queue ID in the last CDR of a call, which is not recommended for indicator settlement.       |
| obsServiceNo      | String  | ID of an outbound campaign.                                                                                           |
| failQueueWaitNum  | Integer | Number of waits for lost calls.                                                                                       |
| failQueueWaitTime | Integer | Waiting duration of lost calls, in seconds.                                                                           |
| outOccupyNum      | Integer | Number of manual outbound calls.                                                                                      |
| outSuccWaitAnsNum | Integer | Number of manual outbound calls that are answered.                                                                    |
| outCallSuccNum    | Integer | Number of successful manual outbound calls.                                                                           |
| outWaitAnsTime    | Integer | Ring duration for outbound calls, in seconds.                                                                         |
| outCallTime       | Integer | Outbound call duration, in seconds.                                                                                   |
| maxWaitAnsTime    | Integer | Maximum ring duration, in seconds.                                                                                    |
| minWaitAnsTime    | Integer | Minimum ring duration, in seconds.                                                                                    |
| maxCallTime       | Integer | Maximum call duration, in seconds.                                                                                    |
| minCallTime       | Integer | Minimum call duration, in seconds.                                                                                    |
| succAckTimeLt3    | Integer | Number of successful calls that are answered within 3 seconds.                                                        |
| callTimeLt3       | Integer | Number of successful calls whose call duration is shorter than 3 seconds.                                             |
| failTimeLt3       | Integer | Number of failed calls whose waiting duration is shorter than 3 seconds.                                              |
| succAckTimeLt5    | Integer | Number of successful calls that are answered within 5 seconds.                                                        |

| Parameter       | Type    | Description                                                                |
|-----------------|---------|----------------------------------------------------------------------------|
| callTimeLt5     | Integer | Number of successful calls whose call duration is shorter than 5 seconds.  |
| failTimeLt5     | Integer | Number of failed calls whose waiting duration is shorter than 5 seconds.   |
| succAckTimeLt10 | Integer | Number of successful calls that are answered within 10 seconds.            |
| callTimeLt10    | Integer | Number of successful calls whose call duration is shorter than 10 seconds. |
| failTimeLt10    | Integer | Number of failed calls whose waiting duration is shorter than 10 seconds.  |
| succAckTimeLt30 | Integer | Number of successful calls that are answered within 30 seconds.            |
| callTimeLt30    | Integer | Number of successful calls whose call duration is shorter than 30 seconds. |
| failTimeLt30    | Integer | Number of failed calls whose waiting duration is shorter than 30 seconds.  |
| succAckTimeLt60 | Integer | Number of successful calls that are answered within 60 seconds.            |
| callTimeLt60    | Integer | Number of successful calls whose call duration is shorter than 60 seconds. |
| failTimeLt60    | Integer | Number of failed calls whose waiting duration is shorter than 60 seconds.  |
| succAckTimeGt10 | Integer | Number of successful calls that are answered after 10 seconds.             |
| callTimeGt10    | Integer | Number of successful calls whose call duration is longer than 10 seconds.  |
| failTimeGt10    | Integer | Number of failed calls whose waiting duration is longer than 10 seconds.   |
| succAckTimeGt60 | Integer | Number of successful calls that are answered after 60 seconds.             |
| callTimeGt60    | Integer | Number of successful calls whose call duration is longer than 60 seconds.  |

| Parameter                | Type    | Description                                                                 |
|--------------------------|---------|-----------------------------------------------------------------------------|
| failTimeGt60             | Integer | Number of failed calls whose waiting duration is longer than 60 seconds.    |
| agentHangUpLt3           | Integer | Number of calls released by calling parties in less than 3 seconds.         |
| preAgentSuccNum          | Integer | Number of predicted outbound calls that are forwarded to agents.            |
| preViewedTransfer-Num    | Integer | Number of previewed outbound calls that are transferred by an agent.        |
| hangUpTime               | Integer | Total duration of manual-to-IVR calls.                                      |
| preOccupiedSuccAck Time  | Integer | Waiting duration before a preempted outbound call is connected, in seconds. |
| autoAnsTime              | Integer | System-level IVR outbound call ringing duration, in seconds.                |
| autoCallSuccNum          | Integer | Number of system-level IVR outbound calls.                                  |
| preOccupiedSucc-Num      | Integer | Waiting duration before a preempted outbound call is connected, in seconds. |
| hangUpNum                | Integer | Number of manual-to-IVR calls.                                              |
| preAgentNum              | Integer | Number of predicted outbound calls that are forwarded to agents.            |
| zeroNum                  | Integer | Number of calls with zero CDRs.                                             |
| preQueueWaitTime         | Integer | Waiting duration of a predicted outbound call in a queue, in seconds.       |
| preQueueWaitNum          | Integer | Number of queuing times for predicted outbound calls.                       |
| preViewedCallSucc-Num    | Integer | Number of previewed outbound calls that are connected.                      |
| preOccupiedCall-Num      | Integer | Total number of preempted outbound calls.                                   |
| preOccupiedAgent-SuccNum | Integer | Number of preempted outbound calls that are answered by agents.             |
| agentTransferNum         | Integer | Number of manual outbound calls that are transferred out.                   |
| autoCallNum              | Integer | Number of system-level IVR outbound calls.                                  |

| Parameter                 | Type    | Description                                                                               |
|---------------------------|---------|-------------------------------------------------------------------------------------------|
| hangUpReleaseNum          | Integer | Number of hang-up calls that are transferred from the manual service to the IVR.          |
| preTransferNum            | Integer | Number of predicted outbound calls that are transferred out.                              |
| preTotalTime              | Integer | Total duration of predicted outbound calls, in seconds.                                   |
| preFailQueueWait-Num      | Integer | Number of queuing times for lost predicted outbound calls.                                |
| preViewedSuccAck-Time     | Integer | Waiting duration before a previewed outbound call is connected, in seconds.               |
| preFailQueueWait-Time     | Integer | Waiting duration of a lost predicted outbound call in a queue, in seconds.                |
| preAbortQueueWait-Num     | Integer | Number of queuing times for predicted outbound calls that are released.                   |
| preNoAckNum               | Integer | Number of predicted outbound calls that are answered by users but not answered by agents. |
| succWaitAnsTime           | Integer | Duration of answering a successful call, in seconds.                                      |
| outVdnTime                | Integer | Total duration of VDN occupation by outbound calls, in seconds.                           |
| preViewedCallNum          | Integer | Total number of previewed outbound calls.                                                 |
| preCallSuccNum            | Integer | Number of predicted outbound calls that are connected.                                    |
| preOccupiedTransferNum    | Integer | Number of preempted outbound calls that are transferred by an agent.                      |
| preCallNum                | Integer | Number of predicted outbound calls.                                                       |
| preOccupiedAgent-SuccTime | Integer | Manual call duration of preempted outbound calls, in seconds.                             |
| autoTransferNum           | Integer | Number of system-level IVR outbound calls that are transferred out.                       |
| outCallCostMinute         | Integer | Charging duration of a manual call, in minutes.                                           |

| Parameter                    | Type    | Description                                                                                                                                                                                                                                                                      |
|------------------------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ivrCallSuccNum               | Integer | Number of IVR outbound calls.                                                                                                                                                                                                                                                    |
| ivrCallTime                  | Integer | IVR outbound call duration, in seconds.                                                                                                                                                                                                                                          |
| ivrOccupyNum                 | Integer | Number of IVR outbound call requests.                                                                                                                                                                                                                                            |
| ivrOnlyNum                   | Integer | Number of outbound calls connected using only the IVR.                                                                                                                                                                                                                           |
| ivrOnlySuccNum               | Integer | Number of successful calls that are connected using only the IVR.                                                                                                                                                                                                                |
| ivrOnlyTime                  | Integer | Duration of outbound calls connected using only the IVR, in seconds.                                                                                                                                                                                                             |
| outCallAllCostMinute         | Integer | Total charging duration of each call, in minutes, including the charging duration of manual calls and IVR calls.                                                                                                                                                                 |
| reserved_col1-reserved_col20 | Integer | Reserved field. The service meaning is determined based on the configuration in the <b>t/cms/custom/indicator/config</b> table.<br><br>By default, the reserved field <b>3</b> indicates the number of outbound calls whose call duration is longer than or equal to 15 seconds. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters

```
{
 "queryParam": {
 "callerNos": ["120002"],
 "beginLogDay": "2021-10-26",
 "endLogDay": "2021-10-26",
 "callTypes": [7],
 "skillIds": [1,6],
 "subCcNo": 1,
 "vdn": 32
 }
}
```

- Response parameters

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDesc": [
```



```
{
 "failTimeGt10": 0,
 "outSuccWaitAnsNum": 2,
 "callType": 7,
 "callerNo": "120002",
 "maxCallTime": 38,
 "callTimeLt60": 2,
 "preViewedTransferNum": 0,
 "failTimeLt10": 0,
 "succAckTimeGt10": 1,
 "minWaitAnsTime": 1,
 "autoCallSuccNum": 0,
 "hangUpNum": 0,
 "preOccupiedSuccNum": 0,
 "preAgentNum": 0,
 "zeroNum": 0,
 "subCcNo": 1,
 "ivrOnlyTime": 0,
 "succAckTimeLt30": 2,
 "serviceNo": 1,
 "maxWaitAnsTime": 15,
 "obsServiceNo": "-1",
 "failTimeLt5": 0,
 "reservedCol3": 2,
 "ivrOnlyNum": 0,
 "reservedCol2": 0,
 "failTimeLt3": 0,
 "reservedCol1": 0,
 "reservedCol7": 0,
 "reservedCol6": 0,
 "reservedCol5": 0,
 "reservedCol4": 0,
 "preOccupiedAgentSuccNum": 0,
 "autoCallNum": 0,
 "hangUpReleaseNum": 0,
 "preTotalTime": 0,
 "preFailQueueWaitTime": 0,
 "preAbortQueueWaitNum": 0,
 "failTimeGt60": 0,
 "orgCcNo": 1,
 "succWaitAnsTime": 16,
 "callTimeGt60": 0,
 "outVdnTime": 105,
 "callTimeLt5": 0,
 "callTimeLt3": 0,
 "succAckTimeLt5": 1,
 "ivrCallSuccNum": 0,
 "preCallNum": 0,
 "succAckTimeLt10": 1,
 "outCallSuccNum": 2,
 "succAckTimeLt3": 1,
 "callTimeGt10": 2,
 "vdn": 32,
 "preAgentSuccNum": 0,
 "reservedCol10": 0,
 "outOccupyNum": 2,
 "ivrOccupyNum": 0,
 "beginLogDay": "2021-10-26",
 "reservedCol18": 0,
 "reservedCol17": 0,
 "reservedCol16": 0,
 "reservedCol15": 0,
 "reservedCol14": 0,
 "reservedCol13": 0,
 "reservedCol12": 0,
 "failTimeLt60": 0,
 "reservedCol11": 0,
 "hangUpTime": 0,
 "preOccupiedSuccAckTime": 0,
}
```

```
"ivrOnlySuccNum": 0,
"reservedCol19": 0,
"autoAnsTime": 0,
"callTimeLt10": 0,
"outWaitAnsTime": 16,
"currentSkillId": 1,
"failQueueWaitNum": 0,
"reservedCol20": 0,
"reservedCol9": 0,
"reservedCol8": 0,
"outCallCostMinute": 2,
"currentAgentId": 40002,
"succAckTimeGt60": 0,
"agentHangUpLt3": 0,
"preQueueWaitTime": 0,
"preQueueWaitNum": 0,
"preViewedCallSuccNum": 0,
"minCallTime": 26,
"preOccupiedCallNum": 0,
"agentTransferNum": 1,
"succAckTimeLt60": 2,
"preTransferNum": 0,
"preViewedSuccAckTime": 0,
"preFailQueueWaitNum": 0,
"endLogDay": "2021-10-26",
"preNoAckNum": 0,
"ivrCallTime": 0,
"failTimeLt30": 0,
"preViewedCallNum": 0,
"callTimeLt30": 1,
"serCcNo": 1,
"preCallSuccNum": 0,
"outCallTime": 64,
"preOccupiedTransferNum": 0,
"failQueueWaitTime": 0,
"preOccupiedAgentSuccTime": 0,
"outCallAllCostMinute": 1,
"autoTransferNum": 0
},
{.....}
]
}
```

## 12.3.3 Configuration Data Query

### 12.3.3.1 Querying Information about All VDNs in a Specified Call Center

#### Scenario

This interface is invoked to query information about all VDNs in a specified call center.

Note: This interface supports only the independent deployment environment and can be invoked only by the global AK and SK.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

<https://ip:port/rest/cmsapp/v1/openapi/configures/vdns>

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values.

In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-574** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-575** Parameter in the request body

| No. | Parameter | Value Type | Mandatory | Description                                               |
|-----|-----------|------------|-----------|-----------------------------------------------------------|
| 1   | cclid     | Integer    | Yes       | ID of a call center.<br>The value ranges from 1 to 65535. |

## Response Description

**Table 12-576** Parameters in the response body

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                                                                                     |
|-----|-------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result      | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• 0: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |
| 2   | resultCode  | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• 0100000: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .                                                                                                                       |
| 3   | resultDatas | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-577</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.                                                                   |
| 4   | resultDesc  | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-577</a> .                                                                                                                                                                                               |

**Table 12-577** Parameters of resultDesc/resultDatas

| No. | Parameter | Value Type | Description  |
|-----|-----------|------------|--------------|
| 2.1 | vdn       | Integer    | ID of a VDN. |
| 2.2 | vdnName   | String     | VDN name.    |

## Message Example

- Request header

```
Content-Type: application/json;charset=UTF-8
Authorization: *****
```

- Request parameters

```
{
 "queryParam":
 {
 "ccId":1
 }
}
```

- Response parameters

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": [
 {
 "vdn": 1,
 "vdnName": "social cc"
 },
 {
 "vdn": 2,
 "vdnName": "Credit card"
 },
 {
 "vdn": 3,
 "vdnName": "95558_2"
 },
 {
 "vdn": 4,
 "vdnName": "VDN4"
 },
 {
 "vdn": 5,
 "vdnName": "Test VDN"
 }
],
 "resultDesc": [
 {
 "vdn": 1,
 "vdnName": "social cc"
 },
 {
 "vdn": 2,
 "vdnName": "Credit card"
 },
 {
 "vdn": 3,
 "vdnName": "95558_2"
 },
 {
 "vdn": 4,
 "vdnName": "VDN4"
 },
 {
 "vdn": 5,
 "vdnName": "Test VDN"
 }
]
}
```

### 12.3.3.2 Querying Information About All Agents by VDN ID

#### Scenario

This interface is invoked to query information about all agents by VDN ID. A tenant corresponds to a VDN after being created and configured.

## Interface Method

The request method must be set to GET. This interface supports only the GET method.

## Internal Encapsulation Interface

BMS interface: /ccbms/ws/monitor/siteagentcallandskillinfobyagentids

## Request URL

https://ip:port/rest/cmsapp/v1/openapi/configures/agents/{ccld}/{vdn}/{offset}/{limit}

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server. *{ccld}* indicates the call center ID, ranging from 1 to 65535; *{vdn}* indicates the VDN ID, ranging from 1 to 5000; *{offset}* indicates the start offset (optional); and *{limit}* indicates the number of records to be queried on each page (optional, and the maximum value is 100). *{offset}* and *{limit}* must be transferred at the same time.

## Request Description

**Table 12-578** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

## Response Description

**Table 12-579** Parameters in the response message body

| Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                                                                                            |
|-------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| result      | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |
| resultCode  | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .                                                                                                                       |
| count       | Integer    | Total number of agents. This parameter is returned only when <i>{offset}</i> and <i>{limit}</i> in the request take effect.                                                                                                                                                                                                                                            |
| resultDatas | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-580</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.                                                                          |
| resultDesc  | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-580</a> .                                                                                                                                                                                                      |

**Table 12-580** Parameters of resultDesc/resultDatas

| Parameter | Value Type | Description |
|-----------|------------|-------------|
| agentNo   | String     | Agent ID.   |
| agentName | String     | Agent name. |
| roleId    | String     | Agent role. |

| Parameter | Value Type | Description                                                                                                   |
|-----------|------------|---------------------------------------------------------------------------------------------------------------|
| skillId   | String     | Skill ID set. Multiple skill IDs are separated by semicolons (;), for example, <b>1;3;10;11;25;31;32;40</b> . |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters  
None

- Response parameters

```
{
 "result": "0",
 "resultCode": "0100000",
 "count": 101,
 "resultDatas": [
 {
 "agentNo": "10000",
 "agentName": "z1",
 "roleId": "1",
 "skillId": ""
 },
 {
 "agentNo": "101",
 "agentName": "z2",
 "roleId": "1",
 "skillId": "2;3"
 }
],
 "resultDesc": [
 {
 "agentNo": "10000",
 "agentName": "z1",
 "roleId": "1",
 "skillId": ""
 },
 {
 "agentNo": "101",
 "agentName": "z2",
 "roleId": "1",
 "skillId": "2;3"
 }
]
}
```

### 12.3.3.3 Obtaining All Called Routes in a VDN

#### Scenario

This interface is invoked to obtain all called routes in a VDN.

#### Interface Method

The request method must be set to GET. This interface supports only the GET method.



## Request URL

https://ip:port/rest/cmsapp/v1/openapi/configures/calledconfigs/{ccld}/{vdn}

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server. *{ccld}* indicates the call center ID and ranges from 1 to 65535; and *{vdn}* indicates the VDN ID and ranges from 1 to 5000.

## Request Description

**Table 12-581** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

## Response Description

**Table 12-582** Parameters in the response message body

| No. | Parameter | Value Type | Description                                                                                                                                                                                                                                                                                                                                                                              |
|-----|-----------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result    | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> <p>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p> |

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                   |
|-----|-------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | resultCode  | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .                                              |
| 3   | resultDatas | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-583</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |
| 4   | resultDesc  | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-583</a> .                                                                                                                             |

**Table 12-583** Parameters of resultDesc/resultDatas

| No. | Parameter  | Value Type | Description                                                                                                                                                            |
|-----|------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.1 | cclId      | Integer    | ID of a call center.                                                                                                                                                   |
| 2.2 | vdnId      | Integer    | VDN ID.                                                                                                                                                                |
| 2.3 | accessCode | String     | Access code.                                                                                                                                                           |
| 2.4 | subCode    | String     | Subsequent access code.<br>The value contains a maximum of 100 characters.<br>The value can contain 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, asterisks (*), and number signs (#). |
| 2.5 | deviceType | String     | Device type. For details, see <a href="#">Table 12-701</a> .<br>The returned value is a 4-byte integer.                                                                |

| No. | Parameter  | Value Type | Description                                                                                                                                                                                                               |
|-----|------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.6 | deviceName | String     | Device name. When the value of <b>deviceType</b> is <b>1</b> (skill queue), the device name is the skill queue name. When the value of <b>deviceType</b> is <b>3</b> (IVR flow), the device name is the flow description. |
| 2.7 | deviceNo   | String     | Device ID.                                                                                                                                                                                                                |
| 2.8 | dnid       | String     | Configuration ID.                                                                                                                                                                                                         |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters  
None

- Response parameters

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": [
 {
 "ccId": 1,
 "vdnId": 1,
 "accessCode": "6045",
 "subCode": "1110",
 "deviceType": "1",
 "deviceName": "test",
 "deviceNo": "22",
 "dnid": "22"
 }
],
 "resultDesc": [
 {
 "ccId": 1,
 "vdnId": 1,
 "accessCode": "6045",
 "subCode": "1110",
 "deviceType": "1",
 "deviceName": "test",
 "deviceNo": "22",
 "dnid": "22"
 }
]
}
```

### 12.3.3.4 Querying Information About All Agents by Tenant Space ID

#### Description

This interface is used to query information about all agents of a tenant based on the tenant space ID.

## Interface Method

The request method must be set to POST. This interface supports only the POST method.

## Request URL

`https://ip:port/rest/cmsapp/v1/openapi/tenant/querytenantdetail`

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-584** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-585** Parameters in the message body

| Parameter | Type   | Mandatory | Description      |
|-----------|--------|-----------|------------------|
| tenantId  | String | Yes       | Tenant space ID. |

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------|---------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclid     | Integer | No        | <p>ID of a call center.</p> <ul style="list-style-type: none"> <li>In the integration environment, the default value is the value of <b>Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; CMS System Configuration</b> page after a system administrator signs in to the AICC. If this parameter is empty, the data whose <b>sys_key</b> is <b>default_cc_id</b> and <b>sys_type</b> is <b>cms_system_config</b> in the <b>t_cms_sysparam</b> database table is used.</li> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator</li> </ul> |

| Parameter | Type | Mandatory | Description           |
|-----------|------|-----------|-----------------------|
|           |      |           | signs in to the AICC. |

## Response Message

**Table 12-586** Parameters in the response message body

| Parameter  | Type   | Description                                                                                                                                                                                                                                   |
|------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | String | Query result. The options are as follows: <ul style="list-style-type: none"><li>• <b>0100000</b>: success</li><li>• Other values: failure</li></ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> . |
| resultDesc | Array  | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-587</a> .                                                                             |

**Table 12-587** Parameters of resultDesc

| Parameter       | Type    | Description                                                                                                                                  |
|-----------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------|
| cclId           | Integer | ID of a call center.                                                                                                                         |
| tenantId        | String  | Tenant space ID.                                                                                                                             |
| tenantSpaceName | String  | Tenant space name.                                                                                                                           |
| vdnId           | Integer | ID of a VDN.                                                                                                                                 |
| accessCodes     | Array   | Access number list.<br>For details about the parameters of the object in this array, see <a href="#">Table 4 Parameters of accessCodes</a> . |

| Parameter | Type  | Description                                                                                                       |
|-----------|-------|-------------------------------------------------------------------------------------------------------------------|
| agents    | Array | Agent list. For details about the parameters of <b>agents</b> , see <a href="#">Table 5 Parameters of agent</a> . |

**Table 12-588** Parameters of accessCodes

| Parameter  | Type    | Description                                                                                      |
|------------|---------|--------------------------------------------------------------------------------------------------|
| accessCode | String  | Access code.                                                                                     |
| isDefault  | Boolean | Default access code ID. This parameter can be set to <b>true</b> , <b>false</b> , or left empty. |

**Table 12-589** Parameters of agents

| Parameter   | Type    | Description                                                                                                                                            |
|-------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| workNo      | Integer | Agent ID.                                                                                                                                              |
| sipAccount  | String  | Softphone number.                                                                                                                                      |
| accountCode | String  | Agent account.                                                                                                                                         |
| agentType   | Integer | Agent type.<br><b>4</b> : voice agent; <b>5</b> : multimedia agent; <b>11</b> : video agent. This field is returned only during integrated deployment. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  

```
{
 "tenantId": "202008142460",
 "cclid": 1
}
```
- Response parameters  

```
{
 "resultCode": "0100000",
 "resultDesc": [
 {
 "cclid": 3,
 "vdnId": 47,
```

```

"tenantId": "202008142460",
"accessCodes": [
 {
 "accessCode": "202008191",
 "isDefault": true
 }
],
"tenantSpaceName": "fjw081401",
"agents": [{
 "workNo": 111,
 "sipAccount": "88880001",
 "accountCode": "123",
 "agentType": 4
}]
}
]
}

```

### 12.3.3.5 Querying Skill Groups in a Specified VDN

#### Description

This interface is invoked to query the information about the skill groups in a specified VDN.

Note: This interface supports only the independent deployment environment and CTI 3.8.

#### Interface Method

The request method must be set to GET. This interface supports only the GET method.

#### Request URL

`https://ip:port/rest/cmsapp/v1/openapi/skillgroups/{ccld}/{vdnId}`

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-590** Parameters in the request header

| No. | Parameter    | Value Type | Mandatory | Description                                                    |
|-----|--------------|------------|-----------|----------------------------------------------------------------|
| 1   | Content-Type | String     | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> . |



| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

No request body exists.

## Response Message

**Table 12-591** Parameters in the message body

| No. | Parameter  | Value Type | Description                                                                                                                                                                                                                                                |
|-----|------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> <li>• For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul> |
| 2   | resultDesc | Array      | Object array in the returned result after a successful query.<br>For details about the parameters of this object in the array, see <a href="#">Table 12-592</a> .                                                                                          |

**Table 12-592** Parameters of resultDesc

| No. | Parameter | Value Type | Description                                                                                                                           |
|-----|-----------|------------|---------------------------------------------------------------------------------------------------------------------------------------|
| 2.1 | id        | Integer    | Skill group ID.                                                                                                                       |
| 2.2 | skills    | Array      | Skill object array. The array contains skill objects. <a href="#">Table 12-593</a> describes the definition of a single skill object. |

| No. | Parameter | Value Type | Description                                                                                   |
|-----|-----------|------------|-----------------------------------------------------------------------------------------------|
| 2.3 | groupName | String     | Skill group name.<br>The value contains a maximum of 64 bytes without any special characters. |

**Table 12-593** Parameters of skills

| No.   | Parameter  | Value Type | Description                                                                                     |
|-------|------------|------------|-------------------------------------------------------------------------------------------------|
| 2.2.1 | skillId    | Integer    | Skill queue ID.<br>The value is an integer. Enter an actual skill queue ID.                     |
| 2.2.2 | skillPower | Integer    | Skill power corresponding to the skill queue.<br>The value is an integer ranging from 1 to 100. |
| 2.2.3 | agentPower | Integer    | Agent power corresponding to the skill queue.<br>The value is an integer ranging from 1 to 300. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  
None
- Response parameters

```
{
 "resultCode": "0100000",
 "resultDesc": [
 {
 "id": 2,
 "skills": [
 {
 "skillId": 2,
 "skillPower": 1,
 "agentPower": 1
 }
],
 "groupName": "skillgroup2"
 }
]
}
```

```
]
}
```

### 12.3.3.6 Querying Information About All Tenants Accessible to an Access User

#### Description

This interface is invoked by an access user to query information about all accessible tenants based on the AK/SK.

 **NOTE**

This interface supports only the private AK/SK.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

`https://ip:port/rest/cmsapp/v1/openapi/tenant/querytenants`

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-594** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-595** Parameters in the message body

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------|---------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclid     | Integer | No        | <p>Call center ID. The value ranges from 1 to 65535.</p> <ul style="list-style-type: none"> <li>In the integration environment, the default value is the value of <b>Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; CMS System Configuration</b> page after a system administrator signs in to the AICC. If this parameter is empty, the data whose <b>sys_key</b> is <b>default_cc_id</b> and <b>sys_type</b> is <b>cms_system_config</b> in the <b>t_cms_sysparam</b> database table is used.</li> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter</b></li> </ul> |

| Parameter | Type | Mandatory | Description                                                             |
|-----------|------|-----------|-------------------------------------------------------------------------|
|           |      |           | <b>Settings</b> page after a system administrator signs in to the AICC. |

## Response Message

**Table 12-596** Parameters in the response message body

| Parameter  | Type   | Description                                                                                                                                                                                                                                      |
|------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | String | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> . |
| resultDesc | Array  | Object array in the returned result after a successful query. <p>For details about the parameters of this object in the array, see <a href="#">Table 12-597</a>.</p>                                                                             |

**Table 12-597** Parameters of resultDesc

| Parameter       | Type    | Description                                                                                                                |
|-----------------|---------|----------------------------------------------------------------------------------------------------------------------------|
| cclId           | Integer | ID of a call center.                                                                                                       |
| tenantId        | String  | Tenant space ID.                                                                                                           |
| tenantSpaceName | String  | Tenant space name.                                                                                                         |
| vdnId           | Integer | ID of a VDN.                                                                                                               |
| accessCodes     | Array   | Access number list. <p>For details about the parameters of this object in the array, see <a href="#">Table 12-598</a>.</p> |

**Table 12-598** Parameters of accessCodes

| Parameter  | Type    | Description                                                                                      |
|------------|---------|--------------------------------------------------------------------------------------------------|
| accessCode | String  | Access code.                                                                                     |
| isDefault  | Boolean | Default access code ID. This parameter can be set to <b>true</b> , <b>false</b> , or left empty. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  
{  
  "ccld": 1  
}
- Response parameters  
{  
  "resultCode": "0100000",  
  "resultDesc": [  
    {  
      "ccld": 3,  
      "vdnId": 47,  
      "tenantId": "202008142460",  
      "accessCodes": [  
        {  
          "accessCode": "202008191",  
          "isDefault": true  
        }  
      ],  
      "tenantSpaceName": "fjw081401"  
    }  
  ]  
}

## 12.3.4 Inspection Relationship Maintenance Interfaces

Note: The following interfaces support only the scenario where the CC-CMS is independently deployed.

### 12.3.4.1 Querying a User Group Member

#### Scenario

This interface is invoked to query members in a specified user group based on the VDN, group ID, and **workNo**.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

## Request URL

https://ip:port/rest/cmsapp/v1/openapi/qcrelationconf/  
querygroupmemberbycondition

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-599** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-600** Parameters in the message body

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                              |
|-----------|---------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclid     | Integer | No        | Call center ID. The value ranges from 1 to 65535. <ul style="list-style-type: none"> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li> </ul> |
| vdn       | Integer | Yes       | ID of a VDN.                                                                                                                                                                                                                                                                                                                                             |
| groupid   | String  | Yes       | User group ID.                                                                                                                                                                                                                                                                                                                                           |

| Parameter | Type    | Mandatory | Description                                                  |
|-----------|---------|-----------|--------------------------------------------------------------|
| workNo    | Integer | No        | Agent ID. The value ranges from 0 to 99999.                  |
| limit     | Integer | Yes       | Maximum number of query records on each page ( $\leq 100$ ). |
| offset    | Integer | Yes       | Offset.                                                      |

## Response Message

**Table 12-601** Parameters in the message body

| Parameter  | Type   | Description                                                                                                                                                                                                                                      |
|------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | String | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> . |
| resultDesc | Array  | Object array in the returned result after a successful query. For details about the parameters of this object, see <a href="#">Table 12-602</a> .                                                                                                |

**Table 12-602** Parameters in the message body

| Parameter   | Type    | Description     |
|-------------|---------|-----------------|
| workNo      | Integer | Agent ID.       |
| accountCode | String  | Account code.   |
| groupName   | String  | Group name.     |
| accountName | String  | Account name.   |
| ccRoleId    | Integer | Role ID.        |
| id          | Integer | Primary key ID. |



## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  

```
{
 "ccld":1,
 "vdn":113,
 "groupId":"159282396714302232563636876268",
 "limit":10,
 "offset":0
}
```
- Response parameters  

```
{
 "resultCode": "0100000",
 "resultDesc": [
 {
 "workNo": 1117,
 "accountCode": "HW513331117",
 "groupName": "Inspector group",
 "accountName": "HW972571117",
 "ccRoleId": 3,
 "id": "160526521924802293467767451224"
 },
 {
 "workNo": 1118,
 "accountCode": "HW340521118",
 "groupName": "Inspector group",
 "accountName": "HW972571118",
 "ccRoleId": 3,
 "id": "160526521924824882258144059275"
 }
]
}
```

### 12.3.4.2 Deleting Members from a Group in Batches

#### Scenario

This interface is invoked to delete user group members in batches based on the VDN and agent ID set.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

<https://ip:port/rest/cmsapp/v1/openapi/qcrelationconf/batchdeletegroupmember>

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-603** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-604** Parameters in the message body

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                              |
|-----------|---------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclId     | Integer | No        | Call center ID. The value ranges from 1 to 65535. <ul style="list-style-type: none"> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li> </ul> |
| workNos   | Array   | No        | Agent ID set of user group members. If this parameter is left empty, all group members under the tenant corresponding to the VDN are deleted.<br>The value of agent ID ranges from 0 to 99999.                                                                                                                                                           |
| vdn       | Integer | Yes       | ID of a VDN.                                                                                                                                                                                                                                                                                                                                             |

## Response Description

**Table 12-605** Parameters in the message body

| Parameter  | Type   | Description                                                                                                                                                                                                                                                    |
|------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | String | Execution result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> <li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul> |
| resultDesc | String | Description of the result.                                                                                                                                                                                                                                     |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters
 

```
{
 "ccId":1,
 "workNos":[57005,57006],
 "vdn":113
}
```
- Response parameters
 

```
{
 "resultCode": "0100000",
 "resultDesc": "Deleted successfully"
}
```

### 12.3.4.3 Adding Members to a Group in Batches

#### Scenario

This interface is invoked to add members to a specified user group in batches.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

`https://ip:port/rest/cmsapp/v1/openapi/qcrelationconf/batchaddgroupmember`

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the

NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-606** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-607** Parameters in the message body

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                            |
|-----------|---------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclid     | Integer | No        | Call center ID. The value ranges from 1 to 65535. <ul style="list-style-type: none"><li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li></ul> |
| vdn       | Integer | Yes       | ID of a VDN.                                                                                                                                                                                                                                                                                                                                           |
| workNos   | Array   | Yes       | Agent ID set.<br>The value of agent ID ranges from 0 to 99999.                                                                                                                                                                                                                                                                                         |
| groupId   | String  | Yes       | User group ID.                                                                                                                                                                                                                                                                                                                                         |

## Response Description

**Table 12-608** Parameters in the message body

| Parameter  | Type   | Description                                                                                                                                                                                                                                                    |
|------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | String | Execution result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> <li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul> |
| resultDesc | String | Description of the result.                                                                                                                                                                                                                                     |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters  

```
{
 "ccld":1,
 "vdn":113,
 "workNos":[57005,57006],
 "groupId":"159774518399110207461019283363"
}
```

- Response parameters  

```
{
 "resultCode": "0100000",
 "resultDesc": "Added successfully"
}
```

### 12.3.4.4 Querying All User Groups

#### Description

This interface is invoked to query all user groups in a VDN based on the VDN.

#### Interface Method

The request method must be set to GET. This interface supports only the GET method.

#### Request URL

`https://ip:port/rest/cmsapp/v1/openapi/qcrelationconf/queryallccgroup/{ccld}/{vdn}`

The **ccld** parameter is optional. If it is left empty, in the independent deployment environment, the default value is the value of **Default Call Center ID** on the

**Configuration Center > System Management > Parameter Settings** page after a system administrator signs in to the AICC.

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-609** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

## Response Message

**Table 12-610** Parameter description

| Parameter  | Type   | Description                                                                                                                                                                                                                                      |
|------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | string | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> . |
| resultDesc | Array  | Object array in the returned result after a successful query. For details about the parameters of this object, see <a href="#">Table 12-611</a> .                                                                                                |

**Table 12-611** Parameter description

| Parameter | Type    | Description                     |
|-----------|---------|---------------------------------|
| groupName | String  | User Group Name                 |
| groupType | Integer | User Group Type                 |
| remark    | String  | Remarks.                        |
| id        | String  | Primary key ID of a user group. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- No request message exists.

- Response parameters

```
{
 "resultCode": "0100000",
 "resultDesc": [
 {
 "groupName": "ceshi001",
 "groupType": 3,
 "id": "159253664007418170345218084185"
 },
 {
 "groupName": "ceshi002",
 "groupType": 2,
 "id": "159253664765739060254053779940"
 },
 {
 "groupName": "ceshi003",
 "groupType": 3,
 "id": "159253666192354492596520647666"
 },
 {
 "groupName": "ceshi004",
 "groupType": 2,
 "id": "159253667128968076722272915560"
 },
 {
 "groupName": "ceshi005",
 "groupType": 3,
 "id": "159289723573509154577931092749"
 },
 {
 "groupName": "ceshi445566",
 "remark": "Inspector group",
 "groupType": 3,
 "id": "159832671551117675139418726647"
 }
]
}
```

### 12.3.4.5 Adding a User Group

#### Scenario

This interface is invoked to add a user group.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

`https://ip:port/rest/cmsapp/v1/openapi/qcrelationconf/createusergroup`

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-612** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |



**Table 12-613** Parameters in the message body

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                            |
|-----------|---------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclid     | Integer | No        | Call center ID. The value ranges from 1 to 65535. <ul style="list-style-type: none"><li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li></ul> |
| vdn       | Integer | Yes       | ID of a VDN.                                                                                                                                                                                                                                                                                                                                           |
| groupName | String  | Yes       | User group name.                                                                                                                                                                                                                                                                                                                                       |
| groupType | Integer | Yes       | User group type. The options are <b>2</b> (agent group) and <b>3</b> (inspector group).                                                                                                                                                                                                                                                                |
| remark    | String  | No        | User group information.                                                                                                                                                                                                                                                                                                                                |
| workNos   | Array   | No        | Agent ID set. If this parameter is set, group members are added when a user group is added.<br>Agent ID. The value ranges from 0 to 99999.                                                                                                                                                                                                             |

## Response Message

**Table 12-614** Parameters in the message body

| Parameter  | Type   | Description                                                                                                                                                                                                                                                    |
|------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | String | Execution result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> <li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul> |
| resultDesc | String | Description of the result.                                                                                                                                                                                                                                     |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  

```
{
 "ccld":1,
 "vdn":113,
 "groupName":"ceshipostman",
 "groupType":3,
 "remark": "Inspector group",
 "workNos":[50041,50042]
}
```
- Response parameters  

```
{
 "resultCode": "0100000",
 "resultDesc": "Added successfully"
}
```

### 12.3.4.6 Deleting a User Group

#### Description

This interface is invoked to delete a user group based on the VDN and user group ID.

Note: If a user group has members and inspection relationships are configured for the user group, the members and configured inspection relationships are deleted with the user group.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

## Request URL

https://ip:port/rest/cmsapp/v1/openapi/qcrelationconf/deleteusergroup

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-615** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-616** Parameter description

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                              |
|-----------|---------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclid     | Integer | No        | Call center ID. The value ranges from 1 to 65535. <ul style="list-style-type: none"> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li> </ul> |
| vdn       | Integer | Yes       | ID of a VDN.                                                                                                                                                                                                                                                                                                                                             |
| id        | String  | Yes       | User group ID.                                                                                                                                                                                                                                                                                                                                           |

## Response Message

**Table 12-617** Parameter description

| Parameter  | Type   | Description                                                                                                                                                                                                                                                    |
|------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | String | Execution result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> <li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul> |
| resultDesc | String | Description of the result.                                                                                                                                                                                                                                     |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  

```
{
 "ccld":1,
 "id":"159832684658001135254942692203",
 "vdn":113
}
```
- Response parameters  

```
{
 "resultCode": "0100000",
 "resultDesc": "Deleted successfully"
}
```

### 12.3.4.7 Updating User Group Information

#### Description

This interface is invoked to update user group information.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

`https://ip:port/rest/cmsapp/v1/openapi/qcrelationconf/updategroup`

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port*

indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-618** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-619** Parameters in the message body

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                              |
|-----------|---------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclid     | Integer | No        | Call center ID. The value ranges from 1 to 65535. <ul style="list-style-type: none"> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li> </ul> |
| vdn       | Integer | Yes       | ID of a VDN.                                                                                                                                                                                                                                                                                                                                             |
| id        | string  | Yes       | User group ID.                                                                                                                                                                                                                                                                                                                                           |
| groupName | string  | Yes       | New user group name.                                                                                                                                                                                                                                                                                                                                     |
| remark    | string  | No        | User group information.                                                                                                                                                                                                                                                                                                                                  |

## Response Message

**Table 12-620** Parameters in the message body

| Parameter  | Type   | Description                                                                                                                                                                                                                                                    |
|------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | string | Execution result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> <li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul> |
| resultDesc | string | Description of the result.                                                                                                                                                                                                                                     |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  

```
{
 "ccld":1,
 "groupName":"ceshi445566",
 "remark": "Inspector group",
 "id":"159832671551117675139418726647",
 "vdn":113
}
```
- Response parameters  

```
{
 "resultCode": "0100000",
 "resultDesc": "Updated successfully"
}
```

### 12.3.4.8 Setting Inspection Relationships

#### Description

This interface is invoked to set the inspection relationships between a specified inspector group and a user group.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

`https://ip:port/rest/cmsapp/v1/openapi/qcrelationconf/configqcrelation`

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the

administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-621** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-622** Parameter description

| Parameter         | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                              |
|-------------------|---------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclId             | Integer | No        | Call center ID. The value ranges from 1 to 65535. <ul style="list-style-type: none"> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li> </ul> |
| qcGroupId         | Integer | Yes       | ID of an inspector group.                                                                                                                                                                                                                                                                                                                                |
| inspectedGroupIds | Array   | Yes       | Agent group ID set.                                                                                                                                                                                                                                                                                                                                      |
| vdn               | Integer | Yes       | ID of a VDN.                                                                                                                                                                                                                                                                                                                                             |

## Response Message

Table 12-623 Parameter description

| Parameter  | Type   | Description                                                                                                                                                                                                                                                    |
|------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | String | Execution result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> <li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul> |
| resultDesc | String | Description of the result.                                                                                                                                                                                                                                     |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  

```
{
 "ccld":1,
 "qcGroupId":"159282396714302232563636876268",
 "inspectedGroupIds":["159253666192354492596520647666"],
 "vdn":113
}
```
- Response parameters  

```
{
 "resultCode": "0100000",
 "resultDesc": "Configured successfully"
}
```

### 12.3.4.9 Deleting Configured Inspection Relationships

#### Description

This interface is invoked to delete inspection relationships based on the IDs of the inspector group and inspected party group.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

`https://ip:port/rest/cmsapp/v1/openapi/qcrelationconf/deleteqcrelationconf`

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the



administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-624** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-625** Parameter description

| Parameter         | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                              |
|-------------------|---------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclId             | Integer | No        | Call center ID. The value ranges from 1 to 65535. <ul style="list-style-type: none"> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li> </ul> |
| qcGroupId         | Integer | Yes       | ID of an inspector group.                                                                                                                                                                                                                                                                                                                                |
| inspectedGroupIds | Array   | Yes       | Agent group ID set.                                                                                                                                                                                                                                                                                                                                      |
| vdn               | Integer | Yes       | ID of a VDN.                                                                                                                                                                                                                                                                                                                                             |

## Response Message

**Table 12-626** Parameter description

| Parameter  | Type   | Description                                                                                                                                                                                                                                                    |
|------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | String | Execution result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> <li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul> |
| resultDesc | String | Description of the result.                                                                                                                                                                                                                                     |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  

```
{
 "ccld":1,
 "qcGroupId":"159282396714302232563636876268",
 "inspectedGroupIds":["159253666192354492596520647666"],
 "vdn":113
}
```
- Response parameters  

```
{
 "resultCode": "0100000",
 "resultDesc": "Deleted successfully"
}
```

The following table describes the parameters in the response message body of this interface.

### 12.3.4.10 Adding an Agent to a User Group

#### Scenario

The interface is invoked to add an agent to a user group on the CMS.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

`https://ip:port/rest/cmsapp/v1/openapi/qcrelationconf/joinusergroup`

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the

administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-627** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-628** Parameters in the message body

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                              |
|-----------|---------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclId     | Integer | No        | Call center ID. The value ranges from 1 to 65535. <ul style="list-style-type: none"> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li> </ul> |
| vdnId     | Integer | Yes       | ID of a virtual call center. The value ranges from 1 to 5000.                                                                                                                                                                                                                                                                                            |
| agentId   | Integer | Yes       | ID of an agent who joins a user group. The value ranges from 0 to 99999.                                                                                                                                                                                                                                                                                 |

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------|---------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| groupId   | String  | No        | ID of the user group that the user joins.<br>If the group ID is not carried, a group is created using the name specified by <b>groupName</b> , and then the agent is added to the new group. If the agent already exists in another group, the agent is automatically removed from it.<br>If the group ID is carried, <b>groupName</b> is ignored, and the agent is added to the group corresponding to <b>groupId</b> . If the agent already exists in another group, the agent is automatically removed from it. |
| groupName | String  | No        | Name of the group. (The value cannot contain invalid characters and can contain a maximum of 100 characters.)                                                                                                                                                                                                                                                                                                                                                                                                      |
| groupType | Integer | No        | User group type. The default value is 2. The options are 2 (agent group) and 3 (inspector group). Other values are invalid.                                                                                                                                                                                                                                                                                                                                                                                        |

## Response Message

**Table 12-629** Parameters in the message body

| Parameter | Type   | Description  |
|-----------|--------|--------------|
| message   | String | Description. |

| Parameter | Type   | Description                                                                                                                                                             |
|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| retcode   | String | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure<br>For details about error code parameters, see <a href="#">Table 12-631</a> .   |
| result    | object | Object in the returned result after an agent is successfully added to a user group. For details about the parameters of this object, see <a href="#">Table 12-630</a> . |

**Table 12-630** Parameters of result

| Parameter | Type   | Description                                                                                                                                     |
|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| groupId   | String | ID of the user group to which an agent is added.                                                                                                |
| groupName | String | Name of the user group to which an agent is added.<br>(The value cannot contain invalid characters and can contain a maximum of 20 characters.) |

**Table 12-631** Error end codes

| Error End Code | Description                                                | Comments                                                                     |
|----------------|------------------------------------------------------------|------------------------------------------------------------------------------|
| 300-010        | <b>ccid</b> and <b>vdnid</b> of the VDN user do not match. | Check whether the input parameters are correct.                              |
| 300-016        | The agent does not exist in the VDN.                       | Check whether the agent exists in the VDN. If yes, try again 1 minute later. |
| 300-017        | The inspector group name already exists.                   | Change the name of the inspector group.                                      |

| Error End Code | Description                                              | Comments                                                                  |
|----------------|----------------------------------------------------------|---------------------------------------------------------------------------|
| 300-018        | The name of the inspector group is empty.                | Check whether the <b>groupName</b> parameter is carried or left empty.    |
| 300-019        | The inspector group does not exist.                      | Check whether the inspector group corresponding to <b>groupId</b> exists. |
| 1              | The parameter is invalid or the system reports an error. | Check whether the input parameters are correct.                           |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  

```
{
 "cclId":1,
 "vdnId":4,
 "agentId":667,
 "groupId":"159282396714302232563636876268",
 "groupName":"Agent group",
 "groupType":""
}
```
- Response parameters  

```
{
 "result": {
 "groupName": "Agent group A",
 "groupId": "161960203515344228641565404173"
 },
 "message": "success",
 "retcode": "0"
}
```

### 12.3.4.11 Updating Agent Names

This interface supports only the scenario where the CC-CMS is independently deployed.

#### Scenario

This interface is invoked to update an agent name.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

<https://ip:port/rest/cmsapp/v1/openapi/qcrelationconf/updateagentgroup>

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-632** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-633** Parameters in the message body

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                              |
|-----------|---------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclId     | Integer | No        | Call center ID. The value ranges from 1 to 65535. <ul style="list-style-type: none"> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li> </ul> |
| vdnId     | Integer | Yes       | ID of a virtual call center. The value ranges from 1 to 5000.                                                                                                                                                                                                                                                                                            |

| Parameter | Type    | Mandatory | Description                                                                                                                                                            |
|-----------|---------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| agentId   | Integer | Yes       | Agent ID. The name of the VDN administrator cannot be changed, that is, the agent ID of the VDN administrator cannot be transferred. The value ranges from 0 to 99999. |
| agentName | String  | Yes       | Agent name. (The value cannot contain invalid characters.)                                                                                                             |

## Response Message

**Table 12-634** Parameters in the message body

| Parameter | Type   | Description                                                                                                                                                             |
|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| message   | String | Description.                                                                                                                                                            |
| retcode   | String | Error code. The options are as follows:<br><b>0</b> : success<br><b>1</b> : failure                                                                                     |
| result    | object | Object in the returned result after an agent is successfully added to a user group. For details about the parameters of this object, see <a href="#">Table 12-635</a> . |

**Table 12-635** Parameters of result

| Parameter | Type    | Description               |
|-----------|---------|---------------------------|
| cclId     | Integer | VDN.                      |
| vdnId     | Integer | ID of an inspector group. |
| agentId   | Integer | New agent ID.             |
| agentName | String  | New agent name.           |



## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  

```
{
 "ccld":1,
 "vdnld":4,
 "agentId":667,
 "agentName":"Zhang San"
}
```
- Response parameters  

```
{
 "result": {
 "agentId": "6667",
 "ccld": 1,
 "vdnld": 4,
 "agentName": "Li Si"
 },
 "message": "success",
 "retcode": "0"
}
```

## 12.3.5 Querying Outbound Call Task Lists

### 12.3.5.1 Querying the Outbound Call Task List of a Tenant

#### Description

This interface is invoked to query the outbound call task list of a tenant and return task information.

Note: The iSales service module must be deployed for this interface.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

<https://ip:port/rest/cmsapp/v1/openapi/fromisales/querytasks>

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-636** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-637** Parameters in the message body

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------|---------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclid     | Integer | No        | <p>Call center ID. The value ranges from 1 to 65535.</p> <ul style="list-style-type: none"> <li>In the integration environment, the default value is the value of <b>Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; CMS System Configuration</b> page after a system administrator signs in to the AICC. If this parameter is empty, the data whose <b>sys_key</b> is <b>default_cc_id</b> and <b>sys_type</b> is <b>cms_system_config</b> in the <b>t_cms_sysparam</b> database table is used.</li> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li> </ul> |
| vdn       | Integer | Yes       | ID of a VDN. The value ranges from 1 to 5000.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| limit     | Integer | No        | Page size. The default value is <b>10</b> . A maximum of 100 records can be queried.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| offset    | Integer | No        | Pagination start position. If this parameter is not set, the default value <b>0</b> is used.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

## Response Message

**Table 12-638** Parameters in the message body

| Parameter  | Type   | Description                                                                                                                                                                                                                                      |
|------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | string | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> . |
| resultDesc | Array  | Object array in the returned result after a successful query. For details about the parameters of the response message body, see <a href="#">Table 12-639</a> .                                                                                  |

**Table 12-639** Parameters in the response message body

| Parameter | Type      | Description            |
|-----------|-----------|------------------------|
| count     | Integer   | Total number of tasks. |
| tasks     | JSONArray | Task list.             |

For details about the parameters of **tasks**, see [Table 12-640](#).

**Table 12-640** Parameters of tasks

| Parameter | Type   | Description                                                                                                                                                                                                                            |
|-----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| taskId    | String | Task ID.                                                                                                                                                                                                                               |
| taskName  | String | Task name.                                                                                                                                                                                                                             |
| taskType  | String | Task type. <ol style="list-style-type: none"> <li>1: Intelligent outbound call</li> <li>2: Predicted outbound calls</li> <li>3: Automatic outbound call</li> <li>4: Agent outbound call</li> <li>5: Previewed outbound call</li> </ol> |

| Parameter | Type   | Description                                                       |
|-----------|--------|-------------------------------------------------------------------|
| beginDate | String | Start time, which is written by the CC-iSales frontend user.      |
| endDate   | String | End time, which is written by the CC-iSales frontend user.        |
| status    | String | Task status.<br>2: Being executed<br>3: Suspended<br>4: Completed |

### Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters

```
{
 "cclid": "89",
 "vdn": 92,
 "limit": 10,
 "offset": 0
}
```

- Response parameters

```
{
 "resultCode": "0100000",
 "resultDesc": {
 "count": 14,
 "tasks": [
 {
 "beginDate": "2021-02-03",
 "taskType": "4",
 "endDate": "2021-02-04",
 "taskName": "1",
 "taskId": "1088825198",
 "status": "1"
 },
 {
 "beginDate": "2021-02-04",
 "taskType": "4",
 "endDate": "2021-02-28",
 "taskName": "2",
 "taskId": "1312452402",
 "status": "1"
 }
]
 }
}
```

### 12.3.5.2 Querying the Daily Settlement Statistics of a Specified Task

#### Description

This interface is invoked to query the daily settlement statistics of a specified task and return the daily settlement statistics indicators.

Note: The iSales service module must be deployed for this interface.

## Interface Method

The request method must be set to POST. This interface supports only the POST method.

## Request URL

`https://ip:port/rest/cmsapp/v1/openapi/fromisales/dailystatistic`

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-641** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-642** Parameters in the message body

| Parameter    | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------|---------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclId        | Integer | No        | <p>Call center ID. The value ranges from 1 to 65535.</p> <ul style="list-style-type: none"> <li>In the integration environment, the default value is the value of <b>Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; CMS System Configuration</b> page after a system administrator signs in to the AICC. If this parameter is empty, the data whose <b>sys_key</b> is <b>default_cc_id</b> and <b>sys_type</b> is <b>cms_system_config</b> in the <b>t_cms_sysparam</b> database table is used.</li> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li> </ul> |
| vdn          | Integer | Yes       | ID of a VDN. The value ranges from 1 to 5000.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| taskId       | string  | Yes       | Task ID. The value contains a maximum of 30 characters.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| beginDayTime | string  | Yes       | Start date for statistics collection (time zone where the VDN is located). Format: YYYY-MM-DD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| endDayTime   | string  | Yes       | End date for statistics collection (time zone where the VDN is located). Format: YYYY-MM-DD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## Response Message

**Table 12-643** Parameters in the response message

| Parameter  | Type   | Description                                                                                                                                                                                                                                      |
|------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | string | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> . |
| resultDesc | Array  | Object array in the returned result after a successful query.<br><a href="#">Table 12-644</a> describes the parameters in the response message body of this interface.                                                                           |

**Table 12-644** Parameters in the response message body

| Parameter  | Type    | Description                                            |
|------------|---------|--------------------------------------------------------|
| statDate   | string  | Date of the daily settlement.                          |
| totalCount | Integer | Number of daily outbound calls.                        |
| succCount  | Integer | Number of successful calls (number of connected calls) |
| succRate   | string  | Success rate (call connection rate).                   |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  
{  
  "vdn": 222,  
  "ccld": 89,  
  "taskId": "1176499974",  
  "beginDayTime": "2021-01-21",  
  "endDayTime": "2021-01-23"  
}
- Response parameters  
{  
  "resultCode": "0100000",



```
"resultDesc": [
 {
 "statDate": "2021-01-17",
 "totalCount": 200,
 "succCount": 101,
 "succRate": "50.5%"
 },
 {
 "statDate": "2021-01-18",
 "totalCount": 320,
 "succCount": 248,
 "succRate": "77.5%"
 }
]
```

### 12.3.5.3 Querying the Real-Time Statistics of a Specified Task

#### Description

This interface is invoked to query the real-time statistics of a specified task and return the real-time statistics indicators.

Note: The iSales service module must be deployed for this interface.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

`https://ip:port/rest/cmsapp/v1/openapi/fromisales/realstatistic`

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-645** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-646** Parameters in the message body

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------|---------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclid     | Integer | No        | <p>Call center ID. The value ranges from 1 to 65535.</p> <ul style="list-style-type: none"><li>In the integration environment, the default value is the value of <b>Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; CMS System Configuration</b> page after a system administrator signs in to the AICC. If this parameter is empty, the data whose <b>sys_key</b> is <b>default_cc_id</b> and <b>sys_type</b> is <b>cms_system_config</b> in the <b>t_cms_sysparam</b> database table is used.</li><li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li></ul> |
| vdn       | Integer | Yes       | ID of a VDN. The value ranges from 1 to 5000.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| taskId    | Integer | Yes       | Task ID. The value contains a maximum of 30 characters.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

## Response Message

**Table 12-647** Parameters in the message body

| Parameter  | Type   | Description                                                                                                                                                                                                                                      |
|------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | string | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> . |
| resultDesc | Array  | Object array in the returned result after a successful query. <a href="#">Table 12-648</a> describes the parameters in the response message body of this interface.                                                                              |

**Table 12-648** Parameters in the response message body

| Parameter  | Type    | Description                                             |
|------------|---------|---------------------------------------------------------|
| totalCount | Integer | Number of daily outbound calls.                         |
| succCount  | Integer | Number of successful calls (number of connected calls). |
| failCount  | Integer | Number of failed calls.                                 |
| succRate   | String  | Success rate (call connection rate).                    |
| compCount  | Integer | Number of completed calls.                              |
| waitCount  | Integer | Number of waiting calls.                                |
| execCount  | Integer | Number of calls that are being processed.               |
| compRate   | String  | Completion rate.                                        |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  
{  
  "ccld": "89",

```
"vdn":92,
"taskId":"1122104910"
}
```

- Response parameters

```
{
 "resultCode": "0100000",
 "resultDesc": {
 "compCount": "4",
 "failCount": "2",
 "compRate": "50%",
 "execCount": "0",
 "succCount": "2",
 "succRate": "50%",
 "totalCount": "4",
 "waitCount": "0"
 }
}
```

## 12.3.6 Interfaces for Querying System Indicators

If the environment is in pool mode, query the information about two UAPs. If the environment is in single mode, query the information about a single UAP. The environment mode is set when the CMS is deployed. For details, see the CMS deployment document.

### 12.3.6.1 Querying UAP Performance Information

#### Prerequisites

You need to create the **Incoming Office measurement** task on the performance management tool. For details, see "Maintenance > Performance Specifications" in *UAP9600 Product Documentation*. This interface is invoked only for global AK/SK authentication.

Note: This interface supports only the independent deployment environment.

#### Description

This interface is invoked to query the performance data of the UAP in the latest 5 minutes, including the trunk usage information, such as the number of idle circuits, number of available circuits, and circuit usage.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

`https://ip:port/rest/cmsapp/v1/openapi/uap/queryUapPerfInfo`

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-649** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-650** Parameters in the request message body

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                 |
|-----------|---------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ofcNo     | Array   | No        | Array of inbound numbers. If the array is null, all inbound numbers are queried. You can run the MML command <b>LST OFC</b> to obtain the inbound numbers.                                                                                                                                                                  |
| cclId     | Integer | No        | ID of a call center. <ul style="list-style-type: none"> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li> </ul> |

## Response Message

**Table 12-651** Parameters in the response message body

| Parameter     | Type   | Description                                                                                                                                                                                                                                                |
|---------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode    | String | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> <li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul> |
| resultDesc    | List   | Object list in the returned result after a successful query.<br>For details about the parameters of the object, see the following table.                                                                                                                   |
| 10.xx.xx.xx#0 | String | <ul style="list-style-type: none"> <li>● <b>10.xx.xx.xx</b>: UAP IP address.</li> <li>● <b>#</b>: fixed separator.</li> <li>● <b>0</b>: UAP ID.</li> </ul>                                                                                                 |

**Table 12-652** Parameters of resultDesc

| Parameter             | Type   | Description                                               |
|-----------------------|--------|-----------------------------------------------------------|
| RET                   | String | End time of data collection.                              |
| RNAT12                | String | No answer times.                                          |
| busy circuits (TIMES) | String | Number of busy circuits.                                  |
| ASD32                 | String | Average occupation duration, in seconds.                  |
| ITAR19                | String | Incoming trunk available ratio.                           |
| CLBT40                | String | The called party (local call) is busy.                    |
| MEID                  | String | Device ID.                                                |
| UBC43                 | String | Number of blocked circuits.                               |
| CCT34                 | String | Number of failed calls due to congestion at the peer end. |

| Parameter          | Type   | Description                                                                                                                                    |
|--------------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------|
| LCOICT7            | String | Call loss due to home office internal congestion.                                                                                              |
| IOCS44             | String | Inbound CAPS value.                                                                                                                            |
| MOIID              | String | Measurement object ID.                                                                                                                         |
| CCT3               | String | Number of connected calls.                                                                                                                     |
| CDA9               | String | Congestion duration auxiliary quantity.                                                                                                        |
| AART11             | String | Number of calls released before ringing, that is, the number of times that the calling party hangs up before the calls are connected or ended. |
| TAT6               | String | Number of answered transfer calls.<br>An answered transfer call indicates that the user who answers the call is not a local user.              |
| Period             | String | Period.                                                                                                                                        |
| TCAT5              | String | Intra-office answer times.<br>Intra-office answer indicates that a user who answers the call is a local user.                                  |
| AR21               | String | Answer rate.                                                                                                                                   |
| TCAT2              | String | Times of transfer seizure attempts.                                                                                                            |
| TCAT1              | String | Times of intra-office seizure attempts.                                                                                                        |
| ICN13              | String | Number of installed circuits.                                                                                                                  |
| ECT35              | String | Number of times that an unallocated number is dialed.                                                                                          |
| incoming direction | String | 0(anonymous): <b>0</b> indicates an inbound call ID, and <b>anonymous</b> indicates a call name.                                               |
| IBCN16             | String | Number of installed bi-directional circuits.                                                                                                   |
| ACN14              | String | Number of available circuits.                                                                                                                  |
| TCT42              | String | Transferring call seizure times.                                                                                                               |

| Parameter                        | Type   | Description                                                    |
|----------------------------------|--------|----------------------------------------------------------------|
| IAT36                            | String | Invalid address times.                                         |
| Credible                         | String | Trusted or not.                                                |
| CFORT39                          | String | The caller party does not have permission.                     |
| RT                               | String | Time of data collection.                                       |
| ST26                             | String | Seized call traffic volume.                                    |
| Time                             | String | Count.                                                         |
| average answer duration (SECOND) | String | Average connection duration.                                   |
| AT30                             | String | Answered call traffic.                                         |
| TUT37                            | String | Terminal incompatibility times.                                |
| BCN15                            | String | Number of blocked circuits.                                    |
| BBCR23                           | String | Bi-directional circuit block ratio.                            |
| CTBT41                           | String | Toll busy times of the called party.                           |
| BTST24                           | String | Traffic occupied by a bi-directional trunk.                    |
| BTSTA25                          | String | Traffic auxiliary quantity occupied by a bi-directional trunk. |
| ABCN17                           | String | Number of available bi-directional circuits.                   |
| CTA29                            | String | Connection traffic auxiliary quantity.                         |
| AT4                              | String | Number of answered calls.                                      |
| EROCC46                          | String | Circuit usage.                                                 |
| TET38                            | String | Terminal error times.                                          |
| CT28                             | String | Connected call traffic.                                        |
| SOIC45                           | String | Number of idle circuits.                                       |
| ST0                              | String | Seizure times.                                                 |
| BCR22                            | String | Block ratio.                                                   |
| ABRT33                           | String | Abandon times before ringing.                                  |
| CR20                             | String | Connection rate.                                               |



| Parameter                                 | Type   | Description                                             |
|-------------------------------------------|--------|---------------------------------------------------------|
| BBCN18                                    | String | Number of blocked bi-directional circuits.              |
| CD8                                       | String | Congestion duration.                                    |
| ATA31                                     | String | Answering traffic auxiliary quantity.                   |
| CBT10                                     | String | Busy called party.                                      |
| STA27                                     | String | Seized traffic auxiliary quantity.                      |
| average connection duration (MILLISECOND) | String | Average connection duration.                            |
| answer duration aux (TIMES)               | String | Total duration auxiliary quantity of answered sessions. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters

```
{
 "ofcNo": [0,1],
 "cclid": 1
}
```

- Response parameters

```
{
 "resultCode": "0100000",
 "resultDesc": {
 "10.xx.xx.xx#0": [
 {
 "RET": "2021-02-04 10:05:00 +00:00",
 "RNAT12": "0",
 "busy circuits (TIMES)": "0",
 "ASD32": "0.000000",
 "ITAR19": "0.000000",
 "CLBT40": "-1",
 "MEID": "5",
 "UBC43": "-1",
 "CCT34": "-1",
 "LCOICT7": "0",
 "IOCS44": "0",
 "MOIID": "0",
 "CCT3": "0",
 "CDA9": "-1",
 "AART11": "0",
 "TAT6": "0",
 "Period": "5",
 "TCAT5": "0",
 "AR21": "0.000000",
 "TCAT2": "0",
 "TCAT1": "0",
 "ICN13": "0",
 "ECT35": "0",
 "incoming direction": "0(anonymous)",
 "IBC16": "0",
 "ACN14": "0",
 }
]
 }
}
```

```
"TCT42": "-1",
"IAT36": "0",
"Credible": "Credible",
"CFORT39": "-1",
"RT": "2021-02-04 10:00:00 +00:00",
"ST26": "0.000000",
"Time": "1000",
"average answer duration (SECOND)": "0",
"AT30": "0.000000",
"TUT37": "-1",
"BCN15": "0",
"BBRC23": "0.000000",
"CTBT41": "-1",
"BTST24": "0.000000",
"BTSTA25": "-1",
"ABCN17": "0",
"CTA29": "-1",
"AT4": "0",
"EROC46": "0.000000",
"TET38": "-1",
"CT28": "0.000000",
"SOIC45": "0",
"ST0": "0",
"BCR22": "0.000000",
"ABRT33": "0",
"CR20": "0.000000",
"BBCN18": "0",
"CD8": "0",
"ATA31": "-1",
"CBT10": "0",
"STA27": "-1",
"average connection duration (MILLISECOND)": "0",
"answer duration aux (TIMES)": "-1"
}
]
}
```

### 12.3.6.2 Querying Key Information About Control Blocks

#### NOTICE

The number of concurrent requests for invoking the interface cannot exceed 10. Otherwise, the interface invoking times out due to deteriorated performance.

#### Prerequisites

This interface is invoked only for global AK/SK authentication.

Note: This interface supports only the independent deployment environment.

#### Description

This interface is invoked to query the running states of specified control blocks.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

## Request URL

https://ip:port/rest/cmsapp/v1/openapi/uap/dsppidkey

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-653** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-654** Parameters in the request message body

| Parameter | Type   | Mandatory               | Description                                                                                                                   |
|-----------|--------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| MODTYP    | String | Yes                     | It specifies the type of a module. Currently, <b>CCU</b> and <b>MSU</b> are supported.                                        |
| PID       | String | Conditionally mandatory | CCU module ID. This parameter is valid only when the module type is set to <b>CCU</b> . It specifies the module ID of a CCU.  |
| PIDMSU    | String | Conditionally mandatory | MSU module ID. This parameter is valid only when the module type is set to <b>MSU</b> . It specifies the module ID of an MSU. |

| Parameter | Type    | Mandatory               | Description                                                                                                                                                                                                                                                                                                                    |
|-----------|---------|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MN        | String  | Conditionally mandatory | CCU module number.<br>This parameter is valid only when the module type is set to <b>CCU</b> and the CCU module ID is specified. It specifies the module number of a CCU. You can run the <b>LST APP</b> command to query the module number of a CCU.                                                                          |
| BICCTYPE  | String  | Conditionally mandatory | BICC type.<br>This parameter is valid only when the module type is set to <b>CCU</b> and the CCU module ID is set to <b>BICC</b> . It specifies the type of a BICC module.                                                                                                                                                     |
| MSUMN     | String  | Conditionally mandatory | MSU module number.<br>This parameter is valid only when the module type is set to <b>MSU</b> and the MSU module ID is specified. It specifies the module number of an MSU. You can run the <b>LST APP</b> command to query the module number of an MSU.                                                                        |
| ccId      | Integer | No                      | ID of a call center.<br><ul style="list-style-type: none"> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li> </ul> |

## Response Message

Table 12-655 Parameters in the response message body

| Parameter  | Type   | Description                                                                                                                                                                                                                                          |
|------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | String | Query result. The options are as follows: <ul style="list-style-type: none"> <li><b>0100000</b>: success</li> <li>Other values: failure</li> <li>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul> |

| Parameter     | Type   | Description                                                                                                                                                |
|---------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultDesc    | List   | Object list in the returned result after a successful query.<br><br>For details about the parameters of the object, see the following table.               |
| 10.xx.xx.xx#0 | String | <ul style="list-style-type: none"> <li>• <b>10.xx.xx.xx</b>: UAP IP address.</li> <li>• <b>#</b>: fixed separator.</li> <li>• <b>0</b>: UAP ID.</li> </ul> |

**Table 12-656** Parameters of the resultDesc object (Set the module type to CCU, CCU module ID to CCB, and CCU module number to 57.)

| Parameter                    | Type   | Description                                                    |
|------------------------------|--------|----------------------------------------------------------------|
| IDC switch index             | String | Online indication.                                             |
| Null CB number               | String | Number of control blocks in the <b>NULL</b> state.             |
| Booked CB number             | String | Number of busy circuits.                                       |
| Info receiving status number | String | Number of control blocks that are receiving information.       |
| Wait overlap CB number       | String | Number of control blocks in the <b>WAITOVERLAP</b> state.      |
| Overlap transmit number      | String | Number of control blocks in the <b>Overlap transmit</b> state. |
| Call proceeding number       | String | Number of control blocks in the <b>CALLPROCEEDIN</b> state.    |
| Alerting CB number           | String | Number of control blocks in the <b>ALERTING</b> state.         |
| Connection request CB number | String | Number of control blocks that are requesting connections.      |
| Active CB number             | String | Number of active control blocks.                               |
| Release guard CB number      | String | Number of control blocks in the <b>Release guard</b> state.    |
| Release waiting CB number    | String | Number of control blocks that are waiting to be released.      |
| Temply hold CB number        | String | Number of control blocks in the <b>Temply hold</b> state.      |

| Parameter                    | Type   | Description                                                    |
|------------------------------|--------|----------------------------------------------------------------|
| Wait tone CB number          | String | Number of control blocks that are in the waiting tone state.   |
| Null after combine CB number | String | Number of control blocks in the <b>NULLAFTERCOMBINE</b> state. |
| Call park CB number          | String | Number of control blocks in the <b>Call park</b> state.        |

**Table 12-657** Parameters of the resultDesc object (Set the module type to CCU, CCU module ID to INTESS, and CCU module number to 56.)

| Parameter                     | Type   | Description                                                  |
|-------------------------------|--------|--------------------------------------------------------------|
| Last allocated INTESS number  | String | ID of the INtess control block that was allocated last time. |
| Error stat flag               | String | Error cause statistics switch.                               |
| Error stat interval           | String | Error cause statistics period.                               |
| Message statistics flag       | String | Message statistics switch.                                   |
| Message statistics interval   | String | Message statistics period.                                   |
| Message statistics mask       | String | Message statistics mask.                                     |
| Idle CB number                | String | Number of control blocks in the <b>IDLE</b> state.           |
| Overlap CB number             | String | Number of control blocks in the <b>OVERLAP</b> state.        |
| Call delivered CB number      | String | Number of control blocks in the <b>CALLDELIVERED</b> state.  |
| Call present CB number        | String | Number of control blocks in the <b>CALLPRESENT</b> state.    |
| Call received                 | String | Number of control blocks in the <b>CALLRECEIVED</b> state.   |
| Connection request CB number  | String | Number of control blocks in the connection request state.    |
| Active CB number              | String | Number of control blocks in the <b>ACTIVE</b> state.         |
| SPACTIVE CB number            | String | Number of control blocks in the <b>SPACTIVE</b> state.       |
| CB number in INTESS_spy state | String | Number of control blocks in the <b>INTESS_SPY</b> state.     |

| Parameter          | Type   | Description                                           |
|--------------------|--------|-------------------------------------------------------|
| Wait REL CB number | String | Number of control blocks in the <b>WAITREL</b> state. |

**Table 12-658** Parameters of the resultDesc object (Set the module type to MSU, PID to BSI, and MSUMN module number to 472.)

| Parameter                                               | Type   | Description                                                         |
|---------------------------------------------------------|--------|---------------------------------------------------------------------|
| Total number of connections                             | String | Total number of connections.                                        |
| Total no of connection in IDLE state                    | String | Total number of idle connections.                                   |
| Total no of connection in CREATE CONNECT state          | String | Total number of connections that are being created.                 |
| Total no of connection in CONNECT state                 | String | Total number of connected connections.                              |
| Total no of connection in DELETE CONNECT state          | String | Total number of deleted connections.                                |
| Total no of connection in MODIFY CONNECT state          | String | Total number of modified connections.                               |
| Total no of connection having service type as IVR       | String | Total number of IVR business connections.                           |
| Total no of connection having service type as CONF      | String | Total number of conference site business connections.               |
| Total no of connection having service type as CONF CHAN | String | Total number of business connections of conference site channels.   |
| Total no of conf connection in IDLE state               | String | Total number of idle conference site connections.                   |
| Total number of Conf connections                        | String | Total number of conference site connections.                        |
| Total no of conf connection in CREATE CONF state        | String | Total number of conference site connections that are being created. |
| Total no of conf connection in CONF USING state         | String | Total number of conference site connections in use.                 |

| Parameter                                        | Type   | Description                                          |
|--------------------------------------------------|--------|------------------------------------------------------|
| Total no of conf connection in CONF DELETE state | String | Total number of deleted conference site connections. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters

```
{
 "MODTYP":"CCU",
 "PID":"CCB",
 "MN":"56",
 "cclId":1
}
```

- Response parameters

```
{
 "resultCode": "0100000",
 "resultDesc": {
 "10.xx.xx.xx#0": {
 "Alerting CB number": "0",
 "Null after combine CB number": "0",
 "IDC switch index": "1",
 "Wait tone CB number": "0",
 "Release guard CB number": "0",
 "Release waiting CB number": "0",
 "Booked CB number": "0",
 "Temply hold CB number": "0",
 "Active CB number": "0",
 "Info receiving status number": "3",
 "Call park CB number": "0",
 "Null CB number": "9997",
 "Overlap transmit number": "0",
 "Call proceeding number": "0",
 "Wait overlap CB number": "0",
 "Connection request CB number": "0"
 }
 }
}
```

### 12.3.6.3 Querying the Registration Status of a Terminal

#### NOTICE

The number of concurrent requests for invoking the interface cannot exceed 10. Otherwise, the interface invoking times out due to deteriorated performance.

## Prerequisites

This interface is invoked only for global AK/SK authentication.

Note: This interface supports only the independent deployment environment.



## Description

This interface is invoked to query the registration status of a terminal.

## Interface Method

The request method must be set to POST. This interface supports only the POST method.

## Request URL

`https://ip:port/rest/cmsapp/v1/openapi/uap/queryterminalstatus`

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-659** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-660** Parameters in the request message body

| Parameter | Type    | Mandatory                                       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------|---------|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EID       | string  | Yes                                             | <p>It specifies the ID of the multimedia device to be operated.</p> <p>The rules for setting the parameter are as follows:</p> <p>For a multimedia device that adopts the SIP, the value is a string, which generally contains up to 32 digits, for example, 8780001.</p> <p>The asterisk (*) and percent (%) can match zero or multiple characters. For example, <b>6666*</b> and <b>6666%</b> match all character strings starting with <b>6666</b>.</p> <p>The question mark (?) matches only one character. For example, <b>6666?</b> matches only five-character strings starting with <b>6666</b>.</p> <p>The combination of the asterisk (*), question mark (?), and percent sign (%) is supported. For example, <b>%3?</b> matches all character strings whose penultimate character is <b>3</b>.</p> <p><b>NOTICE</b><br/>The number of wildcard matching results must be less than 200. Otherwise, UAP services are affected.</p> |
| limit     | Integer | <b>False</b> and <b>offset</b> appear in pairs. | Query quantity. The default value is <b>100</b> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| Parameter | Type    | Mandatory                                      | Description                                                                                                                                                                                                                                                                                                                 |
|-----------|---------|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| offset    | Integer | <b>False</b> and <b>limit</b> appear in pairs. | Start position of the query. The default value is <b>0</b> .                                                                                                                                                                                                                                                                |
| cclid     | Integer | No                                             | ID of a call center. <ul style="list-style-type: none"> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li> </ul> |

## Response Message

**Table 12-661** Parameters in the response message body

| Parameter     | Type   | Description                                                                                                                                                                                                                                          |
|---------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode    | string | Query result. The options are as follows: <ul style="list-style-type: none"> <li><b>0100000</b>: success</li> <li>Other values: failure</li> <li>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul> |
| resultDesc    | List   | Object list in the returned result after a successful query.<br>For details about the parameters of the object, see the following table.                                                                                                             |
| 10.xx.xx.xx#1 | String | <ul style="list-style-type: none"> <li><b>10.xx.xx.xx</b>: UAP IP address.</li> <li><b>#</b>: fixed separator.</li> <li><b>1</b>: UAP ID.</li> </ul>                                                                                                 |

**Table 12-662** Parameters of resultDesc

| Parameter | Type    | Description              |
|-----------|---------|--------------------------|
| data      | list    | Data result set.         |
| count     | Integer | Total number of records. |

**Table 12-663** Parameters of data

| Parameter       | Type   | Description                                                                                          |
|-----------------|--------|------------------------------------------------------------------------------------------------------|
| ccuModuleNumber | string | CCU module number.                                                                                   |
| terminationType | string | Terminal type.                                                                                       |
| equipmentId     | string | Equipment ID.                                                                                        |
| registerStatus  | string | Registration status. The value is <b>registered</b> or <b>not register</b> .                         |
| socketStatus    | string | Socket status. The value is <b>fault</b> , <b>normal</b> , <b>connecting</b> , or <b>uninstall</b> . |
| ipAndPort       | string | IP address and port number.                                                                          |
| monitorFlag     | string | Agent status monitoring flag. The value is <b>unstarted</b> or <b>started</b> .                      |
| protocolType    | string | Protocol type.                                                                                       |
| roamIpAndPort   | string | Roaming IP address and port number.                                                                  |
| tlsStatus       | string | TSL status. The value is <b>unconnect</b> , <b>connect</b> , or <b>uninstall</b> .                   |
| ipType          | string | IP address type.                                                                                     |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters
 

```
{
 "ccId":1,
 "EID": "8888*",
 "limit": "100",
 "offset": "0"
}
```

- Response parameters

```
{
 "resultCode": "0100000",
 "resultDesc": {
 "data": {
 {
 "10.xx.xx.xx#1": [
 {
 "socketStatus": "uninstall",
 "terminationType": "sip",
 "ipAndPort": "0.0.0.0:0",
 "ccuModuleNumber": "56",
 "registerStatus": "not register",
 "monitorFlag": "unstarted",
 "protocolType": "invalid protocol",
 "equipmentId": "88881757",
 "roamIpAndPort": "0.0.0.0:0",
 "tlsStatus": "uninstall",
 "ipType": "IPv4"
 }
],
 "10.xx.xx.xx#2": [
 {
 "socketStatus": "uninstall",
 "terminationType": "sip",
 "ipAndPort": "0.0.0.0:0",
 "ccuModuleNumber": "56",
 "registerStatus": "not register",
 "monitorFlag": "unstarted",
 "protocolType": "invalid protocol",
 "equipmentId": "88881757",
 "roamIpAndPort": "0.0.0.0:0",
 "tlsStatus": "uninstall",
 "ipType": "IPv4"
 }
]
 },
 "count": 1
 }
 }
}
```

### 12.3.6.4 Interface for Querying UAP Performance Indicator Statistics

#### Prerequisites

This interface is invoked only for global AK/SK authentication.

Note: This interface supports only the independent deployment environment.

#### Description

This interface is invoked to query UAP performance indicator statistics.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

<https://ip:port/rest/cmsapp/v1/openapi/uap/perfindex>

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the

administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-664** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-665** Parameters in the request message body

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                 |
|-----------|---------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclId     | Integer | No        | ID of a call center. <ul style="list-style-type: none"> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li> </ul> |
| uapIP     | String  | No        | IP address of the UAP.                                                                                                                                                                                                                                                                                                      |
| ofcNo     | Integer | No        | Array of inbound call numbers.                                                                                                                                                                                                                                                                                              |
| beginDate | String  | Yes       | Query start time. The UTC time zone is used. The interval between the start time and end time cannot exceed 31 days (rounded up).                                                                                                                                                                                           |
| endDate   | String  | Yes       | Query end time. The UTC time zone is used.                                                                                                                                                                                                                                                                                  |
| limit     | Integer | No        | This parameter is optional. The default value is <b>100</b> .                                                                                                                                                                                                                                                               |
| offset    | Integer | No        | This parameter is optional. The default value is <b>0</b> .                                                                                                                                                                                                                                                                 |

## Response Message

**Table 12-666** Parameters in the response message body

| Parameter  | Type   | Description                                                                                                                                                                                                                                                |
|------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | string | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> <li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul> |
| resultDesc | List   | Object list in the returned result after a successful query.<br>For details about the parameters of the object, see the following table.                                                                                                                   |

**Table 12-667** Parameters of resultDesc

| Parameter      | Type    | Description                                                                                                |
|----------------|---------|------------------------------------------------------------------------------------------------------------|
| beginTime      | String  | Statistics start time, which is a timestamp in milliseconds (start time of a 5-minute statistical period). |
| cclId          | Integer | ID of a call center.                                                                                       |
| uaplP          | String  | IP address of the UAP.                                                                                     |
| ofcNo          | Integer | Array of inbound call numbers.                                                                             |
| systemInBound  | Integer | Number of system inbound calls.                                                                            |
| systemInSucc   | Integer | Number of system connected calls.                                                                          |
| systemCallRate | Integer | System call connection rate.                                                                               |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters

```
{
 "ccld":1,
 "uapIP":"1.1.1.1",
 "ofcNo":[0, 1],
 "beginDate":"2021-09-09 00:00:00",
 "endDate":"2021-09-11 23:00:00",
 "limit":"100",
 "offset":"0"
}
```

- Response parameters

```
{
 "resultCode": 0,
 "resultDesc": {
 "data": [
 {
 "beginTime": "1631594100000",
 "ccld": 1,
 "uapIp": "1.1.1.1",
 "ofcNo": 1,
 "systemInBound": 1,
 "systemInSucc": 1,
 "systemCallRate": 1
 }
],
 "count": 1
 }
}
```

### 12.3.6.5 Interface for Querying UAP Terminal Statistics

#### Prerequisites

This interface is invoked only for global AK/SK authentication.

Note: This interface supports only the independent deployment environment.

#### Scenario

This interface is invoked to query UAP terminal statistics.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

`https://ip.port/rest/cmsapp/v1/openapi/uap/terminalindex`

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values.

In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.



## Request Description

**Table 12-668** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-669** Parameters in the request message body

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                 |
|-----------|---------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclId     | Integer | No        | ID of a call center. <ul style="list-style-type: none"> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li> </ul> |
| uapIP     | String  | No        | Array of VDN IDs. The maximum length of the array is 100.                                                                                                                                                                                                                                                                   |
| beginDate | String  | Yes       | Query start time. The UTC time zone is used. The interval between the start time and end time cannot exceed 31 days (rounded up).                                                                                                                                                                                           |
| endDate   | String  | Yes       | Query end time. The UTC time zone is used.                                                                                                                                                                                                                                                                                  |
| limit     | Integer | No        | This parameter is optional. The default value is <b>100</b> .                                                                                                                                                                                                                                                               |
| offset    | Integer | No        | This parameter is optional. The default value is <b>0</b> .                                                                                                                                                                                                                                                                 |

## Response Message

**Table 12-670** Parameters in the response message body

| Parameter  | Type   | Description                                                                                                                                                                                                                                                |
|------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | String | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> <li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li> </ul> |
| resultDesc | List   | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see the following table.                                                                                                    |

**Table 12-671** Parameters of resultDesc

| Parameter        | Type    | Description                                                                                                |
|------------------|---------|------------------------------------------------------------------------------------------------------------|
| beginTime        | String  | Statistics start time, which is a timestamp in milliseconds (start time of a 5-minute statistical period). |
| cclId            | Integer | ID of a call center.                                                                                       |
| uapIp            | String  | IP address of the UAP.                                                                                     |
| agentOnlineCount | Integer | Number of registered softphone clients.                                                                    |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  

```
{
 "cclId":1,
 "uapIP":"1.1.1.1",
 "beginDate":"2021-09-09 00:00:00",
 "endDate":"2021-09-11 23:00:00",
 "limit":"100",
```

```

 "offset": "0"
 }
 • Response parameters
 {
 "resultCode": 0,
 "resultDesc": {
 "data": [
 {
 "beginTime": "1631594100000",
 "cclid": 1,
 "uapIp": "1.1.1.1",
 "agentOnlineCount": 1
 }
],
 "count": 1
 }
 }

```

### 12.3.6.6 Interface for Querying CTI System Indicators

#### Prerequisites

This interface is invoked only for global AK/SK authentication.

Note: This interface supports only the independent deployment environment.

#### Description

This interface is invoked to query CTI system indicators.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Request URL

`https://ip:port/rest/cmsapp/v1/openapi/cti/sysindex`

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-672** Parameters in the request header

| No. | Parameter    | Type   | Mandatory | Description                                                    |
|-----|--------------|--------|-----------|----------------------------------------------------------------|
| 1   | Content-Type | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> . |

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-673** Parameters in the request message body

| Parameter | Type    | Mandatory | Description                                                                                                                                                                                                                                                                                                                 |
|-----------|---------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cclId     | Integer | No        | ID of a call center. <ul style="list-style-type: none"> <li>In the independent deployment environment, the default value is the value of <b>Default Call Center ID</b> on the <b>Configuration Center &gt; System Management &gt; Parameter Settings</b> page after a system administrator signs in to the AICC.</li> </ul> |
| vdn       | list    | No        | Array of VDN IDs. The maximum length of the array is 100.                                                                                                                                                                                                                                                                   |
| beginDate | String  | Yes       | Query start time. The UTC time zone is used. The interval between the start time and end time cannot exceed 31 days (rounded up).                                                                                                                                                                                           |
| endDate   | String  | Yes       | Query end time. The UTC time zone is used.                                                                                                                                                                                                                                                                                  |
| limit     | Integer | No        | This parameter is optional. The default value is <b>100</b> .                                                                                                                                                                                                                                                               |
| offset    | Integer | No        | This parameter is optional. The default value is <b>0</b> .                                                                                                                                                                                                                                                                 |

## Response Message

**Table 12-674** Parameters in the response message body

| Parameter  | Type   | Description                                                                                                                                                                                                                                            |
|------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultCode | string | Query result. The options are as follows: <ul style="list-style-type: none"><li>● <b>0100000</b>: success</li><li>● Other values: failure</li><li>● For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</li></ul> |
| resultDesc | List   | Object list in the returned result after a successful query.<br>For details about the parameters of the object, see the following table.                                                                                                               |

**Table 12-675** Parameters of resultDesc

| Parameter       | Type    | Description                                                                                                |
|-----------------|---------|------------------------------------------------------------------------------------------------------------|
| beginTime       | String  | Statistics start time, which is a timestamp in milliseconds (start time of a 5-minute statistical period). |
| cclId           | Integer | ID of a call center.                                                                                       |
| vdn             | Integer | ID of a VDN.                                                                                               |
| onlineAgentNums | Integer | Number of online agents (including agents who do not answer inbound calls).                                |
| talkingNums     | Integer | Number of talking agents (excluding the agents who do not answer inbound calls).                           |
| ideaAgentNum    | Integer | Number of idle agents (excluding agents who do not answer inbound calls).                                  |
| busyNums        | Integer | Number of agents who indicate busy (excluding the number of agents who do not answer inbound calls).       |

| Parameter   | Type    | Description                                                                          |
|-------------|---------|--------------------------------------------------------------------------------------|
| restNums    | Integer | Number of agents who take a rest (excluding agents who do not answer inbound calls). |
| incallNums  | Integer | Number of inbound calls within five minutes.                                         |
| rateNum     | Integer | Number of manual inbound calls connected within 5 minutes.                           |
| callRate    | Integer | Manual inbound call connection rate within 5 minutes.                                |
| callOutNums | Integer | Number of outbound calls within five minutes.                                        |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*

- Request parameters  

```
{
 "cclid":1,
 "vdn":[1,2,3],
 "beginDate":"2021-09-09 00:00:00",
 "endDate":"2021-09-11 23:00:00",
 "limit":"100",
 "offset":"0"
}
```

- Response parameters  

```
{
 "resultCode": 0,
 "resultDesc": {
 "data": [
 {
 "beginTime": "1631594100000",
 "cclid": 1,
 "vdn": 1,
 "onlineAgentNums": 1,
 "talkingNums": 1,
 "ideaAgentNum": 1,
 "busyNums": 1,
 "restNums": 1,
 "inCallNums": 1,
 "rateNum": 1,
 "callRate": 1,
 "callOutNums": 1
 }
],
 "count": 6
 }
}
```

### 12.3.6.7 Querying the Time of the CTI Platform Server

#### Scenario

This interface is invoked to query the time of the CTI platform server. (CTI 3.6 does not support this interface.)

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interface

BMS interface: /ccbms/ws/monitor/queryctiservertime

#### Request URL

https://ip:port/rest/cmsapp/v1/openapi/configures/ctiservertime

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-676** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-677** Parameters in the request message body

| No. | Parameter | Value Type | Mandatory | Description                                                              |
|-----|-----------|------------|-----------|--------------------------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from <b>1</b> to <b>65535</b> . |

## Response Description

**Table 12-678** Parameters in the response message body

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                                                                                                              |
|-----|-------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result      | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>● <b>0</b>: success</li> <li>● Other values: failure</li> </ul> <p>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p> |
| 2   | resultCode  | String     | <p>Query result. The options are as follows:</p> <ul style="list-style-type: none"> <li>● <b>0100000</b>: success</li> <li>● Other values: failure</li> </ul> <p>For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a>.</p>                                                                                                                            |
| 3   | resultDatas | long       | <p>UTC timestamp of the server where the CTI platform is located.</p> <p><b>NOTE</b><br/>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.</p>                                                                                                                                                                                   |
| 4   | resultDesc  | Long       | <p>UTC timestamp of the server where the CTI platform is located.</p>                                                                                                                                                                                                                                                                                                                    |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  
{  
  "ccld":1  
}
- Response parameters  
{  
  "result": "0",  
  "resultCode": "0100000",  
  "resultDatas": 1605057110000,  
  "resultDesc": 1605057110000  
}



### 12.3.6.8 Querying the Current License Usage in the System

#### Scenario

This interface is invoked to query the current license usage in the system. (CTI 3.6 does not support this interface.)

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interface

BMS interface: /ccbms/ws/monitor/querysystemlicensestatus

#### Request URL

https://ip:port/rest/cmsapp/v1/openapi/configures/querysystemlicensestatus

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-679** Parameters in the request header

| No. | Parameter     | Value Type | Mandatory | Description                                                                                                                                            |
|-----|---------------|------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | The value is fixed at <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-680** Parameters in the request message body

| No. | Parameter | Value Type | Mandatory | Description                                                              |
|-----|-----------|------------|-----------|--------------------------------------------------------------------------|
| 1   | cclId     | Integer    | Yes       | ID of a call center.<br>The value ranges from <b>1</b> to <b>65535</b> . |

## Response Description

**Table 12-681** Parameters in the response message body

| No. | Parameter   | Value Type | Description                                                                                                                                                                                                                                                                                                                                                            |
|-----|-------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | result      | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions. |
| 2   | resultCode  | String     | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0100000</b>: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> .                                                                                                                       |
| 3   | resultDatas | object     | Object array in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-682</a> .<br><b>NOTE</b><br>This field is reserved for compatibility with interface response parameters in 8.13 and earlier versions.                                                                          |
| 4   | resultDesc  | Object     | Object in the returned result after a successful query.<br>For details about the parameters of the object in this array, see <a href="#">Table 12-682</a> .                                                                                                                                                                                                            |

**Table 12-682** Parameters of resultDesc/resultDatas

| No. | Parameter          | Value Type | Description                                               |
|-----|--------------------|------------|-----------------------------------------------------------|
| 2.1 | licenseMaxAgentNum | Long       | Maximum number of sign-in agents supported by the license |

| No.      | Parameter               | Value Type | Description                                                         |
|----------|-------------------------|------------|---------------------------------------------------------------------|
| 2.2      | licenseMaxVideoAgentNum | Long       | Maximum number of sign-in video agents supported by the license     |
| 2.3      | licenseMaxVdnNum        | Long       | Maximum number of VDNs supported by the license                     |
| 2.4      | licenseMaxIvrCallNum    | Long       | Maximum number of automatic business calls supported by the license |
| 2.5      | licenseMaxVoiceCallNum  | Long       | Maximum number of voice calls supported by the license              |
| 2.6      | licenseMaxWebCallNum    | Long       | Maximum number of web calls supported by the license                |
| 2.7      | loginAgentNum           | Long       | Number of currently signed-in agents                                |
| 2.8      | loginVideoAgentNum      | Long       | Number of currently signed-in video agents                          |
| 2.9      | vdnNum                  | Long       | Number of VDNs that are currently configured.                       |
| 2.1<br>0 | ivrCallNum              | Long       | Number of current automatic business calls.                         |
| 2.1<br>1 | voiceCallNum            | Long       | Number of current voice calls.                                      |
| 2.1<br>2 | webCallNum              | Long       | Number of current web calls.                                        |
| 2.1<br>3 | historyMaxAgentNum      | Long       | Maximum number of sign-in agents in history.                        |
| 2.1<br>4 | historyMaxVideoAgentNum | Long       | Maximum number of sign-in video agents in history.                  |
| 2.1<br>5 | historyMaxIvrCallNum    | Long       | Maximum number of automatic business calls in history.              |

| No.      | Parameter               | Value Type | Description                               |
|----------|-------------------------|------------|-------------------------------------------|
| 2.1<br>6 | historyMaxVoiceCall-Num | Long       | Maximum number of voice calls in history. |
| 2.1<br>7 | historyMaxWebCall-Num   | Long       | Maximum number of web calls in history.   |
| 2.1<br>8 | licenseStartDate        | Long       | License start time.                       |
| 2.1<br>9 | licenseEndDate          | Long       | License expiration time.                  |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  

```
{
 "cclid":1
}
```
- Response parameters  

```
{
 "result": "0",
 "resultCode": "0100000",
 "resultDatas": {
 "licenseMaxAgentNum": 4,
 "licenseMaxVideoAgentNum": 4294967295,
 "licenseMaxVdnNum": 10,
 "licenseMaxIvrCallNum": 4,
 "licenseMaxVoiceCallNum": 6,
 "licenseMaxWebCallNum": 4294967295,
 "loginAgentNum": 1,
 "loginVideoAgentNum": 4294967295,
 "vdnNum": 1,
 "ivrCallNum": 0,
 "voiceCallNum": 1,
 "webCallNum": 4294967295,
 "historyMaxAgentNum": 4294967295,
 "historyMaxVideoAgentNum": 4294967295,
 "historyMaxIvrCallNum": 4294967295,
 "historyMaxVoiceCallNum": 4294967295,
 "historyMaxWebCallNum": 4294967295,
 "licenseStartDate": 0,
 "licenseEndDate": 0
 },
 "resultDesc": {
 "licenseMaxAgentNum": 4,
 "licenseMaxVideoAgentNum": 4294967295,
 "licenseMaxVdnNum": 10,
 "licenseMaxIvrCallNum": 4,
 "licenseMaxVoiceCallNum": 6,
 "licenseMaxWebCallNum": 4294967295,
 "loginAgentNum": 1,
 "loginVideoAgentNum": 4294967295,
 "vdnNum": 1,
 "ivrCallNum": 0,
 "voiceCallNum": 1,
 "webCallNum": 4294967295,
 "historyMaxAgentNum": 4294967295,

```

```

"historyMaxVideoAgentNum": 4294967295,
"historyMaxIvrCallNum": 4294967295,
"historyMaxVoiceCallNum": 4294967295,
"historyMaxWebCallNum": 4294967295,
"licenseStartDate": 0,
"licenseEndDate": 0
}

```

## 12.3.7 Checking Cluster Health Status

### Description

This interface is invoked by a third-party system to check whether the CC-CMS runs properly.

### Interface Method

The request method must be set to POST. This interface supports only the POST method.

### URL

`https://ip:port/rest/cmsapp/v1/ping`

In a public cloud environment, *ip* indicates the IP address of the CC-CMS server, and *port* indicates the HTTPS port number of the CC-CMS server. Contact the administrator to obtain the values. In a non-public cloud environment where the NSLB service is configured, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

### Request Description

**Table 12-683** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | True      | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | True      | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 12-684** Parameters in the message body

| Parameter             | Type   | Mandatory | Description                                                                                           |
|-----------------------|--------|-----------|-------------------------------------------------------------------------------------------------------|
| say (can be modified) | Object | True      | Request packet. The code does not process the packet and writes it back to the response message body. |

## Response Description

**Table 12-685** If the response code is **200**, it indicates that the CMS runs properly. The following table describes the parameters in the response message.

| Parameter | Type   | Description                                                      |
|-----------|--------|------------------------------------------------------------------|
| status    | String | If the response is successful, <b>UP</b> is returned.            |
| request   | Object | Input parameter object returned when the response is successful. |

## Message Example

- Request header  
Content-Type: application/json;charset=UTF-8  
Authorization: \*\*\*\*\*
- Request parameters  
{  
  "say": "Hello world!"  
}
- Response parameters  
{  
  "request": {  
    "say": "Hello world!"  
  },  
  "status": "UP"  
}

## 12.3.8 Appendix

### 12.3.8.1 Indicator Code Reference

### 12.3.8.1.1 Skill Queue Monitoring Indicators

**Table 12-686** Historical monitoring indicators of skill queues

| Code                                                                                                                                                                                                                                                                                               | Indicat<br>or<br>Name                            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IDX_COUNT_SKILL_REQUEST                                                                                                                                                                                                                                                                            | Number of manual inbound call requests           | Number of times that an inbound call requests the manual service. The number increases in the following cases: <ul style="list-style-type: none"> <li>• Inbound calls allocated to agents. (An inbound call that is transferred to an agent is counted repeatedly.)</li> <li>• Inbound call hangs up while queuing. (If a call is transferred from the current queue to another queue, the call is counted only once.)</li> </ul>                                                                                                                                                                                                                                |
| IDX_COUNT_SKILL_INCOMING_CALL<br><br><b>NOTE</b><br>IDX_COUNT_SKILL_INCOMING_CALL is a new indicator in AICC 22.100.0. For the interfaces for obtaining historical monitoring indicators of skills in a specified date and month, data in versions earlier than AICC 22.100.0 cannot be collected. | Number of manual inbound call requests           | Both <b>IDX_COUNT_SKILL_INCOMING_CALL</b> and <b>IDX_COUNT_SKILL_REQUEST</b> collect statistics on the number of manual inbound calls, but their statistics logic is different. <b>IDX_COUNT_SKILL_INCOMING_CALL</b> collects statistics only on the number of manual inbound calls in voice skill queues.<br><br>The number increases in the following cases: <ul style="list-style-type: none"> <li>• If an inbound call has been allocated to a skill queue, the number of skill queues to which the inbound call is first allocated increases by 1, and other skill queues to which the inbound call is transferred subsequently are not counted.</li> </ul> |
| IDX_COUNT_SKILL_CONNECTED                                                                                                                                                                                                                                                                          | Number of connected manual inbound call requests | Number of calls queuing in a skill queue and answered by agents in this skill queue or calls transferred to other skill queues and answered by agents in those skill queues. The duration of a call with an agent must be greater than 0.                                                                                                                                                                                                                                                                                                                                                                                                                        |

| Code                               | Indicator Name                                             | Description                                                                                                                             |
|------------------------------------|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| IDX_COUNT_SKILL_ABANDON            | Number of lost manual inbound call requests                | Number of lost manual inbound call requests = Number of manual inbound call requests – Number of connected manual inbound call requests |
| IDX_COUNT_SKILL_USER_ABANDON       | Number of abandoned manual inbound calls                   | Number of calls proactively abandoned by users during queuing and ringing.                                                              |
| IDX_COUNT_SKILL_AGENT_ABANDON      | Number of manual inbound calls hung up by agents           | Number of calls proactively hung up by agents during ringing.                                                                           |
| IDX_COUNT_SKILL_QUEUE_DISCONNECTED | Number of manual inbound calls that are released in queues | Number of times that calls are disconnected by the CTI platform when the calls are queuing.                                             |
| IDX_COUNT_SKILL_SYSTEM_LOST        | Number of interrupted manual inbound calls on the platform | Number of platform interruptions caused by reasons such as agent response timeout.                                                      |



| Code                           | Indicator Name                                                                 | Description                                                                                                                                                     |
|--------------------------------|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IDX_COUNT_SKILL_LOST_RING      | Number of manual inbound calls that are not answered                           | Number of calls that are not answered after being allocated to agents. For the calls, the answer duration is greater than 0 and the conversation duration is 0. |
| IDX_COUNT_SKILL_TIME_OUT_QUEUE | Number of manual inbound calls that are transferred to a queue due to timeout  | Number of calls transferred from the original skill queue to other skill queues due to queuing timeout.                                                         |
| IDX_COUNT_SKILL_TIME_OUT_AGENT | Number of manual inbound calls that are transferred to an agent due to timeout | Number of calls transferred from the original skill queue to other agents due to queuing timeout.                                                               |
| IDX_COUNT_SKILL_OVERFLOW_QUEUE | Number of manual inbound calls that are transferred to a queue due to overflow | Number of calls transferred from the original skill queue to other queues due to overflow.                                                                      |

| Code                                | Indicator Name                                                                  | Description                                                                                                                                                                                 |
|-------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IDX_COUNT_SKILL_OVER_AGENT          | Number of manual inbound calls that are transferred to an agent due to overflow | Number of calls transferred from the original skill queue to other agents due to overflow.                                                                                                  |
| IDX_COUNT_SKILL_CONNECTED_IN_(N)    | Number of calls connected manually within <i>N</i> seconds                      | The value of <i>N</i> can be <b>3, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, or 60</b> .                                                                                                   |
| IDX_COUNT_SKILL_ABANDON_IN_(N)      | Number of calls abandoned manually within <i>N</i> seconds                      | The value of <i>N</i> can be <b>3, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, or 60</b> . Query by minute is not supported (that is, the input parameter cannot contain <b>timeGrain</b> ). |
| IDX_COUNT_SKILL_CONNECTED_AFTER_(N) | Number of calls connected after <i>N</i> seconds                                | The value of <i>N</i> can be <b>3, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, or 60</b> . Query by minute is not supported (that is, the input parameter cannot contain <b>timeGrain</b> ). |
| IDX_COUNT_SKILL_ABANDON_AFTER_(N)   | Number of calls abandoned manually after <i>N</i> seconds                       | The value of <i>N</i> can be <b>3, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, or 60</b> . Query by minute is not supported (that is, the input parameter cannot contain <b>timeGrain</b> ). |

| Code                                      | Indicator Name                                                | Description                                                                    |
|-------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------------|
| IDX_COUNT_SKILL_USER_ABANDON_QUEUE        | Number of abandoned manual inbound calls during queuing       | Number of calls proactively abandoned by users during queuing.                 |
| IDX_COUNT_SKILL_USER_ABANDON_AGENT        | Number of abandoned manual inbound calls during ringing       | Number of calls proactively abandoned by users during ringing.                 |
| IDX_COUNT_SKILL_WAIT_FAIL_CONNECTED_QUEUE | Number of Waits for Lost Calls                                | Number of waits for lost calls on queue devices.                               |
| IDX_COUNT_SKILL_TIMEOUT_IVR               | Number of Calls Transferred to the IVR Due to Queuing Timeout | Number of calls that are transferred to IVR due to queuing timeout.            |
| IDX_COUNT_SKILL_OVERFLOW_IVR              | Number of Calls Transferred to IVR Due to Queue Overflow      | Number of times that a user transfers a call to the IVR in the queue overflow. |

| Code                             | Indicator Name                                         | Description                                                                                                                                                                                                                                                                                                             |
|----------------------------------|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IDX_RATE_SKILL_CONNECTED         | Connected manual inbound call requests (%)             | Percentage of the number of connected manual inbound calls to the number of manual inbound call requests. This indicator shows the call processing capability of a skill queue.                                                                                                                                         |
| IDX_RATE_SKILL_ABANDON           | Lost manual inbound call requests (%)                  | Lost manual inbound call requests (%) = 100% - Connected manual inbound call requests (%). This indicator shows the percentage of calls that are abandoned when they are waiting to be answered. A high call loss rate indicates poor service quality. In this case, improve the agent usage, and add queues or agents. |
| IDX_RATE_SKILL_RING_CONNECT      | Manual inbound call answer rate (%)                    | Ringing rate of manual inbound answered calls = Number of ringing times of answered calls/Total number of ringing times                                                                                                                                                                                                 |
| IDX_DURATION_SKILL_AVG_CONNECTED | Average duration of connected manual inbound calls (s) | Average voice call duration. Average duration of connected manual inbound calls = Duration of connected manual inbound calls/Number of connected manual inbound calls                                                                                                                                                   |
| IDX_DURATION_SKILL_CONNECTED     | Manual inbound call duration (s)                       | Total voice call duration.                                                                                                                                                                                                                                                                                              |
| IDX_DURATION_SKILL_AVG_QUEUE_ACK | Average waiting duration of manual inbound calls (s)   | Average waiting duration of voice calls. This indicator shows the average waiting duration (queuing and ring duration) of all calls.                                                                                                                                                                                    |

| Code                                   | Indicator Name                                                                   | Description                                                                   |
|----------------------------------------|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| IDX_DURATION_SKILL_AVG_CONNECTED_ACK   | Average ring duration of connected manual inbound calls (s)                      | Average ring duration of all connected calls in a queue.                      |
| IDX_DURATION_SKILL_AVG_ABANDON_ACK     | Average ring duration of lost manual inbound calls (s)                           | Average ring duration of all unanswered calls.                                |
| IDX_DURATION_SKILL_AVG_CONNECTED_QUEUE | Average queueing duration of connected manual inbound calls (s)                  | Average queueing duration of all connected calls in a queue.                  |
| IDX_DURATION_SKILL_AVG_ABANDON_QUEUE   | Average queueing duration (s) of manual inbound calls connected but not answered | Average queueing duration of all calls connected but not answered in a queue. |

| Code                                  | Indicator Name                                                        | Description                                                                                 |
|---------------------------------------|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| IDX_DURATION_SKILL_MAX_QUEUE_ACK      | Maximum waiting duration of manual inbound calls (s)                  | This indicator shows the maximum waiting duration (queuing and ring duration) of all calls. |
| IDX_DURATION_SKILL_MIN_QUEUE_ACK      | Minimum waiting duration of manual inbound calls (s)                  | This indicator shows the minimum waiting duration (queuing and ring duration) of all calls. |
| IDX_DURATION_SKILL_USER_ABANDON_QUEUE | Queuing duration (s) of a call hung up by a user in the queue         | Queuing duration when a user hangs up in a queue.                                           |
| IDX_DURATION_SKILL_USER_ABANDON_AGENT | Waiting duration (s) of a call hung up by a user during agent ringing | Waiting duration for a user to hang up a call when the phone rings (queuing and ringing).   |
| IDX_DURATION_SKILL_ABANDON_QUEUE      | Ring Duration of Lost Calls (s)                                       | Queuing duration of all calls connected but not answered in a queue.                        |

| Code                                            | Indicator Name                     | Description                                               |
|-------------------------------------------------|------------------------------------|-----------------------------------------------------------|
| IDX_DURATION_SKILL_ABANDON_ACK                  | Queuing Duration of Lost Calls (s) | Ring duration of all unanswered calls.                    |
| IDX_DURATION_SKILL_WAIT_SUCCESS_CONNECTED_QUEUE | Waiting Duration Before Connection | Waiting duration of calls in a skill queue.               |
| IDX_DURATION_SKILL_SUCCESS_ACK                  | Ringing Duration Before Connection | Ringing duration of all calls connected in a skill queue. |
| IDX_DURATION_SKILL_ALL_ACK                      | Total Ringing Durations            | Ringing duration of calls in a skill queue.               |
| IDX_DURATION_SKILL_ALL_QUEUE                    | Total queuing duration             | Total queuing duration of calls in a skill queue.         |

 **NOTE**

All indicators that are used to query data by minute or on the current day (the input parameter does not contain **timeGrain**) in [Table 12-686](#) are real-time indicators.

**Table 12-687** Real-time monitoring indicators of skill queues

| Code                        | Indicator Name                  | Description                      |
|-----------------------------|---------------------------------|----------------------------------|
| IDX_COUNT_REAL_SKILL_QUEUE  | Number of queuing calls         | Number of queuing calls.         |
| IDX_COUNT_REAL_SKILL_HANDLE | Number of calls being processed | Number of calls being processed. |

| Code                             | Indicator Name                                                | Description                                                    |
|----------------------------------|---------------------------------------------------------------|----------------------------------------------------------------|
| IDX_DURATION_SKILL_MAX_QUEUE_ACK | Maximum waiting duration in a queue                           | Maximum waiting duration in a queue.                           |
| IDX_COUNT_20S_CALL_FOR_5MIN      | Number of calls connected in 20 seconds in the last 5 minutes | Number of calls connected in 20 seconds in the last 5 minutes. |
| IDX_COUNT_REAL_AGENT_SIGN_IN     | Number of sign-in agents                                      | Number of sign-in agents.                                      |
| IDX_COUNT_REAL_AGENT_CONNECT     | Number of agents in talking state                             | Number of agents in talking state.                             |
| IDX_COUNT_REAL_AGENT_SET_IDLE    | Number of agents in idle state                                | Number of agents in idle state.                                |
| IDX_COUNT_REAL_AGENT_USABLE      | Number of available agents                                    | Number of available agents.                                    |
| IDX_COUNT_REAL_AGENT_SET_BUSY    | Number of agents in busy state                                | Number of agents in busy state.                                |
| IDX_COUNT_REAL_AGENT_ACW         | Number of agents in wrap-up state                             | Number of agents in wrap-up state.                             |
| IDX_COUNT_REAL_AGENT_REST        | Number of agents in rest state                                | Number of agents in rest state.                                |
| IDX_COUNT_REAL_AGENT_STUDY       | Number of agents in learning state                            | Number of agents in learning state.                            |



**Table 12-688** Customized indicator of a skill queue

| Code                      | Indicator Name                                 | Description                    |
|---------------------------|------------------------------------------------|--------------------------------|
| IDX_SKILL_RESERVED_COL(N) | Customized indicator <i>N</i> of a skill queue | The value ranges from 1 to 20. |

### 12.3.8.1.2 Agent Monitoring Indicators

**Table 12-689** Historical agent monitoring indicators

| Code                      | Indicator Name                      | Description                                                                                                                                                                                          |
|---------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IDX_COUNT_AGENT_SIGN_IN   | Number of sign-in times             | Number of agent sign-in times.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are non-real-time indicators.       |
| IDX_COUNT_AGENT_CONNECTED | Number of inbound calls             | Number of manual inbound calls.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.          |
| IDX_COUNT_AGENT_CALL_OUT  | Number of outbound calls            | Number of outbound calls.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                |
| IDX_COUNT_AGENT_COLLATION | Number of wrap-up times after calls | Number of wrap-up times after calls.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are non-real-time indicators. |

| Code                               | Indicator Name                                      | Description                                                                                                                                                                                                             |
|------------------------------------|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IDX_COUNT_AGENT_COLLATION_CALL_IN  | Number of wrap-up times after inbound calls         | Number of wrap-up times after inbound calls.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are non-real-time indicators.            |
| IDX_COUNT_AGENT_COLLATION_CALL_OUT | Number of wrap-up times after outbound calls        | Number of wrap-up times after outbound calls.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are non-real-time indicators.           |
| IDX_COUNT_AGENT_REST               | Number of times that an agent enters the rest state | Number of times that an agent enters the rest state.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are non-real-time indicators.    |
| IDX_COUNT_AGENT_HOLD               | Number of hold times                                | Number of times that an agent holds a call.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are non-real-time indicators.             |
| IDX_COUNT_AGENT_SET_BUSY           | Number of times that an agent enters the busy state | Number of times that an agent enters the busy state.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are non-real-time indicators.    |
| IDX_COUNT_AGENT_MOVE_INSIDE        | Number of internal transfers                        | Number of times that an agent transfers internal calls.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are non-real-time indicators. |

| Code                                | Indicator Name                                                              | Description                                                                                                                                                                                                                                  |
|-------------------------------------|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IDX_COUNT_AGENT_MOVE_OUT            | Number of transfer-out times                                                | Number of calls that an agent transfers out.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are non-real-time indicators.                                 |
| IDX_COUNT_AGENT_MOVE_IVR            | Number of calls that an agent transfers to the IVR in hang-up transfer mode | Number of calls that an agent transfers to the IVR in hang-up transfer mode.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are non-real-time indicators. |
| IDX_COUNT_AGENT_3WC                 | Number of three-party call times                                            | Number of times that an agent performs three-party conversations.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are non-real-time indicators.            |
| IDX_COUNT_AGENT_INSIDE_CALL         | Number of internal calls                                                    | Number of internal calls that an agent makes.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are non-real-time indicators.                                |
| IDX_COUNT_AGENT_INSIDE_HELP_SEEKING | Number of internal help requests                                            | Number of times that an agent initiates internal help requests.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are non-real-time indicators.              |
| IDX_COUNT_AGENT_REQUEST             | Number of requests                                                          | Number of manual inbound call requests.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                          |

| Code                          | Indicator Name                                                                | Description                                                                                                                                                                                                                                                       |
|-------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IDX_COUNT_AGENT_ABA<br>NDON   | Number of<br>lost calls                                                       | Number of lost manual inbound<br>calls.<br><br>Indicators that are used to query<br>data by minute or on the current<br>day (the input parameters do not<br>contain <b>timeGrain</b> ) are real-time<br>indicators.                                               |
| IDX_COUNT_AGENT_WAI<br>T_ANS  | Number of<br>calls to be<br>answered after<br>ringing                         | Number of manual inbound calls<br>to be answered after ringing.<br><br>Indicators that are used to query<br>data by minute or on the current<br>day (the input parameters do not<br>contain <b>timeGrain</b> ) are real-time<br>indicators.                       |
| IDX_COUNT_AGENT_LOST<br>_RING | Number of<br>calls that are<br>not answered<br>after ringing                  | Number of manual inbound calls<br>that are not answered after<br>ringing.<br><br>Indicators that are used to query<br>data by minute or on the current<br>day (the input parameters do not<br>contain <b>timeGrain</b> ) are real-time<br>indicators.             |
| IDX_COUNT_AGENT_NO_<br>ACK    | Number of<br>calls that are<br>not answered<br>by an agent<br>for a long time | Number of manual inbound calls<br>that are not answered by agents<br>for a long time.<br><br>Indicators that are used to query<br>data by minute or on the current<br>day (the input parameters do not<br>contain <b>timeGrain</b> ) are real-time<br>indicators. |
| IDX_COUNT_AGENT_HAN<br>G_UP   | Number of<br>hang-up calls<br>(in answering<br>state)                         | Number of hang-up manual<br>inbound calls when they are<br>answered by agents.<br><br>Indicators that are used to query<br>data by minute or on the current<br>day (the input parameters do not<br>contain <b>timeGrain</b> ) are real-time<br>indicators.        |

| Code                                       | Indicator Name                                             | Description                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------------------|------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IDX_COUNT_AGENT_CONNECTED_IN_(N)           | Number of calls connected manually within <i>N</i> seconds | The value of <i>N</i> can be <b>3, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, or 60</b> . Query by minute is not supported (that is, the input parameters do not contain <b>timeGrain</b> ).<br><br>Indicators that are used to query data on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators. |
| IDX_COUNT_TOTAL_AGENT_CALL_OUT             | Total number of outbound calls                             | Total number of outbound calls, including the number of connected outbound calls and the number of failed outbound calls.<br><br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                                       |
| IDX_DURATION_AGENT_SIGN_IN                 | Sign-in duration                                           | Duration for an agent to sign in.<br><br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are non-real-time indicators.                                                                                                                                           |
| IDX_DURATION_AGENT_CONVERSATION_IN         | Conversation duration of inbound calls                     | Conversation duration of manual inbound calls.<br><br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                                                                                                                  |
| IDX_DURATION_AGENT_AVERAGE_CONVERSATION_IN | Average conversation duration of inbound calls             | Average conversation duration of manual inbound calls.<br><br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                                                                                                          |

| Code                                         | Indicator Name                                                   | Description                                                                                                                                                                                                                                                               |
|----------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IDX_DURATION_AGENT_C<br>ALL_OUT              | Conversation<br>duration of<br>outbound calls                    | Conversation duration of<br>outbound calls.<br><br>Indicators that are used to query<br>data by minute or on the current<br>day (the input parameters do not<br>contain <b>timeGrain</b> ) are real-time<br>indicators.                                                   |
| IDX_DURATION_AGENT_A<br>VG_CALL_OUT          | Average<br>conversation<br>duration of<br>outbound calls         | Average conversation duration of<br>outbound calls.<br><br>Indicators that are used to query<br>data by minute or on the current<br>day (the input parameters do not<br>contain <b>timeGrain</b> ) are real-time<br>indicators.                                           |
| IDX_DURATION_AGENT_C<br>COLLATION            | Wrap-up<br>duration after<br>a call ends                         | Wrap-up duration after a call<br>ends.<br><br>Indicators that are used to query<br>data by minute or on the current<br>day (the input parameters do not<br>contain <b>timeGrain</b> ) are non-real-<br>time indicators.                                                   |
| IDX_DURATION_AGENT_C<br>COLLATION_CALL_IN    | Wrap-up<br>duration after<br>an inbound<br>call ends             | Wrap-up duration after an<br>inbound call ends.<br><br>Indicators that are used to query<br>data by minute or on the current<br>day (the input parameters do not<br>contain <b>timeGrain</b> ) are non-real-<br>time indicators.                                          |
| IDX_DURATION_AGENT_A<br>VG_COLLATION_CALL_IN | Average wrap-<br>up duration<br>after an<br>inbound call<br>ends | Average wrap-up duration after<br>an inbound call ends. (Statistics<br>cannot be collected by minute.)<br><br>Indicators that are used to query<br>data on the current day (the input<br>parameters do not contain<br><b>timeGrain</b> ) are non-real-time<br>indicators. |
| IDX_DURATION_AGENT_C<br>COLLATION_CALL_OUT   | Wrap-up<br>duration after<br>an outbound<br>call ends            | Wrap-up duration after an<br>outbound call ends.<br><br>Indicators that are used to query<br>data by minute or on the current<br>day (the input parameters do not<br>contain <b>timeGrain</b> ) are non-real-<br>time indicators.                                         |

| Code                                      | Indicator Name                                       | Description                                                                                                                                                                                                                                          |
|-------------------------------------------|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IDX_DURATION_AGENT_AVG_COLLATION_CALL_OUT | Average wrap-up duration after an outbound call ends | Average wrap-up duration after an outbound call ends. (Statistics cannot be collected by minute.)<br>Indicators that are used to query data on the current day (the input parameters do not contain <b>timeGrain</b> ) are non-real-time indicators. |
| IDX_DURATION_AGENT_AVG_COLLATION          | Average wrap-up duration after a call ends           | Average wrap-up duration after a call ends. (Statistics cannot be collected by minute.)<br>Indicators that are used to query data on the current day (the input parameters do not contain <b>timeGrain</b> ) are non-real-time indicators.           |
| IDX_DURATION_AGENT_REST                   | Rest duration                                        | Duration for an agent to take a rest.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are non-real-time indicators.                                                |
| IDX_DURATION_AGENT_AVG_REST               | Average rest duration                                | Average rest duration of an agent. (Statistics cannot be collected by minute.)<br>Indicators that are used to query data on the current day (the input parameters do not contain <b>timeGrain</b> ) are non-real-time indicators.                    |
| IDX_DURATION_AGENT_HOLD                   | Hold duration                                        | Duration for an agent to hold a call.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are non-real-time indicators.                                                |

| Code                            | Indicator Name        | Description                                                                                                                                                                                                                                      |
|---------------------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IDX_DURATION_AGENT_AVG_HOLD     | Average hold duration | Average duration for an agent to hold a call. (Statistics cannot be collected by minute.)<br><br>Indicators that are used to query data on the current day (the input parameters do not contain <b>timeGrain</b> ) are non-real-time indicators. |
| IDX_DURATION_AGENT_SET_BUSY     | Busy duration         | Duration for an agent to show busy.<br><br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are non-real-time indicators.                                          |
| IDX_DURATION_AGENT_AVG_SET_BUSY | Average busy duration | Average duration for an agent to show busy. (Statistics cannot be collected by minute.)<br><br>Indicators that are used to query data on the current day (the input parameters do not contain <b>timeGrain</b> ) are non-real-time indicators.   |
| IDX_DURATION_AGENT_RING         | Ring duration         | Ring duration of manual inbound calls.<br><br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                           |
| IDX_DURATION_AGENT_FREE         | Idle duration         | Duration for an agent to show idle.<br><br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are non-real-time indicators.                                          |
| IDX_DURATION_AGENT_AVG_RING     | Ring duration         | Average ring duration of manual inbound calls.<br><br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                   |



| Code                           | Indicator Name             | Description                                                                                                                                                                                                                                                                 |
|--------------------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IDX_DURATION_AGENT_MAX_CALLING | Maximum call duration      | <p>Maximum conversation duration of manual inbound calls.</p> <p>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b>) are real-time indicators.</p>                                                |
| IDX_DURATION_AGENT_MIN_CALLING | Minimum call duration      | <p>Minimum conversation duration of manual inbound calls.</p> <p>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b>) are real-time indicators.</p>                                                |
| IDX_RATE_AGENT_CONNECTED       | Call connection rate       | <p>Ratio of the number of successful manual inbound calls to the number of manual inbound call requests.</p> <p>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b>) are real-time indicators.</p> |
| IDX_RATE_AGENT_SUCCESS_OUT     | Outbound call success rate | <p>Ratio of the number of outbound calls to the total number of outbound calls.</p> <p>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b>) are real-time indicators.</p>                          |
| IDX_COUNT_AGENT_ARRANGE        | Number of wrap-up times    | <p>Number of times that an agent enters the wrap-up state.</p> <p>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b>) are non-real-time indicators.</p>                                           |

| Code                           | Indicator Name                       | Description                                                                                                                                                                                                                       |
|--------------------------------|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IDX_DURATION_AGENT_A<br>RRANGE | Wrap-up<br>duration                  | Duration for an agent to be in<br>wrap-up state.<br><br>Indicators that are used to query<br>data by minute or on the current<br>day (the input parameters do not<br>contain <b>timeGrain</b> ) are non-real-<br>time indicators. |
| IDX_COUNT_AGENT_PLAY           | Number of<br>voice playback<br>times | Number of times that an agent<br>plays voice.<br><br>Indicators that are used to query<br>data by minute or on the current<br>day (the input parameters do not<br>contain <b>timeGrain</b> ) are non-real-<br>time indicators.    |
| IDX_DURATION_AGENT_P<br>LAY    | Voice playback<br>duration           | Duration for an agent to show<br>idle.<br><br>Indicators that are used to query<br>data by minute or on the current<br>day (the input parameters do not<br>contain <b>timeGrain</b> ) are non-real-<br>time indicators.           |

**Table 12-690** Real-time agent monitoring indicators

| Code                                 | Indicator Name                          | Description                                                                                            |
|--------------------------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------|
| IDX_AGENT_PHONE                      | Phone<br>number                         | Agent phone number. An agent needs to<br>sign in.                                                      |
| IDX_AGENT_CURREN<br>T_STATE          | Agent<br>status                         | Agent status. For details, see <a href="#">12.3.8.3 CTI<br/>Platform Agent Status Code Reference</a> . |
| IDX_DURATION_AGE<br>NT_CURRENT_STATE | Current<br>status<br>duration           | Duration of the current agent status, in<br>seconds.                                                   |
| IDX_AGENT_LOGIN_S<br>KILLS           | List of Skills<br>Signed In<br>or Owned | Array of skill queue IDs.                                                                              |

**Table 12-691** Customized agent indicator

| Code                          | Indicator Name                                 | Description                    |
|-------------------------------|------------------------------------------------|--------------------------------|
| IDX_AGENT_RESERVE<br>D_COL(N) | Customized<br>indicator <i>N</i><br>for agents | The value ranges from 1 to 20. |

### 12.3.8.1.3 VDN Monitoring Indicators

**Table 12-692** describes the historical monitoring indicators by VDN.

**Table 12-692** Historical monitoring indicators by VDN

| Code                            | Indicator Name                                      | Description                                                                                                                                                                                                                                               |
|---------------------------------|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IDX_COUNT_TOTAL_C<br>ALL        | Total<br>number of<br>calls                         | Total number of inbound calls + Total number of outbound calls. Only query by minute is supported. The input parameters must contain <b>timeGrain</b> .<br>Indicators that are used to query data by minute are real-time indicators.                     |
| IDX_COUNT_CONNEC<br>TED_CALL    | Total<br>number of<br>connected<br>calls            | Total number of connected inbound calls + Total number of connected outbound calls. Only query by minute is supported. The input parameters must contain <b>timeGrain</b> .<br>Indicators that are used to query data by minute are real-time indicators. |
| IDX_COUNT_ABAND<br>ONED_CALL    | Total<br>number of<br>lost calls                    | Total number of calls - Total number of connected calls. Only query by minute is supported. The input parameters must contain <b>timeGrain</b> .<br>Indicators that are used to query data by minute are real-time indicators.                            |
| IDX_COUNT_INBOUN<br>D_CALL      | Total<br>number of<br>inbound<br>calls              | Query by minute is supported.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                                                 |
| IDX_COUNT_INBOUN<br>D_CONNECTED | Total<br>number of<br>connected<br>inbound<br>calls | Query by minute is supported.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                                                 |

| Code                              | Indicator Name                                | Description                                                                                                                                                                                                                  |
|-----------------------------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IDX_COUNT_OUTBOUND_CALL           | Total number of outbound calls                | Query by minute is supported.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                    |
| IDX_COUNT_OUTBOUND_CONNECTED      | Total number of connected outbound calls      | Query by minute is supported.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                    |
| IDX_COUNT_AGENT_INBOUND           | Number of manual inbound calls                | Query by minute is supported.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                    |
| IDX_COUNT_AGENT_INBOUND_CONNECTED | Number of connected manual inbound calls      | Query by minute is supported.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                    |
| IDX_COUNT_IVR_INBOUND             | Total number of IVR inbound calls             | Query by minute is supported.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                    |
| IDX_COUNT_IVR_INBOUND_CONNECTED   | Number of connected IVR inbound calls         | Query by minute is supported.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                    |
| IDX_COUNT_IVR_OUTBOUND            | Number of connected IVR outbound calls        | Query by minute is supported.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                    |
| IDX_UNIQUE_COUNT_IVR_INBOUND      | Number of IVR inbound call requests (by call) | One call is calculated only once (Query by minute is supported.)<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators. |

| Code                                    | Indicator Name                                        | Description                                                                                                                                                                                                                                                                         |
|-----------------------------------------|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IDX_UNIQUE_COUNT_IVR_INBOUND_CONNECTED  | Number of connected IVR inbound calls (by call)       | One call is calculated only once (minute-granularity query is supported).<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                               |
| IDX_UNIQUE_COUNT_IVR_OUTBOUND           | Number of IVR outbound call requests (Call Dimension) | One call is calculated only once (minute-granularity query is supported).<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                               |
| IDX_UNIQUE_COUNT_IVR_OUTBOUND_CONNECTED | Number of connected IVR outbound calls (by call)      | One call is calculated only once (minute-granularity query is supported).<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                               |
| IDX_COUNT_AGENT_OUTBOUND_CONNECTED      | Number of connected manual outbound calls             | Query by minute is supported.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                                                                           |
| IDX_COUNT_INBOUND_ABANDON_CONNECTED     | Number of abandoned inbound calls on the current day  | Number of inbound calls on the current day – Number of connected inbound calls on the current day. Query by minute is not supported.<br>Indicators that are used to query data on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators. |
| IDX_RATE_IVR_INBOUND_CONNECTED          | IVR inbound call connection rate                      | Query by minute is supported.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                                                                           |
| IDX_RATE_INBOUND_CONNECTED              | Total inbound call connection rate                    | Query by minute is supported.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                                                                           |

| Code                               | Indicator Name                                                                           | Description                                                                                                                                                                               |
|------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IDX_RATE_OUTBOUND_CONNECTED        | Total outbound call connection rate                                                      | Query by minute is supported.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators. |
| IDX_RATE_AGENT_INBOUND_CONNECTED   | Manual inbound call connection rate                                                      | Query by minute is supported.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators. |
| IDX_RATE_AGENT_INBOUND_ABANDON     | Manual inbound call abandoned rate                                                       | Query by minute is not supported.<br>Indicators that are used to query data on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.          |
| IDX_RATE_PHONE_INBOUND_ABANDON     | Inbound call abandoned rate on the current day                                           | Query by minute is not supported.<br>Indicators that are used to query data on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.          |
| IDX_RATE_ABANDON_IN_(N)            | Rate of calls abandoned within $N$ seconds. $N$ can be <b>3, 5, 10, 30, or 60</b> .      | Query by minute is not supported.<br>Indicators that are used to query data on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.          |
| IDX_RATE_AGENT_CONNECTED_IN_(N)    | Rate of calls connected manually in $N$ seconds. $N$ can be <b>3, 5, 10, 30, or 60</b> . | Query by minute is not supported.<br>Indicators that are used to query data on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.          |
| IDX_RATE_AGENT_CONNECTED_AFTER_(N) | Rate of calls connected manually after $N$ seconds. $N$ can be <b>10 or 60</b> .         | Query by minute is not supported.<br>Indicators that are used to query data on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.          |

| Code                                   | Indicator Name                                           | Description                                                                                                                                                                                                                                                                                                         |
|----------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IDX_DURATION_AVG_VDN_INBOUND           | Average duration that inbound calls occupy the VDN (s)   | Query by minute is supported.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                                                                                                           |
| IDX_DURATION_AVG_VDN_OUTBOUND          | Average duration that outbound calls occupy the VDN (s)  | Query by minute is supported.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                                                                                                           |
| IDX_DURATION_AVG_CONNECTED             | Average inbound call duration (s)                        | Query by minute is not supported.<br>Indicators that are used to query data on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                                                                                                                    |
| IDX_DURATION_AVG_WAIT                  | Average inbound call waiting duration (s)                | Query by minute is not supported.<br>Indicators that are used to query data on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                                                                                                                    |
| IDX_RATE_AGENT_CALL_IN_CONNECTED       | Manual inbound call connection rate                      | Number of connected manual inbound calls/Number of manual requests. Requests for transfer to another agent are counted repeatedly. Query by minute is not supported.<br>Indicators that are used to query data on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators. |
| IDX_RATE_AGENT_CALL_IN_CONNECTED_IN_20 | Rate of manual inbound calls connected within 20 seconds | Number of manual inbound calls connected within 20 seconds/Total number of connected inbound calls. Query by minute is not supported.<br>Indicators that are used to query data on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.                                |

| Code                                      | Indicator Name                                                                    | Description                                                                                                                                                                               |
|-------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IDX_DURATION_AVG_AGENT_CALL_IN_CONNECTED  | Average manual inbound call duration                                              | Query by minute is not supported.<br>Indicators that are used to query data on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.          |
| IDX_DURATION_AVG_AGENT_CALL_OUT_CONNECTED | Average manual outbound call duration                                             | Query by minute is not supported.<br>Indicators that are used to query data on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators.          |
| IDX_COUNT_IVR_ONLY_INBOUND                | Number of inbound calls that are connected using only the IVR                     | Query by minute is supported.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators. |
| IDX_COUNT_IVR_ONLY_INBOUND_CONNECTED      | Number of successful calls that are connected using only the IVR                  | Query by minute is supported.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators. |
| IDX_DURATION_IVR_ONLY_INBOUND             | Total duration of inbound calls that are connected using only the IVR, in seconds | Query by minute is supported.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators. |
| IDX_COUNT_SYSTEM_INBOUND                  | Number of inbound calls on the platform                                           | Query by minute is supported.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators. |
| IDX_COUNT_SYSTEM_IN_SUCC                  | Number of connected calls on the platform                                         | Query by minute is supported.<br>Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators. |



| Code                     | Indicator Name                                   | Description                                                                                                                                                                            |
|--------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IDX_COUNT_AGENT_ASSIGNED | Number of manual connected calls on the platform | Query by minute is supported. Indicators that are used to query data by minute or on the current day (the input parameters do not contain <b>timeGrain</b> ) are real-time indicators. |

**Table 12-693** describes the real-time monitoring indicators by VDN.

**Table 12-693** VDN real-time monitoring indicator codes (unavailable in CTI 3.6)

| Code                          | Indicator Name                    | Description |
|-------------------------------|-----------------------------------|-------------|
| IDX_COUNT_REAL_VDN_CONNECT    | Number of VDN connected calls     | -           |
| IDX_COUNT_REAL_VDN_CALL       | Number of VDN calls               | -           |
| IDX_COUNT_REAL_IVR_HANDLE     | Number of calls processed by IVR  | -           |
| IDX_COUNT_REAL_SKILL_QUEUE    | Number of queuing calls           | -           |
| IDX_COUNT_REAL_AGENT_SIGN_IN  | Number of sign-in agents          | -           |
| IDX_COUNT_REAL_AGENT_SET_IDLE | Number of agents in idle state    | -           |
| IDX_COUNT_REAL_AGENT_SET_BUSY | Number of agents in busy state    | -           |
| IDX_COUNT_REAL_AGENT_CONNECT  | Number of agents in talking state | -           |

| Code                                 | Indicator Name                          | Description |
|--------------------------------------|-----------------------------------------|-------------|
| IDX_COUNT_REAL_A<br>GENT_STUDY       | Number of agents in learning state      | -           |
| IDX_COUNT_REAL_A<br>GENT_ACW         | Number of agents in wrap-up state       | -           |
| IDX_COUNT_REAL_A<br>GENT_ANSWER      | Number of agents in answering state     | -           |
| IDX_COUNT_REAL_A<br>GENT_PREOCCUPY   | Number of preoccupied agents            | -           |
| IDX_COUNT_REAL_A<br>GENT_OCCUPY      | Number of occupied agents               | -           |
| IDX_COUNT_REAL_A<br>GENT_NOT_SIGN_IN | Number of agents who have not signed in | -           |
| IDX_COUNT_REAL_A<br>GENT_REST        | Number of agents in rest state          | -           |

### 12.3.8.1.4 IVR Monitoring Indicators

**Table 12-694** IVR historical monitoring indicator codes

| Code                                | Indicator Name                        | Description                   |
|-------------------------------------|---------------------------------------|-------------------------------|
| IDX_COUNT_IVR_INB<br>OUND_CALL      | Number of IVR inbound call requests   | Query by minute is supported. |
| IDX_COUNT_IVR_INB<br>OUND_CONNECTED | Number of connected IVR inbound calls | Query by minute is supported. |

| Code                             | Indicator Name                          | Description                   |
|----------------------------------|-----------------------------------------|-------------------------------|
| IDX_COUNT_IVR_ABANDONED_CALL     | Number of lost IVR calls                | Query by minute is supported. |
| IDX_COUNT_IVR_INBOUND_FLOWOUT    | Number of transferred IVR inbound calls | Query by minute is supported. |
| IDX_COUNT_IVR_INBOUND_USER_ABORT | Number of released IVR inbound calls    | Query by minute is supported. |
| IDX_RATE_IVR_INBOUND_CONNECTED   | IVR inbound call connection rate        | Query by minute is supported. |
| IDX_DURATION_AVG_IVR_CONNECTED   | Average IVR call duration               | Query by minute is supported. |
| IDX_COUNT_IVR_TO_AGENT           | Number of IVR-to-manual calls           | Query by minute is supported. |

 NOTE

All indicators that are used to query data by minute or on the current day (the input parameter does not contain **timeGrain**) in [Table 12-694](#) are real-time indicators.

### 12.3.8.2 Error Code Reference

When an error is reported during interface invoking, the values of **resultCode** and **resultDesc** are returned. The following is an example:

```
{
 "resultCode": "0100002",
 "resultDesc": "Invalid parameter"
}
```

| Error Code | Description                            |
|------------|----------------------------------------|
| 0100000    | The interface is invoked successfully. |
| 0100001    | The interface fails to be invoked.     |

| Error Code | Description                                                                            |
|------------|----------------------------------------------------------------------------------------|
| 0100002    | The parameter is invalid.                                                              |
| 0100003    | The current interface supports only CTI V300R008. The current CTI version is V300R006. |
| 0100999    | Unknown error.                                                                         |
| 0101001    | The inspection relationship interface is abnormal.                                     |
| 0101002    | The number to be queried does not exist on the UAP.                                    |
| 0101003    | Insufficient permission.                                                               |

### 12.3.8.3 CTI Platform Agent Status Code Reference

| No. | Description    |
|-----|----------------|
| 0   | Not signed in. |
| 1   | Idle.          |
| 2   | Preoccupied.   |
| 3   | Occupied.      |
| 4   | Answering.     |
| 5   | Talking.       |
| 6   | Working.       |
| 7   | Showing busy.  |
| 8   | Rest           |
| 9   | Study          |
| 10  | Adjusting.     |

### 12.3.8.4 Description of Call Media Types

#### Media Type

Table 12-695 Media Type

| ID | Media Type      | Description |
|----|-----------------|-------------|
| 1  | MEDIA_TYPE_CHAT | Text chat   |

| ID | Media Type                       | Description                          |
|----|----------------------------------|--------------------------------------|
| 2  | MEDIA_TYPE_WEBPHONE              | click-to-dial                        |
| 3  | MEDIA_TYPE_ESCORT                | Escorted browsing and form sharing   |
| 4  | MEDIA_TYPE_CALLBACK              | Callback request call                |
| 5  | MEDIA_TYPE_PHONE                 | Common voice call                    |
| 6  | MEDIA_TYPE_EMAIL                 | Email call                           |
| 7  | MEDIA_TYPE_FAX                   | Fax call                             |
| 8  | MEDIA_TYPE_VIDEO                 | IP video call (H.323)                |
| 9  | MEDIA_TYPE_WB                    | Electronic white board               |
| 10 | MEDIA_TYPE_APP_SHARE             | Application sharing                  |
| 11 | MEDIA_TYPE_FILE_TRANSFER         | File transfer                        |
| 12 | MEDIA_TYPE_VIDEO_2B1D            | 2B+D ISDN video call                 |
| 13 | MEDIA_TYPE_VIDEO_6B1D            | 6B+D ISDN video call                 |
| 14 | MEDIA_TYPE_OPS                   | OPS call                             |
| 15 | MEDIA_TYPE_PREDICT_OUTBOUND      | Predict dialing                      |
| 16 | MEDIA_TYPE_PREVIEW_OUTBOUND      | Preview dialing                      |
| 17 | MEDIA_TYPE_MSG                   | Message media                        |
| 18 | MEDIA_TYPE_WEBPHONE_VIDEO        | Video click-to-dial                  |
| 19 | MEDIA_TYPE_PHONE_VIDEO           | Video call                           |
| 20 | MEDIA_TYPE_WEB_LEAVE_MESSAGE     | Non-real-time call                   |
| 21 | MEDIA_TYPE_DESKTOP_SHARE         | Desktop Sharing Media Type           |
| 22 | MEDIA_TYPE_VC_CALL               | Calling number in a skill queue      |
| 23 | CLASSIC_MEDIA_TYPE_NUM           | Total number of contact media types. |
| 50 | MEDIA_TYPE_MULTI_MEDIA_EMAILCHAT | E-mail chat                          |
| 51 | MEDIA_TYPE_MULTI_MEDIA_WEBCHAT   | Internet Chat                        |
| 52 | MEDIA_TYPE_MULTI_MEDIA_SMSCHAT   | SMS chat                             |

| ID | Media Type                        | Description |
|----|-----------------------------------|-------------|
| 53 | MEDIA_TYPE_MULTI_MEDIA_SOCIALCHAT | Text chat   |
| 54 | MEDIA_TYPE_MULTI_MEDIA_FAXCHAT    | Fax chat    |
| 55 | MEDIA_TYPE_MULTI_MEDIA_H5CHAT     | H5 video    |

### 12.3.8.5 Description of Call Submedia Types

**Table 12-696** Call submedia types (corresponding to call media type No. 53)

| No. | Submedia Type            | Description        |
|-----|--------------------------|--------------------|
| 1   | SUB_MEDIA_TYPE_WEB       | Web                |
| 2   | SUB_MEDIA_TYPE_WHATSAPP  | WhatsApp           |
| 3   | SUB_MEDIA_TYPE_LINE      | LINE               |
| 4   | SUB_MEDIA_TYPE_WECHAT    | WeChat             |
| 5   | SUB_MEDIA_TYPE_FACEBOOK  | FaceBook Messenger |
| 6   | SUB_MEDIA_TYPE_TWITTER   | Twitter            |
| 7   | SUB_MEDIA_TYPE_5GMESSAGE | 5G message         |
| 8   | SUB_MEDIA_TYPE_EMAIL     | Email              |
| 9   | SUB_MEDIA_TYPE_SMS       | SMS                |

### 12.3.8.6 Description of Call Types

#### Call Type

**Table 12-697** Call Type

| ID | Call Type      | Description          |
|----|----------------|----------------------|
| 0  | SP_CALL_NORMAL | Normal incoming call |
| 5  | SP_CALL_LONG   | Incoming toll call   |

| ID | Call Type            | Description                                                                                                                                                                                                                  |
|----|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6  | INTER_CALL           | Internal call<br>It refers to a call made by an agent to another agent. An internal call cannot be forwarded, or muted.                                                                                                      |
| 7  | SP_CALL_OUT          | Normal outgoing call<br>It refers to an outgoing call made by agents.                                                                                                                                                        |
| 8  | OP_CALL_OUT          | Agent outgoing call type                                                                                                                                                                                                     |
| 9  | OP_PRI_OUT           | Outgoing call in the PRI mode                                                                                                                                                                                                |
| 10 | IVR_CALL_OUT         | Outgoing call through IVR                                                                                                                                                                                                    |
| 11 | SELF_CALLOUT         | Outgoing call made by a Phone agent                                                                                                                                                                                          |
| 12 | IVR_PRI_CALL         | Outgoing call in the PRI mode through IVR                                                                                                                                                                                    |
| 13 | NIRC_CALL_IN         | Incoming call to a networked call center                                                                                                                                                                                     |
| 14 | NIRC_CALL_OUT        | Outgoing call of a networked call center                                                                                                                                                                                     |
| 15 | NIRC_SPY_CALL_IN     | QC incoming call to a networked call center                                                                                                                                                                                  |
| 16 | NIRC_SPY_CALL_OUT    | QC outgoing call of a networked call center                                                                                                                                                                                  |
| 17 | NIRC_INTER_CALL_IN   | Internal incoming network call to a virtual agent                                                                                                                                                                            |
| 18 | NIRC_INTER_CALL_OUT  | Internal outgoing network call of a virtual agent                                                                                                                                                                            |
| 20 | ICD_SP_OPS_AIDERCALL | Aid call                                                                                                                                                                                                                     |
| 21 | ICD_SP_OPS_INCALL    | Incoming call (international agent)                                                                                                                                                                                          |
| 22 | ICD_SP_OPS_PASSCALL  | Relay call                                                                                                                                                                                                                   |
| 23 | ICD_SP_OPS_GIVECALL  | Outgoing call (international agent)                                                                                                                                                                                          |
| 40 | OUTBOUND_CALL_OUT    | Ordering an outgoing call<br>The system queries the reserved outgoing call database regularly. After obtaining the reserved calls whose time is earlier than the current computer time, the system forcibly makes the calls. |

| ID | Call Type                              | Description                                                                                                                                                                                                                                                                                                                                                                                              |
|----|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 41 | ICD_SP_OUTBO<br>UND_PRE_OCC<br>UPY     | Pre-occupied an outgoing call<br>The system occupies an idle agent and then makes an outgoing call. If making the outgoing call succeeds, the idle agent handles the call.                                                                                                                                                                                                                               |
| 42 | ICD_SP_OUTBO<br>UND_PRE_CON<br>NECT    | Pre-connecting an outgoing call<br>The system makes an outgoing call to a user. If making the call succeeds, the system connects the call to an agent when the phone of the user rings.                                                                                                                                                                                                                  |
| 43 | ICD_SP_OUTBO<br>UND_VIRTUAL_<br>CALLIN | Virtual incoming and outgoing calls<br>The system makes an outgoing call to a user. If making the call succeeds, the system connects the call to an agent after the user hooks off.                                                                                                                                                                                                                      |
| 44 | ICD_SP_OUTBO<br>UND_PREVIEW            | Previewing an outgoing call<br>It refers to a call that is made by an agent after the agent previews the outgoing call information.                                                                                                                                                                                                                                                                      |
| 45 | ICD_SP_OUTBO<br>UND_CALLBAC<br>K       | Callback request<br>If a Web user needs to contact a call center when browsing Web pages on Internet, the Web user can use the callback request service. An agent in the call center then dials the phone number specified by the Web user.<br>After the call is connected, the web user follows the voice instruction of the agent and at the same time enjoy other services such as escorted browsing. |
| 46 | ICD_SP_IDD                             | International incoming toll call                                                                                                                                                                                                                                                                                                                                                                         |
| 50 | ICD_SP_CBRT_C<br>ALL                   | RBT call                                                                                                                                                                                                                                                                                                                                                                                                 |
| 51 | ICD_SP_INTERN<br>AL_TWO_HELP           | Two-party help call<br>When answering an incoming call, an agent can ask for internal help. In the case of a two-party help, the call of the customer is held, and the agent talks with the asked-for-help agent.                                                                                                                                                                                        |
| 52 | ICD_SP_INTERN<br>AL_THREE_HEL<br>P     | Three-party help call<br>When answering an incoming call, an agent can ask for internal help. In the case of a three-party help, the customer, agent, and asked-for-help agent can talk with each other. In the case of a two-party help, a three-party help can be initiated to form a three-party conversation.                                                                                        |



| ID | Call Type                                           | Description                                         |
|----|-----------------------------------------------------|-----------------------------------------------------|
| 60 | ICD_SP_OUTBO<br>UND_PRE_OCC<br>UPY_PRI_CALL         | Pre-occupied an outgoing call in the PRI mode       |
| 61 | ICD_SP_OUTBO<br>UND_PRE_CON<br>NECT_PRI_CALL        | Pre-connecting an outgoing call in the PRI mode     |
| 62 | ICD_SP_OUTBO<br>UND_VIRTUAL_<br>CALLIN_PRI_CA<br>LL | Virtual incoming and outgoing calls in the PRI mode |
| 63 | ICD_SP_OUTBO<br>UND_PREVIEW<br>_PRI_CALL            | Previewing an outgoing call in the PRI mode         |
| 64 | ICD_SP_OUTBO<br>UND_CALLBAC<br>K_PRI_CALL           | Callback request in the PRI mode                    |

### 12.3.8.7 Description of Agent Types

#### Agent Type

Table 12-698 Agent Type

| Value | Agent Type                | Description                                      |
|-------|---------------------------|--------------------------------------------------|
| 0     | AGENT_TYPE_EXTENSION      | Extension                                        |
| 1     | AGENT_TYPE_USERLINE       | User line                                        |
| 3     | AGENT_TYPE_SINGLE_PHONE   | Single and non-permanently-connected phone agent |
| 4     | AGENT_TYPE_PC_PHONE       | PC+Phone agent                                   |
| 5     | AGENT_TYPE_ISDN_2BD       | 2B+D agent                                       |
| 6     | AGENT_TYPE_ISDN_6BD       | 6B+D agent                                       |
| 7     | AGENT_TYPE_1B1D_PHONE     | Phone agent                                      |
| 8     | AGENT_TYPE_MANAGER        | Configuration management agent                   |
| 9     | AGENT_TYPE_NB1D           | nB+D agent                                       |
| 10    | AGENT_TYPE_NET            | Network agent                                    |
| 11    | AGENT_TYPE_PC_PHONE_VIDEO | PC+Phone video agent                             |

| Value | Agent Type                        | Description              |
|-------|-----------------------------------|--------------------------|
| 12    | AGENT_TYPE_SINGLE_PHONE_VI<br>DEO | Single phone video agent |
| 12    | AGENT_TYPE_SINGLE_PHONE_VI<br>DEO | Single phone video agent |

### 12.3.8.8 Call Features

**Table 12-699** Call features

| Value | Description                                                    |
|-------|----------------------------------------------------------------|
| 0     | Call from a common customer                                    |
| 1     | Call from an agent                                             |
| 2     | Toll call from a customer                                      |
| 3     | Routing initiated after the CTI receives a routed network call |
| 4     | International inbound toll call                                |
| 40    | Reserved outbound call                                         |
| 41    | Preoccupied outbound call                                      |
| 42    | Pre-connected outbound call                                    |
| 43    | Virtual inbound or outbound call                               |
| 44    | Previewed outbound call                                        |
| 45    | Callback request                                               |
| 51    | Internal help call                                             |

### 12.3.8.9 Reasons for Leaving the Device of the Call

**Table 12-700** Reasons for leaving the device of the call

| Cause code | Description                     |
|------------|---------------------------------|
| 0          | Normal access/transfer.         |
| 1          | Overflow transfer.              |
| 2          | Timeout transfer.               |
| 3          | Transfer on no agent.           |
| 4          | Transfer on queue cancellation. |

| Cause code | Description                                                           |
|------------|-----------------------------------------------------------------------|
| 5          | Transfer because the agent does not answer the call.                  |
| 6          | Resume a suspended call.                                              |
| 7          | Connecting a held call.                                               |
| 8          | Three-party help.                                                     |
| 9          | Picking a held call.                                                  |
| 10         | Three-party conversation.                                             |
| 11         | The party requesting internal help releases the call.                 |
| 12         | The call is intercepted.                                              |
| 13         | The call is picked up.                                                |
| 14         | The analysis of the called is not configured.                         |
| 15         | The user releases the call.                                           |
| 16         | The agent releases the call.                                          |
| 17         | The call is transferred out.                                          |
| 18         | The call is held.                                                     |
| 19         | An internal processing error occurs.                                  |
| 20         | The called party is busy.                                             |
| 22         | The mobile phone is switched off.                                     |
| 23         | The mobile phone is out of the service area.                          |
| 24         | The called number does not exist.                                     |
| 25         | The ACD cannot distribute any resources for the call.                 |
| 26         | The user does not answer the call.                                    |
| 27         | The called party rejects the call.                                    |
| 28         | The call is successfully transferred to a skill queue.                |
| 29         | The three-party conversation is transferred to a skill queue.         |
| 30         | Transferring the call in the success transfer mode times out.         |
| 31         | Transferring the three-party conversation to a skill queue times out. |

| Cause code | Description                                                                                                       |
|------------|-------------------------------------------------------------------------------------------------------------------|
| 34         | If call timeout or queuing on busy or overflow occurs, the network call fails.                                    |
| 35         | The network call is directed to its original call center for queuing.                                             |
| 36         | The queued call is re-routed.                                                                                     |
| 37         | The call accesses the CDN through call routing.                                                                   |
| 38         | The call accesses the CDN through agent consultation.                                                             |
| 39         | The CDN properly returns a routing result.                                                                        |
| 40         | CDN routing times out.                                                                                            |
| 41         | An agent cancels the consultation call, or the routing fails.                                                     |
| 42         | The call accesses the PGR because CDN routing times out.                                                          |
| 43         | The call is properly returned by the CDN and is routed to the PGR.                                                |
| 44         | The call accesses the PGR through inbound routing.                                                                |
| 45         | The call accesses the PGR through agent consultation.                                                             |
| 46         | The agent is unreachable. The CDN reroutes the call.                                                              |
| 47         | The call is waiting in multiple queues.                                                                           |
| 48         | The primary-queue call is answered by numbers in the secondary queue.                                             |
| 50         | The agent rejects the call.                                                                                       |
| 51         | A user call joins in a conference call.                                                                           |
| 52         | A conference chairperson proactively releases a conference, or the conference is released due to a CCS exception. |
| 53         | The participant is removed from the conference.                                                                   |
| 54         | The call is transferred when the call completion rate is less than the threshold.                                 |
| 88         | After the agent answers the call, the user hangs up.                                                              |

| Cause code | Description                                          |
|------------|------------------------------------------------------|
| 89         | After the agent answers the call, the user hangs up. |

### 12.3.8.10 Cause Code

| Cause Code | Description                                                                                                                                                                                                                          |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 80         | When a call is queuing in a skill queue, the call is transferred to the IVR flow for voice playback and digit collection. If a customer presses the cancel key, the flow uses this error code to request canceling the call queuing. |
| 256        | CCIVR/IVR normal call release.                                                                                                                                                                                                       |
| 263        | The CCIVR/IVR disconnects a call because of connection failure.                                                                                                                                                                      |
| 338        | The CCIVR/IVR disconnects a call because no flow can be found or an error occurs when parsing flows.                                                                                                                                 |
| 339        | The CCIVR/IVR disconnects a call because there is no sufficient control blocks.                                                                                                                                                      |
| 340        | The CCIVR/IVR disconnects a call because the MRF script type is incorrect.                                                                                                                                                           |
| 342        | The CCIVR/IVR disconnects a call because the conference name is incorrect (possibly too long).                                                                                                                                       |
| 346        | The CCIVR/IVR disconnects a call because waiting for the called party to pick up the phone times out after the CTIServer returns a call to the called party.                                                                         |
| 350        | The CCIVR/IVR disconnects a call because waiting for the business module to pick up the phone times out.                                                                                                                             |
| 354        | The CCIVR/IVR disconnects a call because the handshake with the CTIServer times out.                                                                                                                                                 |
| 356        | The CCIVR/IVR disconnects a call because the CCIVR outgoing call times out.                                                                                                                                                          |
| 357        | The CCIVR/IVR disconnects a call because the IVR fails to connect the calling party and called party.                                                                                                                                |
| 359        | The CCIVR/IVR disconnects a call because the maximum conversation duration is exceeded.                                                                                                                                              |
| 360        | The CCIVR/IVR disconnects a call because of other errors. For details, see the logs.                                                                                                                                                 |

| Cause Code | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 501        | Default call release cause. The cause could be any of the following:<br>1. The routing result from the CCS is not received after a call accesses the platform. As a result, the call is disconnected.<br>2. After a call accesses the IVR, a flow disconnects the call.                                                                                                                                                                                                                                                                                                      |
| 502        | The platform disconnects an outgoing call because waiting for the ringing of the ACD times out or waiting for call answer times out.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 503        | The platform disconnects a call because the handshake between the platform control block and ACD times out after the call is established between the ACD and the platform.                                                                                                                                                                                                                                                                                                                                                                                                   |
| 505        | The cause could be any of the following:<br>1. When a call is transferred back to the agent console after the agent console transfers the call to the IVR in suspension transfer mode, the agent console times out in responding to the suspension resuming message. As a result, the platform disconnects the call.<br>2. When a call is transferred back to the IVR after the IVR transfers the call to the agent console in suspension transfer mode, the IVR times out in responding to the suspension resuming message. As a result, the platform disconnects the call. |
| 506        | After an agent transfers a call to the IVR in suspension transfer mode, waiting for the CCS to return the routing result times out.                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 507        | After a non-agent device transfers a call to the IVR in suspension transfer mode, waiting for the CCS to return the routing result times out.                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 508        | When a call is transferred, waiting for the CCS DO_FORWARD times out.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 509        | When an internal call is successfully transferred, waiting for the CCS FORWARD_COMMIT times out.                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 510        | When the platform initiates an outgoing call, waiting for the ACD SETUP_ACK message times out.                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 511        | When the platform initiates an outgoing call, waiting for the CCS OCCUPY_ACK message times out.                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 512        | A call is released because the number of calls waiting in a skill queue exceeds the maximum limit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 513        | A call is released because the number of calls waiting in a skill queue exceeds the maximum limit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 514        | When a call is transferred from an agent to an automatic flow, waiting for the automatic flow to respond times out.                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 515        | During call transfer, waiting for the transfer destination device to respond times out.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

| Cause Code | Description                                                                                                                                                    |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 516        | Waiting for the routing response from the CCS times out.                                                                                                       |
| 517        | Waiting for the ringing or response from the destination device times out.                                                                                     |
| 518        | The client disconnects a call.                                                                                                                                 |
| 519        | When a call is transferred in suspension mode, the address sent by the CCS to DO_FORWARD is incorrect.                                                         |
| 520        | When a call is transferred in suspension mode, the address sent by the CCS to DO_FORWARD is incorrect.                                                         |
| 521        | An agent initiates call redirection (a call is disconnected and transferred out).                                                                              |
| 522        | An automatic flow initiates call redirection (a call is disconnected and transferred out).                                                                     |
| 523        | When the platform initiates an outgoing call, the CCS returns a device occupation failure message.                                                             |
| 525        | The destination address in the routing result returned by the CCS is incorrect.                                                                                |
| 526        | The CCS returns a routing failure message.                                                                                                                     |
| 528        | During outgoing call preview, the CCS returns a failure message.                                                                                               |
| 529        | After a flow transfers a call to an agent in suspension mode, if the agent hangs up and transfers the call back to the IVR, the IVR returns a failure message. |
| 530        | The IVR initiates call combination.                                                                                                                            |
| 531        | A call is normally disconnected in the ACD.                                                                                                                    |
| 533        | When a flow transfers a call to another flow, the flow releases the call before ringing.                                                                       |
| 534        | When the CTIServer is disconnected from an ACD module, all the calls of the ACD module are released.                                                           |
| 535        | The CCS returns a routing failure message.                                                                                                                     |
| 536        | When a customer cancels queuing, the platform releases the call.                                                                                               |
| 537        | A call is disconnected in the ACD because the called party is busy.                                                                                            |
| 538        | A call is disconnected in the ACD because the called number does not exist.                                                                                    |
| 539        | A call is released after the CCS is switched.                                                                                                                  |
| 540        | A call is released after voice playing.                                                                                                                        |

| Cause Code | Description                                                                                                                                                                                                 |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 541        | A call is transferred in suspension mode to a device. After the destination device processes the call, and the call is returned to the suspension device, the CCS returns the RESUME_ACK error message.     |
| 542        | A call is transferred in suspension mode to a device. After the destination device processes and releases the call, the CCS returns the HUNG_RELEASE_ACK error message.                                     |
| 543        | A call is transferred in suspension mode to a device. After the destination device processes the call, waiting for the CCS to send RESUME_ACK to notify the suspension device of call resumption times out. |
| 544        | A call is transferred in suspension mode to a device. After the destination device processes and releases the call, waiting for the CCS to return the release result HUNG_RELEASE_ACK times out.            |
| 547        | When a call is transferred, the re-routing result returned by the CCS is not a virtual device, but the transfer indication address sent by the CCS is a virtual device.                                     |
| 548        | A call is disconnected in the ACD because the mobile phone of the called party is powered off.                                                                                                              |
| 549        | A call is disconnected in the ACD because the called party is out of the service area.                                                                                                                      |
| 550        | When a network call is transferred in suspension mode, after the destination device processes and releases the call, the CCS returns an error.                                                              |
| 551        | A call is disconnected in the ACD for another reason.                                                                                                                                                       |
| 552        | During a network call, the peer call center is abnormal.                                                                                                                                                    |
| 553        | During a network call, the destination call center times out in waiting for the network incoming call from the ACD.                                                                                         |
| 561        | A call is released due to queue overflow.                                                                                                                                                                   |
| 562        | No agent is on duty.                                                                                                                                                                                        |
| 564        | The number of concurrent calls exceeds the configured limit.                                                                                                                                                |
| 565        | The total number of automatic calls exceeds the limit.                                                                                                                                                      |
| 566        | The number of concurrent calls in the flow exceeds the maximum.                                                                                                                                             |
| 567        | The called number cannot be found.                                                                                                                                                                          |
| 568        | The customer level is incorrect.                                                                                                                                                                            |
| 601        | The ACD disconnects a call because the calling party hangs up before the call is answered.                                                                                                                  |



| Cause Code | Description                                                                                                                                                                                                                                 |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 602        | The ACD disconnects a call because no resource is available.                                                                                                                                                                                |
| 603        | The ACD disconnects a call because the called party does not answer the call.                                                                                                                                                               |
| 604        | The ACD disconnects a call because the called party rejects the call.                                                                                                                                                                       |
| 605        | The ACD disconnects a call because the line is busy.                                                                                                                                                                                        |
| 606        | The ACD disconnects a call because the call times out.                                                                                                                                                                                      |
| 607        | The ACD disconnects a call because the mail box is full or suspended. For details, see the UAP original call release code 5.                                                                                                                |
| 608        | The ACD disconnects a call because emails cannot be created for calls. For details, see the UAP original call release code 6.                                                                                                               |
| 609        | The ACD disconnects a call because the channel is reset.                                                                                                                                                                                    |
| 610        | The ACD disconnects a call because of abnormal UAP resource operations.                                                                                                                                                                     |
| 611        | The ACD disconnects a call because the Cp conference is faulty.                                                                                                                                                                             |
| 612        | The ACD disconnects a call because the Intess control block is faulty.                                                                                                                                                                      |
| 613~619    | The ACD disconnects a call.                                                                                                                                                                                                                 |
| 714        | Internal routing fails because IVR resources are occupied or no IVR access code is registered.                                                                                                                                              |
| 732        | The cause could be any of the following:<br>1. During a conference call, a participant is removed from the conference.<br>2. During a conference call, the conference moderator proactively releases the conference or the CCS is abnormal. |
| 852        | The client disconnects and rejects a call.                                                                                                                                                                                                  |
| 853        | A call is released because an agent does not answer the call for a long time.                                                                                                                                                               |
| 1057       | Failed to route the message leaving call.                                                                                                                                                                                                   |
| 1058       | Waiting for the routing result of the message leaving call times out.                                                                                                                                                                       |
| 1059       | Waiting of a message leaving call for the queuing message times out.                                                                                                                                                                        |
| 1060       | Waiting for an agent to answer a message leaving call times out.                                                                                                                                                                            |
| 1061       | The release of a message leaving call times out.                                                                                                                                                                                            |
| 1062       | The internal message leaving call times out.                                                                                                                                                                                                |

| Cause Code | Description                                                         |
|------------|---------------------------------------------------------------------|
| 1063       | The handshake of the message leaving call times out.                |
| 1064       | Failed to create the conference.                                    |
| 1065       | Conference creation times out.                                      |
| 1066       | Failed to join the conference.                                      |
| 1067       | Querying the enterprise ID times out.                               |
| 1068       | Failed to query the enterprise ID.                                  |
| 1069       | The value of <b>EnterPriseID</b> is empty.                          |
| 1070       | Querying conference information times out.                          |
| 1071       | Failed to query conference information.                             |
| 1072       | Obtaining conference data times out.                                |
| 1073       | Failed to obtain conference data.                                   |
| 1074       | Conference detection times out.                                     |
| 1075       | The number of participants in the conference is less than expected. |
| 1076       | Releasing the conference times out.                                 |
| 1077       | The call duration reaches the maximum.                              |

### 12.3.8.11 Device Types

Table 12-701 Device type

| Device type ID | Device type                                    |
|----------------|------------------------------------------------|
| 1              | Skill queue                                    |
| 2              | Agent                                          |
| 3              | IVR service flow                               |
| 5              | Call                                           |
| 7              | Temporary routing device                       |
| 8              | Virtual device                                 |
| 10             | CDN device                                     |
| 11             | MELCAS device                                  |
| 14             | PGR (default CDN route controlled by the SCAI) |

| Device type ID | Device type     |
|----------------|-----------------|
| 15             | Conference call |

### 12.3.8.12 Agent Operation Types

Table 12-702 Types of operations

| Operation Type                                                                                                                                                                                                                                         | Description | Operation Object | Operation Reason |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------|------------------|
| <b>NOTE</b> <ul style="list-style-type: none"><li>In the following, - filled in the operation object and reason columns indicates that the corresponding operation does not write the agent operation bill.</li><li>US_NO_USE= 0xFFFF; 65535</li></ul> |             |                  |                  |

| Operation Type | Description                    | Operation Object | Operation Reason                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------|--------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0              | The agent logs out of the CCS. | US_NO_USE        | <ul style="list-style-type: none"> <li>● <b>1-255:</b> Causes are transmitted by clients.</li> <li>● <b>256:</b> An agent console is disconnected from the call center platform.</li> <li>● <b>257:</b> An agent is forced by a QC inspector to log out of the call center platform.</li> <li>● <b>258:</b> An agent proactively logs out of the call center platform.</li> <li>● <b>259:</b> An agent logs out of the call center platform before re-login.</li> <li>● <b>260:</b> The handshake for agent control blocks between the media server and CCS times out.</li> <li>● <b>261:</b> The CCS detects the time-out of the handshake for agent control blocks between the CCS and UIS.</li> <li>● <b>262:</b> An agent logs out of the call center platform because the media server is disconnected from the CCS.</li> <li>● <b>263:</b> The handshake between the UIS and agent console times out.</li> <li>● <b>264:</b> The agent ID is being used to forcibly log in on another client. As a result, the current agent is forced to log out.</li> </ul> |
| 1              | The agent logs in to the CCS.  | US_NO_USE        | US_NO_USE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 2              | The agent indicates idle.      | -                | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| Operation Type | Description                                                                                                        | Operation Object | Operation Reason                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------|--------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3              | The agent indicates busy.                                                                                          | US_NO_USE        | <ul style="list-style-type: none"> <li>● 1: The agent indicates busy.</li> <li>● 2: The agent indicates busy forcibly for not answering the call when the phone rings for a long time.</li> <li>● 3: The agent being inspected is forced to indicate busy.</li> <li>● 4: The agent has a rest.</li> <li>● 5: The agent phone is unavailable.</li> <li>● 7: The agent rejects the call.</li> <li>● 200–250: reason codes defined by the service side</li> </ul> |
| 4              | Conversation status.                                                                                               | US_NO_USE        | <ul style="list-style-type: none"> <li>● 1: The agent does not really exit the conversation status. Bills are generated every five minutes starting from 00:00 to 23:55.</li> <li>● 0: The agent fully exits the conversation status.</li> </ul> <p><b>NOTE</b><br/>The conversation status in these bills refers to only text conversations.</p>                                                                                                              |
| 5              | Waiting for answer from an agent after distributing a call to the agent.                                           | -                | -                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 6              | The agent waits for the connection success message after answering a call or making an outgoing call successfully. | -                | -                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 7              | The agent releases a call.                                                                                         | -                | -                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| Operation Type | Description                                                                            | Operation Object | Operation Reason                                                                                                           |
|----------------|----------------------------------------------------------------------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------|
| 8              | The agent requests disconnecting.                                                      | -                | -                                                                                                                          |
| 9              | The agent waits for the called to ring when making an outgoing call.                   | -                | -                                                                                                                          |
| 10             | Three-party conversation.                                                              | Work ID          | US_NO_USE                                                                                                                  |
| 11             | Agent channel fails or the agent is down.                                              | -                | -                                                                                                                          |
| 12             | Agent channel or agent is restored.                                                    | -                | -                                                                                                                          |
| 13             | The call transfers from the manual flow to the automatic flow. The agent is suspended. | US_NO_USE        | US_NO_USE                                                                                                                  |
| 14             | The agent is listened in to or intruded.                                               | -                | -                                                                                                                          |
| 15             | The agent is not listened in to or intruded.                                           | -                | -                                                                                                                          |
| 16             | The agent is recorded.                                                                 | -                | -                                                                                                                          |
| 17             | The agent is not recorded.                                                             | -                | -                                                                                                                          |
| 18             | The agent is monitored.                                                                | -                | -                                                                                                                          |
| 19             | The agent is not monitored.                                                            | -                | -                                                                                                                          |
| 20             | The agent is listening in or intruding or whispering.                                  | Work ID          | <ul style="list-style-type: none"> <li>● 0: listening in to another agent</li> <li>● 2: listening in to a trunk</li> </ul> |
|                |                                                                                        | US_NO_USE        |                                                                                                                            |

| Operation Type | Description                                               | Operation Object | Operation Reason                                                                                                                                                                                                                                                                              |
|----------------|-----------------------------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 21             | The agent is not listening in or intruding or whispering. | -                | -                                                                                                                                                                                                                                                                                             |
| 22             | Voice playing.                                            | US_NO_USE        | US_NO_USE                                                                                                                                                                                                                                                                                     |
| 23             | Stopping the voice playing.                               | -                | -                                                                                                                                                                                                                                                                                             |
| 24             | Monitoring.                                               | -                | -                                                                                                                                                                                                                                                                                             |
| 25             | Stopping monitoring.                                      | -                | -                                                                                                                                                                                                                                                                                             |
| 26             | The agent rests.                                          | Work ID          | The reason for agent rest is specified when the client invokes CCC_REQUEST_REST_EX_Msg (The default value is <b>0</b> .)                                                                                                                                                                      |
| 27             | Work status.                                              | US_NO_USE        | <ul style="list-style-type: none"> <li>• 0: Adjusting after the call<br/>The service system sets that the agent automatically enters the Working state.</li> <li>• 0-255: Adjusting<br/>The agent invokes an interface to enter the Working state.</li> </ul> The default value is <b>0</b> . |
| 28             | Listening in to and intruding a call.                     | -                | -                                                                                                                                                                                                                                                                                             |
| 29             | Forcible logout.                                          | Work ID          | US_NO_USE                                                                                                                                                                                                                                                                                     |
| 30             | Forcible idle.                                            | Work ID          | US_NO_USE                                                                                                                                                                                                                                                                                     |
| 31             | Forcible busy.                                            | Work ID          | US_NO_USE                                                                                                                                                                                                                                                                                     |
| 32             | The agent is mute to the user.                            | US_NO_USE        | US_NO_USE                                                                                                                                                                                                                                                                                     |
| 33             | The agent cancels the mute status to the user.            | -                | -                                                                                                                                                                                                                                                                                             |
| 34             | The agent enters the study status.                        | US_NO_USE        | US_NO_USE                                                                                                                                                                                                                                                                                     |

| Operation Type | Description                            | Operation Object          | Operation Reason                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------|----------------------------------------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 35             | The agent enters the work status.      | -                         | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 36             | The agent enters the adjusting status. | -                         | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 37             | The agent ends the work status.        | -                         | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 38             | The agent holds the call.              | Work ID of a QC inspector | 1: The call is held by a QC inspector.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                |                                        | US_NO_USE                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 39             | The agent picks the held call.         | -                         | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 40             | The agent requests an internal help.   | Work ID                   | <ul style="list-style-type: none"> <li>● 0: Help between uncertain parties</li> <li>● 1: Requesting help between two parties</li> <li>● 2: Requesting help between three parties</li> <li>● 3: The call is transferred. The called party talks to the agent first after answering the call. The agent connects the caller and the called while hooking on.</li> <li>● 4: The call is transferred among three parties. The called party talks to the agent first after answering the call. The agent connects the caller and the called while hooking on.</li> <li>● 5: Three-party conversation</li> <li>● 6: Connecting the call</li> </ul> |
| 41             | The agent makes an internal call.      | Work ID                   | US_NO_USE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 42             | The agent connects a held call.        | -                         | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |



| Operation Type | Description                                                        | Operation Object | Operation Reason                               |
|----------------|--------------------------------------------------------------------|------------------|------------------------------------------------|
| 43             | The agent intercepts a call.                                       | Work ID          | US_NO_USE                                      |
| 44             | The agent halts the voice playing.                                 | US_NO_USE        | US_NO_USE                                      |
| 45             | The agent transfers the call internally.                           | Work ID          | US_NO_USE                                      |
| 46             | The agent transfers a call out.                                    | US_NO_USE        | US_NO_USE                                      |
| 47             | The agent logs in to the media server.                             | US_NO_USE        | US_NO_USE                                      |
| 50             | Video image screening.                                             | US_NO_USE        | US_NO_USE                                      |
| 51             | Video and audio screening.                                         | US_NO_USE        | US_NO_USE                                      |
| 52             | The agent logs out of the media server.                            | US_NO_USE        | US_NO_USE                                      |
| 53             | The agent transfers the call which is queuing in the common queue. | US_NO_USE        | US_NO_USE                                      |
| 54             | Release transfer.                                                  | US_NO_USE        | US_NO_USE                                      |
| 55             | The call is transferred to another device.                         | US_NO_USE        | US_NO_USE                                      |
| 56             | Configure agent status.                                            | US_NO_USE        | Agent status code defined by the service side. |
| 57             | Switch the call held during internal-help request processing.      | US_NO_USE        | Internal-help request switching.               |
| 58             | The agent is in the conference state.                              | Work ID          | -                                              |

| Operation Type | Description               | Operation Object | Operation Reason                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------|---------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 59             | Multimedia collaboration. | Work ID          | <ul style="list-style-type: none"> <li>0: Initiating a multimedia conference</li> <li>1: Joining a multimedia conference</li> </ul>                                                                                                                                                                                                                                                                  |
| 60             | Conversation status.      | US_NO_USE        | <ul style="list-style-type: none"> <li>1: The agent does not really exit the conversation status. Bills are generated every five minutes starting from 00:00 to 23:55.</li> <li>0: The agent fully exits the conversation status.</li> </ul> <p><b>NOTE</b><br/>The conversation status covers all call types.<br/>Whether to record the conversation status bills is controlled by the license.</p> |

### 12.3.8.13 Interfaces of Earlier Versions (Versions Earlier Than 8.13.0)

 **NOTE**

The interfaces provided in CEC 8.13.0 or later have better performance than those described in this section. Therefore, the interfaces in this section are not recommended in CEC 8.13.0 or later.

#### 12.3.8.13.1 Querying Details of a Specified Agent

##### Description

This interface is invoked to query details of a specified agent.

##### Request Method

The request method must be set to POST. This interface supports only the POST method.

##### Internal Encapsulation Interfaces

BMS interface: /ccbms/ws/monitor/siteagentinfobyagentids

##### Request URL

https://ip:port/rest/cmsapp/v1/openapi/agentgroup/agentbyworkno

In the URL, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-703** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

- Message header  
Content-Type:application/json; charset=UTF-8
- Message body  
The following provides an example of the request message body of this interface:

```
{
 "queryParam":
 {
 "ccId":1,
 "vdn":1,
 "agentId":101
 }
}
```

[Table 12-479](#) describes the parameters in the request message body of this interface.

**Table 12-704** Parameters in the message body

| Parameter | Type    | Mandatory | Description                                               |
|-----------|---------|-----------|-----------------------------------------------------------|
| ccId      | Integer | Yes       | ID of a call center.<br>The value ranges from 1 to 65535. |
| vdn       | Integer | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.          |
| agentId   | Integer | Yes       | Agent ID.<br>The value ranges from 101 to 59999.          |

## Response Message

The following provides an example of the response message body of this interface:

```
{
 "result": "0",
 "resultDatas": {
 "workno": 101,
 "vdnid": 1,
 "citStatus": 0,
 "name": "HW35154101",
 "phonenumber": null,
 "logindate": 4294967295000,
 "currentstatetime": 436879,
 "mediatype": 0,
 "status": 2
 }
}
```

**Table 12-480** describes the parameters in the response message body of this interface.

**Table 12-705** Parameters in the message body

| Parameter   | Type   | Description                                                                                                                                                                                                                                |
|-------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| result      | String | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> . |
| resultDatas | Object | Object in the returned result after a successful query. For details about the parameters of this object, see <a href="#">Table 12-481</a> .                                                                                                |

**Table 12-706** Parameters of resultDatas

| Parameter | Type    | Description                                                                                                       |
|-----------|---------|-------------------------------------------------------------------------------------------------------------------|
| workno    | Integer | Agent ID.                                                                                                         |
| vdnid     | Integer | ID of the VDN to which a call belongs.                                                                            |
| citStatus | Integer | Platform status of an agent. For details, see <a href="#">12.3.8.3 CTI Platform Agent Status Code Reference</a> . |

| Parameter        | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| name             | String  | Agent name.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| phonenumber      | String  | Agent phone number.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| logindate        | Long    | Sign-in time.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| currentstatetime | Long    | Duration in the current state.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| mediatype        | Integer | Agent media type. For details, see <a href="#">Table 12-695</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| status           | Integer | Agent status. The options are as follows:<br><b>0:</b> Whether the SGSN and MME are integrated is unknown. The value corresponds to status <b>9</b> on the CTT platform.<br><b>2:</b> sign-out The value corresponds to status <b>0</b> on the CTT platform.<br><b>3:</b> busy The value corresponds to status <b>7</b> on the CTI platform.<br><b>4:</b> idle The value corresponds to status <b>1</b> on the CTT platform.<br><b>5:</b> wrap-up The value corresponds to status <b>6</b> on the CTT platform.<br><b>7:</b> calling state. The value corresponds to states <b>2, 3, 4, and 5</b> on the CTT platform.<br><b>8:</b> rest The value corresponds to status <b>8</b> on the CTT platform. |

### 12.3.8.13.2 Querying System Status by Agent

#### Description

This interface is invoked to query system status by agent.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interfaces

BMS interface: /ccbms/ws/monitor/teamagentstatusinfo

## Request URL

https://ip:port/rest/cmsapp/v1/openapi/querymonitor/systemstate

In the URL, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-707** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

- Message header  
Content-Type:application/json; charset=UTF-8
- Message body  
The following provides an example of the request message body of this interface:

```
{
 "queryParam":
 {
 "cclId":1,
 "vdn":1
 }
}
```

**Table 12-493** describes the parameters in the request message body of this interface.

**Table 12-708** Parameters in the message body

| Parameter | Type    | Mandatory | Description                                               |
|-----------|---------|-----------|-----------------------------------------------------------|
| cclId     | Integer | Yes       | ID of a call center.<br>The value ranges from 1 to 65535. |
| vdn       | Integer | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.          |

## Response Message

The following provides an example of the response message body of this interface:

```
{
 "result": "0",
 "resultDesc": {
 "busyagent": 0,
 "talkingnum": 0,
 "idleagent": 0,
 "totalloginagent": 0
 }
}
```

[Table 12-494](#) describes the parameters in the response message body of this interface.

**Table 12-709** Parameters in the message body

| Parameter   | Type   | Description                                                                                                                                                                                                                         |
|-------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| result      | String | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• 0: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> . |
| resultDatas | Object | Object in the returned result after a successful query. For details about the parameters of this object, see <a href="#">Table 12-495</a> .                                                                                         |

**Table 12-710** Parameters of resultDatas

| Parameter       | Type    | Description                        |
|-----------------|---------|------------------------------------|
| busyagent       | Integer | Number of busy agents.             |
| talkingnum      | Integer | Number of agents in talking state. |
| idleagent       | Integer | Number of idle agents.             |
| totalloginagent | Integer | Number of sign-in agents.          |

### 12.3.8.13.3 Querying the Agent Information in Rest State

#### Description

This interface is invoked to query agent information in rest state.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interfaces

BMS interfaces:

- /ccbms/ws/monitor/teamrestinfo
- /ccbms/ws/monitor/teamrestagentinfo

#### Request URL

https://ip:port/rest/cmsapp/v1/openapi/agentgroup/agentrestinfo

In the URL, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

Table 12-711 Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

- Message header  
Content-Type:application/json; charset=UTF-8
- Message body

The following provides an example of the request message body of this interface:

```
{
 "queryParam":
 {
 "cclid":1,
 "vdn":1
 }
}
```



```
}
}
```

**Table 12-484** describes the parameters in the request message body of this interface.

**Table 12-712** Parameters in the message body

| Parameter | Type    | Mandatory | Description                                               |
|-----------|---------|-----------|-----------------------------------------------------------|
| cclId     | Integer | Yes       | ID of a call center.<br>The value ranges from 1 to 65535. |
| vdn       | Integer | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.          |

## Response Message

The following provides an example of the response message body of this interface:

```
{
 "result": "0",
 "resultDatas":
 {
 "allowrestnum": 101,
 "onrestnum": 1,
 "waitrestnum": 0,
 "agentsrestdetails":
 {[
 "agentname": "z1",
 "workno":55001
 "cantrestreason":1
 "begintime":2345
 "restduration":22333
]}
 }
}
```

**Table 12-485** describes the parameters in the response message body of this interface.

**Table 12-713** Parameters in the message body

| Parameter | Type   | Description                                                                                                                                                                                                                                |
|-----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| result    | String | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> . |

| Parameter   | Type   | Description                                                                                                                                    |
|-------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------|
| resultDatas | Object | Object in the returned result after a successful query.<br>For details about the parameters of this object, see <a href="#">Table 12-486</a> . |

**Table 12-714** Parameters of resultDatas

| Parameter         | Type    | Description                                                                                                                                     |
|-------------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| allowrestnum      | Integer | Number of agents who are allowed to have a rest but still at work.                                                                              |
| onrestnum         | Integer | Number of agents that are resting.                                                                                                              |
| waitrestnum       | Integer | Number of agents who apply for rest.                                                                                                            |
| agentsrestdetails | Array   | List of details about agents who take a rest in the VDN.<br>For details about the parameters of this object, see <a href="#">Table 12-487</a> . |

**Table 12-715** Parameters of agentsrestdetails

| Parameter      | Type    | Description                                                                                                                                                                                                             |
|----------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| agentname      | String  | Agent name.                                                                                                                                                                                                             |
| workno         | Integer | Agent ID.                                                                                                                                                                                                               |
| cantrestreason | Integer | Reason why agents are not allowed to have a rest. This parameter is valid only for the agents who wait for a rest.<br>For details about the parameters of this object, see <a href="#">Table 12-716</a> .               |
| begintime      | Long    | Start time. For resting agents, this parameter indicates the rest start time. For agents who are not in rest, this parameter indicates the requested or approved rest start time. The value is in the timestamp format. |
| restduration   | Long    | Requested rest duration, in seconds.                                                                                                                                                                                    |

**Table 12-716** Reason for not allowing rest

| Value of the Reason for Not Allowing Rest | Description                                                                                          |
|-------------------------------------------|------------------------------------------------------------------------------------------------------|
| 0                                         | The agent is waiting for approval.                                                                   |
| 1                                         | The agent is in busy state.                                                                          |
| 2                                         | The number of agents who can take a rest in the VDN reaches the maximum.                             |
| 3                                         | The agent does not answer any inbound calls, because the agent does not sign in to any skill queues. |
| 4                                         | The number of resting agents in a skill queue the agent signs in reaches the maximum.                |

#### 12.3.8.13.4 Querying Statistics Details of Skill Queues in Batches

##### Description

This interface is invoked to query statistics details of skill queues in batches.

##### NOTE

- To invoke this interface in the integration environment, set **ccld** of the call center to **1**.

##### Interface Method

The request method must be set to POST. This interface supports only the POST method.

##### Internal Encapsulation Interfaces

BMS interfaces:

- `/ccbms/ws/monitor/querycurrentcallstatinfo`
- `/ccbms/ws/monitor/queryStatInfoOfEverySkill`

##### Request URL

`https://ip:port/rest/cmsapp/v1/openapi/realindex/skill/stateinfo`

In the URL, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

## Request Description

**Table 12-717** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

- Message header  
Content-Type:application/json; charset=UTF-8
- Message body  
The following provides an example of the request message body of this interface:

```
{
 "queryParam":
 {
 "cclid":1,
 "vdn":1,
 "skillIds":[1,2]
 }
}
```

[Table 12-422](#) describes the parameters in the request message body of this interface.

**Table 12-718** Parameters in the request message body

| Parameter | Type    | Mandatory | Description                                                                             |
|-----------|---------|-----------|-----------------------------------------------------------------------------------------|
| cclid     | Integer | Yes       | ID of a call center.<br>The value ranges from 1 to 65535.                               |
| vdn       | Integer | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.                                        |
| skillIds  | Array   | Yes       | Object array of skill queue ID information.<br>The array cannot exceed 1000 characters. |

## Response Message

The following provides an example of the response message body of this interface:

```
{
 "result": "0",
 "resultDatas": [{
 "skillId": 1,
 "agentLoginNums": 1,
 "agentTalkingNums": 0,
 "agentIdleNums": 0,
 "agentAvailableNums": 0,
 "agentSetbusyNums": 1,
 "agentRestNums": 0,
 "agentMaxIdleTimeIn5": 0,
 "agentWorkNums": 0,
 "agentStudyNums": 0,
 "agentOccupyNums": 0,
 "agentPreOccupyNums": 0,
 "totalCallNums": 0,
 "processingCallNums": 0,
 "maxCallWaitTimesIn5": 0,
 "callWaitNums": 0,
 "evenCallTimeIn5": 0,
 "evenWaitTimeIn5": 0,
 {
 "skillId": 2,
 "agentLoginNums": 0,
 "agentTalkingNums": 0,
 "agentIdleNums": 0,
 "agentAvailableNums": 0,
 "agentSetbusyNums": 0,
 "agentRestNums": 0,
 "agentMaxIdleTimeIn5": 0,
 "agentWorkNums": 0,
 "agentStudyNums": 0,
 "agentOccupyNums": 0,
 "agentPreOccupyNums": 0,
 "totalCallNums": 0,
 "processingCallNums": 0,
 "maxCallWaitTimesIn5": 0,
 "callWaitNums": 0,
 "evenCallTimeIn5": 0,
 "evenWaitTimeIn5": 0
 }
]
}
```

**Table 12-423** describes the parameters in the response message body of this interface.

**Table 12-719** Parameters in the response message body

| Parameter | Type   | Description                                                                                                                                                                                                                                |
|-----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| result    | String | Query result. The options are as follows: <ul style="list-style-type: none"> <li>● <b>0</b>: success</li> <li>● Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> . |

| Parameter   | Type  | Description                                                                                                                                                       |
|-------------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| resultDatas | Array | Object array in the returned result after a successful query.<br>For details about the parameters of this object in the array, see <a href="#">Table 12-424</a> . |

**Table 12-720** Parameters of resultDatas

| Parameter           | Type    | Description                                                                                                                             |
|---------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------|
| skillId             | Integer | Skill queue ID.                                                                                                                         |
| agentLoginNums      | Integer | Number of sign-in agents.                                                                                                               |
| agentTalkingNums    | Integer | Number of agents in talking state.                                                                                                      |
| agentIdleNums       | Integer | Number of idle agents.                                                                                                                  |
| agentAvailableNums  | Integer | Number of available agents. The value may be different from the number of idle agents when an agent can have one-to-many conversations. |
| agentSetbusyNums    | Integer | Number of agents in busy state.                                                                                                         |
| agentRestNums       | Integer | Number of agents in rest state.                                                                                                         |
| agentMaxIdleTimeIn5 | Integer | Maximum idle duration of agents in 5 minutes.                                                                                           |
| agentWorkNums       | Integer | Number of agents in wrap-up state.                                                                                                      |
| agentStudyNums      | Integer | Number of agents in learning state.                                                                                                     |
| agentOccupyNums     | Integer | Number of agents in occupied state.                                                                                                     |
| agentPreOccupyNums  | Integer | Number of preoccupied agents.                                                                                                           |
| totalCallNums       | Integer | Total number of processed calls, including the calls that are being processed.                                                          |
| processingCallNums  | Integer | Number of calls that are being processed.                                                                                               |
| maxCallWaitTimeIn5  | Integer | Maximum time that a call can wait in 5 minutes.                                                                                         |
| callWaitNums        | Integer | Number of queuing calls (number of calls that are waiting).                                                                             |

| Parameter       | Type    | Description                                 |
|-----------------|---------|---------------------------------------------|
| evenCallTimeIn5 | Integer | Average call duration in 5 minutes.         |
| evenWaitTimeIn5 | Integer | Average call waiting duration in 5 minutes. |

### 12.3.8.13.5 Querying Details About Agents in Configured Skill Queues

#### Description

This interface is invoked to query details about agents in configured skill queues.

#### Request Method

The request method must be set to POST. This interface supports only the POST method.

#### Internal Encapsulation Interfaces

BMS interface: /ccbms/ws/monitor/agentstatusinfo

#### Request URL

https://ip:port/rest/cmsapp/v1/openapi/agentgroup/agentbyconfiguredskill

In the URL, *ip* indicates the IP address of the NSLB server, and *port* indicates the HTTPS port number of the CC-CMS service mapped on the NSLB server.

#### Request Description

**Table 12-721** Parameters in the request header

| No. | Parameter     | Type   | Mandatory | Description                                                                                                                                            |
|-----|---------------|--------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String | Yes       | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String | Yes       | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

- Message header  
Content-Type:application/json; charset=UTF-8
- Message body

The following provides an example of the request message body of this interface:

```
{
 "queryParam":
 {
 "ccld":1,
 "vdn":1,
 "skillld":1
 }
}
```

**Table 12-440** describes the parameters in the request message body of this interface.

**Table 12-722** Parameters in the message body

| Parameter | Type    | Mandatory | Description                                               |
|-----------|---------|-----------|-----------------------------------------------------------|
| ccld      | Integer | Yes       | ID of a call center.<br>The value ranges from 1 to 65535. |
| vdn       | Integer | Yes       | ID of a VDN.<br>The value ranges from 1 to 5000.          |
| skillld   | Integer | Yes       | Skill queue ID.<br>The value ranges from 1 to 2000.       |

## Response Message

The following provides an example of the response message body of this interface:

```
{
 "result": "0",
 "resultDatas": [{
 "workno": 20011,
 "name": "20011",
 "status": 4,
 "ctiStatus": 1,
 "groupid": 1,
 "mediatype": 1,
 "vdnid": 1,
 "phonenum": "70942",
 "currentstatetime": 1505,
 "logindate": 1501125758000
 }]
}
```

**Table 12-441** describes the parameters in the message body of this interface.



**Table 12-723** Parameters in the message body

| Parameter   | Type   | Description                                                                                                                                                                                                                         |
|-------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| result      | String | Query result. The options are as follows: <ul style="list-style-type: none"> <li>• 0: success</li> <li>• Other values: failure</li> </ul> For details about the failure causes, see <a href="#">12.3.8.2 Error Code Reference</a> . |
| resultDatas | Array  | Array in the returned result after a successful query.<br>For details about the parameters of this object in the array, see <a href="#">Table 12-442</a> .                                                                          |

**Table 12-724** Parameters of resultDatas

| Parameter        | Type    | Description                                                                                                 |
|------------------|---------|-------------------------------------------------------------------------------------------------------------|
| workno           | Integer | Agent ID.                                                                                                   |
| name             | String  | Agent name.                                                                                                 |
| status           | Integer | Agent status. For details, see <a href="#">Table 12-725</a> .                                               |
| ctiStatus        | Integer | Agent platform status. For details, see <a href="#">12.3.8.3 CTI Platform Agent Status Code Reference</a> . |
| groupid          | Integer | Agent group ID.                                                                                             |
| mediatype        | Integer | Agent media type. For details, see <a href="#">Table 12-695</a> .                                           |
| vdnid            | Integer | ID of the VDN to which a call belongs.                                                                      |
| phonenummer      | String  | Agent phone number.                                                                                         |
| currentstatetime | Long    | Duration in the current state.                                                                              |
| logindate        | Long    | Sign-in time.                                                                                               |

**Table 12-725** Agent status

| Value | Description                                                                                |
|-------|--------------------------------------------------------------------------------------------|
| 0     | Unknown. The value corresponds to status <b>9</b> on the CTI platform.                     |
| 2     | An exception occurs when the interface is invoked.                                         |
| 3     | Showing busy. The value corresponds to status <b>7</b> on the CTI platform.                |
| 4     | Idle. The value corresponds to status <b>1</b> on the CTI platform.                        |
| 5     | Wrap-up. The value corresponds to status <b>6</b> on the CTI platform.                     |
| 7     | Talking. The value corresponds to states <b>2, 3, 4,</b> and <b>5</b> on the CTI platform. |
| 8     | Rest. The value corresponds to status <b>8</b> on the CTI platform.                        |

# 13 Recording and CDR Interface Reference

---

[13.1 Recording](#)

[13.2 CDR Download and Recording Playback and Download](#)

## 13.1 Recording

### 13.1.1 Recording Playback

 **NOTE**

Currently, video calls are not supported.

#### 13.1.1.1 Starting Playing an Announcement

##### Prerequisites

- The agent has signed in.
- The agent is not in a call.

##### Description

This interface is used to start playing an announcement to an agent. (The agent's sign-in number receives a call. After the call is connected, the system plays the recording.)

 **NOTE**

Any recording file can be played by using this interface. Therefore, use this interface with caution in secondary development.

##### Interface Method

The request method must be set to PUT. This interface supports only the PUT method.

## URI

https://ip:port/agentgateway/resource/recordplay/{agentid}/play

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 13-1** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

beginPlay

## Request Description

- Message header

**Table 13-2** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body

**Table 13-3** Parameters in the message body

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                               |
|-----|--------------|------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | voicepath    | string     | Yes                | File path. The value can contain a maximum of 100 characters.                                                                                             |
| 2   | startpostion | long       | No                 | Start position of the file to be played, in seconds.                                                                                                      |
| 3   | volumechange | string     | No                 | Playback volume. The default value is <b>50</b> . A maximum of five digits are allowed.                                                                   |
| 4   | speedchange  | string     | No                 | Playback speed. The default value is <b>50</b> . A maximum of five digits are allowed.                                                                    |
| 5   | times        | int        | No                 | Number of playback times. The default value is <b>1</b> .<br><b>NOTE</b><br>If this parameter is set to other values, the default value <b>1</b> is used. |
| 6   | codeformat   | int        | No                 | File coding format. The default value is <b>0</b> , which is the only value supported.                                                                    |
| 7   | locationId   | int        | No                 | ID of a distributed call center node.<br>The value of <b>locationId</b> is returned for a recording start event obtained through the polling interface.   |

## Response Description

**Table 13-4** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- AgentMediaEvent\_Play
- AgentMediaEvent\_Play\_Succ
- AgentMediaEvent\_Play\_Fail
- AgentMediaEvent\_StopPlayDone

## Error Code

- 100-006
- 100-007
- 500-007

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  

```
{
 "voicepath": "Y:/1/0/20180621/105/1406470.V3",
 "startpostion": 0,
 "volumechange": 20,
 "speedchange": 20,
 "times": 1,
 "codeformat": 0,
 "locationId": -1
}
```
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 13.1.1.2 Pausing an Announcement

#### Prerequisites

- The agent has signed in.
- The agent is not in a call.
- The agent is playing an announcement.

#### Description

This interface is used to pause an announcement.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### URI

<https://ip:port/agentgateway/resource/recordplay/{agentid}/pauseplay>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 13-5** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

pausePlay

## Request Description

- Message header

**Table 13-6** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 13-7** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

### Triggered Event

- AgentMediaEvent\_PausePlayDone

### Error Code

- 100-006
- 100-007
- 500-003

### Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 13.1.1.3 Resuming an Announcement

#### Prerequisites

- The agent has signed in.
- The agent is not in a call.
- The agent has paused an announcement.

#### Description

This interface is used to resume an announcement for an agent.



## Interface Method

The request method must be set to POST. This interface supports only the POST method.

## URI

https://ip:port/agentgateway/resource/recordplay/{agentid}/resumeplay

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 13-8** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

resumePlay

## Request Description

- Message header

**Table 13-9** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 13-10** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- AgentMediaEvent\_ResumePlayDone

## Error Code

- 100-006
- 100-007
- 500-005

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 13.1.1.4 Fast Forwarding

#### Prerequisites

- The agent has signed in.
- The agent is playing an announcement.

#### Description

This interface is used to fast forward the playback of a recorded file.

## Interface Method

The request method must be set to POST. This interface supports only the POST method.

## URI

https://ip:port/agentgateway/resource/recordplay/{agentid}/forefast/{time}

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 13-11** Parameters in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                                               |
|-----|-----------|-----------|--------------------|---------------------------------------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999.                             |
| 2   | time      | string    | Yes                | Fast-forward duration, in seconds. The value ranges from 0 to 2147483647. |

## Method Name in Logs

foreFastPlay

## Request Description

- Message header

**Table 13-12** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                    |
|-----|--------------|------------|--------------------|------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> . |

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|-----------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Guid      | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 13-13** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- AgentMediaEvent\_JumpPlayDone

## Error Code

- 100-006
- 100-007
- 500-002

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None

- Response parameter

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 13.1.1.5 Rewinding

#### Prerequisites

- The agent has signed in.
- The agent is playing an announcement.

#### Description

This interface is used to rewind the playback of a recorded file.

#### Interface Method

The request method must be set to POST. This interface supports only the POST method.

#### URI

`https://ip:port/agentgateway/resource/recordplay/{agentid}/backfast/{time}`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 13-14** Parameters in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                                               |
|-----|-----------|-----------|--------------------|---------------------------------------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999.                             |
| 2   | time      | string    | Yes                | Fast-forward duration, in seconds. The value ranges from 0 to 2147483647. |

#### Method Name in Logs

backFastPlay

## Request Description

- Message header

**Table 13-15** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 13-16** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- AgentMediaEvent\_JumpPlayDone

## Error Code

- 100-006
- 100-007

- 500-001

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 13.1.1.6 Stopping Playing an Announcement

#### Prerequisites

- The agent has signed in.
- The agent is playing an announcement.

#### Description

This interface is used to stop playing an announcement.

#### Interface Method

The request method must be set to DELETE. This interface supports only the DELETE method.

#### URI

<https://ip:port/agentgateway/resource/recordplay/{agentid}/stopplay>

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 13-17** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

#### Method Name in Logs

stopPlay

## Request Description

- Message header

**Table 13-18** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 13-19** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- AgentMediaEvent\_StopPlayDone

## Error Code

- 100-006
- 100-007



- 500-009

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 13.1.1.7 Starting Screen Recording

#### NOTE

This interface is available only in private deployment mode.

## Prerequisites

- The agent has signed in.
- The VRC component has been successfully initialized on the agent side.

## Description

This interface is used to start screen recording for an agent.

## Interface Method

The request method must be set to PUT. This interface supports only the PUT method.

## URI

<https://ip:port/agentgateway/resource/recordplay/{agentid}/startrecordscreen>

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

**Table 13-20** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

startRecordScreen

## Request Description

- Message header

**Table 13-21** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 13-22** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                                                                                    |
|-----|-----------|------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                                                                                   |
| 2   | retcode   | string     | Error code. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> |

## Triggered Event

- AgentMediaEvent\_StartRecordScreen\_Succ
- AgentMediaEvent\_StartRecordScreen\_Fail

## Error Code

- 100-006
- 100-007

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 13.1.1.8 Stopping Screen Recording

#### Prerequisites

- The agent has signed in.
- The VRC component has been successfully initialized on the agent side.
- The agent is recording the screen.

#### Description

This interface is used to stop screen recording for an agent.

#### Interface Method

The request method must be set to DELETE. This interface supports only the DELETE method.

#### URI

<https://ip:port/agentgateway/resource/recordplay/{agentid}/stoprecordscreen>

In the URL, *ip* indicates the IP address of the agent gateway server, and *port* indicates the HTTPS port number of the agent gateway server.

**Table 13-23** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

stopRecordScreen

## Request Description

- Message header

**Table 13-24** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 13-25** Parameter description

| No. | Parameter | Value Type | Description                                                                                                                                    |
|-----|-----------|------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                                                                                   |
| 2   | retcode   | string     | Error code. The options are as follows: <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> |

## Triggered Event

- AgentMediaEvent\_StopRecordScreen\_Succ
- AgentMediaEvent\_StopRecordScreen\_Fail

## Error Code

- 100-006
- 100-007

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 13.1.1.9 Starting Voice Recording

#### NOTE

- This interface is available only in private cloud mode.
- The inspector cannot perform recording operations in insertion, listening, or whispering mode.
- Video recording is not supported.
- The **IF\_ENABLE\_AGENT\_SELFRECORD** parameter in the **basic.properties** file determines whether the interface can be used.

## Prerequisites

- The agent has signed in.

## Description

This interface is used to start voice recording for an agent.

## Interface Method

The request method must be set to PUT. This interface supports only the PUT method.

## URI

`https://ip:port/agentgateway/resource/recordplay/{agentid}/record`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 13-26** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

beginRecord

## Request Description

- Message header

**Table 13-27** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body

**Table 13-28** Parameters in the message body

| No. | Parameter  | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----|------------|------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | fileName   | string     | No                 | <p>Path for storing recording files. The value can contain a maximum of 100 characters and can be left empty.</p> <p>If this parameter is not transferred or is left empty, the system automatically generates a value in the following format:</p> <p>Drive letter:\VDN\Media type ID\YYYYMMDD\work ID\file name+suffix</p> <p>The drive letter is specified by <b>MAPPINGDISK</b> in the <b>basic.properties</b> file. The default value is <b>Y</b>.</p> |
| 2   | mediaType  | int        | Yes                | Type of the recorded media. Currently, the value can only be <b>5</b> (common voice).                                                                                                                                                                                                                                                                                                                                                                       |
| 3   | recordMode | int        | No                 | <p>Recording mode.</p> <p>0: to overwrite</p> <p>1: to add</p> <p>If this parameter is not set or is set to another value, the default value <b>0</b> is used.</p>                                                                                                                                                                                                                                                                                          |

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----|--------------|------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | recordFormat | int        | No                 | <p>Format of a recorded file.</p> <p><b>0:</b> The voice file is played in the default format configured on the resource side. The default format of the voice file is configured on the recording resource side.</p> <p>1: 24KVOX<br/>2: 32KVOX<br/>3: 64KALAW</p> <p>If this parameter is not set, the default value <b>0</b> is used.</p> <p><b>NOTE</b></p> <p>Only one recording format can be used in an environment. The same recording format is required event for different calls.</p> <p>The delivered recording format must be the same as the voice playing format configured on the UAP.</p> |

## Response Description

**Table 13-29** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                                                                         |
|-----|-----------|------------|-------------------------------------------------------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                                                                        |
| 2   | retcode   | string     | <p>Error code. The options are as follows:</p> <p><b>0:</b> success</p> <p>Other values: failure</p>                                |
| 3   | result    | Map        | <p>Returned result information object.</p> <p>For details about the parameters of this object, see <a href="#">Table 13-30</a>.</p> |



**Table 13-30** Parameter description of result

| No. | Parameter | Value Type | Description                   |
|-----|-----------|------------|-------------------------------|
| 3.1 | taskId    | string     | ID of a voice recording task. |

### Triggered Event

- AgentMediaEvent\_Record
- AgentMediaEvent\_Record\_Fail
- AgentOther\_PhoneAlerting
- AgentOther\_PhoneOffhook

### Error Code

- 000-002
- 100-006
- 100-007
- 500-008
- 500-011

### Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  

```
{
 "fileName": "Y:/15/0/20201119/186/142702.V3",
 "mediaType": 5,
 "recordMode": 0,
 "recordFormat": 0
}
```
- Response parameter  

```
{
 "result": {
 "taskId": "5086"
 },
 "message": "success",
 "retcode": "0"
}
```

## 13.1.1.10 Stopping Voice Recording

### Prerequisites

- The agent has signed in.
- The agent is recording.

### Description

This interface is used to stop voice recording for an agent.

## Interface Method

The request method must be set to DELETE. This interface supports only the DELETE method.

## URI

https://ip:port/agentgateway/resource/recordplay/{agentid}/stoprecord

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 13-31** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

stopRecord

## Request Description

- Message header

**Table 13-32** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

**Table 13-33** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- AgentMediaEvent\_StopRecordDone

## Error Code

- 100-006
- 100-007
- 500-010

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

### 13.1.1.11 Playing Network Call Recordings

#### Prerequisites

- A network call center has been enabled.
- The agent has signed in.
- The agent is not in a three-party call.

## Description

In the network call scenario, the system starts to play voices to an agent. (After the agent sign-in number receives a call, the system plays the recording after the call is connected.)

### NOTE

Any recording file can be played by using this interface. Therefore, use this interface with caution in secondary development.

## Interface Method

The request method must be set to POST. This interface supports only the POST method.

## URI

https://ip:port/agentgateway/resource/recordplay/{agentid}/netplay

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 13-34** Parameter in the URI

| No. | Parameter | Data Type | Mandatory (Yes/No) | Description                                   |
|-----|-----------|-----------|--------------------|-----------------------------------------------|
| 1   | agentid   | string    | Yes                | Agent ID. The value ranges from 101 to 59999. |

## Method Name in Logs

beginNetPlay

## Request Description

- Message header

**Table 13-35** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                    |
|-----|--------------|------------|--------------------|------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> . |

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|-----------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Guid      | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body

**Table 13-36** Parameters in the message body

| No. | Parameter  | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                                                                                        |
|-----|------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | fileName   | string     | Yes                | File path. The value can contain a maximum of 100 characters.                                                                                                                                                                                                                                      |
| 2   | position   | long       | No                 | Position where the playback starts, in seconds.                                                                                                                                                                                                                                                    |
| 3   | playTime   | int        | No                 | Number of playback times. The options are as follows: <ul style="list-style-type: none"> <li>• <b>1</b>: play once.</li> <li>• <b>0</b>: infinite loop.</li> </ul> The default value is <b>1</b> .<br><b>NOTE</b><br>If this parameter is set to other values, the default value <b>1</b> is used. |
| 4   | fileFormat | int        | No                 | File encoding format. The options are as follows: <ul style="list-style-type: none"> <li><b>0</b>: default format configured on the resource side.</li> <li><b>1</b>: 24K VOX format.</li> <li><b>2</b>: 32K VOX format.</li> </ul> The default value is <b>0</b> .                                |

| No. | Parameter  | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                |
|-----|------------|------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5   | cclid      | int        | Yes                | ID of the call center where an announcement file is located. To obtain the ID, log in to the WAS and choose <b>Web Configuration Console &gt; Configure NIRC &gt; CCS Type Client &gt; Client ID.</b>      |
| 6   | locationId | int        | No                 | ID of a distributed node, which is an input parameter. This parameter is valid only when a single UAP is deployed and the platform supports the distributed mode.<br><br>The value ranges from 0 to 65535. |

## Response Description

**Table 13-37** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

## Triggered Event

- AgentMediaEvent\_Play
- AgentMediaEvent\_Play\_Succ
- AgentMediaEvent\_Play\_Fail
- AgentMediaEvent\_StopPlayDone

## Error Code

- 100-006
- 100-007

- 100-018
- 500-007

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  

```
{
 "fileName": "Y:/12/0/20211019/155/1406470.V3",
 "position": "0",
 "playTime": "1",
 "fileFormat": "0",
 "cclid": "1",
 "locationId": "-1"
}
```
- Response parameter  

```
{
 "result": {},
 "message": "success",
 "retcode": "0"
}
```

## 13.1.2 Recording Download: record

### NOTE

The video recording file is not supported.

### 13.1.2.1 Downloading Recordings

#### Prerequisites

- The file server has been mounted to the gateway, and the recording download function has been enabled.
- The mapping has been configured for the CC-Gateway.
- The mount directory is configured in the configuration file.
- The agent has signed in.

#### Description

This interface is used to download recording files from the file server. (You are not advised to use this interface to download recording files larger than 30 MB.)

### NOTE

The downloaded data contains personal data. Exercise caution when processing the downloaded data to prevent personal data leakage and abuse.

#### Interface Method

The request method must be set to GET. This interface supports only the GET method.

## URI

https://ip:port/agentgateway/resource/recordfile/{agentid}?recordId=xxx&filetype=1

Example: https://ip:port/agentgateway/resource/recordfile/102?recordId=y:\1\0\20181217\120\1524488.V3

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 13-38** Parameters in the URI

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                                                           |
|-----|-----------|------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | agentid   | String     | Yes                | ID of the agent who signs in.                                                                                                                                                                                                                                         |
| 2   | recordId  | String     | Yes                | Path and name of a recording file.<br>The path and name of the recording file are generated when <b>AgentMediaEvent_Record</b> is triggered and are returned in <b>fileName</b> .<br>For details about the recording file path format, see the following description. |



| No. | Parameter  | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----|------------|------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | filetype   | String     | No                 | <p>Type of a recording file. The options are as follows:</p> <ul style="list-style-type: none"> <li>• <b>1:</b> agent call recording file</li> <li>• <b>2:</b> IVR or third-party voice message recording file</li> </ul> <p><b>NOTE</b></p> <p>1. The format of the path of an IVR voice message recording file is as follows: <i>Drive letter:/VDN ID/record/****</i>.</p> <p>Example: <b>y:/1/record/20190412/playvoice1551276018824.wav</b></p> <p>2. The format of the path of a third-party voice message recording file is as follows: <i>Drive letter;/3rdfile/VDN ID/record/****</i>.</p> <p>Example: <b>y;/3rdfile/1/record/20190408/515/1633022.V3</b></p> <p>The default value is <b>1</b> (agent call recording file).</p> |
| 4   | locationId | Number     | No                 | <p>Node ID, which is mandatory in CTI pool mode and is generated when <b>AgentMediaEvent_Record</b> is triggered.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

## Method Name in Logs

downloadRecordFile

## Request Description

- Message header

**Table 13-39** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | String     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | String     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

The following provides an example of the response message body of this interface:

- If the download fails:  
Message header: Content-Type: application/json;charset=UTF-8  
For details about the message body example, see [Example](#).

**Table 13-40** Parameters in the message body

| No. | Parameter | Value Type | Description  |
|-----|-----------|------------|--------------|
| 1   | message   | String     | Description. |

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 2   | retcode   | String     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | Object     | Reserved field.                                                                        |

- If the download is successful:  
Message header: Content-Type: application/octet-stream;charset=utf-8  
Message body: file stream

## Triggered Event

After an agent signs in, the recording download interface is invoked.

## Error Code

- 104-001
- 104-005
- 104-010

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "retcode": "000-003",
 "message": "no right to invite resource",
 "result": ""
}
```

### 13.1.2.2 Downloading Recordings (Extended)

#### Prerequisites

- The download function has been enabled for the CC-Gateway. (**VIDEO\_DOWNLOAD\_FLAG** has been set to **ON**. The configuration file path is **/home/elpis/tomcat/webapps/agentgateway/WEB-INF/config/basic.properties**.)
- The agent has signed in.
- The VoiceCyber recording mode is enabled. (All SRS-related configurations are enabled. The configuration file path is **/home/elpis/tomcat/webapps/agentgateway/WEB-INF/config/basic.properties**.) For details, see "Commissioning Guide > (Optional) Commissioning Advanced Businesses >

Commissioning the Connection Between the CC-Gateway and VoiceCyber Recording Server" in the product documentation.

## Description

This interface is used to download recorded voice and video files in VoiceCyber recording mode. It can download voice dual-track recording files and video recording files.

### NOTE

The downloaded data contains personal data. Exercise caution when processing the downloaded data to prevent personal data leakage and abuse.

## Interface Method

The request method must be set to GET. This interface supports only the GET method.

## URI

`https://ip:port/agentgateway/resource/recordfile/{agentid}/recordfiledownloadEx?callId= xxx&hwFileName=1`

Example: `https://10.244.154.23:8043/agentgateway/resource/recordfile/4977/recordfiledownloadEx?callId=1621413752-2011&hwFileName=Y:/90/0/20210519/4977/1642329.mp4`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 13-41** Parameters in the URI

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                   |
|-----|-----------|------------|--------------------|-------------------------------|
| 1   | agentid   | String     | Yes                | ID of the agent who signs in. |
| 2   | callId    | String     | Yes                | Call ID.                      |

| No. | Parameter  | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                |
|-----|------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | hwFileName | String     | No                 | File path.<br>If the value of <b>hwFileName</b> is not transferred, an audio file is downloaded.<br>If <b>hwFileName</b> is specified, a video file is downloaded, for example, <b>Y:/90/0/20210519/4977/1642329.mp4</b> . |
| 4   | workNo     | String     | No                 | ID of an inspected agent.<br>This parameter must be transferred when the sign-in agent is an inspector and <b>hwFileName</b> is empty.                                                                                     |

## Method Name in Logs

recordfiledownloadEx

## Request Description

- Message header

**Table 13-42** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                    |
|-----|--------------|------------|--------------------|------------------------------------------------------------------------------------------------|
| 1   | Content-Type | String     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> . |

| No. | Parameter | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|-----------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | Guid      | String     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

The following describes the response of this interface:

- If the download fails:  
Message header: Content-Type: application/json;charset=UTF-8  
For details about the message body example, see [Example](#).

**Table 13-43** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | String     | Description.                                                                           |
| 2   | retcode   | String     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | Object     | Reserved field.                                                                        |

- If the download is successful:  
Message header: Content-Type: application/octet-stream;charset=utf-8  
Message body: file stream

## Triggered Event

- The agent signs in and invokes the recording download interface.

## Error Code

- 108-001

- 108-014
- 108-015
- 108-016
- 108-017

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "retcode": "000-003",
 "message": "no right to invite resource",
 "result": ""
}
```

## 13.1.3 Video File Download: Video

### 13.1.3.1 Downloading Video Files

#### Prerequisites

- On the CC-Gateway, **VIDEO\_DOWNLOAD\_FLAG** and **IF\_SUPPORT\_VIDEO** have been set to **ON**, indicating that the video file download function and video event function have been enabled. The configuration file path is / **home/elpis/tomcat/webapps/agentgateway/WEB-INF/config/basic.properties**.
- The agent has signed in.

#### Description

This interface is used to download video files generated during video calls in MCU recording mode. (You are not advised to use this interface to download video files larger than 200 MB.)

#### Interface Method

The request method must be set to GET. This interface supports only the GET method.

#### URI

`https://ip:port/agentgateway/resource/recordfile/{agentid}/videofiledownload?confereceld=xxx&recordId=xxx&fileType=xxx`

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 13-44** Parameters in the URI

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                    |
|-----|--------------|------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | agentid      | string     | Yes                | Agent ID. The value ranges from 101 to 59999.                                                                                                                                                                                  |
| 2   | conferenceId | string     | Yes                | Indicates the conference ID.<br>Example:<br>7a008307-34ad-435b-bccd-222be5ac5385                                                                                                                                               |
| 3   | recordId     | string     | No                 | Indicates the video recording ID.<br>Example:<br>0a08082d-df1e-4c06-9a97-c7c6f7a4724e<br><b>NOTE</b><br>If <b>recordId</b> is not specified, the video file corresponding to the first recording URL is downloaded by default. |
| 4   | fileType     | string     | Yes                | File type. The options are as follows:<br><ul style="list-style-type: none"> <li>● <b>0</b>: HD file</li> <li>● <b>1</b>: SD file</li> <li>● <b>2</b>: videoAux</li> </ul>                                                     |

## Method Name in Logs

downloadVideoFile

## Request Description

- Message header



**Table 13-45** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

The following provides an example of the response message body of this interface:

- If the download fails:  
Message header: Content-Type: application/json;charset=UTF-8  
For details about the message body example, see [Example](#).

**Table 13-46** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

- If the download is successful:  
Message header: Content-Type: application/octet-stream;charset=utf-8  
Message body: file stream

## Triggered Event

- After an agent signs in, the video file download interface is invoked.

## Error Code

- 108-001
- 108-002
- 108-003
- 108-004
- 108-005
- 108-006
- 108-007
- 108-008
- 108-009

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "retcode": "000-003",
 "message": "no right to invite resource",
 "result": ""
}
```

### 13.1.3.2 Downloading Video Files (Extended)

#### Prerequisites

- On the CC-Gateway, **VIDEO\_DOWNLOAD\_FLAG** and **IF\_SUPPORT\_VIDEO** have been set to **ON**, indicating that the video file download function and video event function have been enabled. The configuration file path is **/home/elpis/tomcat/webapps/agentgateway/WEB-INF/config/basic.properties**.
- The file server has been mounted to the CC-Gateway.
- The agent has signed in.
- The mount directory is configured in the configuration file.

#### Description

This interface is used to download video files generated during video calls. (You are not advised to use this interface to download video files larger than 200 MB.)

#### Interface Method

The request method must be set to GET. This interface supports only the GET method.

## URI

https://ip:port/agentgateway/resource/recordfile/{agentid}/videofiledownloadEx?recordId=xxx&locationId=xxx

Example:

In the URL, *ip* indicates the IP address of the CC-Gateway server, and *port* indicates the HTTPS port number of the CC-Gateway server.

**Table 13-47** Parameters in the URI

| No. | Parameter  | Value Type | Mandatory (Yes/No) | Description                                                                                                                                               |
|-----|------------|------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | agentid    | string     | Yes                | Agent ID. The value ranges from 101 to 59999.                                                                                                             |
| 2   | recordId   | string     | Yes                | Video file path.<br><b>NOTE</b><br>If <b>recordId</b> is not specified, the video file corresponding to the first recording URL is downloaded by default. |
| 3   | locationId | int        | No                 | Node ID. This parameter is mandatory in CTI Pool mode.                                                                                                    |

## Method Name in Logs

downloadVideoFileEx

## Request Description

- Message header

**Table 13-48** Parameters in the request message header

| No. | Parameter    | Value Type | Mandatory (Yes/No) | Description                                                                                                                                                                                                                            |
|-----|--------------|------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type | string     | Yes                | Coding mode of the message body. The default value is <b>application/json; charset=UTF-8</b> .                                                                                                                                         |
| 2   | Guid         | string     | Yes                | GUID returned by the sign-in interface during static authentication ( <b>AUTHMODE</b> is set to <b>1</b> ) or GUID returned by the polling event query interface during dynamic authentication ( <b>AUTHMODE</b> is set to <b>2</b> ). |

- Message body  
None

## Response Description

The following provides an example of the response message body of this interface:

- If the download fails:  
Message header: Content-Type: application/json;charset=UTF-8  
For details about the message body example, see [Example](#).

**Table 13-49** Parameters in the message body

| No. | Parameter | Value Type | Description                                                                            |
|-----|-----------|------------|----------------------------------------------------------------------------------------|
| 1   | message   | string     | Description.                                                                           |
| 2   | retcode   | string     | Error code. The options are as follows:<br><b>0</b> : success<br>Other values: failure |
| 3   | result    | object     | Reserved field.                                                                        |

- If the download is successful:  
Message header: Content-Type: application/octet-stream;charset=utf-8  
Message body: file stream

## Triggered Event

- After an agent signs in, the video file download interface is invoked.

## Error Code

- 108-001
- 104-003
- 104-010
- 108-002
- 108-011
- 108-009
- 108-012
- 108-013

## Example

- Message header  
Content-Type:application/json; charset=UTF-8  
Guid: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx.AgentGateway1
- Request parameter  
None
- Response parameter  

```
{
 "retcode": "000-003",
 "message": "no right to invite resource",
 "result": ""
}
```

# 13.2 CDR Download and Recording Playback and Download

## 13.2.1 Data Access Interface

### 13.2.1.1 Obtaining a Recording Download and Playback URL

#### Description

This interface is invoked to upload a recording file on the CC-FS to OBS/LSS and obtain the recording download and playback URL from OBS/LSS.

- Prerequisites: Recording files have been synchronized to the CC-FS database by a scheduled task.
- Usage restrictions  
Developers can download only recordings under their own accounts. The developer account (**ak**) must correspond to the recording (**callid**).  
The developer account (**ak**) is contained in the authentication string. For details, see [4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication](#).

**callId**, **beginTime**, and **endTime** uniquely identify a recording.

## Interface Method

POST

## URI

https://ip:port/CCFS/resource/ccfs/getRecordFileUrlFromObs

Set *ip* to the IP address of the server where the CC-FS is installed and *port* to the HTTPS port number of the CC-FS.

If the request is routed through the NSLB, set *ip* to the IP address of the NSLB server and *port* to the HTTPS port number of the CC-FS service mapped on the NSLB.

## Request

**Table 13-50** Parameters in the request header

| Parameter     | Mandatory | Value Type | Default Value | Description                                                                                                                                            |
|---------------|-----------|------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Content-Type  | Yes       | String     | None          | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| Authorization | Yes       | String     | None          | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 13-51** Parameters in the request body

| Parameter | Mandatory | Value Type    | Default Value | Description                                                             |
|-----------|-----------|---------------|---------------|-------------------------------------------------------------------------|
| callId    | Yes       | String (1–25) | None          | Call ID.                                                                |
| beginTime | Yes       | String        | None          | Recording start time. The time is in <i>yyyy-MM-dd HH:mm:ss</i> format. |

| Parameter | Mandatory | Value Type | Default Value | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------|-----------|------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| endTime   | Yes       | String     | None          | Recording end time. The time is in <i>yyyy-MM-dd HH:mm:ss</i> format.<br>The interval between the recording start time and end time cannot exceed three days.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| version   | No        | String     | None          | Current interface version, which is 2.0.<br><b>NOTICE</b> <ul style="list-style-type: none"> <li>Time zones other than GMT+8: <b>beginTime</b> and <b>endTime</b> must be set to time in the time zone where the tenant space is located, and <b>version</b> is mandatory.</li> <li>GMT+8 <ul style="list-style-type: none"> <li>When <b>beginTime</b> and <b>endTime</b> are set to time in the GMT+0 time zone, <b>version</b> is optional.<br/>For example, if the recording start time is 2022-01-02 10:00:00 in the GMT+8 time zone, you can set <b>beginTime</b> to 2022-01-02 02:00:00.</li> <li>When <b>beginTime</b> and <b>endTime</b> are set to time in the time zone where the tenant space is located, <b>version</b> is mandatory.</li> </ul> </li> </ul> |

## Response

Table 13-52 Parameters in the response

| Parameter  | Value Type | Description                                                                                  |
|------------|------------|----------------------------------------------------------------------------------------------|
| resultCode | String     | Result code returned.<br><b>0</b> : success<br>Other values: failure                         |
| resultDesc | String     | Request result description. For details, see <a href="#">13.2.3.1 Error Code Reference</a> . |
| resultData | Object     | Response data.                                                                               |

| Parameter | Value Type | Description                                                                                                                                                                                                                                                                                                                                 |
|-----------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| url       | String     | Recording download and playback URL returned from the OBS/LSS after this interface is successfully invoked. The URL expires after 8 hours by default.<br><br>If a call ID corresponds to multiple recording files, the download and playback URLs of multiple recording files are returned. The URLs are sorted by start time and end time. |

## Error Codes

For details, see [13.2.3.1 Error Code Reference](#).

## Example

- Request header**  
 POST /CCFS/resource/ccfs/getRecordFileUrlFromObs HTTP/1.1  
 Authorization: \*\*\*\*\*  
 Accept: \*/\*  
 Host: 10.154.198.164  
 Content-Type: application/json;charset=UTF-8  
 Content-Length: 185
- Request parameters**  

```
{
 "callId": "1637742300-27",
 "beginTime": "2021-11-24 06:25:03",
 "endTime": "2021-11-25 06:25:11",
 "version": "2.0"
}
```
- Response header**  
 HTTP/1.1 200 OK  
 Content-Type: application/json;charset=UTF-8  
 Date: Mon, 02 Jul 2018 02:43:03 GMT
- Response parameters**  

```
{
 "resultData": {
 "url": "https://south-aicc-develop.obs.cn-south-1.myhuaweicloud.com:443/ccfs/record/developId/13ddcde6-2072-40d2-b96f-58cac16e18f5?AccessKeyId=*****&Expires=1637936620&Signature=*****"
 },
 "resultCode": "0",
 "resultDesc": "success"
}
```

### 13.2.1.2 Generating CDRs and Recording Indexes

#### Description

This interface is invoked to generate CDR files and recording index files based on the specified conditions. After a file is generated, the file name (**billFileName**) is sent to the callback URL specified by **callBackURL** in callback mode.



The callback of the URL specified by **callBackURL** requires authentication. For details, see [4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication](#).

## Usage Description

- Prerequisites
  - The developer environment has been established and calls can be made properly. The developer has an independent server and the server has been bound to the callback URL (**callBackURL**).
  - **accountId**, **agentId**, and **callId** are optional parameters, which can be flexibly combined to generate CDRs and recording index files. If none of the three parameters is specified, the corresponding data records of the developer in the specified period are generated.
  - You have passed the authorization and obtained the access URL.
  - You have set **aicc.ssl.trustAll** in the CC-FS configuration file **/home/ccfsapp/webapps/ccfsapp/WEB-INF/classes/config/servicecloud.base.properties** is to **false** and performed the following steps to place the certificate:
    - i. Log in to the CC-FS server as an O&M user and switch to the **root** user.

```
su - root
```
    - ii. Upload the third-party certificate that needs to be loaded by the callback URL for notifying the index file generated by the CC-FS to the same directory (**\$HOME/conf**) as the **truststore.jks** certificate file of the AICC. The directory varies according to the actual environment.
    - iii. Change the owner group of the uploaded third-party certificate.

```
chown ccfsapp:ccfsapp XXX.jks
```
    - iv. Import the third-party certificate to **truststore.jks**.

```
keytool -import -alias xxx -file XXX.jks -keystore truststore.jks
```

Enter the password of the **truststore.jks** certificate file as prompted.
    - v. Delete the **XXX.jks** certificate from the environment.
    - vi. Restart the CC-FS.  
Go to the **/home/ccfsapp/bin** directory and run the following command:

```
./shutdown.sh;./startup.sh
```
- Usage restrictions

A developer can access only the data of the account. The developer account (**appId**) must correspond to the enterprise account (tenant space ID: **accountId**).

The developer account (**appId**) is contained in the authentication string. For details, see [4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication](#).

## Interface Method

POST

## URI

https://ip:port/CCFS/resource/ccfs/queryBillData

Set *ip* to the IP address of the server where the CC-FS is installed and *port* to the HTTPS port number of the CC-FS.

If the request is routed through the NSLB, set *ip* to the IP address of the NSLB server and *port* to the HTTPS port number of the CC-FS service mapped on the NSLB.

## Request

**Table 13-53** Parameters in the request header

| No. | Name          | Value Type | Mandatory | Default Value | Description                                                                                                                                            |
|-----|---------------|------------|-----------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | No            | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | No            | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 13-54** request parameters in the request body

| No. | Name    | Value Type    | Mandatory | Default Value | Description                                                     |
|-----|---------|---------------|-----------|---------------|-----------------------------------------------------------------|
| 1   | version | String (1-32) | Yes       | 2.0           | Protocol version. Currently, the value is fixed to <b>2.0</b> . |

**Table 13-55** msgBody parameters in the request body

| No. | Name      | Value Type    | Mandatory | Default Value | Description                                                                                                                                                                                                                           |
|-----|-----------|---------------|-----------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | beginTime | String        | Yes       | No            | Start time of CDRs and recordings, which is the time in the time zone where the tenant space is located. The interval between the start time and end time cannot exceed three days. The time is in <i>yyyy-MM-dd HH:mm:ss</i> format. |
| 2   | endTime   | String        | Yes       | No            | End time of CDRs and recordings, which is the time in the time zone where the tenant space is located. The interval between the start time and end time cannot exceed three days. The time is in <i>yyyy-MM-dd HH:mm:ss</i> format.   |
| 3   | accountId | String (1–20) | No        | No            | Enterprise account (tenant space ID).                                                                                                                                                                                                 |
| 4   | agentId   | String (1–20) | No        | No            | Agent ID.                                                                                                                                                                                                                             |
| 5   | callId    | String (1–25) | No        | No            | Call ID, which can be obtained from the file returned after the interface for downloading CDR and recording indexes is invoked.                                                                                                       |
| 6   | callerNo  | String (1–25) | No        | No            | Calling number.                                                                                                                                                                                                                       |
| 7   | calleeNo  | String (1–25) | No        | No            | Called number. If <b>calleeNo2</b> does not exist, the value is the called number. If <b>calleeNo2</b> exists, the value is the calling number.                                                                                       |
| 8   | calleeNo2 | String (1–25) | No        | No            | Called number 2.                                                                                                                                                                                                                      |

| No. | Name        | Value Type    | Mandatory | Default Value | Description                                                                                                                                                                                                                                     |
|-----|-------------|---------------|-----------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9   | dataType    | String (1-11) | Yes       | None          | Type of the data record file to be generated. The options are as follows: <ul style="list-style-type: none"> <li>• <b>call</b>: CDR</li> <li>• <b>record</b>: recording index</li> <li>• <b>call_record</b>: CDR and recording index</li> </ul> |
| 10  | callbackURL | String        | Yes       | None          | Callback URL. After generating a data record file, the platform returns <b>billFileName</b> to the URL specified by this parameter.                                                                                                             |

## Response

The response obtained by invoking this interface consists of two parts:

(1) Response of the invoked party

(2) Response of the invoking part (response to third-party callback)

- Response of the invoked party  
[Table 13-56](#) describes the parameters in the response.
- Response of the invoking party (response to third-party callback): The response consists of **request** and **msgBody**.  
**request** contains **version** (2.0 by default).  
**msgBody** consists of **responseld** (part of the CDR file name), **billName** (name of the ZIP package of CDRs to be downloaded), and **accountId** (tenant space ID). [Table 13-57](#) describes **resultData** in the response.

**Table 13-56** Parameters in the response

| No. | Name       | Value Type | Description                                                                                                                  |
|-----|------------|------------|------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String     | Result code returned. <ul style="list-style-type: none"> <li>• <b>0</b>: success</li> <li>• Other values: failure</li> </ul> |
| 2   | resultDesc | String     | Request result description. For details, see <a href="#">13.2.3.1 Error Code Reference</a> .                                 |
| 3   | resultData | Object     | Response data. For details, see <a href="#">Table 13-57</a> .                                                                |

| No. | Name     | Value Type | Description                                                                                                                                                     |
|-----|----------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | response | Object     | Request result object. For details, see <a href="#">Table 13-58</a> .<br>This field is reserved for compatibility with earlier versions and is not recommended. |

**Table 13-57** Description of responseData in the response message

| No. | Name       | Value Type | Description                                                                                     |
|-----|------------|------------|-------------------------------------------------------------------------------------------------|
| 3.1 | responseld | String     | Unique ID generated after the interface is successfully invoked. It is a part of the file name. |

**Table 13-58** Parameters in a response message

| No. | Name       | Value Type    | Description                                                                            |
|-----|------------|---------------|----------------------------------------------------------------------------------------|
| 4.1 | version    | String (1-32) | Protocol version, for example, 2.0.                                                    |
| 4.2 | resultCode | String (1-32) | Result code returned. For details, see <a href="#">13.2.3.1 Error Code Reference</a> . |
| 4.3 | resultMsg  | String        | Request result description.                                                            |

**Table 13-59** msgBody parameters in the callback response body

| No. | Name         | Value Type | Description                                                                                                                                                                                                                                                                                                                                                 |
|-----|--------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | responseld   | String     | Unique ID generated after the interface is successfully invoked. It is a part of the file name.                                                                                                                                                                                                                                                             |
| 2   | billFileName | String     | Name of a CDR or recording index file. The value is in <i>yyyyMMdd_{responseld}.zip</i> format.<br>For example, if the date when this interface is invoked is 2018-07-02 and the obtained value of <b>responseld</b> is <b>9239cb50-a838-4bb0-ab50-3441bf089446</b> , the value of this parameter is <b>20180702_9239cb50a8384bb0ab503441bf089446.zip</b> . |

| No. | Name      | Value Type | Description                                                                                                                                                                                                                               |
|-----|-----------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3   | accountId | String     | Enterprise account (tenant space ID). The enterprise account carried in the request parameter is used to associate the file name with an enterprise. If <b>accountId</b> is not set in the request parameter, this value is not returned. |

## Example

- Request header**  
 POST /CCFS/resource/ccfs/queryBillData HTTP/1.1  
 Authorization: auth-v2/ak/2018-07-02T02:42:49Z/content-length;content-type;host/7a8fb9d620ee488\*\*\*\*\*85c5df0cce3c6a253  
 Accept: /\*  
 Content-Type: application/json;charset=UTF-8  
 Content-Length: 297
- Request parameters**  

```
{
 "request": {
 "version": "2.0"
 },
 "msgBody": {
 "beginTime": "2018-06-29 10:42:49",
 "endTime": "2018-07-02 10:42:49",
 "accountId": "",
 "agentId": "",
 "callId": "",
 "dataType": "call_record",
 "callBackURL": "https://10.57.118.171:8000"
 }
}
```
- Response header**  
 HTTP/1.1 200 OK  
 Content-Type: application/json;charset=UTF-8  
 Date: Mon, 02 Jul 2018 02:43:03 GMT
- Response**  

```
{
 "resultData": {
 "responseId": "9239cb50a8384bb0ab503441bf089446"
 },
 "resultCode": "0",
 "resultDesc": "success"
}
```
- Example of the message returned by the call center to the callback URL**  
**Message header:**  
 POST / HTTP/1.1  
 Accept: /\*  
 Content-Type: application/json;charset=UTF-8  
 Authorization: auth-v2/ak/2018-07-02T02:43:03Z/content-length;content-type;host/c5bd683\*\*\*\*\*9def5747bd572c28  
 Host: 10.57.118.171  
 Content-Length: 208  
**Message parameters:**  

```
{
 "request": {
 "version": "2.0"
 },
}
```

```
"msgBody": {
 "responseId": "9239cb50a8384bb0ab503441bf089446",
 "billFileName": "20180702_9239cb50a8384bb0ab503441bf089446.zip",
 "accountId": ""
}
```

### 13.2.1.3 Downloading CDRs and Recording Indexes

#### Description

This interface is invoked to download the .zip file (*yyyymmdd\_responseId*) of the CDR or recording package. You can view the CDR description (*yyyymmddHHmmssSSS+ Three-digit random number\_call.csv*) and the detailed indexes (*yyyymmddHHmmssSSS+ Three-digit random number\_record.csv*) generated for each recording.

#### Usage Description

- Prerequisites
  - CDRs and recording index files have been generated at the backend by invoking the interface for generating CDRs and recording indexes.
  - You have passed the authorization and obtained the access URL.
- Usage restrictions

Developers can only download files under their own accounts. The developer account (**appId**) must correspond to the data record file name (**billFileName**).

The developer account (**appId**) is contained in the authentication string. For details, see [4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication](#).

#### Interface Method

POST

#### URI

`https://ip:port/CCFS/resource/ccfs/downloadBillFile`

Set *ip* to the IP address of the server where the CC-FS is installed and *port* to the HTTPS port number of the CC-FS.

If the request is routed through the NSLB, set *ip* to the IP address of the NSLB server and *port* to the HTTPS port number of the CC-FS service mapped on the NSLB.

## Request

**Table 13-60** Parameters in the request header

| No. | Name          | Value Type | Mandatory | Default Value | Description                                                                                                                                            |
|-----|---------------|------------|-----------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | None          | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | None          | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 13-61** request parameters in the request body

| No. | Name    | Value Type    | Mandatory | Default Value | Description                                                     |
|-----|---------|---------------|-----------|---------------|-----------------------------------------------------------------|
| 1   | version | String (1-32) | Yes       | 2.0           | Protocol version. Currently, the value is fixed to <b>2.0</b> . |



**Table 13-62** msgBody parameters in the request body

| No. | Name         | Value Type    | Mandatory | Default Value | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----|--------------|---------------|-----------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | billFileName | String (1-49) | Yes       | No            | Name of a CDR and recording index file, which has been obtained by invoking the interface for generating CDRs and recording indexes.<br>The value is in <i>yyyyMMdd_{responseId}.zip</i> format.<br>For example, if the interface for generating CDRs and recording indexes has been invoked on <b>2018-07-02</b> , and if the obtained recording index <b>responseId</b> is <b>9239cb50a8384bb0ab503441bf08944</b> , the value of this parameter is <b>20180702_9239cb50a8384bb0ab503441bf089446.zip</b> . |

## Response

If the interface is successfully invoked, the system obtains the binary data of the file from the HTTP response message to generate a CDR file. The file name extension is .zip. For details about the parameters in the file, see [13.2.2.1 Definitions of CDR and Recording Index Files](#). In the response message, the value of **content-type** is **Application/Octet-stream; charset=UTF-8**.

If the interface fails to be invoked, an error code is returned. For details about the error code data structure, see [Table 13-63](#). **resultData** is a reserved field and is left empty by default.

**Table 13-63** Parameters in the response

| No. | Name       | Value Type | Description                                                                                                                                                     |
|-----|------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String     | Result code returned. For details, see <a href="#">13.2.3.1 Error Code Reference</a> .                                                                          |
| 2   | resultDesc | String     | Request result description.                                                                                                                                     |
| 3   | resultData | Object     | Response data.                                                                                                                                                  |
| 4   | response   | Object     | Request result object. For details, see <a href="#">Table 13-64</a> .<br>This field is reserved for compatibility with earlier versions and is not recommended. |

**Table 13-64** Parameters in a response message

| No. | Name       | Value Type    | Description                         |
|-----|------------|---------------|-------------------------------------|
| 4.1 | version    | String (1-32) | Protocol version, for example, 2.0. |
| 4.2 | resultCode | String (1-32) | Result code returned.               |
| 4.3 | resultMsg  | String        | Request result description.         |

## Example

- Request header  

```
POST /CCFS/resource/ccfs/downloadBillFile HTTP/1.1
Authorization: auth-v2/ak/2018-07-02T02:43:08Z/content-length;content-type;host
/ae066c2f5d*****13a0afc161cb7e66f5d
Accept: */*
Content-Type: application/json;charset=UTF-8
Content-Length: 193
```
- Request parameters  

```
{
 "request": {
 "version": "2.0"
 },
 "msgBody": {
 "billFileName": "20180702_9239cb50a8384bb0ab503441bf089446.zip"
 }
}
```

### 13.2.1.4 Downloading a Recording File

#### Description

This interface is invoked to download a single recording file.

#### Usage Description

- Prerequisites
  - Recording index files have been obtained by invoking the interface for downloading CDRs and recording indexes.
  - You have passed the authorization and obtained the access URL.
- Usage restrictions
 

Developers can only download files under their own accounts. The developer account (**appId**) must correspond to the recording file name (**fileName**).

The developer account is contained in the authentication string. For details, see [4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication](#).

#### Interface Method

POST

## URI

https://ip:port/CCFS/resource/ccfs/downloadRecordFile

Set *ip* to the IP address of the server where the CC-FS is installed and *port* to the HTTPS port number of the CC-FS.

If the request is routed through the NSLB, set *ip* to the IP address of the NSLB server and *port* to the HTTPS port number of the CC-FS service mapped on the NSLB.

## Request

**Table 13-65** Parameters in the request header

| No. | Name          | Value Type | Mandatory | Default Value | Description                                                                                                                                            |
|-----|---------------|------------|-----------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | No            | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | No            | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 13-66** request parameters in the request body

| No. | Name    | Value Type    | Mandatory | Default Value | Description                                                     |
|-----|---------|---------------|-----------|---------------|-----------------------------------------------------------------|
| 1   | version | String (1-32) | Yes       | 2.0           | Protocol version. Currently, the value is fixed to <b>2.0</b> . |

**Table 13-67** msgBody parameters in the request body

| No. | Name     | Value Type     | Mandatory | Default Value | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----|----------|----------------|-----------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | fileName | String (1-225) | Yes       | None          | <p>Relative path of the recording file, which is obtained from the <b>file_name</b> field in the recording index file returned when the interface for downloading CDRs and recording indexes is invoked.</p> <p>The value is in the <i>/{nodeId}/{ccId}/record/{vdnId}/{yyyymmdd}/{agentId}/{original file name}.wav</i> format.</p> <p>Note: <i>{nodeId}</i> indicates the node ID, <i>{ccId}</i> indicates the call center ID, <i>{vdnId}</i> indicates the VDN ID, <i>{yyyymmdd}</i> indicates the date when the recording file is generated, <i>{agentId}</i> indicates the ID of the agent who generates the recording file, and <i>{original file name}</i> indicates the name of the recording file.</p> <p>Example: <b>/10/1/record/appld/100/15362/autoTest.wav</b></p> |

## Response

If the interface is successfully invoked, the system obtains the binary data of the file from the HTTP response message to generate a recording file. The file name extension is .wav. In the response message, the value of **content-type** is **Application/Octet-stream;charset=UTF-8**.

If the interface fails to be invoked, an error code is returned. For details about the error code data structure, see [Table 13-68](#). **resultData** is a reserved field and is left empty by default.

**Table 13-68** Parameters in the response

| No. | Name       | Value Type | Description                                                                            |
|-----|------------|------------|----------------------------------------------------------------------------------------|
| 1   | resultCode | String     | Result code returned. For details, see <a href="#">13.2.3.1 Error Code Reference</a> . |
| 2   | resultDesc | String     | Request result description.                                                            |
| 3   | resultData | Object     | Response data.                                                                         |

| No. | Name     | Value Type | Description                                                                                                                                                     |
|-----|----------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | response | Object     | Request result object. For details, see <a href="#">Table 13-69</a> .<br>This field is reserved for compatibility with earlier versions and is not recommended. |

**Table 13-69** Parameters in a response message

| No. | Name       | Value Type       | Description                                                                            |
|-----|------------|------------------|----------------------------------------------------------------------------------------|
| 4.1 | version    | String<br>(1-32) | Protocol version, for example, 2.0.                                                    |
| 4.2 | resultCode | String<br>(1-32) | Result code returned. For details, see <a href="#">13.2.3.1 Error Code Reference</a> . |
| 4.3 | resultMsg  | String           | Request result description.                                                            |

## Example

- Request header  

```
POST /CCFS/resource/ccfs/downloadRecordFile HTTP/1.1
Authorization: auth-v2/ak/2018-07-02T02:45:50Z/content-length;content-type;host/
eb453f68e85*****80196c509c4913
Accept: */*
Content-Type: application/json;charset=UTF-8
Content-Length: 193
```
- Request parameters  

```
{
 "request": {
 "version": "2.0"
 },
 "msgBody": {
 "fileName": "/10/1/record/appld/100/autoTest.wav"
 }
}
```

### 13.2.1.5 Downloading a Recording File (Extended)

#### Description

This interface is invoked to query and download a recording file by call ID or file name.

Intended audience: This interface is invoked by a third-party server and can be used in scenarios such as dumping.

#### Usage Description

- Prerequisites

- Recording index files have been obtained by invoking the interface for downloading CDRs and recording indexes.
- You have passed the authorization and obtained the access URL.
- Usage restrictions
 

Developers can only download files under their own accounts. The developer account (**appId**) must correspond to the original recording file name (**fileName**).

The developer account (**appId**) is contained in the authentication string. For details, see [4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication](#).

## Interface Method

POST

## URI

`https://ip:port/CCFS/resource/ccfs/downloadRecord`

Set *ip* to the IP address of the server where the CC-FS is installed and *port* to the HTTPS port number of the CC-FS.

If the request is routed through the NSLB, set *ip* to the IP address of the NSLB server and *port* to the HTTPS port number of the CC-FS service mapped on the NSLB.

## Request

**Table 13-70** Parameters in the request header

| No. | Name          | Value Type | Mandatory | Default Value | Description                                                                                                                                            |
|-----|---------------|------------|-----------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | None          | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | None          | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 13-71** request parameters in the request body

| No. | Name    | Value Type    | Mandatory | Default Value | Description                                                     |
|-----|---------|---------------|-----------|---------------|-----------------------------------------------------------------|
| 1   | version | String (1–32) | Yes       | 2.0           | Protocol version. Currently, the value is fixed to <b>2.0</b> . |

**Table 13-72** msgBody parameters in the request body

| No. | Name     | Value Type     | Mandatory | Default Value | Description                                                                                                                                                                                                                                                                                                                        |
|-----|----------|----------------|-----------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | fileName | String (1–225) | No        | No            | Recording file name, which is obtained from the <b>original_file_name</b> field in the recording index file returned when the interface for downloading CDRs and recording indexes is invoked.<br><br>For example, the value is <b>X:/4/0/20180416/512/1629533.V3</b> . Note: Either <b>fileName</b> or <b>callId</b> must be set. |
| 2   | callId   | String (1–25)  | No        | No            | Call ID. Note: At least one of <b>fileName</b> and <b>callId</b> must be set. If <b>callId</b> corresponds to multiple recording files, the .zip package will be downloaded.                                                                                                                                                       |
| 3   | cclid    | String (1–64)  | No        | No            | ID of a call center. The default value is <b>1</b> .                                                                                                                                                                                                                                                                               |

## Response

If the interface is successfully invoked, the system obtains the binary data of the file from the HTTP response message to generate a recording file. The file name extension is .wav. If multiple recording files are downloaded by **callId**, the file name extension is .zip. In the response message, the value of **content-type** is **Application/Octet-stream;charset=UTF-8**.

If the interface fails to be invoked, an error code is returned. For details about the error code data structure, see [Table 13-73](#). **resultData** is a reserved field and is left empty by default.

**Table 13-73** Parameters in the response

| No. | Name       | Value Type | Description                                                                                                                                                     |
|-----|------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String     | Result code returned. For details, see <a href="#">13.2.3.1 Error Code Reference</a> .                                                                          |
| 2   | resultDesc | String     | Request result description.                                                                                                                                     |
| 3   | resultData | Object     | Response data.                                                                                                                                                  |
| 4   | response   | Object     | Request result object. For details, see <a href="#">Table 13-74</a> .<br>This field is reserved for compatibility with earlier versions and is not recommended. |

**Table 13-74** Parameters in a response message

| No. | Name       | Value Type    | Description                                                                            |
|-----|------------|---------------|----------------------------------------------------------------------------------------|
| 4.1 | version    | String (1-32) | Protocol version, for example, 2.0.                                                    |
| 4.2 | resultCode | String (1-32) | Result code returned. For details, see <a href="#">13.2.3.1 Error Code Reference</a> . |
| 4.3 | resultMsg  | String        | Request result description.                                                            |

## Example

- Request header  
 POST /CCFS/resource/ccfs/downloadRecord HTTP/1.1  
 Authorization: auth-v2/ak/2018-07-02T02:44:42Z/content-length;content-type;host/f18f6dd19\*\*\*\*\*6b8ff99f6c5884  
 Accept: \*/\*  
 Host: 10.154.198.164  
 Content-Type: application/json;charset=UTF-8  
 Content-Length: 185
- Request parameters
 

```
{
 "request": {
 "version": "2.0"
 },
 "msgBody": {
 "fileName": "Y:/autoTest.V3",
 "callId": "autoTest-1",
 "ccId": "1"
 }
}
```



### 13.2.1.6 Generating Indexes of Agent Operation Details

#### Description

This interface is invoked to generate an index file of agent operation details based on the conditions. After a file is generated, the file name (**agentOprInfoFileName**) is sent to the callback URL carried by **callBackURL** in callback mode.

The callback of the URL specified by **callBackURL** requires authentication. For details, see [4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication](#).

#### Usage Description

- Prerequisites
  - The developer environment has been established and agents can sign in and perform operations properly. The developer has an independent server and the server has been bound to the callback URL (**callBackURL**).
  - The **accountId** and **agentId** can be freely combined to generate an index file for the agent operation details. If neither of the parameters is specified, the corresponding data records of the **appId** in the specified period are generated.
  - You have passed the authorization and obtained the access URL.
  - You have set **aicc.ssl.trustAll** in the CC-FS configuration file **/home/ccfsapp/webapps/ccfsapp/WEB-INF/classes/config/servicecloud.base.properties** is **false** and performed the following steps to place the certificate:
    - i. Log in to the CC-FS server as an O&M user and switch to the **root** user.

```
su - root
```
    - ii. Upload the third-party certificate that needs to be loaded by the callback URL for notifying the index file generated by the CC-FS to the same directory (**\$HOME/conf**) as the **truststore.jks** certificate file of the AICC. The directory varies according to the actual environment.
    - iii. Change the owner group of the uploaded third-party certificate.

```
chown ccfsapp:ccfsapp XXX.jks
```
    - iv. Import the third-party certificate to **truststore.jks**.

```
keytool -import -alias xxx -file XXX.jks -keystore truststore.jks
```

Enter the password of the **truststore.jks** certificate file as prompted.
    - v. Delete the **XXX.jks** certificate from the environment.
    - vi. Restart the CC-FS.  
Go to the **/home/ccfsapp/bin** directory and run the following command:

```
./shutdown.sh;./startup.sh
```
- Usage restrictions

A developer can access only the data of the account. The developer account (**appId**) must correspond to the enterprise account (**accountId**).

The developer account is contained in the authentication string. For details, see [4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication](#).

## Interface Method

POST

## URI

https://ip:port/CCFS/resource/ccfs/queryAgentOprInfoData

Set *ip* to the IP address of the server where the CC-FS is installed and *port* to the HTTPS port number of the CC-FS.

If the request is routed through the NSLB, set *ip* to the IP address of the NSLB server and *port* to the HTTPS port number of the CC-FS service mapped on the NSLB.

## Request

**Table 13-75** Parameters in the request header

| No. | Name          | Value Type | Mandatory | Default Value | Description                                                                                                                                            |
|-----|---------------|------------|-----------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | None          | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | None          | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 13-76** request parameters in the request body

| No. | Name    | Value Type    | Mandatory | Default Value | Description                                                     |
|-----|---------|---------------|-----------|---------------|-----------------------------------------------------------------|
| 1   | version | String (1-32) | Yes       | 2.0           | Protocol version. Currently, the value is fixed to <b>2.0</b> . |

**Table 13-77** msgBody parameters in the request body

| No. | Name        | Value Type    | Mandatory | Default Value | Description                                                                                                                                                                                                                        |
|-----|-------------|---------------|-----------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | beginTime   | String        | Yes       | No            | Start time of agent operations, which is the time in the time zone where the tenant space is located. The interval between the start time and end time cannot exceed three days. The time is in <i>yyyy-MM-dd HH:mm:ss</i> format. |
| 2   | endTime     | String        | Yes       | No            | End time of agent operations, which is the time in the time zone where the tenant space is located. The interval between the start time and end time cannot exceed three days. The time is in <i>yyyy-MM-dd HH:mm:ss</i> format.   |
| 3   | accountId   | String (1–20) | No        | No            | Enterprise account (tenant space ID).                                                                                                                                                                                              |
| 4   | agentId     | String (1–20) | No        | No            | Agent ID.                                                                                                                                                                                                                          |
| 5   | callbackURL | String        | Yes       | No            | Callback URL. After generating a data record file, the platform returns <b>fileName</b> to the URL specified by this parameter.                                                                                                    |

## Response

The response obtained by invoking this interface consists of two parts:

- (1) Response of the invoked party
- (2) Response of the invoking part (response to third-party callback)

- Response of the invoked party  
**Table 13-78** describes the parameters in the response.
- Response of the invoking party (response to third-party callback)  
The response consists **request** and **msgBody**. **Table 13-81** describes **msgBody** parameters.  
**request** contains **version** (2.0 by default).  
**msgBody** consists of **responseId** (part of the agent operation details file name), **fileName** (name of the ZIP package of agent operation details to be downloaded), and **accountId** (tenant space ID).

**Table 13-78** Parameters in the response

| No. | Name       | Value Type | Description                                                                                                                                                                   |
|-----|------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String     | Result code returned. <ul style="list-style-type: none"> <li>• 0: success</li> <li>• Other values: For details, see <a href="#">13.2.3.1 Error Code Reference</a>.</li> </ul> |
| 2   | resultDesc | String     | Request result description.                                                                                                                                                   |
| 3   | resultData | Object     | For the description about parameters in <b>resultData</b> , see <a href="#">Table 13-79</a> .                                                                                 |
| 4   | response   | Object     | Request result object. For details, see <a href="#">Table 13-80</a> .<br>This field is reserved for compatibility with earlier versions and is not recommended.               |

**Table 13-79** Description of resultData in the response message

| No. | Name       | Value Type | Description                                                                                     |
|-----|------------|------------|-------------------------------------------------------------------------------------------------|
| 3.1 | responseld | String     | Unique ID generated after the interface is successfully invoked. It is a part of the file name. |

**Table 13-80** Parameters in a response message

| No. | Name       | Value Type    | Description                                                                            |
|-----|------------|---------------|----------------------------------------------------------------------------------------|
| 4.1 | version    | String (1-32) | Protocol version, for example, 2.0.                                                    |
| 4.2 | resultCode | String (1-32) | Result code returned. For details, see <a href="#">13.2.3.1 Error Code Reference</a> . |
| 4.3 | resultMsg  | String        | Request result description.                                                            |

**Table 13-81** msgBody parameters in the callback response body

| No. | Name       | Value Type | Description                                                                                     |
|-----|------------|------------|-------------------------------------------------------------------------------------------------|
| 1   | responseld | String     | Unique ID generated after the interface is successfully invoked. It is a part of the file name. |

| No. | Name      | Value Type | Description                                                                                                                                                                                                                                                                                                                                             |
|-----|-----------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | fileName  | String     | Name of a CDR or recording index file. The value is in <i>yyyyMMdd_{responseId}.zip</i> format.<br>For example, if the date when this interface is invoked is 2018-07-02 and the obtained value of <b>responseId</b> is <b>9239cb50a8384bb0ab503441bf089446</b> , the value of this parameter is <b>20180702_9239cb50a8384bb0ab503441bf089446.zip</b> . |
| 3   | accountId | String     | Enterprise account (tenant space ID). The enterprise account carried in the request parameter is used to associate the file name with an enterprise. If <b>accountId</b> is not set in the request parameter, this value is not returned.                                                                                                               |

## Example

- Request header**  
 POST /CCFS/resource/ccfs/queryAgentOprInfoData HTTP/1.1  
 Authorization: auth-v2/ak/2018-07-02T02:42:49Z/content-length;content-type;host/7a8fb9d620e\*\*\*\*\*5c5df0cce3c6a253  
 Accept: \*/\*  
 Host: 10.154.198.164  
 Content-Type: application/json;charset=UTF-8  
 Content-Length: 297
- Request parameters**  

```
{
 "request": {
 "version": "2.0"
 },
 "msgBody": {
 "beginTime": "2018-06-29 10:42:49",
 "endTime": "2018-07-02 10:42:49",
 "accountId": "",
 "agentId": "",
 "callBackURL": "https://10.57.118.171:8000"
 }
}
```
- Response header**  
 HTTP/1.1 200 OK  
 Content-Type: application/json;charset=UTF-8  
 Date: Mon, 02 Jul 2018 02:43:03 GMT
- Response parameters**  

```
{
 "resultData": {
 "responseId": "9239cb50a8384bb0ab503441bf089446"
 },
 "resultCode": "0",
 "resultDesc": "success"
}
```
- Example of the message returned by the call center to the callback URL**  
**Message header:**  
 POST / HTTP/1.1  
 Accept: \*/\*

```
Content-Type: application/json;charset=UTF-8
Authorization: auth-v2/ak/2018-07-02T02:43:03Z/content-length;content-type;host
/c5bd683*****ef5747bd572c28
Host: 10.57.118.171
Content-Length: 208
```

Message parameters:

```
{
 "request": {
 "version": "2.0"
 },
 "msgBody": {
 "responselId": "9239cb50a8384bb0ab503441bf089446",
 "agentOprInfoFileName": "20180702_9239cb50a8384bb0ab503441bf089446.zip"
 }
}
```

### 13.2.1.7 Downloading Indexes of Agent Operation Details

#### Description

This interface is invoked to download the .zip package of agent operation detail record indexes (*yyyymmdd\_responselId*). You can view the agent operation details (*yyyymmddhhmmsSSS+ Three-digit random number\_agentOprInfo.csv*) corresponding to each .zip package.

#### Usage Description

- Prerequisites
  - Files have been generated at the backend by invoking the interface for generating indexes of agent operation details.
  - You have passed the authorization and obtained the access URL.
- Usage restrictions

Developers can only download files under their own accounts. The developer account (**appId**) must correspond to the data record file name (**agentOprInfoFileName**).

The developer account (**appId**) is contained in the authentication string. For details, see [4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication](#).

#### Interface Method

POST

#### URI

<https://ip:port/CCFS/resource/ccfs/downloadAgentOprInfoFile>

Set *ip* to the IP address of the server where the CC-FS is installed and *port* to the HTTPS port number of the CC-FS.

If the request is routed through the NSLB, set *ip* to the IP address of the NSLB server and *port* to the HTTPS port number of the CC-FS service mapped on the NSLB.

## Request

**Table 13-82** Parameters in the request header

| No. | Name          | Value Type | Mandatory | Default Value | Description                                                                                                                                            |
|-----|---------------|------------|-----------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | None          | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | None          | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 13-83** request parameters in the request body

| No. | Name    | Mandatory | Value Type    | Default Value | Description                                                     |
|-----|---------|-----------|---------------|---------------|-----------------------------------------------------------------|
| 1   | version | Yes       | String (1-32) | 2.0           | Protocol version. Currently, the value is fixed to <b>2.0</b> . |

**Table 13-84** msgBody parameters in the request body

| No. | Name                | Mandatory | Value Type    | Default Value | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----|---------------------|-----------|---------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | agentOpInfoFileName | Yes       | String (1-49) | No            | Index file name of agent operation details. The name is obtained by invoking the interface for generating indexes of agent operation details.<br><br>The value is in <i>yyyyMMdd_{responseId}.zip</i> format.<br><br>For example, if the interface for generating indexes of agent operation details has been invoked on <b>2018-07-02</b> , and if the obtained recording index <b>responseId</b> is <b>9239cb50a8384bb0ab503441bf08944</b> , the value of this parameter is <b>20180702_9239cb50a8384bb0ab503441bf089446.zip</b> . |

## Response

If the interface is successfully invoked, the system obtains the binary data of the file from the HTTP response message to generate a CDR file. The file name extension is .zip. For details about the parameters in the file, see [13.2.2.1 Definitions of CDR and Recording Index Files](#). In the response message, the value of **content-type** is **Application/Octet-stream;charset=UTF-8**.

If the interface fails to be invoked, an error code is returned. For details about the error code data structure, see [Table 13-85](#). **resultData** is a reserved field and is left empty by default.

**Table 13-85** Parameters in the response

| No. | Name       | Value Type | Description                                                                            |
|-----|------------|------------|----------------------------------------------------------------------------------------|
| 1   | resultCode | String     | Result code returned. For details, see <a href="#">13.2.3.1 Error Code Reference</a> . |
| 2   | resultDesc | String     | Request result description.                                                            |
| 3   | resultData | Object     | Response data.                                                                         |



| No. | Name     | Value Type | Description                                                                                                                                                     |
|-----|----------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4   | response | Object     | Request result object. For details, see <a href="#">Table 13-86</a> .<br>This field is reserved for compatibility with earlier versions and is not recommended. |

**Table 13-86** Parameters in a response message

| No. | Name       | Value Type       | Description                                                                            |
|-----|------------|------------------|----------------------------------------------------------------------------------------|
| 4.1 | version    | String<br>(1-32) | Protocol version, for example, 2.0.                                                    |
| 4.2 | resultCode | String<br>(1-32) | Result code returned. For details, see <a href="#">13.2.3.1 Error Code Reference</a> . |
| 4.3 | resultMsg  | String           | Request result description.                                                            |

## Example

- Request header  

```
POST /CCFS/resource/ccfs/downloadAgentOprInfoFile HTTP/1.1
Authorization: auth-v2/ak/2018-07-02T02:43:08Z/content-length;content-type;host/ae066c2f5de*****afc161cb7e66f5d
Accept: */*
Host: 10.154.198.164
Content-Type: application/json;charset=UTF-8
Content-Length: 193
```
- Request parameters  

```
{
 "request": {
 "version": "2.0"
 },
 "msgBody": {
 "agentOprInfoFileName": "20180702_9239cb50a8384bb0ab503441bf089446.zip"
 }
}
```

### 13.2.1.8 Requesting to Play Back a Recording File

#### Description

After this API is invoked, the backend verifies the recording file name. If the verification is successful, a token is returned for [13.2.1.9 Playing Back a Recording File](#).

#### Usage Description

- Prerequisites

- Recording index files have been obtained by invoking the interface for downloading CDRs and recording indexes.
- You have passed the authorization and obtained the access URL.
- Usage restrictions
 

Developers can only play recording files under their own accounts. The developer account (**appId**) must correspond to the recording file name (**fileName**).

The developer account (**appId**) is contained in the authentication string. For details, see [4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication](#).

## Interface Method

POST

## URI

`https://ip:port/CCFS/resource/ccfs/requestPlayVoice`

Set *ip* to the IP address of the server where the CC-FS is installed and *port* to the HTTPS port number of the CC-FS.

If the request is routed through the NSLB, set *ip* to the IP address of the NSLB server and *port* to the HTTPS port number of the CC-FS service mapped on the NSLB.

## Request

**Table 13-87** Parameters in the request header

| No. | Name          | Value Type | Mandatory | Default Value | Description                                                                                                                                            |
|-----|---------------|------------|-----------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Content-Type  | String     | Yes       | No            | The value is fixed to <b>application/json; charset=UTF-8</b> .                                                                                         |
| 2   | Authorization | String     | Yes       | No            | For details about the generation mode, see <a href="#">4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication</a> . |

**Table 13-88** request parameters in the request body

| No. | Name    | Value Type    | Mandatory | Default Value | Description                                                     |
|-----|---------|---------------|-----------|---------------|-----------------------------------------------------------------|
| 1   | version | String (1-32) | Yes       | 2.0           | Protocol version. Currently, the value is fixed to <b>2.0</b> . |

**Table 13-89** msgBody parameters in the request body

| No. | Name     | Value Type | Mandatory | Default Value | Description                                                                                                                                                                                                                                                                                      |
|-----|----------|------------|-----------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | fileName | String     | Yes       | None          | Relative path of the recording file, which is obtained from the <b>original_file_name</b> field in the recording index file returned when the interface for downloading CDRs and recording indexes is invoked.<br>Note: The backslash (\) in <b>fileName</b> needs to be changed to a slash (/). |

## Response

If the interface is invoked successfully, a response is returned. In the response, the value of **resultCode** is **0**, and the value of **resultMsg** is **success**.

For details about the response data structure, see [Table 13-90](#). The **resultData** parameter carries the token.

If the interface fails to be invoked, an error code is returned. The default value of **resultData** is **null**.

**Table 13-90** Parameters in the response

| No. | Name       | Value Type | Description                                                                                                                                                                      |
|-----|------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | resultCode | String     | Result code returned. <ul style="list-style-type: none"> <li><b>0</b>: success</li> <li>Other values: For details, see <a href="#">13.2.3.1 Error Code Reference</a>.</li> </ul> |

| No. | Name       | Value Type | Description                                                                                                                                                     |
|-----|------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2   | resultDesc | String     | Request result description.                                                                                                                                     |
| 3   | resultData | Object     | Response data. For details, see <a href="#">Table 13-91</a> .                                                                                                   |
| 4   | response   | Object     | Request result object. For details, see <a href="#">Table 13-92</a> .<br>This field is reserved for compatibility with earlier versions and is not recommended. |

**Table 13-91** Description of resultData in the response message

| No. | Name  | Value Type | Description                                                                                                                                                                        |
|-----|-------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.1 | token | String     | After this interface is successfully invoked, the token is used for authentication for <a href="#">13.2.1.9 Playing Back a Recording File</a> . The token is valid for 30 minutes. |

**Table 13-92** Parameters in a response message

| No. | Name       | Value Type       | Description                                                                            |
|-----|------------|------------------|----------------------------------------------------------------------------------------|
| 4.1 | version    | String<br>(1-32) | Protocol version, for example, 2.0.                                                    |
| 4.2 | resultCode | String<br>(1-32) | Result code returned. For details, see <a href="#">13.2.3.1 Error Code Reference</a> . |
| 4.3 | resultMsg  | String           | Request result description.                                                            |

## Example

- Request header  

```
POST /CCFS/resource/ccfs/requestPlayVoice HTTP/1.1
Authorization: auth-v2/taikang/2018-07-02T02:42:49Z/content-length;content-type;host /
7a8fb9d6*****5df0cce3c6a253
Accept: */*
Host: 10.154.198.164:18084
Content-Type: application/json;charset=UTF-8
```
- Request parameters  

```
{
 "request": {
 "version": "2.0"
 },
 "msgBody": {
 "fileName": "Y:/1/0/20180309/108/2022318.V3"
 }
}
```

- ```
}  
}
```
- Response header
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Date: Mon, 02 Jul 2018 02:43:03 GMT
 - Response parameters
{
 "resultData": {
 "token": "DC45F*****6D46F90"
 },
 "resultCode": "0",
 "resultDesc": "success"
}

13.2.1.9 Playing Back a Recording File

Description

This interface is invoked by the Windows Media Player to play recording files in URL mode.

Usage Description

- Prerequisites
 - You have obtained the token by invoking the interface described in [13.2.1.8 Requesting to Play Back a Recording File](#).
 - The access URL has been obtained.
- Usage restrictions
Developers can only download files under their own accounts. The developer account (**appId**) must correspond to the recording file name (**fileName**).

Interface Method

GET

URI

https://ip:port/CCFS/resource/ccfs/playVoice

Set *ip* to the IP address of the server where the CC-FS is installed and *port* to the HTTPS port number of the CC-FS.

If the request is routed through the NSLB, set *ip* to the IP address of the NSLB server and *port* to the HTTPS port number of the CC-FS service mapped on the NSLB.

Request

Table 13-93 Parameters in the request

No.	Name	Value Type	Mandatory	Default Value	Description
1	t	String	Yes	None	To prevent data cache, you are advised to use the current timestamp.
2	version	String	Yes	2.0	Protocol version. The default value is 2.0 .
3	st	String	Yes	None	Token returned when the interface described in 13.2.1.8 Requesting to Play Back a Recording File is invoked.

Response

If this interface is successfully invoked, the binary data stream of the corresponding recording file is returned, which can be directly played using the Windows media player.

If the interface fails to be invoked, an error code is returned. In the response, the value of **content-type** is **application/octet-stream;charset=UTF-8**. For details about the error code response data structure, see [Table 13-94](#). **resultData** is a reserved field and is defaulted to **null**.

Table 13-94 Parameters in a response message

No.	Name	Value Type	Description
1	resultCode	String	Result code returned. For details, see 13.2.3.1 Error Code Reference .
2	resultDesc	String	Request result description.
3	resultData	Object	Response data.
4	response	Object	Request result object. For details, see Table 13-95 . This field is reserved for compatibility with earlier versions and is not recommended.

Table 13-95 Parameters in a response message

No.	Name	Value Type	Description
4.1	version	String (1-32)	Protocol version, for example, 2.0.
4.2	resultCode	String (1-32)	Result code returned. For details, see 13.2.3.1 Error Code Reference .
4.3	resultMsg	String	Request result description.

Example

- Request
GET https://ip:port/CCFS/resource/ccfs/playVoice?t=1596677685425&version=2.0&st=7D41CF5DE98948979AAE063114C8AF3
- Response header
HTTP/1.1 200 OK
Content-Type: application/octet-stream;charset=UTF-8
Date: Mon, 02 Jul 2018 02:43:03 GMT
- Response parameters

```
{
  "resultData": null,
  "resultCode": "010106",
  "resultDesc": "Parameter token is empty."
}
```

13.2.1.10 Downloading an Intelligent IVR Recording File

Description

This interface is invoked to download an intelligent IVR recording file.

Usage Description

- Prerequisites
 - You have passed the authorization and obtained the access URL.
- Usage restrictions

Developers can download only files under their own accounts. The VDN ID corresponding to the developer account (**appId**) must contain the VDN ID in the intelligent IVR recording file name (**fileName**).

Interface Method

POST

URI

https://ip:port/CCFS/resource/ccfs/downloadOiapRecord?locationId={locationId}

Set *ip* to the IP address of the server where the CC-FS is installed and *port* to the HTTPS port number of the CC-FS.

If the request is routed through the NSLB, set *ip* to the IP address of the NSLB server and *port* to the HTTPS port number of the CC-FS service mapped on the NSLB.

Table 13-96 Parameters in the URL

No.	Name	Value Type	Mandatory	Description
1	locationid	Integer	No	Node ID. The value can be obtained using the session record query interface <code>https://IP.PORT/oifde/rest/api/queryRecordHistory</code> .

Request

Table 13-97 Parameters in the request

No.	Name	Value Type	Mandatory	Default Value	Description
1	Content-Type	String	Yes	No	The value is fixed to application/json; charset=UTF-8 .
2	Authorization	String	Yes	No	For details about the generation mode, see 4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication .

Table 13-98 request parameters in the request body

No.	Name	Value Type	Mandatory	Default Value	Description
1	version	String (1-32)	Yes	2.0	Protocol version. Currently, the value is fixed to 2.0 .

Table 13-99 msgBody parameters in the request body

No.	Name	Value Type	Mandatory	Default Value	Description
1	fileName	String (1-127)	Yes	None	<p>Name of an intelligent IVR recording file.</p> <p>Parameter format:</p> <p>1: <i>{Recording drive letter}:/{record}/{VDN ID}/{odfsrecord}/{yyyymmdd}/{Main file name}.wav</i></p> <p>Example: Y:/record/39/odfsrecord/20201015/10233946082696733.wav</p> <p>2: <i>{Recording drive letter}:/{VDN ID}/{odfsrecord}/{yyyymmdd}/{Main file name}.wav</i></p> <p>Example: Y:/39/odfsrecord/20201015/10233946082696733.wav</p> <p>3: <i>{Recording drive letter}:/{record}/{VDN ID}/{yyyymmdd}/{Main file name}.wav</i></p> <p>Example: Y:/record/39/20201015/10233946082696733.wav</p> <p>4: <i>{Recording drive letter}:/{VDN ID}/{transferrecord}/{yyyymmdd}/{Main file name}.wav</i></p> <p>Example: Y:/39/transferrecord/20201015/10233946082696733.wav</p> <p>Note: <i>{VDN ID}</i> indicates the VDN ID, <i>{yyyymmdd}</i> indicates the date when the intelligent IVR recording file is generated, and <i>{Main file name}</i> indicates the name of the recording file.</p>

Response

If the interface is successfully invoked, the system obtains the binary data of the file from the HTTP response message to generate a recording file. The file name extension is .wav. In the response message, the value of **content-type** is **Application/Octet-stream;charset=UTF-8**.

If the interface fails to be invoked, an error code is returned. For details about the error code data structure, see [Table 13-100](#). **resultData** is a reserved field and is left empty by default.

Table 13-100 Parameters in the response

No.	Name	Value Type	Description
1	resultCode	String	Result code returned. For details, see 13.2.3.1 Error Code Reference .
2	resultDesc	String	Request result description.
3	responseData	Object	Response data.
4	response	Object	Request result object. For details, see Table 13-101 . This field is reserved for compatibility with earlier versions and is not recommended.

Table 13-101 Parameters in a response message

No.	Name	Value Type	Description
4.1	version	String (1-32)	Protocol version, for example, 2.0.
4.2	resultCode	String (1-32)	Result code returned. For details, see 13.2.3.1 Error Code Reference .
4.3	resultMsg	String	Request result description.

Example

- Request header


```
POST /CCFS/resource/ccfs/downloadOiapRecordHTTP/1.1
Authorization: auth-v2/ak/2018-07-02T02:45:50Z/content-length;content-type;host/
eb453f68e*****96c509c4913
Accept: */*
Content-Type: application/json;charset=UTF-8
Content-Length: 193
```
- Request parameters


```
{
  "request": {
    "version": "2.0"
  },
  "msgBody": {
    "fileName": "Y:/39/odfsrecord/20201019/1603089033-1205143033.wav"
  }
}
```

13.2.1.11 Downloading IVR Voice Messages

Description

This interface is invoked to download a recording file of IVR voice messages.

Usage Description

- Prerequisites
 - You have passed the authorization and obtained the access URL.
- Usage restrictions

Developers can download only files under their own accounts. The VDN ID corresponding to the developer account (**appid**) must contain the VDN ID in the recording file name (**fileName**) of IVR voice messages.

Interface Method

POST

URI

<https://ip:port/CCFS/resource/ccfs/downloadIVRRecordFile?locationId={locationId}>

Set *ip* to the IP address of the server where the CC-FS is installed and *port* to the HTTPS port number of the CC-FS.

If the request is routed through the NSLB, set *ip* to the IP address of the NSLB server and *port* to the HTTPS port number of the CC-FS service mapped on the NSLB.

Table 13-102 Parameters in the URL

No.	Name	Value Type	Mandatory	Description
1	locationId	Integer	No	Node ID. The value can be obtained using the session record query interface https://IP.PORT/oifde/rest/api/queryRecordHistory .

Request

Table 13-103 Parameters in the request header

No.	Name	Value Type	Mandatory	Default Value	Description
1	Content-Type	String	Yes	No	The value is fixed to application/json; charset=UTF-8 .

No.	Name	Value Type	Mandatory	Default Value	Description
2	Authorization	String	Yes	None	For details about the generation mode, see 4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication .

Table 13-104 request parameters in the request body

No.	Name	Value Type	Mandatory	Default Value	Description
1	version	String (1-32)	Yes	2.0	Protocol version. Currently, the value is fixed to 2.0 .

Table 13-105 msgBody parameters in the request body

No.	Name	Value Type	Mandatory	Default Value	Description
1	fileName	String (1-225)	Yes	None	Recording file name of IVR voice messages. Parameter format: <i>{Recording drive letter}:[{VDN ID}]record/{yyyymmdd}{Main file name}.wav</i> Example: Y:/39/record/20201015/10233946082696733.wav Note: <i>{VDN ID}</i> indicates the VDN ID, <i>{yyyymmdd}</i> indicates the date when the recording file of IVR voice messages is generated, and <i>{Main file name}</i> indicates the name of the recording file. The directory after <i>{VDN ID}</i> must be the value of the system parameter Directory next to vdnld in IVR message recording files . Contact the system administrator to obtain the value of the system parameter in Configuration Center > System Management > System Parameter Configuration > System parameters > File storage service > Path Configuration > Directory next to vdnld in IVR message recording files . The default value is record .

Response

If the interface is successfully invoked, the system obtains the binary data of the file from the HTTP response message to generate a recording file. The file name extension is .wav. In the response message, the value of **content-type** is **Application/Octet-stream;charset=UTF-8**.

If the interface fails to be invoked, an error code is returned. For details about the error code data structure, see the following table. **resultData** is a reserved field and is left empty by default.

Table 13-106 Parameters in the response

No.	Name	Value Type	Description
1	resultCode	String	Result code returned. For details, see 13.2.3.1 Error Code Reference .

No.	Name	Value Type	Description
2	resultDesc	String	Request result description.
3	resultData	Object	Response data.

Example

- Request header

```
POST /CCFS/resource/ccfs/downloadRecordFile HTTP/1.1
Authorization: auth-v2/ak/2018-07-02T02:45:50Z/content-length;content-type;host/
eb453f68e858*****196c509c4913
Accept: */*
Content-Type: application/json;charset=UTF-8
Content-Length: 193
```
- Request parameters

```
{
  "request": {
    "version": "2.0"
  },
  "msgBody": {
    "fileName": "Y:/39/record/20201015/10233946082696733.wav"
  }
}
```

13.2.1.12 Downloading a Recording File as a Third Party

Description

This interface is invoked by a third-party to download a recording file. The third-party system is connected to the IVR system by loading a customized JAR package.

Usage Description

- Prerequisites
 - You have passed the authorization.
- Usage restrictions
 Developers can download only files whose path is the value of the system parameter **Third-Party Recording Download Path Rule** under their own accounts. For details, see [4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication](#). Contact the system administrator to obtain the value of the system parameter in **Configuration Center > System Management > System Parameter Configuration > System parameters > File storage service > Path Configuration > Third-Party Recording Download Path Rule**.

Interface Method

POST

URI

https://ip:port/CCFS/resource/ccfs/ivr/downloadFile

Set *ip* to the IP address of the server where the CC-FS is installed and *port* to the HTTPS port number of the CC-FS.

If the request is routed through the NSLB, set *ip* to the IP address of the NSLB server and *port* to the HTTPS port number of the CC-FS service mapped on the NSLB.

Request

Table 13-107 Parameters in the request header

No.	Name	Value Type	Mandatory	Default Value	Description
1	Content-Type	String	Yes	None	The value is fixed to application/json; charset=UTF-8 .
2	Authorization	String	Yes	None	For details about the generation mode, see 4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication .

Table 13-108 request parameters in the request body

No.	Name	Value Type	Mandatory	Default Value	Description
1	version	String (1-32)	Yes	2.0	Protocol version. Currently, the value is fixed to 2.0 .

Table 13-109 msgBody parameters in the request body

No.	Name	Value Type	Mandatory	Default Value	Description
1	filePath	String	Yes	None	<p>If mode is set to 1, filePath indicates the path of the folder where the file is located, for example, Y:/voice/1/IVRrecordFile.</p> <p>If mode is not specified or is set to another value, the value of filePath must be a full file path, for example, Y:/voice/1/IVRrecordFile/xx.wav.</p> <p>Note: The file path is specified by the system parameter Third-Party Recording Download Path Rule. Contact the system administrator to obtain the value of the system parameter in Configuration Center > System Management > System Parameter Configuration > System parameters > File storage service > Path Configuration > Third-Party Recording Download Path Rule. Default value: /voice/ %VDNNO %/IVRrecordFile;/3rdfile/ %VDNNO %/IVRrecordFile;/3rdfile/ %VDNNO %/thirdvoicebotfile.</p>
2	mode	Integer	No	None	<p>If mode is set to 1, the value of filePath is a directory that contains a unique file. If the directory does not contain any file or contains multiple files, a failure message is returned. If mode is not specified or is set to another value, the value of filePath must be a full file path containing the file name.</p>

Response

If the interface is successfully invoked, the system obtains the binary data of the file from the HTTP response message to generate a recording file. The file name extension is .wav. In the response message, the value of **content-type** is **Application/Octet-stream;charset=UTF-8**.

If the interface fails to be invoked, an error code is returned. For details about the error code data structure, see [Table 13-110](#). **resultData** is a reserved field and is left empty by default.

Table 13-110 Parameters in the response

No.	Name	Value Type	Description
1	resultCode	String	Result code returned. For details, see 13.2.3.1 Error Code Reference .
2	resultDesc	String	Request result description.
3	resultData	Object	Response data.

Example

- Request header
 POST /CCFS/resource/ccfs/ivr/downloadFile HTTP/1.1
 Authorization: auth-v2/ak/2021-08-31T09:38:50.872Z/content-length;content-type;host/c12f0ed0*****94941bdd106
 Accept: */*
 Content-Type: application/json;charset=UTF-8
 Content-Length: 193
- Request parameters


```
{
  "request": {
    "version": "2.0"
  },
  "msgBody": {
    "filePath": "Y:/3rdfile/53/thirdvoicebotfile",
    "mode": "1"
  }
}
```

13.2.1.13 Uploading a File as a Third Party

Description

This interface is invoked by a third party to upload a file for a third-party chatbot. The third-party system is connected to the IVR system by loading a customized JAR package. The SaaS and OP deployment modes are supported.

Usage Description

- Prerequisites
 - You have passed the authorization.
- Usage restrictions

Developers can upload files to only folders under their own accounts. For details, see [4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication](#).

Contact the system administrator to obtain the upload path in **Configuration Center > System Management > System Parameter Configuration > System parameters > File storage service > Path Configuration > Third-Party Recording Download Path Rule**.

Interface Method

POST

URI

https://ip:port/CCFS/resource/ccfs/ivr/uploadFile?vdnId={vdnId}

Set *ip* to the IP address of the server where the CC-FS is installed and *port* to the HTTPS port number of the CC-FS.

If the request is routed through the NSLB, set *ip* to the IP address of the NSLB server and *port* to the HTTPS port number of the CC-FS service mapped on the NSLB.

Table 13-111 Parameters in the URL

No.	Name	Value Type	Mandatory	Description
1	vdnId	Integer	Yes	ID of a VDN.

Request

Table 13-112 Parameters in the request header

No.	Name	Value Type	Mandatory	Default Value	Description
1	Content-Type	String	Yes	None	The value is fixed to application/json; charset=UTF-8 .
2	Authorization	String	Yes	None	For details about the generation mode, see 4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication .

Table 13-113 request parameters in the request body

No.	Name	Value Type	Mandatory	Default Value	Description
1	version	String (1-32)	Yes	2.0	Protocol version. Currently, the value is fixed to 2.0 .

Table 13-114 msgBody parameters in the request body

No.	Name	Value Type	Mandatory	Default Value	Description
1	data	String	Yes	None	Base64 code of the file to be uploaded. Note: Only WAV voice files in the following format are supported: 8 bit, 8000 Hz, 64 kbit/s, and mono. The file size is specified by the system parameter Third-Party Upload File Size Limit , in MB. The default value is 5 . To modify the file size, contact the system administrator to set the system parameter in Configuration Center > System Management > System Parameter Configuration > System parameters > File storage service > Resource allocation > Third-Party Upload File Size Limit .

Response

If this interface is successfully invoked, **0** and the message "operate success" are returned.

If the interface fails to be invoked, an error code is returned. For details about the error code data structure, see [Table 13-73](#). **resultData** is a reserved field and is left empty by default.

Table 13-115 Parameters in the response

No.	Name	Value Type	Description
1	resultCode	String	Result code returned. For details, see 13.2.3.1 Error Code Reference .
2	resultDesc	String	Request result description.
3	resultData	Object	Response data. For details, see Table 13-116 .

Table 13-116 Description of resultData in the response message

No.	Name	Value Type	Description
3.1	fileName	String	Name of the file to be uploaded. The file name must be the value of the system parameter Third-Party Upload File Path Rule . Contact the system administrator to obtain the value of the system parameter in Configuration Center > System Management > System Parameter Configuration > System parameters > File storage service > Path Configuration > Third-Party Upload File Path Rule . The default value is <code>/3rdfile/%VDNNO%/thirdvoicebotfile/</code> . Example: <code>{Drive letter}:/3rdfile/{VDN ID}/thirdvoicebotfile/xxx.wav</code>
3.2	locationId	List <String>	In CTI pool mode, the information is displayed if the upload is successful:

Example

- Request header**
 POST /CCFS/resource/ccfs/ivr/upload?vdnId=xx HTTP/1.1
 Authorization: auth-v2/ak/2021-08-31T09:38:50.872Z/content-length;content-type;host/c12f0ed*****941bdd106
 Accept: */*
 Content-Type: application/json;charset=UTF-8
 Content-Length: 193
- Request parameters**

```
{
  "request": {
    "version": "2.0"
  },
  "msgBody": {
    "data": "base64"
  }
}
```
- Response parameters**

```
{
  "resultData": {
    "fileName": "Y:/3rdfile/53/thirdvoicebotfile/8fSsBaEb_1631869974029.wav",

```

```

    "locationId": [
      "0",
      "256"
    ]
  },
  "resultCode": "0",
  "resultDesc": "success"
}

```

13.2.1.14 Generating a File Hash Value as a Third Party

Description

This API is invoked by a third party to generate the hash value of an uploaded file. The third-party system is connected to the IVR system by loading a customized JAR package.

Usage Description

- Prerequisites
 - You have passed the authorization.
- Usage restrictions

Developers can obtain only the hash values of the files under their own accounts. For details, see [4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication](#).

Interface Method

POST

URI

`https://ip:port/CCFS/resource/ccfs/ivr/getFileHash`

Set *ip* to the IP address of the server where the CC-FS is installed and *port* to the HTTPS port number of the CC-FS.

If the request is routed through the NSLB, set *ip* to the IP address of the NSLB server and *port* to the HTTPS port number of the CC-FS service mapped on the NSLB.

Request

Table 13-117 Parameters in the request header

No.	Name	Value Type	Mandatory	Default Value	Description
1	Content-Type	String	Yes	None	The value is fixed to application/json; charset=UTF-8 .

No.	Name	Value Type	Mandatory	Default Value	Description
2	Authorization	String	Yes	None	For details about the generation mode, see 4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication .

Table 13-118 request parameters in the request body

No.	Name	Value Type	Mandatory	Default Value	Description
1	version	String (1-32)	Yes	2.0	Protocol version. Currently, the value is fixed to 2.0 .

Table 13-119 msgBody parameters in the request body

No.	Name	Value Type	Mandatory	Default Value	Description
1	fileName	String	Yes	None	Full path of the file whose hash value needs to be obtained. The file path is specified by the system parameter Third-Party Upload File Path Rule . Contact the system administrator to obtain the value of the system parameter in Configuration Center > System Management > System Parameter Configuration > System parameters > File storage service > Path Configuration > Third-Party Upload File Path Rule . The default value is <code>/3rdfile/%VDNNO%/thirdvoicebotfile/</code> . Example: <code>{Drive letter}:/3rdfile/{VDN ID}/thirdvoicebotfile/xxx.wav</code>

No.	Name	Value Type	Mandatory	Default Value	Description
2	locationId	String	No	None	This parameter is valid only in CTI pool mode.

Response

If this interface is successfully invoked, **0** and the message "operate success" are returned.

If the interface fails to be invoked, an error code is returned. For details about the error code data structure, see [Table 13-73](#). **resultData** is a reserved field and is left empty by default.

Table 13-120 Parameters in the response

No.	Name	Value Type	Description
1	resultCode	String	Result code returned. For details, see 13.2.3.1 Error Code Reference .
2	resultDesc	String	Request result description.
3	resultData	Object	Response data. For details, see Table 13-121 .

Table 13-121 Description of resultData in the response message

No.	Name	Value Type	Description
3.1	hashValue	String	String of the voice file after SHA256 encoding.

Example

- Request header
 POST /CCFS/resource/ccfs/ivr/getFileHash HTTP/1.1
 Authorization: auth-v2/ak/2021-08-31T09:38:50.872Z/content-length;content-type;host/c12f0ed0*****494941bdd106
 Accept: */*
 Content-Type: application/json;charset=UTF-8
 Content-Length: 193
- Request parameters

```
{
  "request": {
    "version": "2.0"
  },
  "msgBody": {
```

```
    "fileName": "Y:/3rdfile/2/thirdvoicebotfile/5dckNDei_1647502396161.wav"  
  }  
}
```

- Response parameters

```
{  
  "resultData": {  
    "hashValue": "2b67748fe335617*****cf19f28bb8"  
  },  
  "resultCode": "0",  
  "resultDesc": "success"  
}
```

13.2.1.15 Deleting an Uploaded File as a Third Party

Description

This API is invoked by a third party to delete an uploaded file. The third-party system is connected to the IVR system by loading a customized JAR package.

Usage Description

- Prerequisites
 - You have passed the authorization.
- Usage restrictions

Developers can delete only files under their own accounts. For details, see [4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication](#).

Interface Method

POST

URI

`https://ip:port/CCFS/resource/ccfs/ivr/deleteFile`

Set *ip* to the IP address of the server where the CC-FS is installed and *port* to the HTTPS port number of the CC-FS.

If the request is routed through the NSLB, set *ip* to the IP address of the NSLB server and *port* to the HTTPS port number of the CC-FS service mapped on the NSLB.

Request

Table 13-122 Parameters in the request header

No.	Name	Value Type	Mandatory	Default Value	Description
1	Content-Type	String	Yes	None	The value is fixed to application/json; charset=UTF-8 .
2	Authorization	String	Yes	None	For details about the generation mode, see 4.3 C2 Monitoring, System Outbound Call, CDR, and Knowledge Base Interface Authentication .

Table 13-123 request parameters in the request body

No.	Name	Value Type	Mandatory	Default Value	Description
1	version	String (1–32)	Yes	2.0	Protocol version. Currently, the value is fixed to 2.0 .

Table 13-124 msgBody parameters in the request body

No.	Name	Value Type	Mandatory	Default Value	Description
1	fileName	String	Yes	None	File to be deleted. The file path is specified by the system parameter Third-Party Upload File Path Rule . Contact the system administrator to obtain the value of the system parameter in Configuration Center > System Management > System Parameter Configuration > System parameters > File storage service > Path Configuration > Third-Party Upload File Path Rule . The default value is <code>/3rdfile/%VDNNO%/thirdvoicebotfile/</code> . Example: <code>{Drive letter}:/3rdfile/{VDN ID}/thirdvoicebotfile/xxx.wav</code>
2	locationId	String	No	None	This parameter is valid only in CTI pool mode. If locationId has a value, delete the files in the path specified by uapId corresponding to locationId . If locationId is empty, delete all files.

Response

If this interface is successfully invoked, **0** and the message "operate success" are returned.

If the interface fails to be invoked, an error code is returned. For details about the error code data structure, see [Table 13-73](#). **resultData** is a reserved field and is left empty by default.

Table 13-125 Parameters in the response

No.	Name	Value Type	Description
1	resultCode	String	Result code returned. For details, see 13.2.3.1 Error Code Reference .
2	resultDesc	String	Request result description.
3	resultData	Object	Response data.

Example

- Request header**

```
POST /CCFS/resource/ccfs/ivr/deleteFile HTTP/1.1
Authorization: auth-v2/ak/2021-08-31T09:38:50.872Z/content-length;content-type;host/c12f0ed0*****941bdd106
Accept: */*
Content-Type: application/json;charset=UTF-8
Content-Length: 193
```
- Request parameters**

```
{
  "request": {
    "version": "2.0"
  },
  "msgBody": {
    "fileName": "Y:/3rdfile/2/thirdvoicebotfile/5dckNDei_1647502396161.wav"
  }
}
```
- Response parameters**

```
{
  "resultData": null,
  "resultCode": "0",
  "resultDesc": "success"
}
```

13.2.2 Index File Definition

13.2.2.1 Definitions of CDR and Recording Index Files

Definitions of Recording Index Files (yyymmddhhmmssSSS+3-digit random number_record_file sequence number.csv)

In the exported .csv recording file, each line indicates a piece of data. The data in each line is sorted by column. The following table describes the data in each line.

No.	Parameter	Type	Description
1	developer	String (1-64)	ID of a developer.
2	account_id	String (1-64)	Enterprise account.
3	cc_id	String (1-64)	ID of a call center.
4	agent_id	String (1-32)	Agent ID.
5	call_id	String (1-25)	Call ID.
6	caller_number	String (1-25)	Calling number.

No.	Parameter	Type	Description
7	callee_no	String (1-25)	Called number.
8	call_begin	Date	Start time. The time format is <i>YYYY-MM-DD hh:mm:ss</i> , for example, 2015-02-08 20:23:30 .
9	call_end	Date	End time. The time format is <i>YYYY-MM-DD hh:mm:ss</i> , for example, 2015-02-08 20:23:30 .
10	file_name	String (1-255)	Name of a recording file, for example, /10/1/record/100/13533/0903379.wav .
11	task_status	String (1-20)	Indicates whether to convert a recording file to a text file. The options are 1 (yes) and 0 (no).
12	task_result	String (1-20)	Whether a recording file is successfully converted into a text file. The options are success and failed .
13	original_file_name	String (1-129)	Path to the original recording file. Example: X:\17\0\20180903\15470\2043295.V3
14	vdn_id	String (1-64)	ID of the VDN that processes a call.
15	call_type	String (1-64)	Call type. For details, see 13.2.3.6 Description of Call Types .
16	media_type	String (1-64)	Media type. For details, see 13.2.3.5 Media Type .
17	user_wanted_skill_id	String (1-64)	Direction skill.
18	current_skill_id	String (1-64)	ID of the skill queue that processes a call.

Definitions of CDR Files (yyymmddhhmmssSSS+3-digit random number_call_File sequence number.csv)

In the exported .csv CDR file, each line indicates a piece of data. The data in each line is sorted by column. The following table describes the data in each line.

No.	Parameter	Type	Description
1	developer	String (1-64)	ID of a developer.
2	account_id	String (1-64)	Enterprise account.
3	cc_id	String (1-64)	ID of a call center.
4	agent_id	String (1-32)	Agent ID.
5	call_id	String (1-25)	Call ID.
6	caller_no	String (1-26)	Calling number.
7	callee_no	String (1-26)	Called number.
8	wait_begin	Date	Waiting start time. The time format is <i>YYYY-MM-DD hh:mm:ss</i> , for example, 2015-02-08 20:23:30 .
9	wait_end	Date	Waiting end time. The time format is <i>YYYY-MM-DD hh:mm:ss</i> , for example, 2015-02-08 20:23:30 .
10	ack_begin	Date	Response start time. The time format is <i>YYYY-MM-DD hh:mm:ss</i> , for example, 2015-02-08 20:23:30 .
11	ack_end	Date	Response end time. The time format is <i>YYYY-MM-DD hh:mm:ss</i> , for example, 2015-02-08 20:23:30 .
12	call_begin	Date	Call start time. The time format is <i>YYYY-MM-DD hh:mm:ss</i> , for example, 2015-02-08 20:23:30 .
13	call_end	Date	Call end time. The time format is <i>YYYY-MM-DD hh:mm:ss</i> , for example, 2015-02-08 20:23:30 .
14	device_type	Integer (1-4)	Device type. The options are 1 (skill queue), 2 (agent), and 3 (IVR flow).

No.	Parameter	Type	Description
15	device_no	Integer (1-5)	Device number. If the device type is skill queue, the device number is the skill queue ID. If the device type is agent, the device number is the agent ID. If the device type is IVR, the device ID is the IVR flow ID.
16	call_type	Integer (1-4)	Call type. For details, see 13.2.3.6 Description of Call Types .
17	release_cause	Integer (1-5)	Call release cause. For details, see 13.2.3.3 Cause Code . For the bill in which the value of CallIDNUM is -1 (refer to item 18 in this table), this field indicates the call release reason. In other cases, this field is meaningless.
18	call_id_num	Integer (1-4)	Sequence number of a call ID. If there is only one call ID, that is, the call ID is unique, the sequence number is -1 . If there are multiple records with the same call ID, the sequence number of the last record is -1 , and those of other records are numbered in sequence. For example, if four records have the same call ID, and the values of callidnum are 1, 2, 3, and -1 .
19	vdn_id	String (1-32)	ID of the VDN that processes a call.
20	pre_device_type	String (1-32)	Type of the previous device that a call passes through. The options are 1 (skill queue), 2 (agent), and 3 (IVR).
21	pre_device_no	String (1-32)	ID of the previous device that a call passes through.
22	skill_id	String (1-32)	ID of the skill queue to which a call belongs. When a call is transferred because the skill queue to which the call belongs overflows or no agent is on duty, the value is the ID of the first skill queue that the call enters.
23	current_skill_id	String (1-32)	ID of the skill queue that processes a call.

No.	Parameter	Type	Description
24	device_in	String (1-32)	<p>Description of the current device.</p> <ul style="list-style-type: none"> For a skill queue, the value is DEVICE_QUEUE. For an agent, the value is DEVICE_AGENT. When the value of DeviceType is IVR process (3), the value is the IVR flow access code. For a call, the value is a phone number. For a temporary routing device, the value is DEVICE_ROUTE. For a virtual device, the value is DEVICE_VNR. When the value of DeviceType is CDN device (10), the value is the CDN number. When the value of DeviceType is PGR (14), the value is the PGR access code.
25	pre_device_in	String (1-32)	<p>Description of the previous device. The values are as follows:</p> <ul style="list-style-type: none"> For a skill queue, the value is DEVICE_QUEUE. For an agent, the value is DEVICE_AGENT. When the value of DeviceType is IVR process (3), the value is the IVR flow access code. For a call, the value is a phone number. For a temporary routing device, the value is DEVICE_ROUTE. For a virtual device, the value is DEVICE_VNR. When the value of DeviceType is CDN device (10), the value is the CDN number. When the value of DeviceType is PGR (14), the value is the PGR access code.
26	service_no	String (1-32)	Business type. Type of the business currently provided by a device.
27	leave_reason	String (1-32)	Reason why a call is disconnected from a device. For details, see 13.2.3.7 Reasons for Leaving the Device of the Call .
28	media_type	String (1-32)	Media type of a call. For details, see 13.2.3.8 Description of Call Media Types .
29	sub_media_type	String (1-32)	<p>Submedia type. For details, see Table 13-133.</p> <p>This parameter is valid only when media_type (call media type) is set to MEDIA_TYPE_WEB_LEAVE_MESSAGE (20).</p>

13.2.2.2 Definition of Index Files for Agent Operation Details

Definitions of Agent Operation Bill Index Files (yyymmddhhmmssSSS+3-digit random number_agentOprInfo_file sequence number.csv)

In the exported .csv file, each line indicates a piece of data. The data in each line is sorted by column. The following table describes the data in each line.

No.	Parameter	Type	Description
1	id	String (1-32)	Unique ID.
2	developer_id	String (1-64)	ID of a developer.
3	account_id	String (1-64)	Enterprise account.
4	agent_id	String (1-32)	Agent ID.
5	service_no	String (1-25)	Business type ID.
6	skill_id	String (1-25)	ID of a skill queue.
7	call_id	String (1-25)	Call ID.
8	begin_time	DATE	Start time of an operation. The time format is <i>YYYY-MM-DD hh:mm:ss</i> , for example, 2015-02-08 20:23:30 .
9	end_time	DATE	End time of an operation. The time format is <i>YYYY-MM-DD hh:mm:ss</i> , for example, 2015-02-08 20:23:30 .
10	op_type	String (1-20)	Operation type. For details, see Table 13-128 .
11	op_object	String (1-20)	Operation object.
12	op_cause	String (1-20)	Operation reason.
13	media_type	String (1-20)	Media type.
14	vdn_id	String (1-20)	VDN ID
15	cc_id	String (1-20)	ID of a call center.
16	agent_type	String (1-20)	Agent type or customer level.
17	phone_no	String (1-32)	Agent IP address, agent phone number, called number, or conference ID.

No.	Parameter	Type	Description
18	callIn_out	String (1-20)	Incoming or outgoing call flag. The options are as follows: <ul style="list-style-type: none"> • Incoming • Outgoing • Outbound call made by IVR • Outbound
19	location_id	String (1-20)	Distributed node ID.
20	logon_sn	String (1-25)	Sign-in SN.
21	skillInfo_sn	String (1-25)	Index of the skill list that an agent has when the agent performs the current operations. If the parameter value is blank, the agent does not have any skills. For example, the parameter value is blank when the agent logs in to the platform.

13.2.3 Reference Description

13.2.3.1 Error Code Reference

Response Code	Result Code	Description	Handling Method
200	0	success	No handling is required.
200	0300001	The value of {param} cannot be null.	Check whether the parameter value in the request string is an empty string.
200	0300002	The value of {param} cannot be an empty string.	Check whether the parameter value in the request string is an empty string.
200	0300003	The length of {param} is too long.	Check whether the parameter value is greater than the maximum length specified in the document.
200	0300004	The format of {param} is incorrect.	Check whether the parameter complies with the format described in the document.

Response Code	Result Code	Description	Handling Method
200	0300005	The length of {param} is too short.	Check whether the parameter value is less than the maximum length specified in the document.
200	0300006	The value of version is error, current version is {param} .	Check whether the version number parameter is correct.
200	0300007	The params of requestBody is null.	Check whether the parameter length is matched.
200	0300008	Reached the download flow control threshold.	The maximum number of download requests that can be processed by the system is reached. Try again later.
200	0300009	Reached the query flow control threshold.	The maximum number of query requests that can be processed by the system is reached. Try again later.
200	0300010	The date in the value of fileName is in an incorrect format.	Check whether the file name in the request string is valid. The file name format is <i>/{Node ID}/{Call center ID}/record/{App ID}/{Account ID}/{yyyymmdd}/{Agent ID}/{Original file name}. {File name extension}</i> . Check whether <i>{yyyymmdd}</i> is correct.
200	0300011	The file does not exist.	The requested file does not exist. Check whether the requested file is correct.
200	0300012	No data found.	Check whether the value of fileName is correct. The file name format is as follows: <i>{Drive letter};/{VDN ID}/{0 (inbound call) or 1 (outbound call)}/{Date}/{Agent ID}/{Current time, in milliseconds}.V3</i>
200	0300013	The beginTime cannot be later than the endTime.	Check the values of beginTime and endTime in the request.

Response Code	Result Code	Description	Handling Method
200	0300014	The maximum duration between the beginTime and endTime is {param} days.	Check whether the time range specified by beginTime and endTime in the request string is valid. The maximum time range is 3 days by default.
200	0300015	The local storage or voice path does not exist.	The following configuration items in the configuration file must be properly set: ccfs.common.local.store.path ccfs.common.local.voice.path
200	0300016	The value of {param} is greater than current time.	Check the query interval.
200	0300017	Specify cclid.	Multiple data records are found. The cclid parameter needs to be specified for more accurate query.
200	0300018	This record belongs to another developer.	The developer information in the recording to be queried does not match the developer information in the request. Check whether the value of appld is correct.
200	0300019	Specify at least one of fileName and callld.	Check whether fileName or callld is set.
200	0300020	Only one record is required but multiple records are obtained.	Multiple records are found based on the search criteria. However, only one record is required. Contact the administrator.
200	0300021	The {param} in fileName does not match the {param} in the directory.	Check whether the file name in the request string is valid. The file name format is <i>{Node ID}/{Call center ID}/record/{App ID}/{Account ID}/{yyyymmdd}/{Agent ID}/{Original file name}.{File name extension}</i> . Check whether <i>{App ID}</i> , record , and <i>{Node ID}</i> are correct.

Response Code	Result Code	Description	Handling Method
200	0300022	The parameter {param} value contains illegal characters.	<p>The value of the request parameter contains invalid special characters. Examples are as follows:</p> <p>The value of billFileName in the interface for downloading CDRs and recording indexes can contain only letters, digits, periods (.), hyphens (-), and underscores (_).</p> <p>The value of fileName in the interface for downloading recording files can contain only letters, digits, slashes (/), and periods (.).</p> <p>The value of fileName in the interface for downloading STT files can contain only letters, digits, slashes (/), and periods (.).</p> <p>The value of fileName in the interface for querying and downloading recording files can contain only letters, digits, colons (:), slashes (/), and periods (.)</p>
200	0300023	The file name does not match the path configured in the configuration file.	During the download of IVR voice messages, the directory after the VDN ID in the path specified by the request parameter fileName does not match the value of the system parameter Directory next to vdnId in IVR message recording files . Set the system parameter to a proper file path.
200	0300024	The file path is not canonical path.	Check whether the path is a standard path.
200	0300025	Internal system error.	Contact the administrator.
200	0300026	Authentication failed.	Check whether the account ID or VDN ID is correct.
200	0300027	Parameter {param} is empty.	Check whether the parameter value is empty or an empty string.

Response Code	Result Code	Description	Handling Method
200	0300028	Parameter {param} is error.	Check whether the parameter meets the requirements described in the document.
200	0300029	File does not exist.	Check whether the value of fileName is correct. The file requested by the interfaces for requesting and playing back recording files does not exist.
200	0300030	Failure of system processing.	Contact the administrator.
200	0300031	Invalid oiap fileName, fileName Length is not legal.	Check the value length of fileName .
200	0300032	file path is invalid.	Check whether the file path is valid.
200	0300033	locationId is empty	Check whether the parameter value is empty or an empty string.
200	0300034	tenantId is empty	Check whether the parameter value is empty or an empty string.
200	0300035	audio file type should be wav.	Check the file format. Only audio files in WAV format are supported.
200	0300036	audio file channel should be mono.	Check the audio file channel.
200	0300037	audio file fileSampleSizeInBits should be 8000Hz.	Check the number of frames in a file.
200	0300038	audio file fileSampleRate should be 8000Hz.	Check the audio file sampling rate.
200	0300039	Failed to read the audio file format.	Check whether the uploaded audio file format meets requirements.
200	0300040	An exception occurred during file deletion.	Check whether the file permission is correct.

Response Code	Result Code	Description	Handling Method
200	0300041	The file size exceeds the limit.	Check the file size.
200	0300042	file path config miss parameter %VDNNO%	Add the VDNNO variable to the path rule configuration item.
200	0300043	file path configuration should refer to the example.	Check the path content configuration item.
200	0300044	The directory contains multiple files.	Check whether the folder contains only one WAV file.
200	0300045	Failed to compress the recording files.	Check whether the recording files exist.
200	0300046	The mount path corresponding to the drive letter does not exist.	Check the file path.
200	0300047	Upload file to OBS/LSS failed	Check whether the OBS/LSS service is normal.
200	0300048	In CTI pool mode,the value of ccfs.uap.id cannot be empty	Check whether the value of ccfs.uap.id in the /home/ccfsapp/webapps/ccfsapp/WEB-INF/classes/config/servicecloud.base.properties configuration file is empty.
200	0300049	In CTI pool mode,the value format of ccfs.uap.id is incorrect	Check whether the value format of ccfs.uap.id in the /home/ccfsapp/webapps/ccfsapp/WEB-INF/classes/config/servicecloud.base.properties configuration file is correct. The value format is <i>{Mount directory},{UAP node ID}</i> .

13.2.3.2 Status Code Description

In the response, the status code is 200, indicating that the business is normal. Other status codes are returned as exception information.

Table 13-126 Status code description

Status Code	Description	Remarks
200	The business is normal.	For details, see the preceding interfaces.
401	Unauthorized access to the interface.	Check whether the authentication character string and request parameters are correct by referring to the interface authentication algorithm and Table 13-127 . For any questions, contact the administrator.
403	The IP address is locked. The number of times that the authentication string carried in the request is incorrect exceeds the maximum number of allowed errors in a period.	Check whether the authentication character string and request parameters are correct by referring to the interface authentication algorithm and Table 13-127 . For any questions, contact the administrator.

Table 13-127 Abnormal status code description

Parameter	Mandatory/Optional	Value Type	Remarks
timestamp	Mandatory	Long	Timestamp. Example: 1532142010247 .
status	Mandatory	int	Status code. Example: 401, 403
error	Mandatory	String	Error type. For example, Forbidden indicates that the permission is forbidden, and Unauthorized indicates that the permission is unauthorized.
message	Mandatory	String	Prompt message. Example: No message available .

Parameter	Mandatory/Optional	Value Type	Remarks
path	Mandatory	String	Requested path. Example: /CCFS/resource/ccfs/queryBillData

- Example of the returned error code

```
{"timestamp":1532142010247,"status":403,"error":"Forbidden","message":"Nomessageavailable","path":"/CCFS/resource/ccfs/queryBillData"}
```

13.2.3.3 Cause Code

Cause Code	Description
80	When a call is queuing in a skill queue, the call is transferred to the IVR flow for voice playback and digit collection. If a customer presses the cancel key, the flow uses this error code to request canceling the call queuing.
256	CCIVR/IVR normal call release.
263	The CCIVR/IVR disconnects a call because of connection failure.
338	The CCIVR/IVR disconnects a call because no flow can be found or an error occurs when parsing flows.
339	The CCIVR/IVR disconnects a call because there is no sufficient control blocks.
340	The CCIVR/IVR disconnects a call because the MRF script type is incorrect.
342	The CCIVR/IVR disconnects a call because the conference name is incorrect (possibly too long).
346	The CCIVR/IVR disconnects a call because waiting for the called party to pick up the phone times out after the CTIServer returns a call to the called party.
350	The CCIVR/IVR disconnects a call because waiting for the business module to pick up the phone times out.
354	The CCIVR/IVR disconnects a call because the handshake with the CTIServer times out.
356	The CCIVR/IVR disconnects a call because the CCIVR outgoing call times out.
357	The CCIVR/IVR disconnects a call because the IVR fails to connect the calling party and called party.

Cause Code	Description
359	The CCIVR/IVR disconnects a call because the maximum conversation duration is exceeded.
360	The CCIVR/IVR disconnects a call because of other errors. For details, see the logs.
501	Default call release cause. The cause could be any of the following: 1. The routing result from the CCS is not received after a call accesses the platform. As a result, the call is disconnected. 2. After a call accesses the IVR, a flow disconnects the call.
502	The platform disconnects an outgoing call because waiting for the ringing of the ACD times out or waiting for call answer times out.
503	The platform disconnects a call because the handshake between the platform control block and ACD times out after the call is established between the ACD and the platform.
505	The cause could be any of the following: 1. When a call is transferred back to the agent console after the agent console transfers the call to the IVR in suspension transfer mode, the agent console times out in responding to the suspension resuming message. As a result, the platform disconnects the call. 2. When a call is transferred back to the IVR after the IVR transfers the call to the agent console in suspension transfer mode, the IVR times out in responding to the suspension resuming message. As a result, the platform disconnects the call.
506	After an agent transfers a call to the IVR in suspension transfer mode, waiting for the CCS to return the routing result times out.
507	After a non-agent device transfers a call to the IVR in suspension transfer mode, waiting for the CCS to return the routing result times out.
508	When a call is transferred, waiting for the CCS DO_FORWARD times out.
509	When an internal call is successfully transferred, waiting for the CCS FORWARD_COMMIT times out.
510	When the platform initiates an outgoing call, waiting for the ACD SETUP_ACK message times out.
511	When the platform initiates an outgoing call, waiting for the CCS OCCUPY_ACK message times out.
512	A call is released because the number of calls waiting in a skill queue exceeds the maximum limit.
513	A call is released because the number of calls waiting in a skill queue exceeds the maximum limit.

Cause Code	Description
514	When a call is transferred from an agent to an automatic flow, waiting for the automatic flow to respond times out.
515	During call transfer, waiting for the transfer destination device to respond times out.
516	Waiting for the routing response from the CCS times out.
517	Waiting for the ringing or response from the destination device times out.
518	The client disconnects a call.
519	When a call is transferred in suspension mode, the address sent by the CCS to DO_FORWARD is incorrect.
520	When a call is transferred in suspension mode, the address sent by the CCS to DO_FORWARD is incorrect.
521	An agent initiates call redirection (a call is disconnected and transferred out).
522	An automatic flow initiates call redirection (a call is disconnected and transferred out).
523	When the platform initiates an outgoing call, the CCS returns a device occupation failure message.
525	The destination address in the routing result returned by the CCS is incorrect.
526	The CCS returns a routing failure message.
528	During outgoing call preview, the CCS returns a failure message.
529	After a flow transfers a call to an agent in suspension mode, if the agent hangs up and transfers the call back to the IVR, the IVR returns a failure message.
530	The IVR initiates call combination.
531	A call is normally disconnected in the ACD.
533	When a flow transfers a call to another flow, the flow releases the call before ringing.
534	When the CTIServer is disconnected from an ACD module, all the calls of the ACD module are released.
535	The CCS returns a routing failure message.
536	When a customer cancels queuing, the platform releases the call.
537	A call is disconnected in the ACD because the called party is busy.

Cause Code	Description
538	A call is disconnected in the ACD because the called number does not exist.
539	A call is released after the CCS is switched.
540	A call is released after voice playing.
541	A call is transferred in suspension mode to a device. After the destination device processes the call, and the call is returned to the suspension device, the CCS returns the RESUME_ACK error message.
542	A call is transferred in suspension mode to a device. After the destination device processes and releases the call, the CCS returns the HUNG_RELEASE_ACK error message.
543	A call is transferred in suspension mode to a device. After the destination device processes the call, waiting for the CCS to send RESUME_ACK to notify the suspension device of call resumption times out.
544	A call is transferred in suspension mode to a device. After the destination device processes and releases the call, waiting for the CCS to return the release result HUNG_RELEASE_ACK times out.
547	When a call is transferred, the re-routing result returned by the CCS is not a virtual device, but the transfer indication address sent by the CCS is a virtual device.
548	A call is disconnected in the ACD because the mobile phone of the called party is powered off.
549	A call is disconnected in the ACD because the called party is out of the service area.
550	When a network call is transferred in suspension mode, after the destination device processes and releases the call, the CCS returns an error.
551	A call is disconnected in the ACD for another reason.
552	During a network call, the peer call center is abnormal.
553	During a network call, the destination call center times out in waiting for the network incoming call from the ACD.
561	A call is released due to queue overflow.
562	No agent is on duty.
564	The number of concurrent calls exceeds the configured limit.
565	The total number of automatic calls exceeds the limit.
566	The number of concurrent calls in the flow exceeds the maximum.

Cause Code	Description
567	The called number cannot be found.
568	The customer level is incorrect.
601	The ACD disconnects a call because the calling party hangs up before the call is answered.
602	The ACD disconnects a call because no resource is available.
603	The ACD disconnects a call because the called party does not answer the call.
604	The ACD disconnects a call because the called party rejects the call.
605	The ACD disconnects a call because the line is busy.
606	The ACD disconnects a call because the call times out.
607	The ACD disconnects a call because the mail box is full or suspended. For details, see the UAP original call release code 5.
608	The ACD disconnects a call because emails cannot be created for calls. For details, see the UAP original call release code 6.
609	The ACD disconnects a call because the channel is reset.
610	The ACD disconnects a call because of abnormal UAP resource operations.
611	The ACD disconnects a call because the Cp conference is faulty.
612	The ACD disconnects a call because the Intess control block is faulty.
613~619	The ACD disconnects a call.
714	Internal routing fails because IVR resources are occupied or no IVR access code is registered.
732	The cause could be any of the following: 1. During a conference call, a participant is removed from the conference. 2. During a conference call, the conference moderator proactively releases the conference or the CCS is abnormal.
852	The client disconnects and rejects a call.
853	A call is released because an agent does not answer the call for a long time.
1057	Failed to route the message leaving call.
1058	Waiting for the routing result of the message leaving call times out.
1059	Waiting of a message leaving call for the queuing message times out.

Cause Code	Description
1060	Waiting for an agent to answer a message leaving call times out.
1061	The release of a message leaving call times out.
1062	The internal message leaving call times out.
1063	The handshake of the message leaving call times out.
1064	Failed to create the conference.
1065	Conference creation times out.
1066	Failed to join the conference.
1067	Querying the enterprise ID times out.
1068	Failed to query the enterprise ID.
1069	The value of EnterPriseID is empty.
1070	Querying conference information times out.
1071	Failed to query conference information.
1072	Obtaining conference data times out.
1073	Failed to obtain conference data.
1074	Conference detection times out.
1075	The number of participants in the conference is less than expected.
1076	Releasing the conference times out.
1077	The call duration reaches the maximum.

13.2.3.4 Agent Operation Type

Table 13-128 Agent operation type

Operation Type	Description	Operation Object	Operation Reason
0	The agent signs out of CCS.	-1	1-255: The error is caused by the client. 256: The agent is disconnected from the platform. 257: The agent is forcibly signed out by the inspector. 258: The agent signs out. 259: The agent signs out before signs in again. 260: The handshake between the agent control blocks time out between the media server and the CCS. 261: The CCS detects that the handshake with the UIS about the agent control block times out. 262: The handshake between the media server and the CCS is disconnected. As a result, the agent signs out. 263: The handshake between the UIS and the agent times out. 264: An agent with the same employee ID is forcibly signing in to a new client. As a result, the agent is forcibly signed out.
1	An agent signs in.	-1	-1
2	Idle.	-1	-1

Operation Type	Description	Operation Object	Operation Reason
3	Busy.	-1	1: Indicates that an agent indicates busy. 2: An agent does not answer a call in a long period, so the agent is forced to show busy. 3: An agent is forced to show busy by a QC inspector. 4: Indicates that an agent takes a rest. 5: The phone of an agent is unavailable. 7: An agent rejects a call. 200-250: error codes customized by the service side.
4	Talking.	-1	1: The agent does not really exit the conversation status. Bills are generated every five minutes starting from 00:00 to 23:55. 0: The agent fully exits the conversation status. The conversation status in these bills refers to only text conversations.
10	Three-party conversation.	Employee ID.	-1
13	Manual station to automatic station (an agent be in the Suspended state).	-1	-1
20	Listening/ Insert/ Whisper	Employee ID.	0
22	Play voice.	-1	-1

Operation Type	Description	Operation Object	Operation Reason
26	Be on holiday or take a rest.	Employee ID.	The rest cause code is specified when the client invokes CCC_REQUEST_REST_EX_Msg. The default cause code is 0.
27	Work status.	-1	0: after-call processing. The business side is set to automatically enter the on-work state. 0-255: manual adjustment. An agent manually enters the on-work state by invoking the interface. The default value is 0, indicating the after-call processing state.
29	Forcibly sign out an agent.	Employee ID.	-1
30	Forcibly show an idle state for an agent.	Employee ID.	-1
31	Forcibly show a busy state for an agent.	Employee ID.	-1
32	Perform mute-on on a customer.	-1	-1
38	Hold a call by an agent.	Employee ID.	-1

Operation Type	Description	Operation Object	Operation Reason
40	Initiate an internal help request by an agent.	Employee ID.	<p>0: Indicates no help between uncertain parties.</p> <p>1: Indicates a two-party internal help.</p> <p>2: Indicates a three-party internal help.</p> <p>3: In speak transfer mode, the called party talks with the agent after answering the call; the called party is connected to the calling party when the agent releases the call.</p> <p>4: In three-party conversation transfer mode, the three-party conversation is set up when the called party answers the call; the called party is connected to the calling party when the agent releases the call.</p> <p>5: Indicates a three-party conversation.</p> <p>6: Indicates that the call is to be connected.</p>
41	Initiate an internal call by an agent.	Employee ID.	-1
43	Intercept a call.	Employee ID.	-1
44	Suspend voice playing.	-1	-1
45	Internal transfer.	Employee ID.	-1
46	Transfer-out.	-1	-1
47	Sign in to the media server.	-1	-1

Operation Type	Description	Operation Object	Operation Reason
52	Sign out of the media server.	-1	-1
53	Transfer a call that is queuing in a public queue.	-1	-1
54	Release transfer	-1	-1
55	Transfer to another device.	-1	-1
57	Hold the call when seeking internal help.	-1	-1
58	The agent enters the conference state.	Agent ID.	-1

13.2.3.5 Media Type

Table 13-129 Media type

Media Type	Description
1	Text chat
5	Common voice call

13.2.3.6 Description of Call Types

Call Type

Table 13-130 Call Type

ID	Call Type	Description
0	SP_CALL_NORMAL	Normal incoming call
5	SP_CALL_LONG	Incoming toll call
6	INTER_CALL	Internal call It refers to a call made by an agent to another agent. An internal call cannot be forwarded, or muted.
7	SP_CALL_OUT	Normal outgoing call It refers to an outgoing call made by agents.
8	OP_CALL_OUT	Agent outgoing call type
9	OP_PRI_OUT	Outgoing call in the PRI mode
10	IVR_CALL_OUT	Outgoing call through IVR
11	SELF_CALLOUT	Outgoing call made by a Phone agent
12	IVR_PRI_CALL	Outgoing call in the PRI mode through IVR
13	NIRC_CALL_IN	Incoming call to a networked call center
14	NIRC_CALL_OUT	Outgoing call of a networked call center
15	NIRC_SPY_CALL_IN	QC incoming call to a networked call center
16	NIRC_SPY_CALL_OUT	QC outgoing call of a networked call center
17	NIRC_INTER_CALL_IN	Internal incoming network call to a virtual agent
18	NIRC_INTER_CALL_OUT	Internal outgoing network call of a virtual agent
20	ICD_SP_OPS_AIDERCALL	Aid call
21	ICD_SP_OPS_INCALL	Incoming call (international agent)
22	ICD_SP_OPS_PASSCALL	Relay call

ID	Call Type	Description
23	ICD_SP_OPS_GI VECALL	Outgoing call (international agent)
40	OUTBOUND_C ALL_OUT	Ordering an outgoing call The system queries the reserved outgoing call database regularly. After obtaining the reserved calls whose time is earlier than the current computer time, the system forcibly makes the calls.
41	ICD_SP_OUTBO UND_PRE_OCC UPY	Pre-occupied an outgoing call The system occupies an idle agent and then makes an outgoing call. If making the outgoing call succeeds, the idle agent handles the call.
42	ICD_SP_OUTBO UND_PRE_CON NECT	Pre-connecting an outgoing call The system makes an outgoing call to a user. If making the call succeeds, the system connects the call to an agent when the phone of the user rings.
43	ICD_SP_OUTBO UND_VIRTUAL_ CALLIN	Virtual incoming and outgoing calls The system makes an outgoing call to a user. If making the call succeeds, the system connects the call to an agent after the user hooks off.
44	ICD_SP_OUTBO UND_PREVIEW	Previewing an outgoing call It refers to a call that is made by an agent after the agent previews the outgoing call information.
45	ICD_SP_OUTBO UND_CALLBAC K	Callback request If a Web user needs to contact a call center when browsing Web pages on Internet, the Web user can use the callback request service. An agent in the call center then dials the phone number specified by the Web user. After the call is connected, the web user follows the voice instruction of the agent and at the same time enjoy other services such as escorted browsing.
46	ICD_SP_IDD	International incoming toll call
50	ICD_SP_CBRT_C ALL	RBT call
51	ICD_SP_INTERN AL_TWO_HELP	Two-party help call When answering an incoming call, an agent can ask for internal help. In the case of a two-party help, the call of the customer is held, and the agent talks with the asked-for-help agent.

ID	Call Type	Description
52	ICD_SP_INTERNAL_THREE_HELP	Three-party help call When answering an incoming call, an agent can ask for internal help. In the case of a three-party help, the customer, agent, and asked-for-help agent can talk with each other. In the case of a two-party help, a three-party help can be initiated to form a three-party conversation.
60	ICD_SP_OUTBOUND_PRE_OCCUPY_PRI_CALL	Pre-occupied an outgoing call in the PRI mode
61	ICD_SP_OUTBOUND_PRE_CONNECT_PRI_CALL	Pre-connecting an outgoing call in the PRI mode
62	ICD_SP_OUTBOUND_VIRTUAL_CALLIN_PRI_CALL	Virtual incoming and outgoing calls in the PRI mode
63	ICD_SP_OUTBOUND_PREVIEW_PRI_CALL	Previewing an outgoing call in the PRI mode
64	ICD_SP_OUTBOUND_CALLBACK_PRI_CALL	Callback request in the PRI mode

13.2.3.7 Reasons for Leaving the Device of the Call

Table 13-131 Reasons for leaving the device of the call

Cause code	Description
0	Normal access/transfer.
1	Overflow transfer.
2	Timeout transfer.
3	Transfer on no agent.
4	Transfer on queue cancellation.
5	Transfer because the agent does not answer the call.
6	Resume a suspended call.
7	Connecting a held call.

Cause code	Description
8	Three-party help.
9	Picking a held call.
10	Three-party conversation.
11	The party requesting internal help releases the call.
12	The call is intercepted.
13	The call is picked up.
14	The analysis of the called is not configured.
15	The user releases the call.
16	The agent releases the call.
17	The call is transferred out.
18	The call is held.
19	An internal processing error occurs.
20	The called party is busy.
22	The mobile phone is switched off.
23	The mobile phone is out of the service area.
24	The called number does not exist.
25	The ACD cannot distribute any resources for the call.
26	The user does not answer the call.
27	The called party rejects the call.
28	The call is successfully transferred to a skill queue.
29	The three-party conversation is transferred to a skill queue.
30	Transferring the call in the success transfer mode times out.
31	Transferring the three-party conversation to a skill queue times out.
34	If call timeout or queuing on busy or overflow occurs, the network call fails.
35	The network call is directed to its original call center for queuing.

Cause code	Description
36	The queued call is re-routed.
37	The call accesses the CDN through call routing.
38	The call accesses the CDN through agent consultation.
39	The CDN properly returns a routing result.
40	CDN routing times out.
41	An agent cancels the consultation call, or the routing fails.
42	The call accesses the PGR because CDN routing times out.
43	The call is properly returned by the CDN and is routed to the PGR.
44	The call accesses the PGR through inbound routing.
45	The call accesses the PGR through agent consultation.
46	The agent is unreachable. The CDN reroutes the call.
47	The call is waiting in multiple queues.
48	The primary-queue call is answered by numbers in the secondary queue.
50	The agent rejects the call.
51	A user call joins in a conference call.
52	A conference chairperson proactively releases a conference, or the conference is released due to a CCS exception.
53	The participant is removed from the conference.
54	The call is transferred when the call completion rate is less than the threshold.
88	After the agent answers the call, the user hangs up.
89	After the agent answers the call, the user hangs up.

13.2.3.8 Description of Call Media Types

Media Type

Table 13-132 Media Type

ID	Media Type	Description
1	MEDIA_TYPE_CHAT	Text chat
2	MEDIA_TYPE_WEBPHONE	click-to-dial
3	MEDIA_TYPE_ESCORT	Escorted browsing and form sharing
4	MEDIA_TYPE_CALLBACK	Callback request call
5	MEDIA_TYPE_PHONE	Common voice call
6	MEDIA_TYPE_EMAIL	Email call
7	MEDIA_TYPE_FAX	Fax call
8	MEDIA_TYPE_VIDEO	IP video call (H.323)
9	MEDIA_TYPE_WB	Electronic white board
10	MEDIA_TYPE_APP_SHARE	Application sharing
11	MEDIA_TYPE_FILE_TRANSFER	File transfer
12	MEDIA_TYPE_VIDEO_2B1D	2B+D ISDN video call
13	MEDIA_TYPE_VIDEO_6B1D	6B+D ISDN video call
14	MEDIA_TYPE_OPS	OPS call
15	MEDIA_TYPE_PREDICT_OUTBOUND	Predict dialing
16	MEDIA_TYPE_PREVIEW_OUTBOUND	Preview dialing
17	MEDIA_TYPE_MSG	Message media
18	MEDIA_TYPE_WEBPHONE_VIDEO	Video click-to-dial
19	MEDIA_TYPE_PHONE_VIDEO	Video call
20	MEDIA_TYPE_WEB_LEAVE_MESSAGE	Non-real-time call
21	MEDIA_TYPE_DESKTOP_SHARE	Desktop Sharing Media Type
22	MEDIA_TYPE_VC_CALL	Calling number in a skill queue
23	CLASSIC_MEDIA_TYPE_NUM	Total number of contact media types.

ID	Media Type	Description
50	MEDIA_TYPE_MULTI_MEDIA_E MAILCHAT	E-mail chat
51	MEDIA_TYPE_MULTI_MEDIA_W EBCHAT	Internet Chat
52	MEDIA_TYPE_MULTI_MEDIA_S MSCHAT	SMS chat
53	MEDIA_TYPE_MULTI_MEDIA_S OCIALCHAT	Text chat
54	MEDIA_TYPE_MULTI_MEDIA_F AXCHAT	Fax chat
55	MEDIA_TYPE_MULTI_MEDIA_H 5CHAT	H5 video

13.2.3.9 Description of Call Submedia Types

Table 13-133 Call submedia types (corresponding to call media type No. 53)

No.	Submedia Type	Description
1	SUB_MEDIA_TYPE_WEB	Web
2	SUB_MEDIA_TYPE_WHATSAPP	WhatsApp
3	SUB_MEDIA_TYPE_LINE	LINE
4	SUB_MEDIA_TYPE_WECHAT	WeChat
5	SUB_MEDIA_TYPE_FACEBOOK	FaceBook Messenger
6	SUB_MEDIA_TYPE_TWITTER	Twitter
7	SUB_MEDIA_TYPE_5GMESSAGE	5G message
8	SUB_MEDIA_TYPE_EAMIL	Email
9	SUB_MEDIA_TYPE_SMS	SMS

14 Voice Notification Interface Reference

[14.1 Querying Voice Notification Recording Files \(queryVoiceNotificationRecording\)](#)

[14.2 Creating a Voice Notification \(V1.0.0\) \(createVoiceNotification\)](#)

[14.3 Creating a Voice Notification \(V2.0.0\) \(createVoiceNotification\)](#)

[14.4 Callback APIs](#)

14.1 Querying Voice Notification Recording Files (queryVoiceNotificationRecording)

Scenario

This API is invoked to query voice notification recording data, and queries only approved voice notification data.

To configure recording files, a system administrator can sign in to the AICC and choose **Configuration Center > Resource Management and Configuration > Audio and video Resource Management** to configure them, or invoke the API for uploading IVR voice files.

Method

POST

URI

<https://Domain name/apiaccess/rest/voiceNotification/v1/queryVoiceNotificationRecording>. For example, the domain name is service.besclouds.com.

Request Description

Table 14-1 Request header parameters

No.	Parameter	Type	Mandatory or Not	Description
1	X-APP-Key	String	Yes	App key field, which is the user ID. Contact the operation personnel to obtain the app key.
2	Authorization	String	Yes	Authentication field. The format is Bearer <i>{Value of AccessToken returned by the <code>tokenByAkSk</code> interface}</i> . (A space is required after Bearer .) For details about the generation mode, see 4.2 C1 System Configuration Interface Authentication .

Table 14-2 Request body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	reqBody	Object	Yes	-

No.	Parameter	Type	Mandatory or Not	Description
1.1	offset	Integer	No	<p>Start line number for query in pagination mode.</p> <p>The value 0 is transferred for the first query.</p> <p>Sequence number of the first record on the page when other pages are queried. The sequence number of the first record is 0, and the sequence numbers of subsequent records increase in order. For example, if 50 records are listed on each page, 50 is transferred for the first record on the second page.</p> <p>If this parameter is not transferred, the default value 0 is used, and there is no upper limit.</p>
1.2	limit	Integer	No	<p>Number of records on each page during pagination query. The value is a positive integer. If this parameter is not transferred, the default value 100 is used. The maximum value is 100. If a value greater than 100 is transferred, the value is converted to 100.</p>
1.3	type	Integer	No	<p>Recording file type. The options are 0 (audio) and 2 (text).</p>

Response Description

- **Status code: 200**

Table 14-3 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	schema	Object	Yes	-
1.1	returnCode	String	Yes	Return code. 0 : success; other values: failure (1 : incorrect request parameter type)
1.2	description	String	No	Return result description.
1.3	voicelInfo	Object	No	Recording information.
1.3.1	tenant_id	String	Yes	Tenant ID.
1.3.2	uploaddate	Number	Yes	Upload time, in timestamp format.
1.3.3	voice_id	String	Yes	Voice ID.
1.3.4	name	String	Yes	Recording name.
1.3.5	voicecontent	String	No	Voice content.
1.3.6	type	Number	Yes	The options are 0 (audio) and 2 (text).
1.3.7	tenantSpaceName	String	No	Tenant name.
1.3.8	auditaccount	String	No	Reviewer account.
1.3.9	noReference	boolean	No	Whether the prompt tone and fault tone are referenced.
1.3.10	auditcomments	String	No	Review comment.
1.3.11	auditdate	Number	No	Review time, in timestamp format.
1.3.12	scene	Number	No	Application scenario.
1.3.13	uploadaccount	String	No	Upload account.
1.3.14	isUpdateRec	Number	No	Whether the record is updated.

No.	Parameter	Type	Mandatory or Not	Description
1.3.1 5	status	Number	No	Callback status.
1.3.1 6	callbackTimes	Number	No	Number of callback times.

- **Status code: 400**
Incorrect request. Check the request path and parameters.
- **Status code: 401**
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 403**
Authentication fails.
- **Status code: 404**
The requested content is not found. Check the request path.
- **Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Request header:

```
{
  "Content-Type": application/json
  "x-app-key": *****
  "Authorization": Bearer *****
}
```

Request parameters:

```
{
  "offset":0,
  "limit":10,
  "type":2
}
```

Response parameters:

```
{
  "returnCode": "0",
  "description": "query success",
  "voiceInfo": [
    {
      "tenant_id": "20*****234",
      "uploaddate": "163*****4000",
      "voice_id": "113379*****9999",
      "name": "welcome",
      "voicecontent": "{\"0\":{\"languageId\":\"0\",\"textcontent\":\"Welcome\"}}",
    }
  ]
}
```

```

        "type": 2,
        "tenantSpaceName": "*****"
    },
]
}

```

14.2 Creating a Voice Notification (V1.0.0) (createVoiceNotification)

Scenario

When the voice notification function is used, this API is invoked to request the voice call platform to play a voice notification to a specified user.

Method

POST

URI

`https://Domain name/apiaccess/rest/voiceNotification/v1/createVoiceNotification`
(For example, the domain name is `service.besclouds.com`.)

Request Description

Table 14-4 Request header parameters

No.	Parameter	Type	Mandatory or Not	Description
1	X-APP-Key	String	Yes	App key field, which is the user ID. Contact the operation personnel to obtain the app key.
2	Authorization	String	Yes	Authentication field. The format is Bearer <i>{Value of AccessToken returned by the <code>tokenByAkSk</code> interface}</i> . (A space is required after Bearer .) For details about the generation mode, see 4.2 C1 System Configuration Interface Authentication .

Table 14-5 Request body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	reqBody	Object	Yes	-
1.1	voiceContent	String	Yes	<p>The value contains a maximum of 1000 characters.</p> <ul style="list-style-type: none"> • Voice IDs can be transferred. The voice IDs are separated by tildes (~), and can be queried using the /rest/voiceNotification/v1/queryVoiceNotificationRecording interface. If you upload a voice file on the AICC, the voice ID is the value of Voice Id on the IVR Voice page. • Texts can be transferred. The format is <i>#{Text}</i>#\$. The texts are separated by tildes (~), for example, <i>\$Tom\$~\$Jack\$</i>. • Voice IDs and texts can be transferred together. The format is <i>{Voice ID}~#{Text}</i> <i>\$~{Voice ID}</i>, for example, <i>1133*****999~\$Tom\$~2225*****149</i>.

No.	Parameter	Type	Mandatory or Not	Description
1.2	callerPresent	String	No	Calling number displayed on the user side. If this parameter is not carried, the access code of the tenant space is used by default. If this parameter is carried, the access code must be carried. If a non-access code number needs to be transferred, contact O&M personnel to enable the calling number anonymization feature. After this feature is enabled, the number verification rule is as follows: access code or a number of 11 to 14 digits.
1.3	called	String	Yes	Called number.

No.	Parameter	Type	Mandatory or Not	Description
1.4	callbackUrl	String	No	<p>URL for a customer to receive status reports.</p> <p>Use Base64 to encrypt this parameter using the UTF-8 standard character set.</p> <p>The AICC pushes the call status information during business triggering to the server, and the client server determines the user status based on the call status information.</p> <p>The URL can be set to https://IP address.Port number or a domain name. The domain name is recommended. HTTP and HTTPS are supported. The domain name can correspond to multiple servers to ensure that notifications can be received when a single point of failure occurs.</p> <p>HTTP involves security risks and is not recommended.</p> <p>The URL can contain only letters, digits , and the following special characters: -./_#?&</p> <p>The IP address and port number, or domain name of the URL must have been added to the mobile agent callback URL trustlist by the system administrator.</p>

No.	Parameter	Type	Mandatory or Not	Description
1.5	priority	String	No	Playback priority of a voice notification. The value is an integer ranging from 1 to 9. The default value is 9 . A smaller value indicates a higher priority.

 **NOTE**

If TTS is involved, sign in to the AICC as a system administrator, choose **Configuration Center > Flow Configuration > Intelligent IVR > System Management > TTS/ASR Management**, and specify the TTS vendor. The configuration takes effect one minute later.

Response Description

- **Status code: 200**

Table 14-6 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	schema	Object	Yes	-

No.	Parameter	Type	Mandatory or Not	Description
1.1	retCode	String	Yes	<p>Returned code (0 indicates success).</p> <p>1: A task is in progress. Try again later.</p> <p>2: The value length of callData exceeds 1024 characters.</p> <p>3: Creation failed. No call SN is generated.</p> <p>4: The format of softphone does not match the rule.</p> <p>5: The value of caller or called is not transferred, or the format does not match the rule.</p> <p>6: The VDN is not enabled.</p> <p>7: callerPresent or agentPresent fails to pass the verification.</p> <p>8: The value of voiceContent is empty, exceeds the upper limit, or does not exist.</p> <p>9: The value of callbackUrl does not meet the requirements.</p> <p>16: The tenant is in trial commercial use state, and the called number is not in the trustlist.</p> <p>36: The value of priority is in an incorrect format.</p>
1.2	retMsg	String	No	Return result description.

No.	Parameter	Type	Mandatory or Not	Description
1.3	result	Object	No	This parameter is mandatory when retCode is set to 0 .
1.3.1	callSerialNo	String	Yes	Call SN.

- Status code: 400**
 Incorrect request. Check the request path and parameters.
- Status code: 401**
 Unauthorized operation.
 - Check whether you have purchased related services.
 - Contact customer service to check the status of your account.
- Status code: 403**
 Authentication fails.
- Status code: 404**
 The requested content is not found. Check the request path.
- Status code: 500**
 Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Request header:

```
{
  "Content-Type": application/json
  "x-app-key": ****
  "Authorization": Bearer ****
}
```

Request parameters:

```
{
  "voiceContent": "1133*****999~$Tom$~2225*****149",
  "callerPresent": null,
  "called": "88880000"
}
```

Response parameters:

```
{
  "result": {
    "callSerialNo": "11827*****7090"
  },
  "retCode": "0",
  "retMsg": "Created successfully."
}
```

14.3 Creating a Voice Notification (V2.0.0) (createVoiceNotification)

Scenario

When the voice notification function is used, this API is invoked to request the voice call platform to play a voice notification to a specified user.

Compared with the original API for creating voice notification, the voice file setting method in the request parameters of the API for creating voice notification (V2) is different. In this version, the text-to-speech (TTS) template and template variables can be set. In addition, users can set the timbre, speed, and volume of the voice when using the TTS function.

Method

POST

URI

`https://Domain name/apiaccess/rest/voiceNotification/v2/createVoiceNotification.`
For example, the domain name is `service.besclouds.com`.

Request Description

Table 14-7 Request header parameters

No.	Parameter	Type	Mandatory or Not	Description
1	X-APP-Key	String	Yes	App key field, which is the user ID. Contact the operation personnel to obtain the app key.
2	Authorization	String	Yes	Authentication field. The format is Bearer <i>{Value of AccessToken returned by the <code>tokenByAkSk</code> interface}</i> . (A space is required after Bearer .) For details about the generation mode, see 4.2 C1 System Configuration Interface Authentication .

Table 14-8 Request body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	requestBody	Object	Yes	-
1.1	callerPresent	String	No	Calling number displayed on the user side. If this parameter is not carried, the access code of the tenant space is used by default. If this parameter is carried, the access code must be carried. If a non-access code number needs to be transferred, contact O&M personnel to enable the calling number anonymization feature. After this feature is enabled, the number verification rule is as follows: access code or a number of 11 to 14 digits.
1.2	called	String	Yes	Called number.

No.	Parameter	Type	Mandatory or Not	Description
1.3	callbackUrl	String	No	<p>URL for a customer to receive status reports.</p> <p>Use Base64 to encrypt this parameter using the UTF-8 standard character set.</p> <p>The AICC pushes the call status information during business triggering to the server, and the client server determines the user status based on the call status information.</p> <p>The URL can be set to https://IP address.Port number or a domain name. The domain name is recommended. HTTP and HTTPS are supported. The domain name can correspond to multiple servers to ensure that notifications can be received when a single point of failure occurs.</p> <p>HTTP involves security risks and is not recommended.</p> <p>The URL can contain only letters, digits , and the following special characters: -./_#?&</p> <p>The IP address and port number, or domain name of the URL must have been added to the mobile agent callback URL trustlist by the system administrator.</p>

No.	Parameter	Type	Mandatory or Not	Description
1.4	playList	Array [Object]	Yes	Playback information list. A maximum of five playback information records are supported.
1.4.1	voiceId	String	No	<p>Voice ID.</p> <p>You can invoke the /rest/voiceNotification/v1/queryVoiceNotificationRecording API to query the value of voice_id whose recording file type is voice.</p> <p>If you upload a voice file on the AICC, the voice ID is the value of Voice Id whose Usage Scenario is Voice notification and Type is Voice on the IVR Voice page. For details about the upload procedure, see Configuring a Voice File.</p>

No.	Parameter	Type	Mandatory or Not	Description
1.4.2	voiceFileName	String	No	<p>IVR voice name.</p> <ul style="list-style-type: none">• If you upload an IVR voice file through the /rest/cc-management/v1/importVoiceFile/upload API, the IVR voice name is the value of voiceFileName in the request body.• If you upload a voice file on the AICC, the IVR voice name is the value of Name whose Usage Scenario is Voice notification on the IVR Voice page. For details about the upload procedure, see Configuring a Voice File.

No.	Parameter	Type	Mandatory or Not	Description
1.4.3	templated	String	No	<p>TTS template ID.</p> <ul style="list-style-type: none"> • If you upload a TTS template on the AICC, the template ID is the value of Voice Id whose Usage Scenario is Voice notification and Type is Voice on the IVR Voice page. For details about the upload procedure, see Configuring a Voice File. • If you use the /rest/cc-management/v1/createVoiceTemplate API to upload the TTS template file, the template ID is the value of templated in the response parameters.

No.	Parameter	Type	Mandatory or Not	Description
1.4.4	templateParams	Array	No	<p>List of variable values in the TTS template. This parameter is used to fill in the variables specified by templateId in sequence.</p> <p>The parameter value must be encoded in UTF-8 format and cannot contain the following characters: \$ {}</p> <p>The number and length of variables in the list must be the same as those defined in the template specified by templateId. For example, if the template specified by templateId has two variables whose lengths are 5 and 6 respectively, you need to set two variable values whose lengths are less than or equal to 5 and 6 respectively.</p> <p>If the template content is You have \$ {NUM_2} parcels delivered to \$ {TXT_32}, this parameter can be set to "3", "main gate of People's Park".</p>
1.5	playTimes	Integer	No	<p>Number of times that the playback information list is repeatedly played. The value ranges from 1 to 5. The default value is 1.</p>

No.	Parameter	Type	Mandatory or Not	Description
1.6	priority	String	No	Playback priority of a voice notification. The value is an integer ranging from 1 to 9. The default value is 9 . A smaller value indicates a higher priority.

 NOTE

If TTS is involved, sign in to the AICC as a system administrator, choose **Configuration Center > Flow Configuration > Intelligent IVR > System Management > TTS/ASR Management**, and specify the TTS vendor. The configuration takes effect one minute later.

Response Description

- **Status code: 200**

Table 14-9 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	schema	Object	Yes	-
1.1	retCode	String	Yes	Return code. For details, see Table 14-10 .
1.2	retMsg	String	No	Return result description.
1.3	result	Object	No	This parameter is mandatory when retCode is set to 0 .
1.3.1	callSerialNo	String	Yes	Call SN.

Table 14-10 Return codes

No.	Return Code	Description
1.1.1	0	Success.

No.	Return Code	Description
1.1.2	1	A task is in progress. Try again later.
1.1.3	3	Creation failed. No call SN is generated.
1.1.4	4	The format of softphone does not match the rule.
1.1.5	5	The value of called is not transferred, or the format does not match the rule.
1.1.6	6	The VDN is not enabled.
1.1.7	7	callerPresent fails to pass the verification.
1.1.8	9	The value of callBackUrl does not meet the requirements.
1.1.9	10	The value of playTimes must be greater than or equal to 1 and less than or equal to 5.
1.1.10	11	The playList array is empty or the array size is greater than 5.
1.1.11	12	Both voiceld and templated are empty.
1.1.12	13	The length of a single variable exceeds 32 bytes.
1.1.13	14	The format of the parameter value in templateParams is incorrect. The parameter value contains at least one of the following characters: \${}.
1.1.14	15	The templateParams array is empty or the array size is greater than 10.
1.1.15	16	The tenant is in trial commercial use state, and the called number is not in the trustlist.
1.1.16	17	The voice or TTS file data does not exist.
1.1.17	18	The recording or TTS text files are not used in voice notification scenarios.
1.1.18	19	The recording or TTS text file is not submitted.
1.1.19	20	The recording or TTS text file is submitted but not approved.
1.1.20	21	The recording or TTS text file is rejected.
1.1.21	22	The file type corresponding to templated is not text.

No.	Return Code	Description
1.1.2 2	23	The file type corresponding to voiceld is not voice.
1.1.2 3	24	The recording file or TTS file data does not exist in the database.
1.1.2 4	25	The size of the templateParams array is different from the number of variables defined in the template corresponding to templated .
1.1.2 5	26	The date format of the parameter value in templateParams is incorrect.
1.1.2 6	27	The time format of the parameter value in templateParams is incorrect.
1.1.2 7	28	The format of the voice notification template is incorrect.
1.1.2 8	29	The length of the parameter value in templateParams cannot be greater than that of the variable defined in the template specified by templated . For example, if the variable defined in the template is NUM_6 (6 indicates that the maximum length is 6) and the corresponding input parameter value is 1234567 , the verification fails.
1.1.2 9	30	The byte length of the parameter value in templateParams cannot be greater than that of the variable defined in the template specified by templated . For example, the variable defined in the template is NUM_14 (14 indicates that the maximum byte length is 14).
1.1.3 0	31	The value of the variable NUM_Number in templateParams can be only a digit.
1.1.3 1	32	The value length of the variable NUM_Number in templateParams is greater than 9.
1.1.3 2	33	The value of voiceFileName does not exist.
1.1.3 3	34	The file type corresponding to the input parameter voiceFileName is not voice.
1.1.3 4	35	The values of elements in the templateParams array cannot be empty.
1.1.3 5	36	The value of priority is in an incorrect format.

- **Status code: 400**

Incorrect request. Check the request path and parameters.

- **Status code: 401**
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 403**
Authentication fails.
- **Status code: 404**
The requested content is not found. Check the request path.
- **Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Request header:

```
{
  "Content-Type": application/json
  "x-app-key": ****
  "Authorization": Bearer ****
}
```

Request parameters:

```
{
  "callerPresent": null,
  "called": "88880000",
  "playlist": [
    {
      "voicelid": "1201763136043459597"
    },
    {
      "templatelid": "1226170940666061826",
      "templateParams": [
        "3",
        "Main Gate of People's Park"
      ]
    }
  ]
}
```

Response parameters:

```
{
  "result": {
    "callSerialNo": "11827*****7090"
  },
  "retCode": "0",
  "retMsg": "Created successfully."
}
```

14.4 Callback APIs

14.4.1 Callback API Description

The AICC can call back the URL provided by a third-party system to push the current call event to the third-party system.

Due to the continuous evolution of the system, the callback URL of the voice notification can be configured in either of the following methods:

- Configuration on the GUI: A tenant administrator can choose **Configuration Center > Expansion Management > Voice Notification** and set **Hang-up Callback URL** under **VOICE NOTIFICATION CALLBACK CONFIGURATION**.
- Configuration using the API for creating a voice notification: Pass the request parameter **callbackUrl** when invoking the API for creating a voice notification.

NOTE

- For configuration of the callback URL on the GUI, no URL authentication is performed, which may cause security risks. Exercise caution when using this mode.
- If the callback URL is configured in both methods, the URL passed by the API is preferred. You are advised to pass the **callbackUrl** parameter using the API, and configure the shared key.

Signature Algorithm of the Voice Notification Callback API

- **Signature algorithm (authentication) prerequisites**
When the URL is passed through the voice notification creation API and **Shared Key** is configured on the **Callback Url Configuration** page, verify the signature by referring to this section.
- **Authentication procedure**
 - a. The following fields are added to the request input parameters of the release event callback API:
timestamp: current timestamp
nonce: random string
signature: authentication signature
 - b. After the customer receives the callback request, an authentication signature is generated based on the signature algorithm and will be verified based on **signature** in the input parameter. The verification passes upon consistency.
- **Signature string generation method**
 - a. Sort all request parameters (except **timestamp**, **nonce**, and **signature**) in lexicographic order based on parameter names and combine them into a string using commas (.). For example, the parameters in **{"b":"2", "a":1}** are sorted and combined into the string **"a=1, b=2"**.
 - b. Generate the values of **timestamp** (timestamp) and **nonce** (random string) and combine them with the value of **appSecret** (shared key configured on the GUI) and the string generated in **a** using underscores (_). The format is **{Value of appSecret}_{Value of timestamp}_{Value of nonce}_{String generated in a}**.
 - c. Encrypt the value into a byte array using the SHA256 algorithm and encode the array using Base64.

- **Reference code**

```
import javax.crypto.Mac;
import javax.crypto.spec.SecretKeySpec;

private String generateSignature(TreeMap<String, Object> callbackParameters, String nonce, long
timestamp, String appSecret) {
    // {Value of appSecret}_{Value of timestamp}_{Value of nonce}_Parameters
    // For example, the parameters in {"b":2", "a":1} are sorted and combined into the string "a=1,
b=2".
    String paramStr = callbackParameters.toString().replace(" ", "");
    String toSignString = appSecret + "_" + timestamp + "_" + nonce + "_" +
        paramStr.substring(1, paramStr.length() - 1);
    return
Base64.encodeBase64String(tokenByHmacSha256(toSignString.getBytes(StandardCharsets.UTF_8),
appSecret));
}

public static byte[] tokenByHmacSha256(byte[] dataBytes, String appSecret) {
    try {
        Mac mac = Mac.getInstance("HmacSHA256");
        byte[] key = appSecret.getBytes(StandardCharsets.UTF_8);
        SecretKeySpec secretKey = new SecretKeySpec(key, "HmacSHA256");
        mac.init(secretKey);return mac.doFinal(dataBytes);
    } catch (Exception e) {
        LOGGER.error("tokenByHmacSha256 failed: ", e);throw new RuntimeException("HmacSha256
run failed.");
    }
}
```

14.4.2 Release Event Callback API

Scenario

This API is invoked to push a call release event.

Method

POST

URL

Defined by a third-party system.

The voice notification callback URL can be configured in either of the following methods:

- Configuration on the GUI: A tenant administrator can choose **Configuration Center > Expansion Management > Voice Notification** and set **Hang-up Callback URL** under **VOICE NOTIFICATION CALLBACK CONFIGURATION**.
- Configuration using the API for creating a voice notification: Pass the request parameter **callbackUrl** when invoking the API for creating a voice notification.

Request Description

- Request header parameters
None
- Request body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	callSerialNo	String	Yes	Call SN. Length limit: string (50)
2	called	String	Yes	Called number.
3	signature	String	No	Signature. This parameter is mandatory when the callback URL is passed using the API for creating a voice notification and Shared Key is configured on the Callback Url Configuration page.
4	timestamp	String	No	Timestamp. This parameter is mandatory when the callback URL is passed using the API for creating a voice notification and Shared Key is configured on the Callback Url Configuration page.
5	nonce	String	No	Random number. This parameter is mandatory when the callback URL is passed using the API for creating a voice notification and Shared Key is configured on the Callback Url Configuration page.
6	callerPresent	String	No	CLIP number of the calling party.
7	createCallTime	String	No	Time when a call is initiated, for example, 2022/02/17,13:10:06:836 .

No.	Parameter	Type	Mandatory or Not	Description
8	alertingTime	String	No	Ring time of the user's phone.
9	talkingTime	String	No	Call connection time.
10	releaseTime	String	No	Call release time.
11	talkDuration	String	No	Call duration.
12	recordfile	String	No	Path to the voice recording file.
13	locationId	String	No	Voice recording node.
14	releaseReason	String	No	<p>Call release cause code. The options are as follows:</p> <p>0: The called party releases the call after the call is connected.</p> <p>1: After the call is connected, the system automatically releases the call when the voice notification is finished.</p> <p>4: The called party rejects the call or does not answer the call within the specified period after ringing.</p> <p>6: The call fails before ringing.</p> <p>8: No resource is available.</p> <p>9: The ACD times out.</p> <p>10: The call is restricted.</p> <p>999: The UAP fails to initiate a recording conference.</p>

Response Description

Response code: 200

- Response message

No.	Parameter	Type	Mandatory or Not	Description
1	retCode	String	Yes	Result code. The value 0 indicates success, and other values indicate failure.
2	retMsg	String	Yes	Failure cause.

Example

Request parameters:

```
{
  alertingTime=2022/02/22,10:04:29:004,
  callSerialNo=1197765398201387012,
  called=88880067,
  callerPresent=960003,
  createCallTime=2022/02/22,10:04:28:823,
  locationId=0,
  nonce=-1482421808053124529,
  recordfile=Y:/2/mobileAgent/20220222/1645524268-824.wav,
  releaseReason=0,
  releaseTime=2022/02/22,10:04:36:318,
  signature=+lk*****50=,
  talkDuration=0,
  talkingTime=2022/02/22,10:04:30:418,
  timestamp=1645524163326
}
```

Response parameters:

```
{
  "retCode": "0",
  "retMsg": "success"
}
```

15 OMA Interface Reference

15.1 Business Software Mall Connection Interfaces

15.1 Business Software Mall Connection Interfaces

15.1.1 Querying Customer Information

Description

This interface is invoked by the business software mall to query business software mall customer information stored on the OMA. (Currently, this interface is provided for the business software mall official website for trial use.)

Method

GET

URI

<https://Domain name/rest/oma/softwareconsole/tenant/querytenantbasic> (For example, the domain name is service.besclouds.com.)

Request Description

Table 15-1 Request header parameter

No.	Parameter	Type	Mandatory or Not	Description
1	X-Auth-Token	String	Yes	Value of access-token of a business software mall user

Response Description

- **Status code: 200**

Table 15-2 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	schema	Object	Yes	Success response code, which indicates that the query is successful
1.1	mobilePhone	String	Yes	Customer mobile number, which has been masked
1.2	company	String	Yes	Customer company name, which has been masked
1.3	customerName	String	Yes	Contact name, which has been masked
1.4	email	String	Yes	Email address, which has been masked
1.5	vdn	String	Yes	VDN
1.6	createDate	Number	Yes	Creation time
1.7	tenantSpaces	String	Yes	Tenant space status
1.8	portalUrl	String	Yes	URL for signing in to the AICC

- **Status code: 401**

Table 15-3 Response body parameter

No.	Parameter	Type	Mandatory or Not	Description
1	schema	String	Yes	Unauthorized operation. 1. Check whether you have purchased services related to the AICC. 2. Sign in to the AICC as a system administrator and check whether the value of Business Software Mall Official Website under System parameters > Unified Public Configuration > Cloud Customers is correct. 3. Check whether the request header parameter is correctly set.

- **Response status code: 502**

Table 15-4 Response body parameter

No.	Parameter	Type	Mandatory or Not	Description
1	schema	String	Yes	The business fails.

Example

- Scenario: The business software mall invokes this interface to query customer information.
URL: /rest/oma/softwareconsole/tenant/querytenantbasic
- Request header


```
{
  "X-Auth-Token": "000000000srLl4pnoBc*****9DvgIB87KzYpxMdE9+vvzLZqYlw="
}
```
- Response header


```
{
  "connection": "keep-alive",
  "Content-Length": "16",
  "Content-Type": "application/json%3Bcharset=UTF-8"
}
```
- Response body


```
{
  "mobilePhone": "153****0991",
```



```

"company": "Huawei XXXXXXXXX",
"customerName": "zXXXXXX",
"email": "sunk***@huawei.com",
"vdn": "150",
"createDate": "1681203525000",
"tenantSpaceStatus": "2",
"portalUrl": "https://software.huawei.com/auth?client_id=xxxx&redirect_uri=https://xxx.com/service-cloud/sm/login/portal.html"
}
    
```

15.1.2 Querying Subscription Information

Description

This interface is invoked by the business software mall to query business software mall subscription information stored on the OMA. (Currently, this interface is provided for the business software mall official website for trial use.)

Method

POST

URI

<https://Domain name/rest/oma/softwareconsole/tenant/queryresource> (For example, the domain name is service.besclouds.com.)

Request Description

Table 15-5 Request header parameter

No.	Parameter	Type	Mandatory or Not	Description
1	X-Auth-Token	String	Yes	Value of access-token of a business software mall user

Request parameters

No.	Parameter	Type	Mandatory or Not	Description
1	limit	Integer	Yes	Number of records on each page. The value must be less than 100.
2	offset	Integer	Yes	Offset. The value must be greater than or equal to 0.
3	startDate	Long	No	Subscription start timestamp

No.	Parameter	Type	Mandatory or Not	Description
4	endDate	Long	No	Subscription end timestamp

Response Description

- Status code: 200

Table 15-6 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	result	Object []	Yes	Result
1.1	orderId	String	Yes	Order ID
1.2	opType	String	Yes	Type
1.3	remark	String	Yes	Remarks
1.4	skuName	String	Yes	Product type
1.5	modifyTime	String	Yes	Modification time
1.6	orderAmount	String	Yes	Order amount
1.7	procutName	String	Yes	Charging mode
1.8	vdnId	String	Yes	VDN ID
1.9	customerId	String	Yes	Customer ID
1.10	company	String	Yes	Company
1.11	id	String	Yes	ID
1.12	manualStatus	String	Yes	Processing status
1.13	cecTenantId	String	Yes	CEC tenant ID
1.14	amount	String	Yes	Number of subscriptions
1.15	periodNumber	String	Yes	Number of subscription periods
1.16	productId	String	Yes	Charging mode code
1.17	autoStatus	String	Yes	Automatic processing status
1.18	customerName	String	Yes	Customer name

No.	Parameter	Type	Mandatory or Not	Description
1.19	cecExpireTime	String	Yes	Expiration time manually calculated
1.20	cecTenantName	String	Yes	CEC tenant name
1.21	createSource	String	Yes	Source
1.22	periodType	String	Yes	Subscription unit
1.23	expireTime	String	Yes	Expiration time
1.24	createTime	String	Yes	Subscription time
1.25	skuCode	String	Yes	SKU code
1.26	cecFeatureType	String	Yes	Feature type
1.27	trialFlag	Integer	Yes	Trial use or not
1.28	retryTimes	String	Yes	Maximum number of retry times
1.29	status	String	Yes	Order instance status <ul style="list-style-type: none">● 2: effective● 8: expired● 9: historical
2	count	String	Yes	Total number of records
3	returnCode	String	Yes	Returned response code
4	description	String	Yes	Description

- **Status code: 401**

Table 15-7 Response body parameter

No.	Parameter	Type	Mandatory or Not	Description
1	schema	String	Yes	Unauthorized operation. 1. Check whether you have purchased services related to the AICC. 2. Sign in to the AICC as the system administrator and check whether the value of Business Software Mall Official Website under System parameters > Unified Public Configuration > Cloud Customers is correct. 3. Check whether the request header parameter is correctly set.

- **Response status code: 502**

Table 15-8 Response body parameter

No.	Parameter	Type	Mandatory or Not	Description
1	schema	String	Yes	Business failure

Example

- Scenario: The business software mall invokes this interface to query subscription information.

URL: /rest/oma/softwareconsole/tenant/queryresource

- Request header

```
{
  "X-Auth-Token":"000000000srLl4pnoBc*****9DvgIB87KzYpxMdE9+vvzLZqYlw="
}
```

- Request body

```
{
  "limit":"10",
  "offset":"0",
  "startDate":1679558854000,
  "endDate":1679558854001
}
```

- Response header

```
{
  "connection": "keep-alive",
  "Content-Length": "16",
  "Content-Type": "application/json%3Bcharset=UTF-8"
}
```
- Response body

```
{
  "result": [{
    "orderId": "251679538126441114",
    "opType": "newInstance",
    "remark": null,
    "skuName": "telemarketing agent",
    "modifyTime": 1679558854000,
    "orderAmount": "36000",
    "procutName": "monthly",
    "vdnId": "131",
    "customerId": "20220727032236821699",
    "company": "tttttttttt",
    "id": "1638814724192780290",
    "manualStatus": "0",
    "cecTenantId": "202303232614",
    "amount": "1",
    "periodNumber": "2",
    "productId": "0GbV000000wG80TFeSIU",
    "autoStatus": "2",
    "customerName": "zhangsang",
    "cecExpireTime": 1684829253000,
    "cecTenantName": "Tenant07323220",
    "createSource": "GTS",
    "periodType": "month",
    "expireTime": 1684722289000,
    "createTime": 1679558853000,
    "skuCode": "d52b28fa-e0a7-a8f7-8356-0f0aea54b862"
  }],
  "count": 1,
  "returnCode": "0",
  "description": "success"
}
```

15.1.3 Calling Back Data by the Huawei IMC

Description

This interface is invoked by the Huawei IMC to call back data.

Method

POST

URI

<https://Domain name/apiaccess/rest/oma/v1/imcopenapi/callback> (For example, the domain name is service.besclouds.com.)

Request Description

Table 15-9 Request body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	reqBody	Object	No	-
1.1	data	String	No	Encrypted message body, which needs to be decrypted to obtain the message content. The sent data varies according to the event type.
1.2	signature	String	No	Message signature, which is used to verify whether the request comes from the IMC

Response Description

- **Status code: 200**

Table 15-10 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	schema	Object	No	Returned message
1.1	code	String	No	Return code. The value 200 indicates success.
1.2	message	String	No	Return code description
1.3	data	String	No	Encrypted message body, which needs to be decrypted to obtain the message content. The sent data varies according to the event type.

- **Status code: 400**

Incorrect request. Check the request path and parameters.

- **Status code: 401**
Unauthorized operation. Check whether related services are authorized.
- **Status code: 404**
The requested content is not found. Check the request path.
- **Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Request header: none

Request parameters:

```
{  
  "data": "XXXXX",  
  "signature": "YYYYYY"  
}
```

Response parameters:

```
{  
  code: "200",  
  message: "success",  
  data: "XXXXX"  
}
```

15.1.4 Querying Basic Trial Tenant Information by the Business Software Mall

Description

This interface is invoked to query basic trial tenant information. It is open to the business software mall official website.

Method

GET

URI

<https://Domain name/rest/oma/softwareconsole/trialtenant/querytenantinfo> (For example, the domain name is software.huawei.com.)

Request Description

Table 15-11 Request header parameter

No.	Parameter	Type	Mandatory or Not	Description
1	X-Auth-Token	String	Yes	Value of access-token of a business software mall user

Response Description

- **Status code: 200**

Table 15-12 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	createDate	Number	Yes	Creation time
2	expiryDate	Number	Yes	Expiration time
3	company	String	Yes	Customer company name, which has been masked
4	customerName	String	Yes	Contact name, which has been masked
5	email	String	Yes	Email address, which has been masked
6	mobilePhone	String	Yes	Customer mobile number, which has been masked
7	tenantSpaceStatus	String	Yes	Tenant space status
8	portalUrl	String	Yes	URL for signing in to the AICC

- **Status code: 400**
Incorrect request. Check the request path and parameters.
- **Status code: 401**
Unauthorized operation. Check whether related services are authorized.
- **Status code: 404**
The requested content is not found. Check the request path.

- **Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Request header:

```
{  
  "X-Auth-Token": "*****"  
}
```

Response parameters:

```
{  
  "expiryDate": 1684650886000,  
  "mobilePhone": "132****7077",  
  "portalUrl": "https://software.huawei.com/auth?client_id=xxxxx&redirect_uri=https://xxx.com/service-  
cloud/sm/login/portal.html",  
  "company": "xxx",  
  "tenantSpaceStatus": "5",  
  "customerName": "xxx",  
  "email": "wanf****@huawei.com",  
  "createDate": 1681203525000  
}
```

15.1.5 Querying System Parameters by the Business Software Mall

Description

This interface is invoked to query system parameters. It is open to the business software mall official website.

Method

GET

URI

`https://Domain name/rest/oma/softwareconsole/system/querysoftwaresysparams`
(For example, the domain name is software.huawei.com.)

Request Description

Table 15-13 Request header parameter

No.	Parameter	Type	Mandatory or Not	Description
1	X-Auth-Token	String	Yes	Token of the business software mall official website

Response Description

- **Status code: 200**

Table 15-14 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	softwareCloudUrl	String	Yes	URL of the connected business software mall official website
2	clientId	String	Yes	Client ID of the connected business software mall official website
3	privacyStatementId	String	Yes	ID of the AICC privacy statement on the business software mall official website
4	privacyStatementUrl	String	Yes	URL of the AICC privacy statement on the business software mall official website

- **Status code: 400**
Incorrect request. Check the request path and parameters.
- **Status code: 401**
Unauthorized operation. Check whether related services are authorized.
- **Status code: 404**
The requested content is not found. Check the request path.
- **Status code: 500**

Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Request header:

```
{  
  "X-Auth-Token": "*****"  
}
```

Response parameters:

```
{  
  "clientId": "xxx",  
  "privacyStatementUrl": "xxx",  
  "privacyStatementId": "xxx",  
  "softwareCloudUrl": "https://software.huawei.com"  
}
```

16 DataProcess Interface Reference

16.1 Querying Call Result Data

16.1 Querying Call Result Data

Scenario

This interface is invoked to query CDR data and satisfaction information from Elasticsearch.

Method

POST

URI

`https://Domain name/apiaccess/rest/dataprocess/v1/openapp/queryCallManualDetailInfo`

For example, the domain name is `service.besclouds.com`.

Request Description

Table 16-1 Request header parameters

No.	Parameter	Type	Mandatory or Not	Description
1	X-APP-Key	String	No	App key ID. Obtain the value from the APP Service > APP Management page.

No.	Parameter	Type	Mandatory or Not	Description
2	Authorization	String	Yes	Authentication field. The format is Bearer {Value of AccessToken returned by the <i>tokenByAkSk</i> interface}. (A space is required after Bearer .)

Table 16-2 Request body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	subCcNo	String	Yes	Call center ID
2	vdn	String	Yes	Tenant VDN ID
3	callId	String	No	<ul style="list-style-type: none"> If the value of callId is not empty, beginDate and endDate are optional. If the value of callId is empty, either beginDate or endDate must be set.
4	callerNo	String	No	Calling number
5	calleeNo	String	No	Called number
6	beginDate	String	No	<ul style="list-style-type: none"> If the value of callId is not empty, beginDate and endDate are optional. If the value of callId is empty, either beginDate or endDate must be set.

No.	Parameter	Type	Mandatory or Not	Description
7	endDate	String	No	<ul style="list-style-type: none"> • If the value of callId is not empty, beginDate and endDate are optional. • If the value of callId is empty, either beginDate or endDate must be set.
8	callType	String	No	Call type <ul style="list-style-type: none"> • 0: inbound call • 1: outbound call • 2: predicted outbound call • 3: previewed outbound call • 4: preempted outbound call • 10: bidirectional call • 11: collaborative call • 12: click-to-dial call
9	mediaType	String	No	Multimedia type <ul style="list-style-type: none"> 2: voice click-to-dial 5: voice 18: video click-to-dial 19: video 53: multimedia
10	evaluationValue	String	No	Satisfaction evaluation value The options are the satisfaction levels configured on the Configuration Center > Workbench Configuration > Satisfaction Survey page.

Response Description

- Status code: 200

Table 16-3 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1.1	total	String	No	Total number of returned results
1.2	results	object	No	Returned results
1.2.1	logDate	String	No	Daily settlement time
1.2.2	callerNo	String	No	Calling number
1.2.3	calleeNo	String	No	Called number
1.2.4	callId	String	No	Call ID
1.2.5	callType	String	No	Call type <ul style="list-style-type: none"> • 0: inbound call • 1: outbound call • 2: predicted outbound call • 3: previewed outbound call • 4: preempted outbound call • 10: bidirectional call • 11: collaborative call • 12: click-to-dial call
1.2.6	mediatype	String	No	Multimedia type <ul style="list-style-type: none"> 2: voice click-to-dial 5: voice 18: video click-to-dial 19: video 53: multimedia
1.2.7	waitBegin	String	No	Call waiting start time
1.2.8	ackBegin	String	No	Call answering start time
1.2.9	callBegin	String	No	Call start time
1.2.10	callEnd	String	No	Call end time

No.	Parameter	Type	Mandatory or Not	Description
1.2.11	vdn	String	No	Tenant VDN ID
1.2.12	leaveReason	String	No	Reason why a call is disconnected from a device
1.2.13	evaluationValue	String	No	Satisfaction evaluation value The options are the satisfaction levels configured on the Configuration Center > Workbench Configuration > Satisfaction Survey page.

- **Status code: 400**
Incorrect request. Check the request path and parameters.
- **Status code: 401**
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 404**
The requested content is not found. Check the request path.
- **Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

- Query CDR data and satisfaction information from Elasticsearch.

Request header:

```
X-TenantSpaceID:202101134979
Authorization:Bearer 3b5d****23c9
X-app-key:b7bd****cb8c
```

Request parameters:

```
{
  "subCcNo": "0",
  "vdn": "0",
  "callId": "0",
  "callerNo": "0",
  "calleeNo": "",
  "beginDate": "1658102400000",
  "endDate": "1658188800000",
  "callType": "0",
```



```
"mediaType": "10",  
"evaluationValue": "10"  
}
```

Response parameters:

```
{  
  "total":2,  
  "results":[  
    {  
      "callId":"1669464198-17002955",  
      "vdn":1,  
      "evaluationValue":"1",  
      "callBegin":"100010"  
    },  
    {  
      "callId":"1669463446-17002406",  
      "vdn":1,  
      "evaluationValue":"5",  
      "callBegin":"100010"  
    }  
  ]  
}
```

17 Other Interfaces Reference

[17.1 Verifying Token Information](#)

[17.2 Generating a Verification Code for One-Click Trial Use](#)

[17.3 Applying for One-Click Trial Use of a Tenant](#)

[17.4 API Fabric Interfaces Provided for AICC Internal NEs](#)

17.1 Verifying Token Information

Scenario

This interface is invoked to verify token information. It is used in the scenario where the mobile app interconnects with the AppCube. After obtaining a token from the mobile app, the AppCube invokes this interface to parse the token to obtain user information and open the AppCube page.

Method

POST

URI

<https://Domain name/apiaccess/rest/service-pub/authentication> (For example, the domain name is service.besclouds.com.)

Request Description

Table 17-1 Request body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	requestBody	Object	Yes	-
1.1	token	String	Yes	Token information

Response Description

- **Status code: 200**

Table 17-2 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	schema	Object	Yes	Returned message
1.1	returnCode	String	Yes	Return code 0 : success 1 : empty token 2 : invalid token 3 : expired token 4 : system error
1.2	returnMsg	String	No	Description
1.3	data	Object	No	User information
1.3.1	userAccount	String	No	User account
1.3.2	userId	String	No	Unique user ID
1.3.3	tenantId	String	No	Unique tenant ID
1.3.4	tenantSpaceId	String	No	Tenant space ID
1.3.5	locale	String	No	Language information

- **Status code: 400**
Incorrect request. Check the request path and parameters.
- **Status code: 401**
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 403**
Authentication fails.
- **Status code: 404**
The requested content is not found. Check the request path.
- **Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Request header: none

Request parameters:

```
{"token":"*****"}
```

Response parameters:

```
{
  "returnCode":"0",
  "returnMsg":"success",
  "data":{
    "userAccount":"xx",
    "userId":"xx",
    "tenantId":"xx",
    "tenantSpaceId":"xx",
    "locale":"en_US",
  }
}
```

17.2 Generating a Verification Code for One-Click Trial Use

Scenario

This interface is invoked to generate a verification code for one-click trial use. It is opened to the Huawei Cloud website.

Method

POST

URI

<https://Domain name/apiaccess/rest/ipccprovision/v1/applyTry/generateverifycode>
(For example, the domain name is service.besclouds.com.)

Request Description

Table 17-3 Request body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	requestBody	Object	Yes	-
1.1	phone	String	Yes	Mobile number

Response Description

- **Status code: 200**

Table 17-4 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	schema	Object	Yes	-
1.1	retCode	String	No	Return code <ul style="list-style-type: none"> ● 200: The verification code is sent successfully. ● 201: The verification code already exists. Send it later. ● 202: The SMS verification code fails to be sent. Contact operations personnel. ● 204: The SMS message fails to be sent. Contact operations personnel. ● 205: The number of emails sent today has reached the threshold. Contact operations personnel to change the threshold.
1.2	retMsg	String	No	Return description

- **Status code: 400**
Incorrect request. Check the request path and parameters.
- **Status code: 401**
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 403**
Authentication fails.
- **Status code: 404**
The requested content is not found. Check the request path.
- **Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Request header: none

Request parameters:

```
{  
  "phone": "1667328xxxx"  
}
```

Response parameters:

```
retCode: "200"  
retMsg: "The short message is sent successfully."
```

17.3 Applying for One-Click Trial Use of a Tenant

Scenario

This interface is invoked to apply for one-click trial use of a tenant. It is opened to the Huawei Cloud website.

Method

POST

URI

<https://Domain name/apiaccess/rest/ipccprovision/v1/applyTry/applyTenant> (For example, the domain name is service.besclouds.com.)

Request Description

Table 17-5 Request body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	requestBody	Object	Yes	-
1.1	companyName	String	Yes	Company name
1.2	phone	String	Yes	Mobile number
1.3	phoneVerifyCode	String	Yes	SMS verification code
1.4	email	String	Yes	Email address

Response Description

- **Status code: 200**

Table 17-6 Response body parameters

No.	Parameter	Type	Mandatory or Not	Description
1	schema	Object	Yes	Returned message

No.	Parameter	Type	Mandatory or Not	Description
1.1	returnCode	String	Yes	<p>Return code</p> <ul style="list-style-type: none">● 000: The application is successful. Check the email to obtain the account information. If no email is received, contact operations personnel.● 001: The verification code does not exist or has expired. Obtain a new one.● 002: Incorrect verification code.● 003: An exception occurs during the verification of the verification code. Contact operations personnel.● 004: The trial use application fails because a tenant in trial commercial use or commercial use already exists. Contact operations personnel.● 005: Resource conflict. Try again 1 minute later.● 006: The trial use application fails because there is no voice or multimedia access code for trial use.

No.	Parameter	Type	Mandatory or Not	Description
				Contact operations personnel. • 205: The number of emails sent today has reached the threshold. Contact operations personnel to change the threshold.
1.2	returnMsg	String	No	Description

- **Status code: 400**
Incorrect request. Check the request path and parameters.
- **Status code: 401**
Unauthorized operation. 1. Check whether you have purchased related services. 2. Contact customer service to check the status of your account.
- **Status code: 403**
Authentication fails.
- **Status code: 404**
The requested content is not found. Check the request path.
- **Status code: 500**
Business failure. Check the values of parameters in the request.

Error Codes

None

Example

Request header: none

Request parameters:

```
{
  "companyName":"Company that applies for one-click trial use",
  "phone":"1667328xxxx",
  "phoneVerifyCode":"123456",
  "email":"zhangxxx@*****.com"
}
```

Response parameters:

```
retCode: "000"
retMsg: "success"
```

17.4 API Fabric Interfaces Provided for AICC Internal NEs

17.4.1 Verifying the Third-Party System During Connection Bar Integration

Scenario

This interface is invoked to verify the third-party system during connection bar integration.

Method

POST

URI

`https://Domain name/apiaccess/ccbar/v1/thirdparty/thirdPartyValidate` (For example, the domain name is `service.besclouds.com`.)

For details about the interface specifications, see [Developing a Token Generation Mechanism and Verification API](#).

17.4.2 Querying Third-Party Customer Information

Scenario

This interface is invoked to query third-party customer information.

Method

POST

URI

`https://Domain name/apiaccess/ccmanagement/v1/thirdParty/queryThirdpartyCustomerInfo` (For example, the domain name is `service.besclouds.com`.)

For details about the interface specifications, see [API Description](#).