

KooPhone

API Reference

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1 Before You Start

Based on smart engine scheduling and device-cloud collaboration, KooPhone provides efficient cloud phone interaction and rich applications running the cloud OS, builds a prosperous application ecosystem, and delivers a satisfactory user experience with low costs.

This document describes how to use application programming interfaces (APIs) to perform operations on KooPhone. For example, video settings and batch reset. For details about all supported operations, see [API Overview](#).

If you plan to access KooPhone through an API, ensure that you are familiar with KooPhone concepts. For details, see [Service Overview](#). Furthermore, KooPhone supports Representational State Transfer (REST) APIs, allowing you to call APIs using HTTPS. For details about API calling, see [Calling APIs](#).

Endpoints

An endpoint is the request address for calling an API. Endpoints vary depending on services and regions.

Concepts

- **Account**
An account is created upon successful registration with the cloud system. The account has full access permissions for all of its cloud services and resources. It can be used to reset user passwords and grant user permissions. The account is a payment entity, which should not be used directly to perform routine management. For security purposes, create Identity and Access Management (IAM) users and grant them the appropriate permissions for routine management.
- **User**
A user is created using an account to use cloud services. Each user has its own identity credentials (password and access keys).
The account name, username, and password will be required for API authentication.
- **Region**
Regions are divided based on geographical location and network latency. Public services, such as Elastic Cloud Server (ECS), Elastic Volume Service

(EVS), Object Storage Service (OBS), Virtual Private Cloud (VPC), Elastic IP (EIP), and Image Management Service (IMS), are shared within the same region. Regions are classified into universal regions and dedicated regions. A universal region provides universal cloud terminals for common tenants. A dedicated region provides specific services for specific tenants.

For details, see [Region and AZ](#).

- **AZ**
An AZ contains one or more physical data centers. Each AZ has independent cooling, fire extinguishing, moisture-proof, and electricity facilities. Within an AZ, computing, network, storage, and other resources are logically divided into multiple clusters. AZs within a region are interconnected using high-speed optical fibers to support cross-AZ high-availability systems.

2 API Overview

Table 2-1 describes the KooPhone APIs.

Table 2-1 KooPhone APIs

Type	Description
Executing a Synchronization Command	Specify a cloud phone instance to synchronously execute Android Debug Bridge (adb) shell commands.
Executing an Asynchronous Command	Specify a cloud phone instance to asynchronously execute adb shell commands.
Querying Instance Execution Tasks	Query the execution result after an adb shell command is asynchronously executed.
Instance Video Settings	Set the bit rate and output frame rate corresponding to each definition of an instance.
Querying Instance Status in Batches	Query the status of cloud phone instances.
Resetting Instances in Batches	Reset cloud phone instances.
Obtaining device_token Before Streaming	Obtain device_token of a cloud phone instance as the authentication information and carry device_id of the cloud phone instance to call the signaling address (signaling_url) in reverse parameters.
Assigning Instances	Allocate a cloud phone to a specified user of a tenant.
Canceling Instance Assignment	Cancel the assignment of a cloud phone to a specified user of a tenant and clear the usage data of the cloud phone.

Type	Description
Querying Instances in Batches	Query information about all instances under a tenant in batches.
Restarting Instances	Restart cloud phone instances in batches.
Querying Saleable Instance SKUs in Batches	Query the specifications of all available instances under a tenant.
Provisioning an Instance API	Create instances.
Deleting Instances	Cancel yearly/monthly subscriptions (pay-per-use subscriptions cannot be canceled).
Preparing Instances in Batches	Prepare the current instance for streaming.
Instance Preparation Progress	Call this API cyclically until the cloud phone status is normal, and then enable streaming.
Backing Up an Instance	Back up instance data to OBS in batches and then release physical instances.
Stopping Streaming of an Instance	Stop streaming of an instance. This indicates that this API takes effect on instances in streaming.
Releasing a Session by an Instance	Release sessions after the streaming stops.
Installing an App on an Instance	Install applications to cloud phone instances in batches.

3 Calling APIs

3.1 Making an API Request

This section describes the structure of a REST API request, and uses the IAM API for **obtaining a user token** as an example to demonstrate how to call an API. The obtained token can then be used to authenticate the calling of other APIs.

Request URI

A request URI is in the following format:

{URI-scheme}://{Endpoint}/{resource-path}?{query-string}

Although a request URI is included in the request header, most programming languages or frameworks require the request URI to be transmitted separately.

Table 3-1 Parameter description

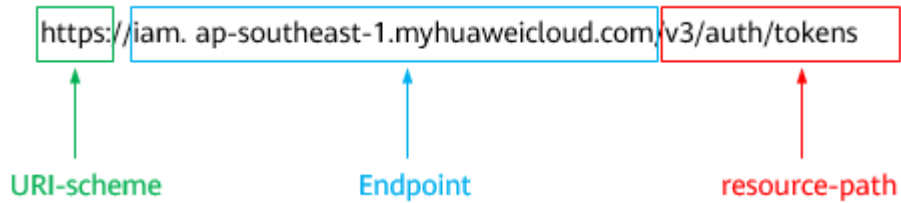
Parameter	Description
URI-scheme	Protocol used to transmit requests. All APIs use HTTPS.
Endpoint	Domain name or IP address of the server bearing the REST service. The endpoint varies between services in different regions. It can be obtained from the administrator.
resource-path	Access path of an API for performing a specified operation. Obtain the path from the URI of an API. For example, the resource-path of the API used to obtain a user token is /v3/auth/tokens .
query-string	Query parameter, which is optional. Ensure that a question mark (?) is included before each query parameter that is in the format of <i>Parameter name=Parameter value</i> . For example, limit=10 indicates that a maximum of 10 data records will be displayed.

For example, to obtain an IAM token in the **CN-Hong Kong** region, obtain the endpoint of IAM (**iam.ap-southeast-1.myhuaweicloud.com**) for this region and

the **resource-path** (/v3/auth/tokens) in the URI of the API used to **obtain a user token**. Then, construct the URI as follows:

```
https://iam.ap-southeast-1.myhuaweicloud.com/v3/auth/tokens
```

Figure 3-1 Example URI



NOTE

To simplify URI display, only the **resource-path** and request method are displayed. The **URI-scheme** of all APIs is **HTTPS**, and the endpoints of all APIs in the same region are identical.

Request Methods

The HTTP protocol defines the following request methods that can be used to send a request to the server:

Table 3-2 HTTP methods

Method	Description
GET	Request the server to return specified resources.
PUT	Request the server to update specified resources.
POST	Request the server to add resources or perform special operations.
DELETE	Request the server to delete specified resources, for example, an object.
HEAD	Request the server to return only the response header.
PATCH	Request the server to update partial content of a specified resource. If the resource does not exist, a new resource will be created.

For example, in the case of the API used to **obtain a user token**, the request method is POST. The request is as follows:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3/auth/tokens
```

Request Header

You can also add additional header fields to a request, such as the fields required by a specified URI or HTTP method. For example, to request for the authentication information, add **Content-Type**, which specifies the request body type.

Table 3-3 lists common request header fields.

Table 3-3 Common request headers

Name	Description	Mandatory	Example
Host	Request server information, which is obtained from the URL of a service API. The value is in the format of <i>hostname[:port]</i> . If the port number is not specified, the default port 443 is used for HTTPS.	No This field is mandatory for authentication using access key ID/secret access key (AK/SK).	code.test.com or code.test.com:443
Content-Type	Request body type or format. The default value application/json is recommended. Other values of this field will be provided for specific APIs if any.	No	application/json
Content-Length	Length of the request body, in bytes.	No	3495
X-Auth-Token	User token. The user token is a response to the API used to obtain a user token . This API is the only one that does not require authentication. The token is the value of X-Subject-Token in the response header.	No This field is mandatory for token-based authentication.	The following is part of an example token: MIIPAgYJKoZIhvcNAQc-Co...ggg1BBIINPXsidG9rZ

 NOTE

In addition to supporting token-based authentication, APIs support authentication using AK/SK. During AK/SK-based authentication, an SDK is used to sign the request, and the **Authorization** (signature information) and **X-Sdk-Date** (time when the request is sent) header fields are automatically added to the request.

For more information, see "AK/SK-based Authentication" in [Authentication](#).

The API used to [obtain a user token](#) does not require authentication. Therefore, only the **Content-Type** field needs to be added to requests for calling the API. An example of such requests is as follows:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json
```

Request Body

This part is optional. The body of a request is often sent in a structured format (for example, JSON or XML) as specified in the **Content-Type** header field. The request body transfers content except the request header.

The request body varies between APIs. Some APIs do not require the request body, such as the APIs requested using the GET and DELETE methods.

In the case of the API used to [obtain a user token](#), the request parameters and parameter description can be obtained from the API request. The following provides an example request with a body included. Replace *username*, *domainname*, ******* (login password), and *xxxxxxxxxxxxxxxxxxxx* (project name) with the actual values. Obtain the project name from [Regions and Endpoints](#).

 NOTE

The **scope** parameter specifies where a token takes effect. You can set **scope** to an account or a project under an account. In the following example, the token takes effect only for the resources in a specified project. For more information about this API, see [Obtaining a User Token](#).

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json
```

```
{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "username",
          "password": "*****",
          "domain": {
            "name": "domainname"
          }
        }
      }
    }
  },
  "scope": {
    "project": {
      "name": "xxxxxxxxxxxxxxxxxxxx"
    }
  }
}
```

If all data required for the API request is available, you can send the request to call the API through curl, Postman, or coding. In the response to the API used to obtain a user token, **x-subject-token** is the desired user token. This token can then be used to authenticate requests for calling other APIs.

3.2 Authentication

You can use either of the following authentication methods to call APIs:

- Token-based authentication: Requests are authenticated using a token.
- AK/SK-based authentication: Requests are authenticated by encrypting the request body using an AK/SK.

Token-based Authentication

NOTE

- The validity period of a token is 24 hours. When using a token for authentication, cache it to prevent frequently calling the IAM API used to obtain a user token.
- Ensure that the token is valid when you use it. Using a token that will soon expire may cause API calling failures.

A token specifies temporary permissions in a computer system. During API authentication using a token, the token is added to requests to get permissions for calling the API.

A project-level token is required for calling KooPhone APIs. When calling the API for **obtaining a user token**, set **project** in **auth.scope** in the request body.

```
{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "username",
          "password": "*****",
          "domain": {
            "name": "domainname"
          }
        }
      }
    },
    "scope": {
      "project": {
        "name": "xxxxxxx"
      }
    }
  }
}
```

After a token is obtained, the **X-Auth-Token** header field must be added to requests to specify the token when calling other APIs. For example, if the token is **ABCDEFJ....**, **X-Auth-Token: ABCDEFJ....** can be added to a request as follows:

```
GET https://iam.ap-southeast-1.myhuaweicloud.com/v3/auth/projects
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

AK/SK-based Authentication

NOTE

AK/SK-based authentication supports API requests with a body not larger than 12 MB. For API requests with a larger body, token-based authentication is recommended.

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

- AK: access key ID, which is a unique identifier used in conjunction with a secret access key to sign requests cryptographically.
- SK: secret access key used in conjunction with an AK to sign requests cryptographically. It identifies a request sender and prevents the request from being modified.

In AK/SK-based authentication, you can use an AK/SK to sign requests based on the signature algorithm or use the signing SDK to sign requests. For details about how to sign requests and use the signing SDK, see the [AK/SK Signing and Authentication Guide](#).

NOTICE

The signing SDK is only used for signing requests and is different from the SDKs provided by services.

3.3 Response

Status Code

After sending a request, you will receive a response, including a status code, response header, and response body.

A status code is a group of digits, ranging from 1xx to 5xx. It indicates the status of a request. For more information, see [Status Codes](#).

For example, if status code **201** is returned for calling the API used to [obtain a user token](#), the request is successful.

Response Header

Similar to a request, a response also has a header, for example, **Content-Type**.

[Figure 3-2](#) shows the response header of the API used to [obtain a user token](#). The **x-subject-token** header field is the desired user token. This token can then be used to authenticate the calling of other APIs.

Figure 3-2 Header fields of the response to the request for obtaining a user token

```

connection → keep-alive

content-type → application/json

date → Tue, 12 Feb 2019 06:52:13 GMT

server → Web Server

strict-transport-security → max-age=31536000; includeSubdomains;

transfer-encoding → chunked

via → proxy A

x-content-type-options → nosniff

x-download-options → noopen

x-frame-options → SAMEORIGIN

x-iam-trace-id → 218d45ab-d674-4995-af3a-2d0255ba41b5

x-subject-token
→ MIIYXQYJKoZIhvcNAQcCoIIYtjCCGEoCAQExDTALBgIghkgBZQMEAgEwgharBgkqhkiG9w0BBwGgghacBIIWmHsidG9rZW4iOensiZXhwaXJlc19hdCI6IjIwMTk0MDItMTNUMC
fj3KJ56YgKnpVNRbW2eZ5eb78SZ0kqjACgkIQ01wi4JIGzrpdl8LGXK5txldfq4lqHCYb8P4NaY0NYejcAgzIvefYtLWT1GS00zxKZmlQHQ82HBqHdglZO9fuEbL5dMhdavj+33wEI
xHRC9I87o+k9-
j+CMZSEB7bUGd5Uj6eRASXl1jipPEGA270g1FruooL6jggfFKNPQuFSOU8+uSsttVwrtNfsC+qTp22Rkd5MCqFGQ8LcuUxC3a+9CMBnOintWW7oeRUvhVpxk8pxiX1wTEboX-
RzT6MUbpvGw-oPNFYxjECKnoH3HRozv0vN--n5d6NBxg==

x-xss-protection → 1; mode=block;

```

Response Body

The body of a response is often returned in structured format as specified in the **Content-Type** header field. The response body transfers content except the response header.

The following is part of the response body for the API used to [obtain a user token](#).

```

{
  "token": {
    "expires_at": "2019-02-13T06:52:13.855000Z",
    "methods": [
      "password"
    ],
    "catalog": [
      {
        "endpoints": [
          {
            "region_id": "az-01",
            .....

```

If an error occurs during API calling, an error code and a message will be displayed. The following shows an error response body.

```

{
  "error_msg": "The format of message is error",
  "error_code": "AS.0001"
}

```

In the response body, **error_code** is an error code, and **error_msg** provides information about the error.

4 APIs

4.1 Instance Management

4.1.1 Executing a Synchronization Command

Function

This API is used to execute a synchronization command for an instance. Before calling this API, ensure that the tenant has purchased an instance. You can call this API to perform ADB operations on your instances.

This API is used for synchronization. If time-consuming ADB operations are performed, you are advised to use the API for executing an asynchronization command for an instance.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
koophone:cloudphoneResource:synclInvokeInstance	Write	cloudphoneResource *	-	-	-

URI

POST /v1/instances/sync-command

Request Parameters

Table 4-1 Request header parameters

Parameter	Mandatory	Type	Description
x-request-id	Yes	String	Unique ID of a request.
X-Auth-Token	Yes	String	Tenant-level token.

Table 4-2 Request body parameters

Parameter	Mandatory	Type	Description
command	Yes	String	Command. The value can contain up to 1,024 bytes, including only letters, digits, underscores (_), dots (.), slashes (/), colons (:), and hyphens (-).
instance_ids	Yes	Array of strings	Instance list. A single instance can contain a maximum of 32 characters, and the list can contain a maximum of 100 columns.

Response Parameters

Status code: 200

Table 4-3 Response body parameters

Parameter	Type	Description
error_code	String	Response code. The error code specification is KP.API.0001, and the number increases in ascending order.
error_msg	String	Response description.
data	CmdResultWrapper object	Command execution result.

Table 4-4 CmdResultWrapper

Parameter	Type	Description
cmd_results	Array of CmdResult objects	Command execution result.

Table 4-5 CmdResult

Parameter	Type	Description
instance_id	String	Instance ID.
status	Integer	Task status. 1: running 2: successful -1: failed
error_code	String	Task error code.
error_msg	String	Task error code description.
execute_msg	String	Content returned after a task is executed. The value can contain up to 1,024 bytes. The command output is returned regardless of whether the command is successfully executed.

Status code: 400

Table 4-6 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.9999: Internal service error.
error_info	String	Error message.

Status code: 500

Table 4-7 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.9999: Internal service error.
error_info	String	Error message.

Example Requests

```
/v1/instances/sync-command
{
  "command" : "ls -l /system",
  "instance_ids" : [ "a44uhlf7", "efjy72gs" ]
}
```

Example Responses

Status code: 200

Normal response.

```
{
  "data" : {
    "cmd_results" : [ {
      "instance_id" : "a44uhlf7",
      "status" : -1,
      "error_code" : "CPS.0191",
      "error_msg" : "Run command failed.",
      "execute_msg" : "ls: cannot access '/system': No such file or directory"
    }, {
      "instance_id" : "efjy72gs",
      "status" : 2,
      "error_code" : "",
      "error_msg" : "",
      "execute_msg" : "xxxxxx"
    } ]
  },
  "error_code" : "0",
  "error_msg" : "ok"
}
```

Status Codes

Status Code	Description
200	Normal response.
400	Error response.

Status Code	Description
500	Internal Server Error

Error Codes

See [Error Codes](#).

4.1.2 Executing an Asynchronization Command

Function

This API is used to execute an asynchronization command for an instance.

Before calling this API, ensure that the tenant has purchased an instance.

You can call this API to perform asynchronous ADB operations on your instances.

After this API is called, the returned task_id is used to call the instance execution task query API.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
koophone:cloudphone Resource:asyncInvokeInstance	Write	cloudphoneResource*	-	-	-

URI

POST /v1/instances/async-command

Request Parameters

Table 4-8 Request header parameters

Parameter	Mandatory	Type	Description
x-request-id	Yes	String	Unique ID of a request.
X-Auth-Token	Yes	String	Tenant-level token.

Table 4-9 Request body parameters

Parameter	Mandatory	Type	Description
command	Yes	String	Command. The value can contain up to 1,024 bytes, including only letters, digits, underscores (_), dots (.), slashes (/), colons (:), and hyphens (-).
instance_ids	Yes	Array of strings	Instance list. A single instance can contain a maximum of 32 characters, and the list can contain a maximum of 100 columns.

Response Parameters

Status code: 200

Table 4-10 Response body parameters

Parameter	Type	Description
error_code	String	Response code. The error code specification is KooPhone.API.1001, and the number increases in ascending order.
error_msg	String	Response description.
data	InstanceAsyncCommandsInfo object	Response content.

Table 4-11 InstanceAsyncCommandsInfo

Parameter	Type	Description
task_id	String	Task ID.
cmd_jobs	Array of CmdJob objects	Response task list.

Table 4-12 CmdJob

Parameter	Type	Description
instance_id	String	Instance list.
job_id	String	Asynchronization command task ID.

Status code: 400

Table 4-13 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error message.

Status code: 500

Table 4-14 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.9999: Internal service error.

Parameter	Type	Description
error_msg	String	Error message.

Example Requests

```
/v1/instances/async-command
{
  "command": "ls -l /system",
  "instance_ids": [ "a44uhlf7", "efjy72gs" ]
}
```

Example Responses

Status code: 200

Normal response.

```
{
  "data": {
    "task_id": "6837531fd3f54550927b930180a706bf",
    "cmd_jobs": [ {
      "instance_id": "a44uhlf7",
      "job_id": "1564567b8bab40f34711234cb80d0123"
    }, {
      "instance_id": "efjy72gs",
      "job_id": "1564567b8bab40f34711234cb80d0456"
    } ]
  },
  "error_code": "0",
  "error_msg": "ok"
}
```

Status Codes

Status Code	Description
200	Normal response.
400	Error response.
500	Internal Server Error

Error Codes

See [Error Codes](#).

4.1.3 Querying Instance Execution Tasks

Function

This API is used to query tasks of an instance in batches.

Before calling this API, ensure that the tenant has purchased an instance.

This API must be used together with the API for executing an asynchronization command for an instance. The task_id returned by the API for executing an asynchronization command for an instance is used as the parameter in the path to obtain the asynchronous command execution result.

This API can also be used together with the API for installing an application on an instance. The task_id returned by the API for installing an application on an instance is used as the parameter in the path to obtain the application installation result.

The task_id returned by the API for installing an application on an instance has a fixed prefix ZGCA or FULFILL, which is different from the task_id returned by the API for executing an asynchronous command on an instance.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
koophone:cloudphoneResource:queryExecuteJob	Read	cloudphoneResource *	-	-	-

URI

GET /v1/instances/tasks/{task_id}

Table 4-15 Path Parameters

Parameter	Mandatory	Type	Description
task_id	Yes	String	Task ID returned for an asynchronization request.

Request Parameters

Table 4-16 Request header parameters

Parameter	Mandatory	Type	Description
x-request-id	Yes	String	Unique ID of a request.
X-Auth-Token	Yes	String	Tenant-level token.

Response Parameters

Status code: 200

Table 4-17 Response body parameters

Parameter	Type	Description
error_code	String	Response code. The error code specification is KooPhone.API.1001, and the number increases in ascending order.
error_msg	String	Response description.
data	JobDetailWrapper object	List of tasks queried based on task_id.

Table 4-18 JobDetailWrapper

Parameter	Type	Description
jobs	Array of JobDetail objects	List of tasks queried based on task_id.

Table 4-19 JobDetail

Parameter	Type	Description
job_id	String	Unique ID of a task.
status	Integer	Task status. 1: running 2: successful -1: failed
error_code	String	Task error code.
error_msg	String	Task error code description.

Parameter	Type	Description
execute_msg	String	Content returned after a task is executed. The value can contain up to 1,024 bytes. The command output is returned regardless of whether the command is successfully executed.

Status code: 400

Table 4-20 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.1323: The application installation task does not exist. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error message.

Status code: 500

Table 4-21 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.1323: The application installation task does not exist. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error message.

Example Requests

```
/v1/instances/tasks/6837531fd3f54550927b930180a706bf
```

Example Responses

Status code: 200

Normal response.

```
{
  "data": {
    "jobs": [ {
```

```

"job_id" : "1564567b8bab40f34711234cb80d0123",
"status" : -1,
"error_code" : "CPS0005",
"error_msg" : "Phone not found.",
"execute_msg" : null
}, {
"job_id" : "1564567b8bab40f34711234cb80d0456",
"status" : 2,
"error_code" : "",
"error_msg" : "",
"execute_msg" : "xxxxxx"
} ]
},
"error_code" : "0",
"error_msg" : "ok"
}

```

Status Codes

Status Code	Description
200	Normal response.
400	Bad Request
500	Internal Server Error

Error Codes

See [Error Codes](#).

4.1.4 Instance Video Settings

Function

This API is used to configure video settings.

Before calling this API, ensure that the tenant has purchased an instance.

This API is used to set the bit rate and output frame rate corresponding to each definition of an instance.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
koophone:cloudphoneResource:setVideo	Write	cloudphoneResource *	-	-	-

URI

PUT /v1/instances/video-setting

Request Parameters

Table 4-22 Request header parameters

Parameter	Mandatory	Type	Description
x-request-id	Yes	String	Unique ID of a request.
X-Auth-Token	Yes	String	Tenant-level token.

Table 4-23 Request body parameters

Parameter	Mandatory	Type	Description
instance_ids	Yes	Array of strings	Instance list. A single instance can contain a maximum of 32 characters, and the list can contain a maximum of 100 columns.
instance_settings	Yes	Array of InstanceSetting objects	Video setting content.

Table 4-24 InstanceSetting

Parameter	Mandatory	Type	Description
network_type	Yes	String	Network type, including MOBILE_NETWORK, WIFI, and WIRED. The three parameters are mandatory. There are six combinations based on the two mandatory parameters of encoding_type. For details, see the request example.
encoding_type	Yes	String	Encoding type, including H264 and H265. Both parameters are mandatory. There are six combinations based on the three mandatory parameters of network_type. For details, see the request example.
video_spec_groups	Yes	Array of VideoSpecGroup objects	Video specification group.

Table 4-25 VideoSpecGroup

Parameter	Mandatory	Type	Description
definition_540P	Yes	VideoSpec object	540p.
definition_720P	Yes	VideoSpec object	720p.
definition_1080P	Yes	VideoSpec object	1080p.

Table 4-26 VideoSpec

Parameter	Mandatory	Type	Description
code_rate	Yes	Integer	Bit rate, in kbit/s. The value ranges from 100 to 10000 and must be a multiple of 100.
fps	Yes	Integer	Frame rate, in fps. Value: 30 or 60.

Response Parameters

Status code: 200

Table 4-27 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.0000: The tenant does not exist. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KPAPI.2209: No device can be assigned. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error description.

Status code: 400

Table 4-28 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.0000: The tenant does not exist. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KPAPI.2209: No device can be assigned. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error description.

Status code: 500

Table 4-29 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.0000: The tenant does not exist. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KPAPI.2209: No device can be assigned. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error description.

Example Requests

/v1/instances/video-setting

```
{
  "instance_ids" : [ "iRJEVP96" ],
  "instance_settings" : [ {
    "network_type" : "MOBILE_NETWORK",
    "encoding_type" : "H264",
    "video_spec_groups" : [ {
      "definition_540P" : {
        "code_rate" : 6000,
        "fps" : 30
      },
      "definition_720P" : {
        "code_rate" : 6000,
        "fps" : 30
      },
      "definition_1080P" : {
        "code_rate" : 8000,
        "fps" : 30
      }
    }
  } ]
}, {
  "network_type" : "MOBILE_NETWORK",
  "encoding_type" : "H265",
  "video_spec_groups" : [ {
    "definition_540P" : {
      "code_rate" : 6000,
      "fps" : 30
    },
    "definition_720P" : {
      "code_rate" : 6000,
      "fps" : 30
    },
    "definition_1080P" : {
      "code_rate" : 8000,
      "fps" : 30
    }
  }
} ]
}, {
  "network_type" : "WIFI",
  "encoding_type" : "H264",
```


Example Responses

Status code: 200

Normal response.

```
{  
  "error_code" : "0",  
  "error_msg" : "ok"  
}
```

Status Codes

Status Code	Description
200	Normal response.
400	Bad Request
500	Internal Server Error

Error Codes

See [Error Codes](#).

4.1.5 Querying Instance Status in Batches

Function

Query instance status in batches.

The prerequisite for calling this API is that the tenant has purchased an instance.

The API returns the current status of the instance. Cloud status. The value can be 0 (unknown), 1 (stopped), 2 (running), 3 (being brought offline), 4 (starting), or 5 (stopped).

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
koophone:cloudphoneResource:queryBatchShowInstance	Write	cloudphoneResource *	-	-	-

URI

POST /v1/instances/batch-query-status

Request Parameters

Table 4-30 Request header parameters

Parameter	Mandatory	Type	Description
x-request-id	Yes	String	Unique ID of a request.
X-Auth-Token	Yes	String	Tenant-level token.

Table 4-31 Request body parameters

Parameter	Mandatory	Type	Description
instance_ids	Yes	Array of strings	Instance list. A single instance can contain a maximum of 32 characters, and the list can contain a maximum of 100 columns.

Response Parameters

Status code: 200

Table 4-32 Response body parameters

Parameter	Type	Description
error_code	String	Response code. The error code specification is KooPhone.API.1001, and the number increases in ascending order.

Parameter	Type	Description
error_msg	String	Response description.
data	StatusResultWrapper object	Status query result.

Table 4-33 StatusResultWrapper

Parameter	Type	Description
status_results	Array of StatusResult objects	Status query result.

Table 4-34 StatusResult

Parameter	Type	Description
instance_id	String	Instance ID.
status	Integer	Cloud phone status. 0: idle 1: restoring 2: data loaded 3: streaming 4: backing up 5: backup exception 6: restoration exception 7: data loaded

Status code: 400

Table 4-35 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error message.

Status code: 500

Table 4-36 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error message.

Example Requests

```
/v1/instances/batch-query-status
{
  "instance_ids" : [ "a44uhlf7", "efjy72gs" ]
}
```

Example Responses

Status code: 200

Normal response.

```
{
  "data" : {
    "status_results" : [ {
      "instance_id" : "a44uhlf7",
      "status" : 0
    } ]
  },
  "error_code" : "0",
  "error_msg" : "ok"
}
```

Status Codes

Status Code	Description
200	Normal response.
400	Bad Request
500	Internal Server Error

Error Codes

See [Error Codes](#).

4.1.6 Resetting Instances in Batches

Function

Reset instances in batches.

The prerequisite for calling this API is that the tenant has purchased an instance.

After this API is called, the current instance is initialized.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
koophone:cloudphoneResource:batchResetInstance	Write	cloudphoneResource *	-	-	-

URI

POST /v1/instances/batch-reset

Request Parameters

Table 4-37 Request header parameters

Parameter	Mandatory	Type	Description
x-request-id	Yes	String	Unique ID of a request.
X-Auth-Token	Yes	String	Tenant-level token.

Table 4-38 Request body parameters

Parameter	Mandatory	Type	Description
instance_ids	Yes	Array of strings	Instance list. A single instance can contain a maximum of 32 characters, and the list can contain a maximum of 100 columns.

Response Parameters

Status code: 200

Table 4-39 Response body parameters

Parameter	Type	Description
error_code	String	Response code. The error code specification is KooPhone.API.1001, and the number increases in ascending order.
error_msg	String	Error description.
data	data object	Result returned by a asynchronous task.

Table 4-40 data

Parameter	Type	Description
task_id	String	Task ID.
cmd_jobs	Array of CmdJob objects	Response task list.

Table 4-41 CmdJob

Parameter	Type	Description
instance_id	String	Instance list.
job_id	String	Asynchronization command task ID.

Status code: 400

Table 4-42 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error message.

Example Requests

```
/v1/instances/batch-reset
{
  "instance_ids" : [ "a44uhlf7", "efjy72gs" ]
}
```

Example Responses

Status code: 200

Normal response.

```
{
  "data" : {
    "task_id" : "RM_6837531fd3f54550927b930180a706bf",
    "cmd_jobs" : [ {
      "instance_id" : "a44uhlf7",
      "job_id" : "1564567b8bab40f34711234cb80d0123"
    }, {
      "instance_id" : "efjy72gs",
      "job_id" : "1564567b8bab40f34711234cb80d0456"
    } ]
  },
  "error_code" : "0",
  "error_msg" : "ok"
}
```

Status Codes

Status Code	Description
200	Normal response.
400	Bad Request

Error Codes

See [Error Codes](#).

4.1.7 Obtaining device_token Before Streaming

Function

This API is used for the tenant instance to obtain device_token before streaming.

Before calling this API, ensure that the tenant has purchased an instance.

The obtained device_token of the cloud phone instance is used as the authentication information and carries device_id to call the signaling address (signaling_url) in the response parameter.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
koophone:cloudphoneResource:executeInstanceAuthToken	Write	cloudphoneResource *	-	-	-

URI

POST /v1/instances/{instance_id}/auth

Table 4-43 Path Parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID.

Request Parameters

Table 4-44 Request header parameters

Parameter	Mandatory	Type	Description
x-auth-token	Yes	String	IAM token information of the tenant.

Response Parameters

Status code: 200

Table 4-45 Response body parameters

Parameter	Type	Description
data	data object	All response parameter information.
error_code	String	Error code.
error_msg	String	Error message.

Table 4-46 data

Parameter	Type	Description
streamingId	String	Stream ID.
resource	resource object	Resource set.
device_token	String	Device authentication token.

Table 4-47 resource

Parameter	Type	Description
sdk	sdk object	SDK information.
rtc	rtc object	RTC information.
device_id	String	Device ID.
kp_id	String	Cloud phone instance ID, for example, whklpuo1.

Table 4-48 sdk

Parameter	Type	Description
internal	internal object	Internal network information.
external	external object	External network information.

Table 4-49 internal

Parameter	Type	Description
address	String	Internal IP address.
aport	String	Audio port.
atype	String	Audio type.
address_ipv6	String	IPv6 address.

Table 4-50 external

Parameter	Type	Description
address	String	External EIP.
aport	Integer	Audio port.
atype	Integer	Audio type.
address_ipv6	String	External IPv6 address.

Table 4-51 rtc

Parameter	Type	Description
ice_signaling	ice_signaling object	ICE signaling information.

Table 4-52 ice_signaling

Parameter	Type	Description
signaling_url	String	Signaling service access address.
expired_time	String	Streaming duration, in seconds.
ice_servers	Array of strings	ICE server.

Status code: 400

Table 4-53 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error message.

Example Requests

POST API. The request URL carries the instance purchased by the tenant and the tenant token.

```
/v1/instances/Q39YyZvl/auth
```

Example Responses

Status code: 200

OK

```
{
  "data": {
    "resource": {
      "sdk": {
        "internal": {
          "address": null,
          "aport": null,
          "atype": null,
          "address_ipv6": null
        },
        "external": {
          "address": "10.83.71.187",
          "aport": 10030,
          "atype": 1,
          "address_ipv6": null
        }
      },
      "rtc": {
        "ice_signaling": {
          "signaling_url": "http://100.93.2.248:18082",
          "expired_time": null,
          "ice_servers": [ ]
        }
      },
      "device_id": "7b0cd026df8d495b8a65d628d7bec433",
      "kp_id": "Q39YyZvl"
    },
    "device_token": "dee5081f40c83ddea3ded91c387351e9"
  },
  "error_code": "0",
}
```

```
{
  "error_msg": "ok"
}
```

Status code: 400

Bad Request

```
{
  "error_code": "string",
  "error_msg": "string"
}
```

Status Codes

Status Code	Description
200	OK
400	Bad Request

Error Codes

See [Error Codes](#).

4.1.8 Assigning Instances

Function

Before calling this API, ensure that the tenant has purchased an instance. This API is used to assign a cloud phone to a user specified by the tenant. The user ID needs to be specified.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
koophone:cloudphoneResource:instanceAssignment	Write	cloudphoneResource *	-	-	-

URI

POST /v1/instances/assign

Request Parameters

Table 4-54 Request header parameters

Parameter	Mandatory	Type	Description
x-request-id	Yes	String	Unique ID of a request.
X-Auth-Token	Yes	String	Tenant-level token.

Table 4-55 Request body parameters

Parameter	Mandatory	Type	Description
user_instances	Yes	Array of user_instances objects	User instance binding relationship list. The list can contain a maximum of 100 columns.

Table 4-56 user_instances

Parameter	Mandatory	Type	Description
user_id	Yes	String	User ID. The value can contain a maximum of 32 characters.
instance_id	Yes	String	Instance ID. The value can contain a maximum of 32 characters.

Response Parameters

Status code: 200

Table 4-57 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.0000: The tenant does not exist. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KPAPI.2209: No device can be assigned. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error description.

Status code: 400

Table 4-58 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.0000: The tenant does not exist. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KPAPI.2209: No device can be assigned. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error description.

Status code: 500

Table 4-59 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.0000: The tenant does not exist. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KPAPI.2209: No device can be assigned. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error description.

Example Requests

```
/instances/assign
{
  "user_instances": [ {
    "instance_id": "a44uhlf7",
    "user_id": "1123422"
  } ]
}
```

Example Responses

None

Status Codes

Status Code	Description
200	Normal response.
400	Request error.
500	Internal error.

Error Codes

See [Error Codes](#).

4.1.9 Canceling Instance Assignment

Function

Before calling this API, ensure that the tenant has purchased an instance. This API is used to cancel the assignment of a cloud phone to a user specified by a tenant. After the API is called, the cloud phone usage data of the user is cleared.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
koophone:cloudphoneResource:instanceUnassign	Write	cloudphoneResource *	-	-	-

URI

POST /v1/instances/unassign

Request Parameters

Table 4-60 Request header parameters

Parameter	Mandatory	Type	Description
x-request-id	Yes	String	Unique ID of a request.
X-Auth-Token	Yes	String	Tenant-level token.

Table 4-61 Request body parameters

Parameter	Mandatory	Type	Description
user_instances	Yes	Array of UserInstanceInfo objects	User instance information.

Table 4-62 UserInstanceInfo

Parameter	Mandatory	Type	Description
user_id	Yes	String	User ID. The value can contain a maximum of 32 characters.
instance_id	Yes	String	Instance ID. The value can contain a maximum of 32 characters.

Response Parameters

Status code: 200

Table 4-63 Response body parameters

Parameter	Type	Description
error_code	String	Response code. The error code specification is KooPhone.API.1001, and the number increases in ascending order.
error_msg	String	Error description.
data	data object	Result returned by a asynchronous task.

Table 4-64 data

Parameter	Type	Description
task_id	String	Task ID.
cmd_jobs	Array of CmdJob objects	Response task list.

Table 4-65 CmdJob

Parameter	Type	Description
instance_id	String	Instance list.
job_id	String	Asynchronization command task ID.

Status code: 400

Table 4-66 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.0000: The tenant does not exist. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.2210: The binding relationship between the user and the instance does not exist. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error message.

Status code: 500

Table 4-67 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.0000: The tenant does not exist. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.2210: The binding relationship between the user and the instance does not exist. KOOPHONE.API.9999: Internal service error.

Parameter	Type	Description
error_msg	String	Error message.

Example Requests

```
/instances/unassign
{
  "user_instances": [ {
    "instance_id": "a44uhlf7",
    "user_id": 1123422
  } ]
}
```

Example Responses

Status code: 200

Normal response.

```
{
  "data": {
    "task_id": "RM_6837531fd3f54550927b930180a706bf",
    "cmd_jobs": [ {
      "instance_id": "a44uhlf7",
      "job_id": "1564567b8bab40f34711234cb80d0123"
    }, {
      "instance_id": "efjy72gs",
      "job_id": "1564567b8bab40f34711234cb80d0456"
    } ]
  },
  "error_code": "0",
  "error_msg": "ok"
}
```

Status Codes

Status Code	Description
200	Normal response.
400	Request error.
500	Internal error.

Error Codes

See [Error Codes](#).

4.1.10 Querying Instances in Batches

Function

Query instances in batches.

The prerequisite for calling this API is that the tenant has purchased an instance.

The API returns information about all instances of the tenant.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
koophone:cloudphoneResource:queryInstanceBatch	Read	cloudphoneResource *	-	-	-

URI

GET /v1/instances/batch-query

Table 4-68 Query Parameters

Parameter	Mandatory	Type	Description
x-request-id	Yes	String	Unique ID of a request.
page_no	Yes	Integer	Page number.
page_size	Yes	Integer	Page size.
instance_id	No	String	Instance ID.
instance_name	No	String	Instance name.
query_start_time	No	String	Query start time (UTC). The format is 2023-08-15 14:30:45.
query_end_time	No	String	Query end time (UTC). The format is 2023-08-15 14:30:45.
pool_scene_tag	No	String	Resource pool scenario tag. CLOUD_APP: cloud application CLOUD_PHONE: general cloud terminal

Request Parameters

Table 4-69 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token.

Response Parameters

Status code: 200

Table 4-70 Response body parameters

Parameter	Type	Description
data	data object	Batch instance query result.

Table 4-71 data

Parameter	Type	Description
result	Array of result objects	Batch instance query result list.
page_no	Integer	Page number.
page_size	Integer	Number of records on each page.
total_count	Integer	Total number of elements.
error_code	String	Error code.
error_msg	String	Error message.

Table 4-72 result

Parameter	Type	Description
instance_id	String	Instance ID.
instance_name	String	Instance name.
region	String	Region. Example: cn-north-4
instance_sku	String	Instance specification. Example: Professional edition 8 vCPUs 16 GB 10 GB storage Maximum resolution: 720p

Parameter	Type	Description
frozen_status	Integer	Frozen status. 0: normal 1: frozen
running_status	Integer	Service status 0: unknown 1: stopped 2: running 3: going offline 4: starting 5: shut down
login_status	Integer	Login status. 0: not logged in 1: logged in
assign_status	Integer	Assignment status. 0: unassigned 1: assigned
assign_user	String	Assign a cloud phone to a user.
billing_mode	String	Billing mode.
project_id	String	ID of the tenant project associated with the cloud phone.
project_name	String	Name of the tenant project associated with the cloud phone.
phone_id	String	Instance ID.
member_name	String	User name.
account_name	String	Account name.
region_name	String	Region name.
region_name_en	String	English region name.
backup_status	Integer	Backup status. 0: preparing 1: executing 2: successful 3: failed 4: others
backup_time	String	Time when the backup status occurs.
restore_status	Integer	Restoration status. 0: preparing 1: executing 2: successful 3: failed 4: others
restore_time	String	Restoration status occurrence time.

Status code: 400

Table 4-73 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.1004: The service is not subscribed to. KOOPHONE.API.5002: The time request format is incorrect. KOOPHONE.API.5004: The query end date is earlier than the query start date. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error response description.

Status code: 500

Table 4-74 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.0000: The tenant does not exist. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KPAPI.2209: No device can be assigned. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error description.

Example Requests

```
/v1/instances/batch-query?page_no=1&page_size=200&poolSceneTag=CLOUD_PHONE
```

Example Responses

Status code: 200

Normal response to batch instance query.

```
{
  "data": {
    "result": [ {
      "instance_id": "5srn5hL8",
      "instance_name": "CCTEST-00001",
      "region": "cn-north-7",
      "instance_sku": "Professional edition | 8 vCPUs | 16 GB | 10 GB storage | Maximum resolution: 720p",
      "frozen_status": 0,
      "running_status": 1,
      "login_status": 0,
      "assign_status": 1,
      "assign_user": "1008600000097131912",
      "billing_mode": "1",
      "project_id": "9d71ec45aef04d84a991c12250227b5c",
      "project_name": "cn-north-7",
      "phone_id": "null",
      "member_name": "test",
      "account_name": "hhh@cs02.huaweipaas.com",
      "region_name": "CN North-Ulanqab-2003",
      "region_name_en": "CN North-Ulanqab203",
      "backup_status": 0,
      "backup_time": "2024-05-24 17:34:58",
      "restore_status": 0,
      "restore_time": "2024-05-24 20:34:58"
    } ]
  },
  "page_no": 1,
  "page_size": 100,
  "total_count": 72,
  "error_code": "0",
  "error_msg": "OK"
}
```

Status Codes

Status Code	Description
200	Normal response to batch instance query.
400	Request error.
500	Internal error.

Error Codes

See [Error Codes](#).

4.1.11 Restarting Instances

Function

This API is used to restart cloud phone instances in batches.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
koophone:cloudphoneResource:instanceReboot	Write	cloudphoneResource *	-	-	-

URI

POST /v1/instances/reboot

Request Parameters

Table 4-75 Request header parameters

Parameter	Mandatory	Type	Description
x-request-id	Yes	String	Unique ID of a request.
X-Auth-Token	Yes	String	Tenant-level token.

Table 4-76 Request body parameters

Parameter	Mandatory	Type	Description
instance_ids	Yes	Array of strings	Instance list. The value can contain a maximum of 100 columns.

Response Parameters

Status code: 200

Table 4-77 Response body parameters

Parameter	Type	Description
error_code	String	Response code. The error code specification is KooPhone.API.1001, and the number increases in ascending order.
error_msg	String	Error description.

Status code: 400

Table 4-78 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.5005: Not all instances are running. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error message.

Status code: 500

Table 4-79 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.5005: Not all instances are running. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error message.

Example Requests

```
/v1/instances/reboot
{
  "instance_ids" : [ "a44uhlf7" ]
}
```

Example Responses

Status code: 200

Response to the request for restarting an instance.

```
{
  "error_code" : "0",
  "error_msg" : "OK"
}
```

Status Codes

Status Code	Description
200	Response to the request for restarting an instance.
400	Request error.
500	Internal error.

Error Codes

See [Error Codes](#).

4.2 Instance Subscription

4.2.1 Querying Saleable Instance SKUs in Batches

Function

Query instance SKUs in batches.

The API returns the specifications of all available instances of the tenant.

Query the SKU information of a specific offering based on the query parameter.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.

- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
koophone:cloudphoneResource:queryInstanceSku	Read	cloudphoneResource *	-	-	-

URI

GET /v1/instances/sku

Table 4-80 Query Parameters

Parameter	Mandatory	Type	Description
type	Yes	String	Type of the SKU to be queried. Currently, only general cloud terminal SKUs can be queried. 0: Query the general cloud terminal SKU.

Request Parameters

Table 4-81 Request header parameters

Parameter	Mandatory	Type	Description
x-auth-token	Yes	String	IAM token information of the tenant.

Response Parameters

Status code: 200

Table 4-82 Response body parameters

Parameter	Type	Description
error_code	String	Response code.
error_msg	String	Response.

Parameter	Type	Description
data	SkuSpecBaseResponse object	Response body.

Table 4-83 SkuSpecBaseResponse

Parameter	Type	Description
bandInfo	bandInfo object	Bandwidth information.
skuSpecResponseList	Array of skuSpecResponseList objects	Instance specifications in different regions.

Table 4-84 bandInfo

Parameter	Type	Description
cbcSkuld	String	Bandwidth SKU ID, corresponding to bandSkuld in the subscription API.

Table 4-85 skuSpecResponseList

Parameter	Type	Description
skuResponses	Array of skuResponses objects	Instance specifications.
regionId	String	Region ID.

Table 4-86 skuResponses

Parameter	Type	Description
type	String	SKU specification types: ENTERPRISE or PROFESSIONAL.
cbcSkuld	String	SKU ID of the instance, corresponding to the subscribed instanceSkuld.
name	String	Flavor name.
calcSpec	String	CPU Memory specifications.
storageSpec	String	Storage specifications.

Parameter	Type	Description
specDesc	String	Specification description.
bandSize	String	Bandwidth size of the instance. The return value is a character string, for example, "2,4,8," indicating that three types of bandwidth are available.
chargeMode	Integer	Billing mode. 0: yearly/monthly 1: pay-per-use 2: yearly/monthly and pay-per-use
maxResolution	String	Highest resolution.
poolInfo	poolInfo object	Resource pool information, including the primary key ID of the SKU data record, resource pool ID, and AOSP version of the resource pool.

Table 4-87 poolInfo

Parameter	Type	Description
aosp	Array of aosp objects	Resource pool specifications.

Table 4-88 aosp

Parameter	Type	Description
version	String	AOSP version.
resPoolId	String	Resource pool ID.
id	Integer	Primary key ID of the data in the SKU table.
network	String	Network type. The value can be EIP or ADN.
enable	Boolean	Enabled or not. The value can be true or false.

Status code: 400

Table 4-89 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.1000: The request parameter is incorrect. Check whether the type in the request parameter is correct. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error message.

Example Requests

```
/v1/instances/sku
```

Example Responses

Status code: 200

Returned parameters of the SKU API.

```
{
  "data": {
    "bandInfo": {
      "id": "62",
      "cbcSkuld": "kp.bandwidth"
    },
    "skuSpecResponseList": [ {
      "skuResponses": [ {
        "type": "PROFESSIONAL",
        "cbcSkuld": "kp.professional.xlarge.32g.2",
        "name": "sku_1_xiahui",
        "calcSpec": "4vCPUs | 8GB",
        "storageSpec": "32GB",
        "specDesc": "Professional | 4 vCPUs | 8 GB | 32 GB storage | Maximum resolution: 720p (imperceptible)",
        "specDescEn": "Professional | 4 Core | 8GB | 32GB Storage | 720P Max Output",
        "bandSize": "4,6",
        "poolInfo": {
          "aosp": [ {
            "version": "AOSP9",
            "resPoolId": "1600087199176311111",
            "id": "40",
            "network": "ADN",
            "enable": true
          } ]
        }
      } ]
    },
    "nestInfo": [ {
      "bandSize": 6,
      "sceneType": "CLOUD_PHONE",
      "network": "EIP",
      "storageDesc": "1.2T",
      "sceneDesc": "Applicable to light office scenarios.",
      "sceneDescEn": "Lightweight Office",
      "tags": "Self-use and Office",
      "tagsEn": "Personal Use,Business"
    } ]
  }
}
```

```
    }, {
      "bandSize" : 4,
      "sceneType" : "CLOUD_PHONE",
      "network" : "EIP",
      "storageDesc" : "1.2T",
      "sceneDesc" : "Applicable to light office scenarios-2.",
      "sceneDescEn" : "Lightweight Office",
      "tagsEn" : "Personal Use,Business"
    } ],
    "chargeMode" : 2,
    "maxResolution" : "720p (imperceptible)"
  }, {
    "type" : "ENTERPRISE",
    "cbcSkuld" : "kp.enterprise.xlarge.32g.2",
    "name" : "sku_basic_app",
    "calcSpec" : "4vCPUs | 8GB",
    "storageSpec" : "32GB",
    "specDesc" : "Instances available for subscription.",
    "specDescEn" : "Professional | 4 Core | 8GB | 32GB Storage | 720P Max Output",
    "bandSize" : "4",
    "poolInfo" : {
      "aosp" : [ {
        "version" : "AOSP9",
        "resPoolId" : "1600087199176322222",
        "id" : "58",
        "network" : "ADN",
        "enable" : true
      } ]
    },
    "nestInfo" : [ ],
    "chargeMode" : 2,
    "maxResolution" : "720p"
  } ],
  "regionId" : "cn-north-7"
}, {
  "skuResponses" : [ {
    "type" : "PROFESSIONAL",
    "cbcSkuld" : "kp.professional.xlarge.32g.2",
    "name" : "sku_1",
    "calcSpec" : "4vCPUs | 8GB",
    "storageSpec" : "32GB",
    "specDesc" : "Professional | 4 vCPUs | 8 GB | 32 GB storage | Maximum resolution: 720p",
    "specDescEn" : "Professional | 4 Core | 8GB | 32GB Storage | 720P Max Output",
    "bandSize" : "4,8",
    "poolInfo" : {
      "aosp" : [ {
        "version" : "AOSP9",
        "resPoolId" : "1600087199176333333",
        "id" : "43",
        "network" : "ADN",
        "enable" : true
      } ]
    },
    "chargeMode" : 2,
    "maxResolution" : "720p"
  } ],
  "regionId" : "cn-north-208"
}, {
  "skuResponses" : [ {
    "type" : "PROFESSIONAL",
    "cbcSkuld" : "kp.professional.xlarge.32g.2",
    "name" : "sku_xingneng_ceshi",
    "calcSpec" : "4vCPUs | 8GB",
    "storageSpec" : "32GB",
    "specDesc" : "Professional | 4 vCPUs | 8 GB | 32 GB storage | Maximum resolution: 720p",
    "specDescEn" : "Professional | 4 Core | 8GB | 32GB Storage | 720P Max Output",
    "bandSize" : "4,8",
    "poolInfo" : {
      "aosp" : [ {
```

```

    "version" : "AOSP9",
    "resPoolId" : "9223372036854774444",
    "id" : "50",
    "network" : "ADN",
    "enable" : true
  } ]
},
"nestInfo" : [ {
  "bandSize" : 8,
  "sceneType" : "CLOUD_PHONE",
  "network" : "EIP",
  "storageDesc" : "1.2T",
  "sceneDesc" : "Applicable to light office scenarios.",
  "sceneDescEn" : "Lightweight Office",
  "tags" : "Self-use and Office",
  "tagsEn" : "Personal Use,Business"
}, {
  "bandSize" : 4,
  "sceneType" : "CLOUD_PHONE",
  "network" : "EIP",
  "storageDesc" : "1.2T",
  "sceneDesc" : "Applicable to light office scenarios-2.",
  "sceneDescEn" : "Lightweight Office",
  "tagsEn" : "Personal Use,Business"
} ],
"chargeMode" : 2,
"maxResolution" : "720p"
} ],
"regionId" : "cn-southwest-252"
} ]
},
"error_code" : "0",
"error_msg" : "return sku messages success"
}

```

Status Codes

Status Code	Description
200	Returned parameters of the SKU API.
400	Error message.

Error Codes

See [Error Codes](#).

4.2.2 Provisioning an Instance API

Function

Tenants can call this API to generate instances.

This API must be used together with the BatchShowSku API to obtain all available SKUs from the BatchShowSku API. Tenants can select specifications as required.

If you want to directly purchase the product when calling this API, top up your account and select isAutoPay in the subscription parameters.

If automatic payment is not selected, select manual payment from the unpaid orders of your account based on the corresponding order number after the API is called.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
koophone:cloudphoneResource:instanceCreate	Write	cloudphoneResource *	-	-	-

URI

POST /v1/instances/create

Request Parameters

Table 4-90 Request header parameters

Parameter	Mandatory	Type	Description
x-auth-token	Yes	String	User token.
Content-Type	Yes	String	Data format of the request body. The default value is application/json, indicating that the request body is in JSON format.

Table 4-91 Request body parameters

Parameter	Mandatory	Type	Description
os	Yes	String	Image specifications of the instance to be created. This parameter is mandatory in the current scenario. Enumerated value. AOSP9: AOSP9 (image 9) and AOSP11 (image 11).
instanceSkuld	Yes	String	Specification ID of the created instance, which is defined in CBC. The console provides the mapping between the specification and resource pool. The value can contain a maximum of 64 characters.
bandSkuld	Yes	String	Bandwidth product specification ID, which is defined in CBC. This parameter is mandatory for general cloud terminals and cloud applications. The value can contain a maximum of 64 characters.
regionId	Yes	String	Region ID. The value can contain a maximum of 64 characters.
instanceName Prefix	Yes	String	Prefix of the cloud phone instance name. The value can contain a maximum of 14 characters.
bandSize	Yes	Double	Bandwidth, in Mbit/s.
count	Yes	Integer	Number of instances to be purchased. A maximum of 1500 instances can be purchased.
chargeParam	Yes	chargeParam object	The billing-related parameters.
network	No	String	Network line.

Table 4-92 chargeParam

Parameter	Mandatory	Type	Description
chargingMode	Yes	Integer	Billing mode. 1: yearly/monthly. Currently, only the yearly/monthly mode is supported.
periodType	Yes	Integer	Subscription period type. 2: month 3: year
periodNum	Yes	Integer	Number of subscription periods. If the subscription period is a month, the value ranges from 1 to 9. If the subscription period is a year, the value ranges from 1 to 10.
isAutoPay	No	Integer	Automatic payment or not. Automatic payment is disabled by default. 0: automatic payment disabled 1: automatic payment enabled
isAutoRenew	No	Integer	Automatic renew or not. 0: auto-renewal disabled 1: auto-renewal enabled

Response Parameters

Status code: 200

Table 4-93 Response body parameters

Parameter	Type	Description
data	data object	Returned content.
error_code	String	0: success
error_msg	String	OK: success

Table 4-94 data

Parameter	Type	Description
orderId	String	Order ID.
instanceInfos	Array of instanceInfos objects	Instance information.

Table 4-95 instanceInfos

Parameter	Type	Description
instanceId	String	Instance ID.
instanceName	String	Instance name.

Status code: 400

Table 4-96 Response body parameters

Parameter	Type	Description
error_code	String	<p>0: successful.</p> <p>KOOPHONE.API.1000: The request parameter is incorrect.</p> <p>KOOPHONE.API.1001: Insufficient instance permissions.</p> <p>KOOPHONE.API.3001: The instanceSkuld parameter in the request must match the bandSkuld parameter.</p> <p>KOOPHONE.API.3002: The SKU or region does not exist.</p> <p>KOOPHONE.API.3003: The OS image version is required for common instances.</p> <p>KOOPHONE.API.3006: If the period type is month, the value of period num must range from 1 to 9.</p> <p>KOOPHONE.API.3007: If the period type is year, the value of period num must range from 1 to 3.</p> <p>KOOPHONE.API.40010: Insufficient instances.</p> <p>KOOPHONE.API.9999: Internal service error.</p>
error_msg	String	Error message.

Example Requests

Subscription request parameters.

```
/instances/create
{
  "os" : "AOSP9",
```

```

"instanceSkuld" : "kp.professional.2xlarge.128g.2",
"bandSkuld" : "kp.bandwidth",
"regionId" : "cn-north-7",
"instanceNamePrefix" : "koophone",
"bandSize" : 4,
"count" : 1,
"chargeParam" : {
  "chargingMode" : 1,
  "periodType" : 2,
  "periodNum" : 1,
  "isAutoPay" : 1,
  "isAutoRenew" : 1
},
"network" : "EIP"
}

```

Example Responses

Status code: 200

Instance subscription return parameter.

```

{
  "data" : {
    "orderId" : "CS2412261442DBN4E",
    "instanceInfos" : [ {
      "instanceId" : "11J6QVu5",
      "instanceName" : "koophone-00001"
    } ]
  },
  "error_code" : "0",
  "error_msg" : "OK"
}

```

Status Codes

Status Code	Description
200	Instance subscription return parameter.
400	Error message.

Error Codes

See [Error Codes](#).

4.2.3 Deleting Instances

Function

The prerequisite for calling this API is that the tenant has purchased an instance.

Tenants can call this open API to unsubscribe from yearly/monthly instances, but cannot unsubscribe from pay-per-use instances.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
koophone:cloudphoneResource:instanceDelete	Write	cloudphoneResource *	-	-	-

URI

POST /v1/instances/delete

Request Parameters

Table 4-97 Request header parameters

Parameter	Mandatory	Type	Description
x-auth-token	Yes	String	User token.
Content-Type	Yes	String	The default value is application/json, indicating that the request body is in JSON format.

Table 4-98 Request body parameters

Parameter	Mandatory	Type	Description
instanceIdList	Yes	Array of strings	Unsubscribed instance ID list. A single instance can contain a maximum of 32 characters and the list can contain a maximum of 100 columns.

Response Parameters

Status code: 200

Table 4-99 Response body parameters

Parameter	Type	Description
data	String	Returned information.
error_code	String	Error code. The value 0 indicates a success.
error_msg	String	Error information. OK indicates that the operation is successful.

Status code: 400

Table 4-100 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.5001: Pay-per-use instances cannot be deleted. KOOPHONE.API.1012: The instances do not belong to the same tenant. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error message.

Example Requests

```
/instances/delete
{
  "instanceIdList" : [ "XvH39QVW" ]
}
```

Example Responses

Status code: 200

Instance deletion response.

```
{
  "data" : null,
```

```
"error_code" : "0",
"error_msg" : "OK"
}
```

Status Codes

Status Code	Description
200	Instance deletion response.
400	Errors.

Error Codes

See [Error Codes](#).

4.3 Instance Usage

4.3.1 Preparing Instances in Batches

Function

Prepare instances in batches.

The prerequisite for calling this API is that the tenant has purchased an instance.

After this API is called, the current instance is ready for streaming.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
koophone:cloudphoneResource:instancePrepare	Write	cloudphoneResource *	-	-	-

URI

POST /v1/instances/prepare

Request Parameters

Table 4-101 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Tenant-level token.

Table 4-102 Request body parameters

Parameter	Mandatory	Type	Description
user_id	Yes	String	User ID. The value can contain a maximum of 32 characters.
instance_ids	Yes	Array of strings	Instance list. A single instance can contain a maximum of 32 characters, and the list can contain a maximum of 100 columns.

Response Parameters

Status code: 200

Table 4-103 Response body parameters

Parameter	Type	Description
error_code	String	Response code. The error code specification is KooPhone.API.1001, and the number increases in ascending order.
error_msg	String	Error description.
data	InstanceStatusWrapper object	Status query result.

Table 4-104 InstanceStatusWrapper

Parameter	Type	Description
status_list	Array of InstanceStatus objects	Instance status list.

Table 4-105 InstanceStatus

Parameter	Type	Description
instance_id	String	Instance ID.
status	Integer	Cloud phone status (0: ready 1: to be restored 2: to be assigned 3: backing up 4: resetting 5: restarting 6: offline 7: replacing 8: restoring from backup upon expiration 9: failed to restore from backup upon expiration 10: maintaining).

Status code: 400

Table 4-106 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.4001: The instance does not exist. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error message.

Status code: 500

Table 4-107 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.4001: The instance does not exist. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error message.

Example Requests

```
/v1/instances/prepare
{
  "user_id" : "1008600000104285462",
  "instance_ids" : [ "iRJEVP96", "iRJEVP96" ]
}
```

Example Responses

Status code: 200

Normal response.

```
{
  "data" : {
    "status_list" : [ {
      "instance_id" : "a44uhlf7",
      "status" : 0
    }, {
      "instance_id" : "efjy72gs",
      "status" : 1
    } ]
  },
  "error_code" : "0",
  "error_msg" : "ok"
}
```

Status Codes

Status Code	Description
200	Normal response.
400	Request error.
500	Internal error.

Error Codes

See [Error Codes](#).

4.3.2 Instance Preparation Progress

Function

Instance preparation progress.

The prerequisite for invoking this API is that the prepare API is called.

This API is called cyclically until the cloud phone status is normal.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
koophone:cloudphoneResource:getInstancePrepareProgress	Read	cloudphoneResource *	-	-	-

URI

POST /v1/instances/prepare-progress

Request Parameters

Table 4-108 Request header parameters

Parameter	Mandatory	Type	Description
x-auth-token	Yes	String	IAM token information of the tenant.

Table 4-109 Request body parameters

Parameter	Mandatory	Type	Description
user_id	Yes	String	User ID. The value can contain a maximum of 32 characters.
instance_id	Yes	String	Instance ID. The value can contain a maximum of 32 characters.

Response Parameters

Status code: 200

Table 4-110 Response body parameters

Parameter	Type	Description
data	data object	Response to the instance preparation progress.
error_code	String	Error code.
error_msg	String	Error description.

Table 4-111 data

Parameter	Type	Description
status	Integer	Instance preparation status. 0: normal 1: queuing 2: restoring and offline -1: processing failure 3: backing up
waitingCount	Integer	Wait time.

Status code: 400

Table 4-112 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.4001: The instance does not exist. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error message.

Status code: 500

Table 4-113 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.4001: The instance does not exist. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error message.

Example Requests

```
/v1/instances/prepare-progress
{
  "user_id" : "1008600000104285462",
  "instance_id" : "iRJEVP9"
}
```

Example Responses

Status code: 200

Normal response.

```
{
  "data" : {
```

```

"status" : 0,
"waitingCount" : 0
},
"error_code" : "0",
"error_msg" : "OK"
}

```

Status Codes

Status Code	Description
200	Normal response.
400	Request error.
500	Internal error.

Error Codes

See [Error Codes](#).

4.3.3 Backing Up an Instance

Function

Back up instance data to OBS in batches and release physical instances.

The prerequisite for calling this API is that the instance data has been restored to the physical machine.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
koophone:cloudphoneResource:instanceBackup	Write	cloudphoneResource *	-	-	-

URI

POST /v1/instances/backup

Request Parameters

Table 4-114 Request header parameters

Parameter	Mandatory	Type	Description
x-auth-token	Yes	String	IAM token information of the tenant.
x-request-id	Yes	String	Unique ID of a request.

Table 4-115 Request body parameters

Parameter	Mandatory	Type	Description
instance_ids	Yes	Array of strings	Instance list. A single instance can contain a maximum of 32 characters, and the list can contain a maximum of 100 columns.

Response Parameters

Status code: 200

Table 4-116 Response body parameters

Parameter	Type	Description
error_code	String	Response code. The error code specification is KooPhone.API.1001, and the number increases in ascending order.
error_msg	String	Error description.
data	data object	Result returned by a asynchronous task.

Table 4-117 data

Parameter	Type	Description
task_id	String	Task ID.

Parameter	Type	Description
cmd_jobs	Array of CmdJob objects	Response task list.

Table 4-118 CmdJob

Parameter	Type	Description
instance_id	String	Instance list.
job_id	String	Asynchronization command task ID.

Status code: 400

Table 4-119 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.0000: The tenant does not exist. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error message.

Status code: 500

Table 4-120 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.0000: The tenant does not exist. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error message.

Example Requests

```
/v1/instances/backup
{
  "user_id" : "1008600000104285462",
  "instance_id" : "iRJEVP9"
}
```

Example Responses

Status code: 200

Normal response.

```
{
  "data" : {
    "task_id" : "RM_6837531fd3f54550927b930180a706bf",
    "cmd_jobs" : [ {
      "instance_id" : "a44uhlf7",
      "job_id" : "1564567b8bab40f34711234cb80d0123"
    }, {
      "instance_id" : "efjy72gs",
      "job_id" : "1564567b8bab40f34711234cb80d0456"
    } ]
  },
  "error_code" : "0",
  "error_msg" : "ok"
}
```

Status Codes

Status Code	Description
200	Normal response.
400	Request error.
500	Internal error.

Error Codes

See [Error Codes](#).

4.3.4 Stopping Streaming of an Instance

Function

Stop streaming of an instance. This indicates that this API takes effect on instances in streaming.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
koophone:cloudphoneResource:stopInstancesStreaming	Write	cloudphoneResource *	-	-	-

URI

POST /v1/instances/streaming/stop

Request Parameters

Table 4-121 Request header parameters

Parameter	Mandatory	Type	Description
x-auth-token	Yes	String	IAM token information of the tenant.
x-request-id	Yes	String	Unique ID of a request.

Table 4-122 Request body parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID.

Response Parameters

Status code: 200

Table 4-123 Response body parameters

Parameter	Type	Description
error_code	String	Response code. The error code specification is KooPhone.API.1001, and the number increases in ascending order.
error_msg	String	Error description.

Status code: 400

Table 4-124 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error message.

Status code: 500

Table 4-125 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error message.

Example Requests

```
/v1/instances/streaming/stop
{
  "instance_id" : "iRJEVP96"
}
```

Example Responses

Status code: 200

Normal response.

```
{
  "error_code" : "0",
  "error_msg" : "OK"
}
```

Status Codes

Status Code	Description
200	Normal response.
400	Request error.
500	Internal error.

Error Codes

See [Error Codes](#).

4.3.5 Releasing a Session by an Instance

Function

After the streaming is stopped, the session still exists for a period of time. This API can be used to release the session.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
koopphone:cloudphoneResource:releaseInstancesSession	Write	cloudphoneResource *	-	-	-

URI

POST /v1/instances/session/release

Request Parameters

Table 4-126 Request header parameters

Parameter	Mandatory	Type	Description
x-auth-token	Yes	String	IAM token information of the tenant.
x-request-id	Yes	String	Unique ID of a request.

Table 4-127 Request body parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID.

Response Parameters

Status code: 200

Table 4-128 Response body parameters

Parameter	Type	Description
error_code	String	Response code. The error code specification is KooPhone.API.1001, and the number increases in ascending order.
error_msg	String	Error description.

Status code: 400

Table 4-129 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error message.

Status code: 500

Table 4-130 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error message.

Example Requests

```
/v1/instances/session/release
{
  "instance_id": "iRJEVP96"
}
```

Example Responses

Status code: 200

Normal response.

```
{
  "error_code": "0",
  "error_msg": "OK"
}
```

Status Codes

Status Code	Description
200	Normal response.
400	Request error.
500	Internal error.

Error Codes

See [Error Codes](#).

4.4 Application management

4.4.1 Installing an App on an Instance

Function

Call this API to install applications in batches on a cloud phone instance. When this API is called, the value of `fast_install` determines whether the applications are installed in common mode or quick mode.

The API returns the `task_id` of the current installation task. The `task_id` has a fixed prefix `ZGCA`.

You can call the `GetTask` instance execution task query API to query the execution result based on the returned task ID.

Authorization Information

Each account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions.

- If you are using role/policy-based authorization, see [Permissions Policies and Supported Actions](#) for details on the required permissions.
- If you are using identity policy-based authorization, the following identity policy-based permissions are required.

Action	Access Level	Resource Type (*: required)	Condition Key	Alias	Dependencies
koophone:cloudphoneResource:instanceAppInstall	Write	cloudphoneResource*	-	-	-

URI

POST /v1/instances/app/install

Request Parameters

Table 4-131 Request header parameters

Parameter	Mandatory	Type	Description
x-request-id	No	String	Unique ID of a request.
x-Auth-Token	No	String	Tenant-level token.

Table 4-132 Request body parameters

Parameter	Mandatory	Type	Description
fast_install	No	String	Installation type. 0: common installation 1: quick installation
object_name	Yes	String	Name of the application package after installation. A package name can contain a maximum of 100 characters, for example, com.tencent.mm.
file_name	Yes	String	File name (suffix included). The value can contain a maximum of 100 characters, for example, meituan.apk.

Parameter	Mandatory	Type	Description
object_version	Yes	String	Application version. The value can contain a maximum of 100 characters, for example, 8.0.58.
object_size	Yes	String	Application size. Example: 120 (unit: MB)
biz_type	Yes	String	Installation package type. The value can contain a maximum of 64 characters, for example, apk. Currently, only APK applications can be installed.
content_type	Yes	String	Transmission mode. The value can contain a maximum of 64 characters. 1: OBS. Currently, only OBS download is supported. Example: application/octet-stream
content_md5	Yes	String	Verify the MD5 value of the APK file. This parameter can be left empty. It is optional and can contain a maximum of 200 characters.
install_package_url	Yes	String	OBS download URL of the APK package. The value can contain a maximum of 2000 characters.
instance_id_list	Yes	Array of strings	Cloud phone instance list. A single instance can contain a maximum of 32 characters, and the list can contain a maximum of 100 columns.

Response Parameters

Status code: 200

Table 4-133 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Parameter	Type	Description
data	RmInstallAppResp object	Application installation result.

Table 4-134 RmInstallAppResp

Parameter	Type	Description
data	RmInstallAppDataResult object	Execution results.

Table 4-135 RmInstallAppDataResult

Parameter	Type	Description
cmd_jobs	Array of CmdJob objects	Command task.
task_id	String	Task ID.

Table 4-136 CmdJob

Parameter	Type	Description
instance_id	String	Instance list.
job_id	String	Asynchronization command task ID.

Status code: 400

Table 4-137 Response body parameters

Parameter	Type	Description
error_code	String	0: successful. KOOPHONE.API.1000: The request parameter is incorrect. KOOPHONE.API.1001: Insufficient instance permissions. KOOPHONE.API.3008: The installation type parameter fast_install in the request is incorrect. KOOPHONE.API.62005: The app package already exists. KOOPHONE.API.62006: The app package size is not a digit. KOOPHONE.API.62006: The app package is too large. KOOPHONE.API.62016: The total size of application packages uploaded by the tenant exceeds the upper limit. KOOPHONE.API.3009: Failed to query the phone ID. KOOPHONE.API.9999: Internal service error.
error_msg	String	Error message.

Example Requests

Request parameters for installing an application on an instance.

```

/v1/instances/app/install
{
  "fast_install" : 1,
  "object_name" : "com.tencent.mm",
  "file_name" : "meituan.apk",
  "object_version" : "8.0.58",
  "object_size" : 120,
  "biz_type" : "apk",
  "content_type" : "application/octet-stream",
  "content_md5" : "fghfg",
  "install_package_url" : "https://obs-kpxa-zg.obs.cn-north-7.ulanhqab.huawei.com:443/chp_admin/sh/
KooPhone/1943225155684069378/1752229415749-2-com.tencent.mm.apk?
AccessKeyId=HSTAZ7UE1341BOE861H2&Expires=1753252931&x-obs-security-
token=hQpjb1ub3J0aC03AQAABELIU1RBWjdVRTEzNDFCT0U4NjFIMo-
pbpW_du_lXkPTraoMwCYVql1frNdxH_jl3n5jbQHT6gQxKRmZB9zly8W11u7BnLAZQnxrX8SDIZQV1jvlf9HQbldv
nCjU4YhVximnMUckrYQEDITUjYrXKxG9bXYeAHt66g7iODBFcRVLvx1jUkA4thsltjcQ-
iPGR20Fbi2qbk_AF5iOGT0lg72UjqIVYo_JTbkDWRiAUr4uludn84f_CgYjTPE025u8A_VO2l4yij3cl4TSRxdNxM2gp
S8g3vDWpLCZ2UTYbej5dBzQs-yizVaCZmh-
kN3A0JmWlvGpOvkSEhKYyWqAonB5UXzO954oj8Oso2nl2UahCVIUtgkGoxMaufkABN_4odeQOFnTYUyxb01a
GD3Sv_UQSA_9Tnmy71Hp3ASq6mxF3xLQfrDzDM9Yk0FkZ4t-
DQ5FhfQ22L8bR9ru_bmlS6y9XlPC5gxmLp-2APjPUQMDn703Pyr7us4cc-
iT3MiB_rFywCidsDCnw4uwnBwKzv9qXNhBrNMyvPHSphqT2TsuGaU_-0x_y8KFBdgnJQLyM1mQY5I0eFOxA

```

```
3H8WgOTJCL1oQ76Zkg-KXM7UjS_WWU-TFqSIhL-dauPadnel8kai1BS7bslsg%3D
%3D&Signature=BdSN1CflprzjlaFUGFfnkU5d7lg%3D",
"instance_id_list" : [ "XvH39QVW", "Vpp8rC4Y" ]
}
```

Example Responses

Status code: 200

Returned parameters of the instance installation application.

```
{
  "data" : {
    "data" : {
      "task_id" : "ZGCAorl8ocwK7U7_t0AfH26P-DjwDw8Yknf4",
      "cmd_jobs" : [ {
        "instance_id" : "XvH39QVW",
        "job_id" : "L0XM9bL0sFoKJo-6BEjFzN6ut2jsoH_1"
      }, {
        "instance_id" : "Vpp8rC4Y",
        "job_id" : "1564567b8bab40f34711234cb80d0123"
      } ]
    }
  },
  "error_code" : "0",
  "error_msg" : "OK"
}
```

Status Codes

Status Code	Description
200	Returned parameters of the instance installation application.
400	Error message.

Error Codes

See [Error Codes](#).

5 Permissions and Supported Actions

5.1 Permissions and Supported Actions

You can use Identity and Access Management (IAM) for fine-grained permissions management of your KooPhone. If your Huawei Cloud account does not need individual IAM users, you can skip this section.

With IAM, you can control access to specific Huawei Cloud resources from principals (IAM users, user groups, agencies, or trust agencies). IAM supports role/policy-based authorization and identity policy-based authorization.

The following table describes the differences between these two authorization models.

Table 5-1 Differences between role/policy-based and identity policy-based authorization

Name	Core Relationship	Permissions	Authorization Method	Scenario
Role/Policy	User-permission-authorization scope	<ul style="list-style-type: none"> System-defined roles System-defined policies Custom policies 	Assigning roles or policies to principals	To authorize a user, you need to add it to a user group first and then specify the scope of authorization. It provides a limited number of condition keys and cannot meet the requirements of fine-grained permissions control. This method is suitable for small and medium-sized enterprises.

Name	Core Relationship	Permissions	Authorization Method	Scenario
Identity policy	User-policy	<ul style="list-style-type: none"> System-defined identity policies Custom identity policies 	<ul style="list-style-type: none"> Assigning identity policies to principals Attaching identity policies to principals 	You can authorize a user by attaching an identity policy to it. User-specific authorization and a variety of key conditions allow for more fine-grained permissions control. However, this model can be hard to set up. It requires a certain amount of expertise and is suitable for medium- and large-sized enterprises.

Assume that you want to grant IAM users permission to create ECSs in CN North-Beijing4 and OBS buckets in CN South-Guangzhou. With role/policy-based authorization, the administrator needs to create two custom policies and assign both to the IAM users. With identity policy-based authorization, the administrator only needs to create one custom identity policy and configure the condition key **g:RequestedRegion** for the policy, and then attach the policy to the users or grant the users the access permissions to the specified regions. Identity policy-based authorization is more flexible than role/policy-based authorization.

Policies/identity policies and actions in the two authorization models are not interoperable. You are advised to use the identity policy-based authorization model.

If you use IAM users in your account to call an API, the IAM users must be granted the required permissions. The required permissions are determined by the actions supported by the API. Only users with the policies allowing for those actions can call the API successfully.

5.2 Actions Supported by Policy-based Authorization

This section describes the actions supported by KooPhone in policy-based authorization.

Supported Actions

KooPhone provides system-defined policies that can be directly used in IAM. You can also create custom policies to supplement system-defined policies for more refined access control. Actions supported by policies are specific to APIs. See the following common concepts related to policies:

- Permissions: statements in a policy that allow or deny certain operations

- APIs: REST APIs that can be called by a user who has been granted specific permissions
- Actions: specific operations that are allowed or denied.
- Dependencies: actions which a specific action depends on. When allowing an action for a user, you also need to allow any existing action dependencies for that user.
- IAM projects/Enterprise projects: the authorization scope of a custom policy. A custom policy can be applied to IAM projects or enterprise projects or both. Policies that contain actions for both IAM and enterprise projects can be used and applied for both IAM and Enterprise Management. Policies that contain actions only for IAM projects can be used and applied to IAM only. Administrators can check whether an action supports IAM projects or enterprise projects in the action list. For details about the differences between IAM and enterprise management, see [Differences Between IAM and Enterprise Management](#).

Lifecycle Management

Table 5-2 Lifecycle management

Permission	API	Action	IAM Project	Enterprise Project
Executing a Synchronization Command	POST /v1/instances/sync-command	koophone:cloudphoneResource:syncInvokeInstance	√	√
Executing an Asynchronization Command	POST /v1/instances/async-command	koophone:cloudphoneResource:asyncInvokeInstance	√	√
Querying Instance Execution Tasks	GET /v1/instances/tasks/{task_id}	koophone:cloudphoneResource:queryExecuteJob	√	√
Instance Video Settings	PUT /v1/instances/video-setting	koophone:cloudphoneResource:setVideo	√	√
Querying Instance Status in Batches	POST /v1/instances/batch-query-status	koophone:cloudphoneResource:queryBatchShowInstance	√	√
Resetting Instances in Batches	POST /v1/instances/batch-reset	koophone:cloudphoneResource:batchResetInstance	√	√

Permission	API	Action	IAM Project	Enterprise Project
Obtaining device_token Before Streaming	POST /v1/instances/{instance_id}/auth	koophone:cloudphoneResource:executeInstanceAuthToken	√	√
Assigning Instances	POST /v1/instances/assign	koophone:cloudphoneResource:instanceAssign	√	√
Canceling Instance Assignment	POST /v1/instances/unassign	koophone:cloudphoneResource:instanceUnassign	√	√
Querying Instances in Batches	GET /v1/instances/batch-query	koophone:cloudphoneResource:queryInstanceBatch	√	√
Restarting Instances	POST /v1/instances/reboot	koophone:cloudphoneResource:instanceReboot	√	√
Querying Saleable Instance SKUs in Batches	GET /v1/instances/sku	koophone:cloudphoneResource:queryInstanceSku	√	√
Provisioning an Instance API	POST /v1/instances/create	koophone:cloudphoneResource:instanceCreate	√	√
Deleting Instances	POST /v1/instances/delete	koophone:cloudphoneResource:instanceDelete	√	√
Preparing Instances in Batches	POST /v1/instances/prepare	koophone:cloudphoneResource:instancePrepare	√	√
Instance Preparation Progress	POST /v1/instances/prepare-progress	koophone:cloudphoneResource:getInstancePrepareProgress	√	√
Backing Up an Instance	POST /v1/instances/backup	koophone:cloudphoneResource:instanceBackup	√	√
Stopping Streaming of an Instance	POST /v1/instances/streaming/stop	koophone:cloudphoneResource:stopInstancesStreaming	√	√

Permission	API	Action	IAM Project	Enterprise Project
Releasing a Session by an Instance	POST /v1/instances/session/release	koophone:cloudphoneResource:releaseInstancesSession	√	√
Installing an App on an Instance	POST /v1/instances/app/install	koophone:cloudphoneResource:installAppInstall	√	√

5.3 Actions Supported by Identity Policy-based Authorization

IAM provides system-defined identity policies to define typical cloud service permissions. You can also create custom identity policies using the actions supported by cloud services for more refined access control.

In addition to IAM, the [Organizations](#) service also provides [Service Control Policies \(SCPs\)](#) to set access control policies.

SCPs do not actually grant any permissions to an entity. They only set the permissions boundary for the entity. When SCPs are attached to an organizational unit (OU) or a member account, the SCPs do not directly grant permissions to that OU or member account. Instead, the SCPs only determine what permissions are available for that member account or those member accounts under that OU. The granted permissions can be applied only if they are allowed by the SCPs.

To learn more about how IAM is different from Organizations for access control, see [How IAM Is Different from Organizations for Access Control?](#)

This section describes the elements used by IAM custom identity policies and Organizations SCPs. The elements include actions, resources, and conditions.

- For details about how to use these elements to edit an IAM custom identity policy, see [Creating a Custom Identity Policy](#).
- For details about how to use these elements to edit a custom SCP, see [Creating an SCP](#).

Actions

Actions are specific operations that are allowed or denied in an identity policy.

- The Access Level column describes how the action is classified (List, Read, or Write). This classification helps you understand the level of access that an action grants when you use it in an identity policy.
- The Resource Type column indicates whether the action supports resource-level permissions.
 - You can use a wildcard (*) to indicate all resource types. If this column is empty (-), the action does not support resource-level permissions and you must specify all resources ("*") in your identity policy statements.

- If this column includes a resource type, you must specify the URN in the Resource element of your identity policy statements.
- Required resources are marked with asterisks (*) in the table. If you specify a resource in a statement using this action, then it must be of this type.

For details about the resource types defined by koophone, see [Resources](#).

- The Condition Key column contains keys that you can specify in the Condition element of an identity policy statement.
 - If the Resource Type column has values for an action, the condition key takes effect only for the listed resource types.
 - If the Resource Type column is empty (-) for an action, the condition key takes effect for all resources that action supports.
 - If the Condition Key column is empty (-) for an action, the action does not support any condition keys.

For details about the condition keys defined by koophone, see [Conditions](#).

- The Alias column lists the policy actions that are configured in identity policies. With these actions, you can use APIs for policy-based authorization. For details, see [Policies and Identity Policies](#).

The following table lists the actions that you can define in identity policy statements for koophone.

Table 5-3 Actions supported by koophone

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
koophone:cloudphoneResource:synchronousInstance	Grants permission to execute synchronous ADB commands on cloud phone instances.	Write	koophone:cloudphoneResource *	-	-
koophone:cloudphoneResource:asyncInstance	Grants permission to execute asynchronous ADB commands on cloud phone instances.	Write	koophone:cloudphoneResource *	-	-

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
koopphone:cloudphoneResource:queryExecuteJob	Grants permission to query the execution status of tasks associated with cloud phone instances.	Read	koopphone:cloudphoneResource *	-	-
koopphone:cloudphoneResource:setVideo	Grants permission to configure streaming video parameters for cloud phone instances.	Write	koopphone:cloudphoneResource *	-	-
koopphone:cloudphoneResource:queryBatchShowInstance	Grants permission to retrieve a batch list showing the status of cloud phone instances.	Write	koopphone:cloudphoneResource *	-	-
koopphone:cloudphoneResource:batchResetInstance	Grants permission to perform a batch reset operation on cloud phone instances.	Write	koopphone:cloudphoneResource *	-	-

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
koopphone:cloudphoneResource:executeInstanceAuthToken	Grants permission to obtain an authentication token for cloud phone instances to stream content via CloudOS.	Write	koopphone:cloudphoneResource *	-	-
koopphone:cloudphoneResource:instanceAssign	Grants permission to assign an already ordered cloud phone instance to a user.	Write	koopphone:cloudphoneResource *	-	-
koopphone:cloudphoneResource:instanceUnassign	Grants permission to remove an already ordered cloud phone instance from a user assignment.	Write	koopphone:cloudphoneResource *	-	-
koopphone:cloudphoneResource:queryInstanceBatch	Grants permission to retrieve a batch list showing the status of cloud phone instances.	Read	koopphone:cloudphoneResource *	-	-
koopphone:cloudphoneResource:instanceReboot	Grants permission to reboot a cloud phone instance.	Write	koopphone:cloudphoneResource *	-	-

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
koopphone:cloudphoneResource:queryInstanceSku	Grants permission to retrieve the list of available SKU (Stock Keeping Unit) for cloud phone instances.	Read	koopphone:cloudphoneResource *	-	-
koopphone:cloudphoneResource:instanceCreate	Grants permission to create and order a cloud phone instance using a subscription or package pricing model.	Write	koopphone:cloudphoneResource *	-	-
koopphone:cloudphoneResource:instanceDelete	Grants permission to cancel the subscription or delete a cloud phone instance.	Write	koopphone:cloudphoneResource *	-	-
koopphone:cloudphoneResource:instancePrepare	Grants permission to initiate the batch preparation process for cloud phone instances.	Write	koopphone:cloudphoneResource *	-	-

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
koophone:cloudphoneResource:getInstancePrepareProgress	Grants permission to check the progress status of the batch preparation operation for cloud phone instances.	Read	koophone:cloudphoneResource *	-	-
koophone:cloudphoneResource:instanceBackup	Grants permission to perform backup operations on cloud phone instances.	Write	koophone:cloudphoneResource *	-	-
koophone:cloudphoneResource:stopInstancesStreaming	Grants permission to stop the streaming session for cloud phone instance.	Write	koophone:cloudphoneResource *	-	-
koophone:cloudphoneResource:releaseInstancesSession	Grants permission to release the session associated with cloud phone instance.	Write	koophone:cloudphoneResource *	-	-
koophone:cloudphoneResource:instanceAppInstall	Grants permission to install applications on cloud phone instances.	Write	koophone:cloudphoneResource *	-	-

Each API of koophone usually supports one or more actions. [Table 5-4](#) lists the supported actions and dependencies.

Table 5-4 Actions and dependencies supported by koophone APIs

API	Action	Dependencies
POST /instances/async-command	koophone:cloudphoneResource:asyncInvokeInstance	-
GET /instances/tasks/{task_id}	koophone:cloudphoneResource:queryExecuteJob	-
PUT /instances/video-setting	koophone:cloudphoneResource:setVideo	-
POST /instances/batch-query-status	koophone:cloudphoneResource:queryBatchShowInstance	-
POST /instances/batch-reset	koophone:cloudphoneResource:batchResetInstance	-
POST /instances/{instance_id}/auth	koophone:cloudphoneResource:executeInstanceAuthToken	-
POST /instances/assign	koophone:cloudphoneResource:instanceAssign	-
POST /instances/unassign	koophone:cloudphoneResource:instanceUnassign	-
GET /instances/batch-query	koophone:cloudphoneResource:queryInstanceBatch	-
POST /instances/reboot	koophone:cloudphoneResource:instanceReboot	-
GET /instances/sku	koophone:cloudphoneResource:queryInstanceSku	-
POST /instances/create	koophone:cloudphoneResource:instanceCreate	-
POST /instances/delete	koophone:cloudphoneResource:instanceDelete	-
POST /instances/prepare	koophone:cloudphoneResource:instancePrepare	-
POST /instances/prepare-progress	koophone:cloudphoneResource:getInstancePrepare-Progress	-
POST /instances/backup	koophone:cloudphoneResource:instanceBackup	-
POST /instances/streaming/stop	koophone:cloudphoneResource:stopInstancesStreaming	-

API	Action	Dependencies
POST /instances/session/release	koophone:cloudphoneResource:releaseInstancesSession	-
POST /instances/app/install	koophone:cloudphoneResource:instanceAppInstall	-
POST /instances/sync-command	koophone:cloudphoneResource:syncInvokeInstance	-

Resources

A resource type indicates the resources that an identity policy applies to. If you specify a resource type for any action in [Table 5-5](#), the resource URN must be specified in the identity policy statements using that action, and the identity policy applies only to resources of this type. If no resource type is specified, the Resource element is marked with an asterisk (*) and the identity policy applies to all resources. You can also set condition keys in an identity policy to define resource types.

The following table lists the resource types that you can define in identity policy statements for koophone.

Table 5-5 Resource types supported by koophone

Resource Type	URN
koophone:cloudphoneResource	koophone:*:*:cloudphoneResource:*

Conditions

koophone does not support service-specific condition keys in identity policies. It can only use global condition keys applicable to all services. For details, see [Global Condition Keys](#).

6 Appendix

6.1 Status Codes

Table 6-1 describes common status codes.

Table 6-1 Status codes

Status Code	Message	Description
200	OK	The request has succeeded.
201	Created	The request has been fulfilled and has resulted in one or more new resources being created.
202	Accepted	The request has been accepted for processing, but the processing has not been completed.
204	No Content	The server has successfully fulfilled the request and that there is no additional content to send in the response content.
400	Bad Request	The server cannot or will not process the request due to something that is perceived to be a client error (e.g., malformed request syntax, invalid request message framing, or deceptive request routing).
401	Unauthorized	The request has not been applied because it lacks valid authentication credentials for the target resource.
403	Forbidden	The server understood the request but refuses to fulfill it.

Status Code	Message	Description
404	Not Found	The origin server did not find a current representation for the target resource or is not willing to disclose that one exists.
405	Method Not Allowed	The method received in the request-line is known by the origin server but not supported by the target resource.
406	Not Acceptable	The target resource does not have a current representation that would be acceptable to the user agent, according to the proactive negotiation header fields received in the request, and the server is unwilling to supply a default representation.
409	Conflict	The request could not be completed due to a conflict with the current state of the target resource.
411	Missing Content-Length	The server refuses to accept the request without a defined Content-Length .
413	Request Entity Too Large	The server is refusing to process a request because the request content is larger than the server is willing or able to process.
416	Requested range not satisfiable	A request included a Range request-header field, none of the range-specifier values in this field overlap the current extent of the selected resource, and the request did not include an If-Range request-header field.
429	Too Many Requests	The user has sent too many requests in a given amount of time ("rate limiting").
500	Internal Server Error	The server encountered an unexpected condition that prevented it from fulfilling the request.
501	Not Implemented	The server does not support the functionality required to fulfill the request.
503	Service Unavailable	The server is currently unable to handle the request due to a temporary overload or scheduled maintenance, which will likely be alleviated after some delay.

6.2 Error Codes

If an error code starting with APIGW is returned after you call an API, rectify the fault by referring to the instructions provided in [API Gateway Error Codes](#).

Status Code	Error Codes	Error Message	Description	Solution
200	KOOPHONE.A PI.0000	tenant is not exist.	The actual requested tenant does not exist.	Check if tenants exist.
200	KOOPHONE.A PI.0001	missing request header 'x-tenant-id'.	No request header parameter x-tenant-id passed.	Check the request header parameter 'x-tenant-id'.
200	KOOPHONE.A PI.0002	missing request header 'x-request-id'.	No request header parameter x-request-id passed.	Check the request header 'x-request-id'.
200	KOOPHONE.A PI.0004	project is not exist.	The project ID in the requested parameters does not actually exist.	Check if the project exists.
200	KOOPHONE.A PI.0005	missing request header.	No specific parameters were passed for the request header.	Please check the request header.
200	KOOPHONE.A PI.1004	Services not subscribed.	Not yet subscribed to this service.	Please subscribe to the service first.
200	KOOPHONE.A PI.1012	instances are not belong to one tenant.	This instance does not exist under the tenant.	Please check if the instance belongs to a tenant.
200	KOOPHONE.A PI.2001	cloud app not exist.	There is no such cloud app available.	Please check if the cloud app exists.

Status Code	Error Codes	Error Message	Description	Solution
200	KOOPHONE.A PI.2002	cloud app unauthorized.	This cloud app has not been authorized yet.	Please check if the cloud app is authorized.
200	KOOPHONE.A PI.2003	No idle instance.	No idle instance.	Please check if there are any idle instances.
200	KOOPHONE.A PI.2004	the instance already frozen.	The instance has been frozen.	Please unfreeze the instance first.
200	KOOPHONE.A PI.2005	the instance is in recover.	This instance is still in the process of recovery.	Please wait for instance recovery to complete.
200	KOOPHONE.A PI.2006	the instance is in backup.	This instance is still in the backup process.	Please wait for the instance backup to complete.
200	KOOPHONE.A PI.3002	no such sku or region.	sku or region does not exist.	Please check if the sku or region is correct.
200	KOOPHONE.A PI.3003	common instance need os version.	The common instance is missing the os version.	Please check if the common instance includes the os version.
200	KOOPHONE.A PI.3006	if period type is month, period num should between 1-9.	If the period type in the request parameter is month, the range of period num should be between 1-9.	Please check if the period type and period num are accurate.
200	KOOPHONE.A PI.3007	if period type is year, period num should between 1-3.	If the period type in the request parameter is year, the range of period num should be between 1-3.	Please check if the period type and period num are accurate.

Status Code	Error Codes	Error Message	Description	Solution
200	KOOPHONE.A PI.3008	fast_install in request param should be 0 or 1.	fast_install in request param should be 0 or 1.	Check whether the request parameter "fast_install" is 0 or 1.
200	KOOPHONE.A PI.3009	query phoneld error.	query phoneld error.	Please check whether the interface for querying phoneld is abnormal.
200	KOOPHONE.A PI.4001	instance not exist.	This instance does not exist.	Please check if the instance exists.
200	KOOPHONE.A PI.40010	out of stock.	Insufficient inventory of ordered instances.	Please check if the stock is sufficient.
200	KOOPHONE.A PI.62006	The app size must be a number.	The app size must be a number.	Please check if the size of the app package is a number.
200	KOOPHONE.A PI.62010	The cloud instance is abnormal.	The cloud instance is abnormal.	Please check whether the instance is normal.
200	KOOPHONE.A PI.62015	The size of the app package exceeds the limit of 2G.	The size of the app package exceeds the limit of 2G.	Please check whether the size of the app package exceeds the limit of 2G.
200	KOOPHONE.A PI.62016	The total size of application packages uploaded by the tenant exceeds the total limit.	The total size of application packages uploaded by the tenant exceeds the total limit.	Please check whether the total application package size uploaded by a single tenant exceeds 1T.
200	KOOPHONE.A PI.62017	Download failed, please check the install_package_url.	Download failed, please check the install_package_url.	Please check whether the install_package_url in the request parameters is valid.

Status Code	Error Codes	Error Message	Description	Solution
200	KOOPHONE.A PI.62019	Install app failed.	Install app failed.	Please check whether the installation of the app was successful.
200	KOOPHONE.A PI.62020	Version Conflict.	Version Conflict.	Please check if there is any version conflict.
200	KOOPHONE.A PI.62021	not enough space.	not enough space.	Please check whether the space of the instance to be installed is sufficient.
200	KOOPHONE.A PI.9001	redis returns empty value.	Request redis and return a null value.	Please check the Redis return value.
400	KOOPHONE.A PI.0003	invalid request header 'x-request-id'.	The parameter x-request-id in the request header is invalid.	Please check if the request header 'x-request-id' is valid.
400	KOOPHONE.A PI.1000	There is an error in the interface request parameters. Check if the request parameter type or range is consistent with the interface.	request param error, Check whether the request parameter type and range are defined by the interface.	Check whether the request parameter type and range are defined by the interface.
400	KOOPHONE.A PI.1002	The instance list to be operated on does not belong to the same region. Please modify the requested instances to the same region.	instance not in the same region, modify the request instance to the same region.	modify the request instance to the same region.

Status Code	Error Codes	Error Message	Description	Solution
400	KOOPHONE.A PI.1005	request param error, Request param not contain the all needed encode and net combinations.	There is an error in the interface request parameters, as necessary encoding and network combinations are missing from the request parameters.	Please check if the request parameters include all required encoding and network combinations.
400	KOOPHONE.A PI.3001	input instance sku param need to match band sku.	The sku parameters in the input instance do not match the band sku.	Please check if the input instance sku parameters match the band sku.
400	KOOPHONE.A PI.4999	Invoking third api error.	Invoking third api error.	Please check the third-party API.
400	KOOPHONE.A PI.5001	Cannot delete on-demand instances.	The instance in the request parameter is an on-demand instance and cannot be deleted.	Please check if the deleted instance is an on-demand instance.
400	KOOPHONE.A PI.6000	Invalid request parameter.	Invalid request parameter.	Please check if the request parameters are valid.
401	KOOPHONE.A PI.1001	no instance permission, Check whether the instance ID passed in by the request is correct.	no instance permission, Check whether the instance ID passed in by the request is correct.	Check whether the instance ID passed in by the request is correct.

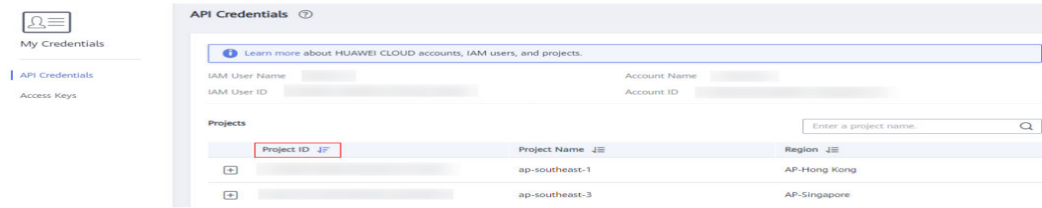
Status Code	Error Codes	Error Message	Description	Solution
401	KOOPHONE.A PI.1003	tenant have no auth to use the API, please contact us to add you to the whitelist.	The current tenant is not authorized to use the API. Please contact us to add you to the whitelist.	Please contact us to add tenants to the whitelist and authorize them.
401	KOOPHONE.A PI.6001	Authenticate Failed!	Token has expired, authentication failed.	Please verify your identity.
403	KOOPHONE.A PI.6002	No permission.	No permission.	Please check if it is licensed.
500	KOOPHONE.A PI.6002	Token parsing failed.	Token parsing failed.	Please check token parsing.
500	KOOPHONE.A PI.9000	decrypt fail.	decrypt fail.	Please check if the decryption is correct.
500	KOOPHONE.A PI.9002	failed to acquire the redis lock.	Failed to obtain redis lock.	Please check to obtain redis lock.
500	KOOPHONE.A PI.9003	invoke third api error.	invoke third api error.	Please check the third-party API.
500	KOOPHONE.A PI.9999	unknown error.	unknown error.	Please contact the operator to check whether the system is normal.

6.3 Obtaining a Project ID

A project ID is required for some URLs when an API is called. To obtain a project ID, perform the following operations:

- Step 1** Log in to the management console.
- Step 2** Click the username and select **My Credentials** from the drop-down list.
On the **API Credentials** page, view project IDs in the project list.

Figure 6-1 Viewing project IDs



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