Partner Center

API Reference

Issue 1

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Contents

1 Change History

Description	Released On
This issue is the sixth official release. This release incorporates the following change: Creating an agency and granting permissions are not supported in 5.1.3 Creating a Customer.	2024-10-14
This issue is the fifth official release. This release incorporates the following changes: Added the 7.2.1 Querying Coupons API for partners to query coupon-related information. Added the 7.5.1 Querying Resource Packages API for customers to query their resource packages in their partners' sales platforms. Added the 7.5.2 Viewing Resource Package Usage API for customers to check resource package usage in their partners' sales platforms. Added the 7.5.3 Querying Resource Package Usage Details API for customers to query details of their resource package usage in their partners' sales platforms. Added the 7.6.1 Querying Customer's Pay-Per-Use Resources API for partners to query their customers' pay-per-use resources.	2024-5-28
This issue is the fourth official release. This release incorporates the following change: Added the API for 4.2.3 Querying the Renewal Price of a Yearly/Monthly Resource. Customers can set search options to query the renewal price of yearly/monthly resources on their partners' sales platform.	2024-3-18
This issue is the third official release. This release incorporates the following change: Added the error code, CBC.99003647 (Unsubscription not supported for this pay-per-use package.), to the V2 API for renewing yearly/monthly subscriptions. "	2024-2-27
This issue is the second official release. This release incorporates the following change: Added the **Action** column in the **API Access Permission (Partner)** section.	2023-11-15

Description	Released On
This issue is the first official release.	2022-12-29

2 Partner Operation Capability API (Reseller Model)

HUAWEI CLOUD provides the operation capabilities in the reseller model for partners to manage customers, transactions, cloud services, bills, service tickets, products, and invoices on the partner sales platform.

Table 2-1 APIs and descriptions

Scenario	Sub-Scenario	API Name	Description
Product management	Product information query	4.1.1 Querying Cloud Service Types	This API is used to query cloud service types on the partner sales platform.
		4.1.2 Querying Resource Types	This API is used to query the resource types on the partner sales platform.
		4.1.3 Querying Resources by Cloud Service Type	This API is used to query the resource type code and name by associated cloud service on the partner sales platform and to query the price of a pay-per-use or yearly/monthly product.
		4.1.4 Querying Usage Types	This API is used to query resource usage types on the partner sales platform.
		4.1.5 Querying Measurement Units	This API is used to query the resource usage, measurement unit for the duration and amount of a yearly/monthly resource, as well as the measurement unit type on the partner sales platform.
		4.1.6 Querying the Measurement Unit Number System	This API is used to query the measurement unit number system on the partner sales platform.
	Product price	4.2.1 Querying the Price of a Pay-Per-Use	Partners can query the price of a pay-per-use product by criteria on the sales platform.

Scenario	Sub-Scenario	API Name	Description
	query	Product	
		4.2.2 Querying the Price of a Yearly/Monthly Product	Partners can use this API to query prices of yearly/monthly products for new subscriptions on their sales platforms.
Customer management	Customer registration	5.1.1 Verifying Customer Registration Information	This API is used to check whether the account name, and mobile number or email address entered by the customer can be used for registration.
		5.1.2 Sending a Verification Code	If a customer enters an email address during registration, the system sends a registration verification code to the email address to verify the information.
		5.1.3 Creating a Customer	This API is used to create a Huawei Cloud account for a customer when the customer creates an account on your sales platform, and bind the customer account on the partner sales platform to the HUAWEI CLOUD account. In addition, the Huawei Cloud account is bound to the partner account.
	Customer management	5.2.1 Querying Customers	This API is used to query your customers.
		5.2.2 Freezing a Customer Account	A partner can freeze an account of a customer associated with the partner by reseller model.
		5.2.3 Unfreezing a Customer Account	A partner can unfreeze an account of a customer associated with the partner by reseller model.
Reseller management	Querying resellers	6.1.1 Querying the List of Huawei Cloud Resellers	A Huawei Cloud distributor can query the list of its associated Huawei Cloud resellers.
Transaction management	Customer budget management	7.1.1 Querying Customer Budgets	This API is used to query the budget of a customer for the partner to determine whether to adjust the budget.
		7.1.2 Setting Customers' Budgets	This API is used to set or adjust a customer's budget.
	Coupon management	7.2.1 Querying Coupons	Partners can query information about their coupons.
	Yearly/ monthly	7.3.1 Querying	After a customer purchases yearly/monthly resources, it can query the orders in different

Scenario	Sub-Scenario	API Name	Description
	order management	Orders	statuses, such as in the pending approval, processing, canceled, completed, and pending payment statuses.
		7.3.2 Querying Order Details	Customers can view order details on the partner sales platform.
		7.3.3 Paying Yearly/Monthly Product Orders	A customer can invoke this API to pay yearly-monthly product orders in the pending payment status.
		7.3.4 Canceling Orders in the Pending Payment Status	A customer can invoke this API to cancel orders in the pending payment status.
		7.3.5 Querying the Amount of Unsubscription Orders	A customer can query the resources and original orders of the unsubscription amount for an unsubscription order or degrade order on the partner sales platform.
	Yearly/ Monthly resource management	7.4.1 Querying Customer's Yearly/Monthly Resources	A customer can query one or all yearly/monthly resources on the partner sales platform.
		7.4.2 Renewing Subscription to Yearly/Monthly Resources	A customer can renew subscription to yearly/monthly resources on the partner sales platform.
		7.4.3 Unsubscribing from Yearly/Monthly Resources	If a customer has subscribed to a yearly/monthly resource, the customer can use this API to unsubscribe from the resource, including the renewed part and currently used part. The customer cannot use the resources after unsubscription.
		7.4.4 Enabling Automatic Subscription Renewal for Yearly/Monthly Resources	A customer can use this API to enable automatic subscription renewal for its long-term yearly/monthly resources to prevent the resources from being deleted when they are expired.
		7.4.5 Disabling Automatic Subscription Renewal for Yearly/Monthly Resources	A customer can disable automatic subscription renewal when needed. After disabling this function, the customer needs to manually renew the subscription to the resources before they expire.
		7.4.6 Enabling/Cance ling the Change	A customer can change the billing mode of resources from yearly/monthly to pay-per-use after the resources expire. The pay-per-use mode

Scenario	Sub-Scenario	API Name	Description
		from Yearly/Monthly to Pay-per-Use upon Expiration	takes effect upon a yearly/monthly expiration.
	Resource package management	7.5.1 Querying Resource Packages	This API is used to query resource packages.
		7.5.2 Viewing Resource Package Usage	Partners can query the resource package usage of customers on the partner sales platform by resource.
		7.5.3 Querying Resource Package Usage Details	Customer can use this API to query details of resource package usage in their partners' sales platforms.
	Pay-per-use resource management	7.6.1 Querying Customer's Pay-Per-Use Resources	A partner can query the pay-per-use resources that have been provisioned for customers associated with the partner in the Reseller model.
Cloud service resource management	Cloud service resource management	Switching from the partner sales platform to the HUAWEI CLOUD portal	This API is used to switch from the partner sales platform to the HUAWEI CLOUD portal using a link to manage cloud service resources.
Bill management	Customer resource usage management	8.1.1 Querying Customer Resource Usage	This API is used to query customer resource usage.
	Partner bill management	8.2.1 Querying Monthly Bills	You can query your monthly bills that cover amount due, expenditures, refunds, and adjustments.
		8.2.2 Querying Bill Details of Monthly Expenditures	A partner can subscribe to the partner bill (customer resource usage) in the HUAWEI CLOUD Partner Center. For details, see 10.5 File Subscription. Your sales platform will calculate the customer expenditures and generate the customer bills based on this bill and then you can perform reconciliation with HUAWEI CLOUD.
Service ticket management	9 Managing Service	Service Ticket Management APIs	Partners and customers can submit HUAWEI CLOUD service tickets on the partner sales platform. When receiving the service tickets, the HUAWEI CLOUD after-sales service team will assist the customers to handle the problems

Scenario	Sub-Scenario	API Name	Description
	Tickets		related to HUAWEI CLOUD usage.

3 API Invoking Methods

3.1 RESTful API

The partner sales platform can invoke RESTful APIs provided by HUAWEI CLOUD. Alternatively, customers can switch from the partner sales platform to HUAWEI CLOUD through the web UI to purchase cloud services and manage cloud service resources.

3.1.1 Constructing Requests

This section describes the structure of a RESTful API request, and uses the API for creating customers of HUAWEI CLOUD partners as an example to describe how to call an API.

Request URI

A request URI consists of the following:

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

Although the request URI is included in the request header, most languages or frameworks require that it be transmitted separately from the request message. Therefore, the request URI is listed independently.

Table 3-1 URI parameter description

Parameter	Description
URI-scheme	Protocol used to transmit requests. All APIs use **HTTPS**.
Endpoint	Specifies the domain name or IP address of the server bearing the REST service endpoint. The endpoint of the partner operation capability API is **bss.myhuaweicloud.eu**. **NOTE**

Parameter	Description
	• This endpoint is a global endpoint and can be used for all regions in Huawei Cloud (European Website). • TLS 1.2 supported.
resource-path	Resource path, that is, the API access path. Obtain the path from the URI of the API. For example, the **resource-path** of the API for creating a customer is **/v2/partners/sub-customers**.
query-string	Query parameter, which is optional. Ensure that a question mark (?) is included before each query parameter that is in the format of "*Parameter name=Parameter value*". For example, **?limit=10** indicates that a maximum of 10 data records will be displayed.

For example, to obtain the request URI for creating a customer, obtain the corresponding **resource-path (/v2/partners/sub-customers)**. Then, construct the URI as follows:

```
https://bss.myhuaweicloud.eu/v2/partners/sub-customers
```

📖 **NOTE**

To simplify URI display, each API is provided with only **resource-path** and the request method. This is because the **URI-scheme** value of all APIs is **HTTPS**, and the endpoints in a region are the same. Therefore, the two parts are omitted.

Request Method

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	Requests a server to return a specified resource.
PUT	Requests a server to update a specified resource.
POST	Requests a server to add a resource or perform a special operation.
DELETE	Requests a server to delete a specified resource (for example, an object).
HEAD	Requests a server resource header.
PATCH	Requests a server to update partial content of a specified resource. If the resource does not exist, the PATCH method is used to create a new resource.

As shown in the URI for creating a customer, the request method is **POST**. The request URI is as follows:

```
POST https://bss.myhuaweicloud.eu/v2/partners/sub-customers
```

Request Header

You can also add additional fields to the request header, for example, the fields required by a specified URI and an HTTP method. Table 3-3 lists common request header fields.

Table 3-3 Common request header fields

Field	Description	Mandatory	Example
Host	Specifies the server domain name and port number of the resources being requested. The value can be obtained from the URL of the service API. If the port number is not specified, the default port is used. The default port number for **https** is **443**.	No This field is mandatory only when AK/SK is used for authentication.	.myhuaweicloud.com bss.myhuaweicloud.eu or bss.myhuaweicloud.eu:443
Content-Type	Specifies the request body MIME type. You are advised to use the default value **application/json**. For an object or image upload API, the value varies depending on the flow type.	Yes	application/json
Content-Length	Length of the request body. The unit is byte.	No	3495
X-Auth-Token	Specifies the user token. For details about how to obtain a token, see Token Authentication.	No This field is mandatory only when the token is used for authentication.	The following is part of an example token: MIIPAgYJKoZIhvcNAQcC oIIO8zCCDu8CAQExDTA LBglghkgBZQMEAgEwgg1 QBgkqhkiG9w0BBwGggg1 BBIINPXsidG9rZ

📖 NOTE

In addition to supporting authentication using tokens, APIs support authentication using AK/SK, which uses SDK to sign a request. During the signature, the **Authorization** (signature authentication) and **X-Sdk-Date** (time when a request is sent) headers are automatically added to the request.

For more details, see **Authentication Using AK/SK** in 3.1.2 Authentication.

The request of the interface for creating a customer is as follows after the request header is added:

```
POST https://bss.myhuaweicloud.eu/v2/partners/sub-customers
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
```

(Optional) Request Body

This part is optional. A request body is often sent in a structured format (for example, JSON or XML) as defined in the **Content-Type** header field. If the request body contains Chinese characters, these characters must be coded in UTF-8.

Request bodies vary with API. Some APIs do not require a request body, such as the APIs requested using the GET and DELETE methods.

In the case of the API used to create a customer, you can obtain the required request parameters and parameter description from the API request. The following is a request carrying the message body, where the request parameters vary with actual condition.

```
POST  https://bss.myhuaweicloud.eu/v2/partners/sub-customers HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ

{
  "domain_name": "test",
  "email": "xxx@huawei.com",
  "verification_code": "253xxx",
  "domain_area": "IE",
  "xaccount_id": "35reyxxxx",
  "xaccount_type": "xxx_IDP",
  "password": "xxxxxxx",
  "is_close_market_ms": "true",
  "cooperation_type": "1"


}
```

If all data required for the API request is available, you can send the request to call the API through curl, Postman, or coding.

3.1.2 Authentication

You can use either of the following authentication methods when invoking an API:

- Token authentication: Requests are authenticated using tokens. This method is relatively simple.

- AK/SK authentication: Requests are encrypted using the access key ID (AK) and secret access key (SK). AK/SK authentication is recommended because it provides higher security than token authentication.

When a partner invokes some APIs, the customer authentication information is required. The partner can obtain this information only using the method provided in Obtaining a User Token with the assume_role Method or Obtaining a Temporary Access Key and Security Token Through an Agencysecuritytoken. Therefore, using token authentication is recommended.

Token Authentication

📖 NOTE

The validity period of a token is 24 hours. If a token needs to be used, the system caches the token to avoid frequent calling. For details about token validity periods, see Obtaining a User Token Through Password Authentication

A token specifies certain permissions in a computer system. Authenticating using a token adds the token to the request header during API calling to obtain permissions to operate APIs through IAM.

In 3.1.1 Constructing Requests, the process of calling the API for obtaining a user token is described as an example. After obtaining the partner or customer token, add the **X-Auth-Token** header in a request to specify the token when calling other APIs. For example, if the token is **ABCDEFJ....**, add **X-Auth-Token: ABCDEFJ....** in a request as follows:

```
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

- For details about how to obtain a partner token, see Obtaining a User Token.
- For details about how to obtain a customer token, see Obtaining a User Token with the assume_role Method.

AK/SK Authentication

📖 NOTE

AK/SK authentication supports API requests with a body size not larger than 12 MB. For API requests with a larger size, token 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 together with an SK to sign requests cryptographically.
- SK: secret access key, which is used in conjunction with an AK to sign requests cryptographically. It identifies a request sender and prevents the request from being modified.

You can use AK/SK to sign requests based on the signature algorithm or use a dedicated signature SDK to sign the requests. For details about how to sign requests and use the signing SDK, see API Request Signing Guide.

📖 NOTE

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

3.1.3 Returned Values

Status Code

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

A status code, a group of digits ranging from 1xx to 5xx, indicates the status of a response. For more information, see Status Code.
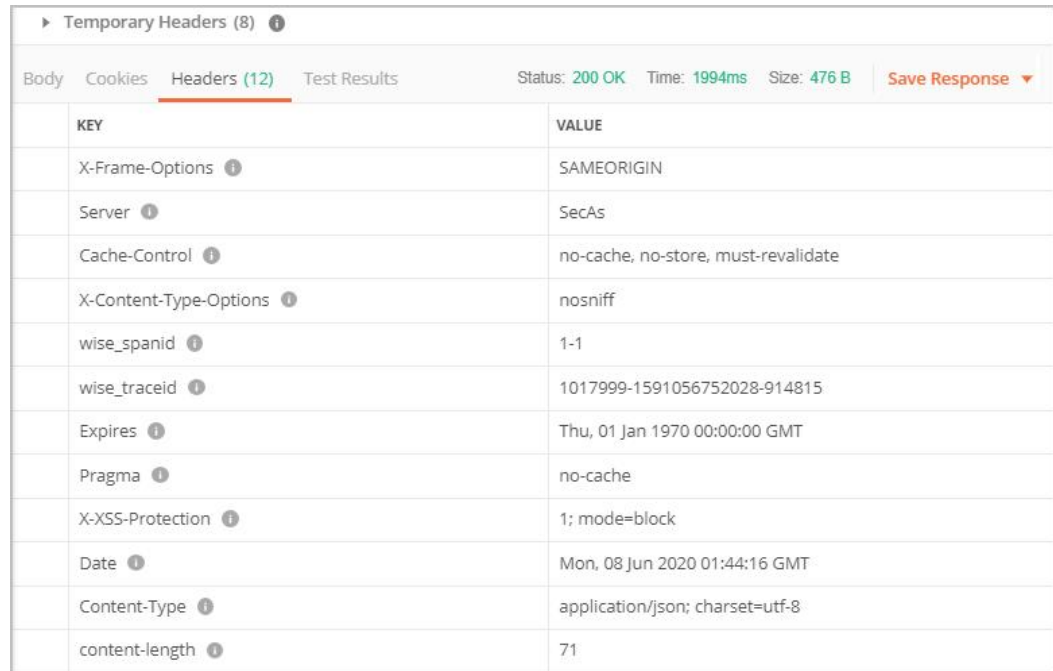
If **204** is returned for calling the API used to create a customer, the request is successful.

Response Header

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

Figure 3-1 shows the response header for the API used to create a customer.

Figure 3-2 Response header for the API used to create a customer

KEY	VALUE
X-Frame-Options	SAMEORIGIN
Server	SecAs
Cache-Control	no-cache, no-store, must-revalidate
X-Content-Type-Options	nosniff
wise_spanid	1-1
wise_traceid	1017999-1591056752028-914815
Expires	Thu, 01 Jan 1970 00:00:00 GMT
Pragma	no-cache
X-XSS-Protection	1; mode=block
Date	Mon, 08 Jun 2020 01:44:16 GMT
Content-Type	application/json; charset=utf-8
content-length	71

Temporary Headers (8)

Body Cookies Headers (12) Test Results   Status: 200 OK Time: 1994ms Size: 476 B   Save Response ▼

(Optional) Response Body

The body of a response is often returned in structured format (for example, JSON or XML) 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 create a customer:

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
    "domain_id": "08f25edee500d3e70f4ec007d082eb80",
    "domain_name": "testdomainnamexxx"
}
```

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 name
exists.cse://CBCCustomerRegService/rest/cbc/cbccustomerregservice/v1/customer/regi
ster[error_code]:CBC.7156[msg]:{\"error_code\":\"CBC.7156\",\"error_msg\":\"domain
Name exist.\"} ",
```

```
    "error_code": "CBC.99000038"
}
```

In the preceding information, **error_code** is an error code, and **error_msg** describes the error.

3.2 Web UI Mode

After logging in to the partner sales platform, a customer can directly switch to HUAWEI CLOUD to purchase cloud services and manage cloud service resources. The partner sales platform must complete SAML authentication to establish a trust relationship with HUAWEI CLOUD.

Prerequisites

The partner has performed steps in Access Configuration.

SAML Authentication

Figure 3-2 shows the SAML authentication process.

Figure 3-3 SAML authentication process

1. A partner's customer uses a browser to call the HUAWEI CLOUD login link. IAM sends the SAML request.
   a. The customer uses a browser to call the HUAWEI CLOUD login link.

   https://auth.eu.huaweicloud.com/authui/saml/login?**xAccountType**=*ZXT*&isFirstLogin=false&service=https%3a%2f%2fconsole.eu.huaweicloud.com%2fiam%2f

Parameter	Mandatory	Description	Example
xAccountType	Yes	Indicates the identifier of the partner sales platform, which is globally unique. The value is provided by Huawei. After the partner configures the access parameters on the Partner Center page, the partner ID is generated. For details about how to obtain the platform ID, see How Do I Obtain the xaccountType Value?	ZXT
isFirstLogin	No	If no HUAWEI CLOUD account is bound, this parameter is mandatory and must be set to **true**. Otherwise, the value can be left empty or set to **false**. After the account creation API is successfully called to create a customer account, HUAWEI CLOUD CBC has bound the customer account on the partner sales platform with the customer HUAWEI CLOUD account.	false
service	Yes	Indicates the redirection address after login. The encodeURIComponent function is used for coding.	https%3a%2f%2fconsole.eu.huaweicloud.com%2fiam%2f

b. IAM receives the login request of the partner's customer, locates the **SingleSignOnService** configuration item in the **IDP Metadata.xml** file based on the **xAccountType** value, and sends the **samlRequest** request to the required path.

▼ Query String Parameters   view source   view URL encoded
   SAMLRequest: jVLLbtswEPwVgnc97bguYTlwYwQ1kDaqpeTQS8F5K4kJRSp82K2/vpRstwkKGLnuY2Z2ZhfXvzqBdqANVzLDSRhjBJKpissmxw/lbTDH18uFoZ1Ie7JytpVbeHFgLPKL0pBjJ8NOS6Ko4YZI2oEhlpFi9eWOpGFHeq2sYkpgtDIO
   O84g4ftXYZba3tDoqg5BNQTha2je+BMKfeFTHVkknycTqKh5Xg08EYDw3+QGK29PC6pHU86o/KqDwWvQDZ+fcAbKpGXVnMBIIabaHiGpiNiuIeo1ulGYwnZ7imwg8Gm3WGfzhBX0TTP7UAsn+qWNwmih7qu+xZ7tmHpHmegvKjJqfG8B38WzbGwL
   }g0lcxjNyNSPTqzCep98xyk92feLyGMMlb38ehwz5XJZ5kN8XJUaP5zj9AD6FR0Z2/Tq1y8D07Ctevi+YRfSa6O/PfPXIm3WuBGe/0UoItb/RQK23xWoHo8sdtZe1DBVeBfU4Sqym0nCQFqMiH+C/OSp4zUG/94dwtDypffvTyz8=
   RelayState: _9inzak3sgSbypjdc3winbzenfvqq44ft2o5d
   SigAlg: http://www.w3.org/2001/04/xmldsig-more#rsa-sha256
   Signature: fwTq+fIy6XQlAccVHqTf3GWLgVYLU1qdx0XI2yO2SxXfA2J6aBAYoIFPhNihdc0po7ytJPnvXv8HX7OHE1i2c4L1BR9YWwR6ZrGeDOaoNGx9xFNJGVAVHh8PbHRQ1gU3mlacI1dLYeNxC2KD7Lr2us134repcr6hyn0rqYWI+Ac=

Parameter	Description
SAMLRequest	Indicates the response message body. The response message is in XML format. IAM then compresses the message, encodes the message using Base64, and URL encodes the message. • If the partner uses the SAML toolkits, this parameter can be directly used. The partner does not need to parse the XML file. • If the partner needs to parse the XML file, the partner needs to URL decode the message, decode the message using Base64, and decompress the message (zip.inflate). For details, see Sample Code for Parsing the SAMLRequest.

Parameter	Description
RelayState	Indicates the response parameters for SAML.
SigAlg	Indicates the signature algorithm. Huawei uses SHA256 for signatures by default. HTTP://WWW.W3.ORG/2001/04/XMLDSIG-MORE#RSA-SHA256
Signature	Indicates the signature. The signature is used to verify the initiator of a request. When initiating a request, HUAWEI CLOUD uses the private key to sign *SAMLRequest={ SAMLRequest }&RelayState={ RelayState } &SigAlg={ SigAlg }* in request *https://www.test.com/saml/login?SAMLRequest={SAMLRequest }& RelayState={ RelayState} &SigAlg={ SigAlg}&Signature={ Signature }* and then performs Base64 coding to obtain the signature value. The signature algorithm is specified by the **SigAlg** field. When receiving the request, the receiver verifies the signature value using the public key provided by HUAWEI CLOUD (the value in the **<ds:X509Certificate></ds:X509Certificate>** tag in the **SP Metadata.xml** file). If the signature verification succeeds, the request is sent by HUAWEI CLOUD, and the follow-up operations can be performed. Otherwise, the request is invalid.

2. The partner sales platform generates the SAML response message and sends it to HUAWEI CLOUD IAM.

   a. The partner sales platform obtains the HUAWEI CLOUD public key and the response message path of **samlResponse** from the **SP Metadata.xml** file. For details, see **Example, Public Key, and Response Path** in Obtaining the SP Metadata File.

   b. The partner sales platform generates the SAML response message.

   The response message body is in XML format. For the correct response message body and its parameter description, see the following displayed content.

> **NOTICE**
>
> The following content is for reference only. The description in the comments must be modified. The time and ID defined by SAML vary depending on the message. Therefore, it is recommended that you should not directly modify the response message content. Instead, you shall use the SAML toolkits to generate the response message.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!-- Parameter InResponseTo needs to be the same as the ID configuration item
of AuthnRequest in the SAML request message. -->
<!-- Parameter Destination needs to be the same as the Location value in the
AssertionConsumerService tag in the SP Metadata.xml file. -->
```

```
<saml2p:Response Consent="urn:oasis:names:tc:SAML:2.0:consent:unspecified"
ID="_d794dc393ae6724e236003bf0b917cf0"
Destination="https://auth.huaweicloud.com/authui/saml/SAMLAssertionConsume
r"
InResponseTo="_dck4mm08qmdhc8k4nuir07hghetdqqg8umg5"
IssueInstant="2018-10-30T08:21:41.740Z" Version="2.0"
   xmlns:saml2p="urn:oasis:names:tc:SAML:2.0:protocol">
  <!-- Must be the same as the entityID value in the IDP Metadata.xml file.
-->
  <saml2:Issuer Format="urn:oasis:names:tc:SAML:2.0:nameid-format:entity"

xmlns:saml2="urn:oasis:names:tc:SAML:2.0:assertion">https://www.test.com</
saml2:Issuer>
  <saml2p:Status>
    <saml2p:StatusCode Value="urn:oasis:names:tc:SAML:2.0:status:Success" />

<saml2p:StatusMessage>urn:oasis:names:tc:SAML:2.0:status:Success</saml2p:S
tatusMessage>
  </saml2p:Status>
  <saml2:Assertion ID="_2320c40ac7b5e857b2d0d4ea0c8758c3"
IssueInstant="2018-10-30T08:21:41.740Z" Version="2.0"
   xmlns:saml2="urn:oasis:names:tc:SAML:2.0:assertion"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <!-- Must be the same as the entityID value in the IDP Metadata.xml file.
-->
    <saml2:Issuer>https://www.test.com</saml2:Issuer>
    <ds:Signature xmlns:ds="http://www.w3.org/2000/09/xmldsig#">
      <ds:SignedInfo>
        <ds:CanonicalizationMethod
Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#" />
        <ds:SignatureMethod
Algorithm="http://www.w3.org/2001/04/xmldsig-more#rsa-sha256" />
<!-- The value after "URI #" must be the same as the ID in the Assertion tag.
-->
        <ds:Reference URI="#_2320c40ac7b5e857b2d0d4ea0c8758c3">
          <ds:Transforms>
            <ds:Transform
Algorithm="http://www.w3.org/2000/09/xmldsig#enveloped-signature" />
            <ds:Transform
Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#">
              <ec:InclusiveNamespaces PrefixList="xsd"
                xmlns:ec="http://www.w3.org/2001/10/xml-exc-c14n#" />
            </ds:Transform>
          </ds:Transforms>
          <ds:DigestMethod
Algorithm="http://www.w3.org/2001/04/xmlenc#sha256" />
<!-- The value of DigestValue is the digest of the Assertion tag object. The
digest algorithm is the same as that of DigestMethod. -->

<ds:DigestValue>rFxrycznfGNYOnprZIFJJou4ro0Mz65+43MIR5F0+H4=</ds:DigestVal
ue>
        </ds:Reference>
      </ds:SignedInfo>
    <!-- Partner signature value. For details about how to obtain the value,
see the following description. -->
```

```
        <ds:SignatureValue>

YqTWQngAPfGqQmWa610PM7LeefqWdKuveUVINrqL67NoHJIDa2WxLwdVzoJIlJh64QiNPr6+nd
mL
DCMgIC5F/9ijuzhIICZcc6lHNIjy6EsPkKRjfo9oeoVAqLgG/kmVQYeHLBID0y11RNXXpAVY4n
hJ
26KiIVGt7ywyKAmhichE+eW/UYAGiOI5vkfgD2gZUGV+yPkv64k7xK4yAH3mL2NaCPuw/90e4e
nm
iUx0YuazDwM5FiRUSMpcJs0rcNmS6clWAUcCzbOx+y2vJGtTjHb7k3UsmpnTop5eYNp94+sDPE
at 8FaV4SgafMEL5z54gpe8+//9yOWEvlBs1b0RYg==
        </ds:SignatureValue>
        <ds:KeyInfo>
          <ds:X509Data>
          <!-- Partner public key certificate. The certificate must be the one
specified in the IDP Metadata.xml file. -->
            <ds:X509Certificate>
MIIBIjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEAhK3L160NjP9EhBGQOC2s4r+Wc62bkR
kc
nUxfhiZwCwJdQCykzuLOAoATnfoEamV5W25xtSS5kFs+4OC0mYVpKcI3SWoydX+UE5Qik5UfJ8
Dt
G1AvSEKhSluyO9axrV5Uv089jMxBnlm/R+xND73WcZM11yIbKJEZSTCEDfh+KnFbMw108umFMd
en
RZCrNWUJoSp/90XeG0V2Nmj7Fkq72skSifwIASLRq9KqLbmh1QwUX+AoWpHK/jRUBustMBmG1n
1i

AqpD4EBjjBOB27k1wXZ30+IoJt8IZmfSZRFoNn5VFWXNeEmZ1aQvGSvd3Tyyw2/Wr+w/8Mags6
9C mpeX6QIDAQAB
        </ds:X509Certificate>
        </ds:X509Data>
      </ds:KeyInfo>
    </ds:Signature>
    <saml2:Subject>
    <!-- The value of NameQualifier must be the same as the entityID value in
the SP Metadata.xml file. -->
      <saml2:NameID
Format="urn:oasis:names:tc:SAML:2.0:nameid-format:transient"
NameQualifier="https://auth.huaweicloud.com/">Some NameID
value</saml2:NameID>
      <saml2:SubjectConfirmation
Method="urn:oasis:names:tc:SAML:2.0:cm:bearer">
        <!-- Parameter InResponseTo needs to be the same as the ID configuration
item of AuthnRequest in the samlRequest message. -->
        <saml2:SubjectConfirmationData
InResponseTo="_dck4mm08qmdhc8k4nuir07hghetdqqg8umg5"
NotBefore="2018-10-28T08:21:41.740Z"
NotOnOrAfter="2018-11-01T08:21:41.740Z"
Recipient="https://auth.huaweicloud.com/authui/saml/SAMLAssertionConsumer"
/>
      </saml2:SubjectConfirmation>
    </saml2:Subject>
    <saml2:Conditions NotBefore="2018-10-28T08:21:41.740Z"
NotOnOrAfter="2018-11-01T08:21:41.740Z">
      <saml2:AudienceRestriction>
      <!-- Must be the same as the entityID value in the SP Metadata.xml file.
-->
```

```
            <saml2:Audience>https://auth.huaweicloud.com/</saml2:Audience>
        </saml2:AudienceRestriction>
    </saml2:Conditions>
    <saml2:AttributeStatement>
        <!-- For values between<saml2:AttributeValue> and
</saml2:AttributeValue>, see the following table. -->
        <saml2:Attribute FriendlyName="xUserId" Name="xUserId"
NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-format:uri">
            <saml2:AttributeValue
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="xsd:string">*******</saml2:AttributeValue>
        </saml2:Attribute>
    <!-- The values of xAccountId and xUserId must be the same. -->
        <saml2:Attribute FriendlyName="xAccountId" Name="xAccountId"
NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-format:uri">
            <saml2:AttributeValue
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="xsd:string">********</saml2:AttributeValue>
        </saml2:Attribute>
        <saml2:Attribute FriendlyName="bpId" Name="bpId"
NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-format:uri">
            <saml2:AttributeValue
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="xsd:string">******</saml2:AttributeValue>
        </saml2:Attribute>
        <saml2:Attribute FriendlyName="email" Name="email"
NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-format:uri">
            <saml2:AttributeValue
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:type="xsd:string"
/>
        </saml2:Attribute>
        <saml2:Attribute FriendlyName="name" Name="name"
NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-format:uri">
            <saml2:AttributeValue
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="xsd:string">******</saml2:AttributeValue>
        </saml2:Attribute>
        <saml2:Attribute FriendlyName="mobile" Name="mobile"
NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-format:uri">
            <saml2:AttributeValue
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="xsd:string">*****</saml2:AttributeValue>
        </saml2:Attribute>
    </saml2:AttributeStatement>
    <saml2:AuthnStatement AuthnInstant="2018-10-30T08:21:41.741Z">
        <!-- Must be the same as the entityID value in the SP Metadata.xml file.
-->
        <saml2:SubjectLocality Address="https://auth.huaweicloud.com/" />
        <saml2:AuthnContext>

<saml2:AuthnContextClassRef>urn:oasis:names:tc:SAML:2.0:ac:classes:unspeci
fied</saml2:AuthnContextClassRef>
        </saml2:AuthnContext>
    </saml2:AuthnStatement>
```

```
    </saml2:Assertion>
</saml2p:Response>
```

The partner signature value is in standard XML format, and the signature type is **enveloped-signature**. You are advised to use the SAML library provided by a third party for signature.

The signature procedure is as follows.

i. Obtain the signature object (**Assertion**).

```
<saml2:Assertion ID="_2320c40ac7b5e857b2d0d4ea0c8758c3"
IssueInstant="2018-10-30T08:21:41.740Z" Version="2.0"
    xmlns:saml2="urn:oasis:names:tc:SAML:2.0:assertion"
    xmlns:xsd="http://www.w3.org/2001/XMLSchema">
......

</saml2:Assertion>
```

ii. Obtain the tag object (**Signature**).

```
<ds:Signature
    xmlns:ds="http://www.w3.org/2000/09/xmldsig#">
    <ds:SignedInfo>
        <ds:CanonicalizationMethod
Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#" />
        <ds:SignatureMethod
Algorithm="http://www.w3.org/2000/09/xmldsig#rsa-sha256" />
        <ds:Reference URI="#_2320c40ac7b5e857b2d0d4ea0c8758c3">
            <ds:Transforms>
                <ds:Transform
Algorithm="http://www.w3.org/2000/09/xmldsig#enveloped-signature" />
                <ds:Transform
Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#">
                    <ec:InclusiveNamespaces

xmlns:ec="http://www.w3.org/2001/10/xml-exc-c14n#"
                                PrefixList="xs" />
                </ds:Transform>
            </ds:Transforms>
            <ds:DigestMethod
Algorithm="http://www.w3.org/2000/09/xmldsig#sha256" />
            <ds:DigestValue>......</ds:DigestValue>
        </ds:Reference>
    </ds:SignedInfo>
    <!-- Third-party signature value -->
    <ds:SignatureValue>
    ......
    </ds:SignatureValue>
    <ds:KeyInfo>
        <ds:X509Data>
            <!-- Third-party public key certificate -->
            <ds:X509Certificate>
            ......
         </ds:X509Certificate>
            </ds:X509Data>
        </ds:KeyInfo>
    </ds:Signature>
```

iii. Generate the **DigestValue** value for the signature object **Assertion**.

1) Convert **Assertion** according to the algorithm defined in **Transform** of **Signature**.

2) Generate a digest for the object obtained in 1) according to the algorithm specified in **DigestMethod**.

3) Place the generated digest value in the **DigestValue** tag.

iv. Use the private key in **Step 6** in Generating a Certificate to generate the **SignatureValue** value for the **SignedInfo** object signature.

1) Convert **SignedInfo** according to the algorithm defined in **CanonicalizationMethod**

2) Generate the signature value for the object obtained in 1) according to the signature algorithm defined in **SignatureMethod**. Place the obtained signature value in **SignatureValue**.

v. Combine the values of **DigestValue** and **SignatureValue** to form the final **Signature** object. Place the value in **Assertion** as its sub-element.

The signature is displayed as follows.

```
<saml2:Assertion ID="_2320c40ac7b5e857b2d0d4ea0c8758c3"
IssueInstant="2018-10-30T08:21:41.740Z" Version="2.0"
   xmlns:saml2="urn:oasis:names:tc:SAML:2.0:assertion"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema">
   ......
   <ds:Signature
      xmlns:ds="http://www.w3.org/2000/09/xmldsig#">
      ......
    <!-- Third-party signature value -->
      <ds:SignatureValue>
      ......
     </ds:SignatureValue>
      <ds:KeyInfo>
         <ds:X509Data>
       <!-- Third-party public key certificate -->
            <ds:X509Certificate>
            ......
          </ds:X509Certificate>
            </ds:X509Data>
      </ds:KeyInfo>
   </ds:Signature>
</saml2:Assertion>
```

Table 3-4 Description of parameters between **<saml2:AttributeValue>** and **</saml2:AttributeValue>**

Parameter	Description
xUserId	Indicates the user ID of the partner's customer on the partner sales platform. This parameter value equals the value of **xAccountId**.
xAccountId	Indicates the account ID of the partner's customer on the partner sales platform.
bpId	Indicates the partner ID. For details, see How Do I Check the Partner ID?
email	Indicates the email address.

Parameter	Description
	This parameter is optional. The parameter must meet the following requirements: • Must be unique for each customer. • A maximum of 64 characters • Passes the verification using the following regular expression: **^[azA-Z0-9.!#$%&'*+\/=?^_`{\|}~-]+@[a-zA-Z0-9](?:[a-zA-Z0-9-]{0,61}[a-zA-Z0-9])?(?:\\.[azA-Z0-9](?:[a-zA-Z0-9-]{0,61}[a-zA-Z0-9])?)*$**
name	Indicates the account name transferred on the partner sales platform. This parameter is optional. The account name must be the same as the value of **domain_name** in the request for API in 5.1.3 Creating a Customer.

☐ **NOTE**

Table 3-4 involves the account ID and user ID because HUAWEI CLOUD IAM has the account and user concepts. For details about the two concepts, see "Account" and "IAM User" in Basic Concepts.

   c.   If the customer has logged in to the partner sales platform, the SAML response message is returned directly. Otherwise, the SAML response message is displayed after the login.

Send a POST request to the HUAWEI CLOUD response path **AssertionConsumerService** in 2.a. The parameters must be in the Form Data format.

TQUq1IFJ7%2FFNMFHFlKQgbKijySZlM8uQqb%2FKSFxN%2B9S6dvim%2BAatPgbxX9hj0pfR%2BHEXEPzRNnd
wX6LQaqPQ%2F%2Bc4IJufmvz7Rue%2FAA%3D%3D&RelayState=_lidh2rjxc81dnuc72qmpbslf4bml6r9fg
n8rNI5twTosXm0NhZDj%2BGnfVBfG9T4X5nisoK843vRqzY1JCPmb0swQWb%2FFHryetP9deoceEBkTgf81xM
HCPUJ%2BNSZc5aUinPUDIn9gxGsEMosv8f%2FcYPe1GL%2F9iMS1ChGElk18Rmj6Y5F3SVrFEsVVYMckzPPAz
L2Ts%2B4BW8YbdqeUyfIKJwruVfX8KoHdC8xCl8bRN5mOHqAjCMYTQAJrCm%2BBGJVxUXit0gYeqkYH6dYkVf
BgDXY1GUeOQqdckhgT36Aiz2GCZwK7lpvhAEFi2xMZGZU4xlKVZNYY1yzfjMBl64pMsyd3JDrzZfcbraPnTBa

Upgrade-Insecure-Requests: 1
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64) AppleWebKit/537.36 (KHTML, like Gecko)

Form Data   view source   view URL encoded

SAMLResponse: PD94bWwgdmVyc2lvbj0iMS4wIiBlbmNvZGluZz0iVVRGLTgiPz4KPHNhbWxwcDSZXNwb25
MDAzYmYwYjkxN2NmMCIgSW5zZXNwb25zZVRvPSJfZGNrNG1tMDhxbWRoRoYzhrNG51aXIwN2hnaGV0ZHFzZzh1bl
1lczp0YzpTQU1MOjIuMDpwcm90b2NvbCI+PHNhbWxyOklzc3VlciBGb3JtYXQ9InVybjpvYXNpczpuYW1lczp0
Pmh0dHBzОi8vaWRwRwLmlzZXNwbnbC5jb20vaWRwRwL3NoaWJib2xldGg8L3NhbWxwOklzc3Vlcj48c2FtbDJwOlN0Y
RhdHVzTWVzc2FnZT51cm46b2FzaXM6bmFtZXM6dGM6U0FNTDoyLjA6c3RhdHVzOlN1Y2Nlc3M8L3NhbWxwОcD7
IElzc3VlSW5zdGFudD0iMjAxOC0xMC0zMFQwODOyMTo0MS43NDBaIiBWZXJzaW9uPSIyLjAiIHHhtbG5zOnNhbWw

Parameter	Description
SAMLResponse	Identifies the string obtained by encoding the SAML response message body in 2.b using Base64.
RelayState	The value of this parameter is the same as that in the SAML request message.

3. IAM parses the SAMLResponse. When the customer account creation API is called to create an account, HUAWEI CLOUD CBC binds the customer account on the partner sales platform with the HUAWEI CLOUD account. Therefore, the customer can be redirected to the service page and purchase and manage the cloud services.

3.3 API Access Permission (Partner)

Related permissions are required for accessing the APIs. You can assign related roles to the personnel who need to access the APIs in Partner Center. Supported actions of APIs are listed in the following table. The API can be accessed as long as one of its actions is supported.

For more information, visit Partner Center API Reference (Europe)

📖 NOTE

For APIs not listed in the table, fine-grained permission verification is not required and all operator accounts can access them.

Table 3-5

Scenario	Sub-Scenario	API Description	URL	Action	Path
Customer management	Customer registration	Verifying customer registration information	POST /v2/partners/sub-customers/users/check-identity	BPC_ITEM_SUBCUSTSERV_010118	Customer Business > Customer Management > Customer List > Register APIs (newly added)
		Sending a verification code	POST /v2/bases/verificationcode/send	BPC_ITEM_SUBCUSTSERV_010118	Customer Business > Customer Management > Customer List > Register APIs (newly added)
		Creating a customer	POST /v2/partners/sub-customers	BPC_ITEM_SUBCUSTSERV_010118	Customer Business > Customer Management > Customer List > Register APIs (newly added)
	Customer management	Querying customers	POST /v2/partners/sub-customers/query	BPC_ITEM_SUBCUSTSERV_010100|BPC_ITEM_SUBCUSTSERV_010500	• Customer Business > Customer Management > Customer List > View Customer List • Customer Business > Customer Management >

Sc en ari o	Su b-S cen ari o	API Descrip tion	URL	Action	Path
					Reseller Customers > View Customers
		Freezing a custome r account	POST /v2/partners/sub-custom ers/freeze	BPC_ITEM_SUBCUSTSERV _010501|BPC_ITEM_SUBCU STSERV_010115	• Customer Business > Customer Management > Reseller Customers > Freeze/Unfreeze Accounts • Customer Business > Customer Management > Customer List > Freeze/Unfreeze Account
		Unfreezi ng a custome r account	POST /v2/partners/sub-custom ers/unfreeze	BPC_ITEM_SUBCUSTSERV _010501|BPC_ITEM_SUBCU STSERV_010115	• Customer Business > Customer Management > Reseller Customers > Freeze/Unfreeze Accounts • Customer Business > Customer Management > Customer List > Freeze/Unfreeze Account
Re sel ler ma na ge me nt	Que ryin g rese llers	Queryin g the list of resellers	POST /v2/partners/indirect-par tners/query	BPC_ITEM_SALES_020100	Sales Management > My Resellers > Query Resellers
Tr an sac tio n M an ag ag em ent	Yea rly/ mo nthl y ord er man age men t	Queryin g orders	GET /v2/orders/customer-ord ers	BPC_ITEM_SUBCUSTSERV _060100|BPC_ITEM_SUBCU STSERV_060200	• Customer Business > Customer Orders > View List • Customer Business > Customer Orders > Reseller Customer Orders > View Orders
		Queryin g order details	GET /v2/orders/customer-ord ers/details/{order_id}	BPC_ITEM_SUBCUSTSERV _060100|BPC_ITEM_SUBCU STSERV_060200	• Customer Business > Customer Orders > View List

Scenario	Sub-Scenario	API Description	URL	Action	Path
					• Customer Business > Customer Orders > Reseller Customer Orders > View Details
	Managing Customers' Budgets	Querying customers' budgets	GET /v2/partners/sub-customers/budget	BPC_ITEM_SUBCUSTSERV_010111|BPC_ITEM_SUBCUSTSERV_010503|BPC_ITEM_SUBCUSTSERV_010107	• Customer Business > Customer Management > Customer List > Adjust Credit Limit • Customer Business > Customer Management > Reseller Customers > Set Monthly Budgets
		Setting customers' budgets	POST /v2/partners/sub-customers/budget	BPC_ITEM_SUBCUSTSERV_010111|BPC_ITEM_SUBCUSTSERV_010503	• Customer Business > Customer Management > Customer List > Adjust Credit Limit • Customer Business > Customer Management > Reseller Customers > Set Monthly Budgets
Bill Management	Partner bill management	Querying monthly bills	GET /v2/bills/partner-bills/postpaid-bill-summary	BPC_ITEM_FINANCE_090100	Financial Information > Partner Bills > View Partner Bill

4 Product Management

4.1 Quering Product Information

4.1.1 Querying Cloud Service Types

Function

This API is used to query cloud service types on the partner sales platform.

Constraints

This API can be invoked using the partner AK/SK or token.

KooGallery services are not included.

URI

GET /v2/products/service-types

Table 4-1 Header parameter

Parameter	Mandatory	Value Range	Description
X-Language	No	A maximum of 8 characters	Language. • **zh_CN**: Chinese • **en_US**: English Default value: **zh_CN**

Table 4-2 Query parameters

Parameter	Mandatory	Type	Value Range	Description
offset	No	Integer	0 to 1000000000	Offset, which starts from 0. The default value is **0**. If this parameter is not included in the request, is left empty, or is set to **null**, the value **0** is used. This parameter cannot be set to **""**. **NOTE** This parameter is used for pagination. Retain its default value **0** if pagination is not required. **offset** indicates the offset relative to the first data record among all that meets the conditions configured. If you set offset to **1**, the second and subsequent data records are returned. For example, if there 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned. If there are 20 records that meet query conditions, when you set offset to **0** and limit to **10** for the first page and set offset to **10** and limit to **10** for the second page, then each page will respectively have 10 records.
limit	No	Integer	[1-1000]	Number of records queried each time. The default value is **10**. If this parameter is not included in the request, is left empty, or is set to **null**, the value **10** is used. This parameter cannot be set to **""**.

Request

Request Parameters

None

Example Request

```
GET https://bss.myhuaweicloud.eu/v2/products/service-types?offset=0&limit=10
HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
X-Language: zh_CN
```

Response

Response Parameters

Parameter	Type	Value Range	Description
error_code	String	A maximum of 20 characters	Error code. For details, see Returned Values. This parameter is returned only when the query failed.
error_msg	String	A maximum of 1000 characters	Error description. This parameter is returned only when the query failed.
total_count	Integer	-	Total number.
service_types	List<ServiceType>	-	Cloud service type list. For details, see Table 4-3.

Table 4-3 ServiceType

Parameter	Type	Value Range	Description
service_type_name	String	A maximum of 200 characters	Cloud service type name.
service_type_code	String	A maximum of 64 characters	Cloud service type code.
abbreviation	String	A maximum of 200 characters	Abbreviation of the cloud service type.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
    "total_count": 1,
```

```
     "service_types": [
   {
         "service_type_name": "Huawei Cloud WeLink",
         "service_type_code": "hws.service.type.workplace",
         "abbreviation": "WeLink"
     }
   ]
}
```

Returned Values

☐ NOTE

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Status Code	Error Code	Description
400	CBC.0100	Invalid parameter.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

4.1.2 Querying Resource Types

Function

This API is used to query the resource types on the partner sales platform.

Constraints

This API can be invoked using the partner AK/SK or token.

URI

GET /v2/products/resource-types

Table 4-4 Header parameter

Parameter	Mandatory	Value Range	Description
X-Language	No	A maximum of 8 characters	Language. - **zh_CN**: Chinese - **en_US**: English Default value: **zh_CN**

Table 4-5 Query parameters

Parameter	Manda tory	Type	Value Range	Description
offset	No	Integer	0 to 1000000 000	Offset, which starts from 0. The default value is **0**. If this parameter is not included in the request, is left empty, or is set to **null**, the value **0** is used. This parameter cannot be set to **""**. **NOTE** This parameter is used for pagination. Retain its default value **0** if pagination is not required. **offset** indicates the offset relative to the first data record among all that meets the conditions configured. If you set offset to **1**, the second and subsequent data records are returned. For example, if there 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned. If there are 20 records that meet query conditions, when you set offset to **0** and limit to **10** for the first page and set offset to **10** and limit to **10** for the second page, then each page will respectively have 10 records.
limit	No	Integer	[1-1000]	Number of records queried each time. The default value is **10**. If this parameter is not included in the request, is left empty, or is set to **null**, the value **10** is used. This parameter cannot be set to **""**.

Request

Request Parameters

None

Example Request

```
GET https://bss.myhuaweicloud.eu/v2/products/resource-types?offset=0&limit=10
HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
X-Language: zh_CN
```

Response

Response Parameters

Parameter	Type	Value Range	Description
error_code	String	A maximum of 20 characters	Error code. For details, see Returned Values. This parameter is returned only when the query failed.
error_msg	String	A maximum of 1000 characters	Error description. This parameter is returned only when the query failed.
total_count	Integer	-	Total number.
resource_types	List<ResourceTypes>	-	Resource type list. For details, see Table 4-6.

Table 4-6 ResourceTypes

Parameter	Type	Value Range	Description
resource_type_code	String	A maximum of 64 characters	Resource type code. For example, the resource type code of ECS is **hws.resource.type.vm**.
resource_type_name	String	A maximum of 200 characters	Resource type name.
resource_type_desc	String	A maximum of 200 characters	Resource type description.
service_type_code	String	A maximum of 64 characters	Code of the service type which a resource belongs to. Example: **hws.service.type.offline**.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
    "total_count": 1,
    "resource_types": [
        {
            "resource_type_code": "hws.resource.type.workspacehost.desktop",
            "resource_type_name": "Cloud Desktop",
            "resource_type_desc": "Cloud Desktop",
            "service_type_code": "hws.service.type.workspacehost"
        }
    ]
}
```

Returned Values

📖 NOTE

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.

- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Status Code	Error Code	Description
400	CBC.0100	Invalid parameter.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

4.1.3 Querying Resources by Cloud Service Type

Function

This API is used to query the resource type code and name by associated cloud service on the partner sales platform and to query the price of a pay-per-use or yearly/monthly product.

Constraints

This API can be invoked using the partner AK/SK or token.

This API cannot be used to query the resources by KooGallery service type.

URI

GET /v2/products/service-resources

Table 4-7 Header parameter

Parameter	Mandatory	Value Range	Description
X-Language	No	A maximum of 8 characters	Language. • **zh_CN**: Chinese • **en_US**: English Default value: **zh_CN**

Table 4-8 Request parameters

Parameter	Mandatory	Type	Value Range	Description
service_type_code	Yes	String	A maximum of 64 characters	Cloud service type code. For example, the cloud service type code of OBS is **hws.service.type.obs**. To obtain a specific service type, call the API in 4.1.1 Querying Cloud Service Types.
offset	No	Integer	0 to 10000000	Offset, which starts from 0. The default value is **0**. If this parameter is not included in the request, is left empty, or is set to **null**, the value **0** is used. This parameter cannot be set to **""**. **NOTE** This parameter is used for pagination. Retain its default value **0** if pagination is not required. **offset** indicates the offset relative to the first data record among all that meets the conditions configured. If you set offset to **1**, the second and subsequent data records are returned. For example, if there 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned. If there are 20 records that meet query conditions, when you set offset to **0** and limit to **10** for the first page and set offset to **10** and limit to **10** for the second page, then each page will respectively have 10 records.
limit	No	Integer	[1-100]	Number of records queried each time. The default value is **10**. If this parameter is not included in the request, the value **10** is used. This parameter cannot be set to **""** or **null** and cannot be left empty.

Request

Request Parameters

None

Example Request

```
GET
https://bss.myhuaweicloud.eu/v2/products/service-resources?service_type_code=hws.s
ervice.type.obs&limit=5&offset=0 HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
X-Language: zh_CN
```

Response

Response Parameters

Parameter	Type	Value Range	Description
error_code	String	A maximum of 20 characters	Error code. For details, see Returned Values. This parameter is returned only when the query failed.
error_msg	String	A maximum of 1000 characters	Error description. This parameter is returned only when the query failed.
total_count	Integer	-	Total number.
infos	List<ServiceResourceInfo>	A maximum of 100 values	List of basic resource information. For details, see Table 4-9.

Table 4-9 ServiceResourceInfo

Parameter	Type	Value Range	Description
basic_info	BasicInfo Object	-	Basic resource information. For details, see Table 4-10.

Table 4-10 ResourceBasicInfo

Parameter	Type	Value Range	Description

Parameter	Type	Value Range	Description
resource_type _code	String	A maximum of 64 characters	Resource type code. Example: **hws.resource.type.general**.
product_owne r_service	String	A maximum of 64 characters	Code of the service where a resource belongs. Example: **hws.service.type.offline**.
name	String	A maximum of 1024 characters	Resource type. Example: general specifications.
description	String	A maximum of 1024 characters	Resource type description.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
    "total_count": 5,
    "infos": [
        {
            "basic_info": {
                "resource_type_code": "hws.resource.type.general",
                "product_owner_service": "hws.service.type.offline",
                "name": "general specifications",
                "description": "general specifications"
            }
        },
        {
            "basic_info": {
                "resource_type_code": "hws.resource.type.bandwidth",
                "product_owner_service": "hws.service.type.vpc",
                "name": "fixed bandwidth",
                "description": "fixed bandwidth"
            }
        },
        {
            "basic_info": {
                "resource_type_code": "hws.resource.type.ip",
                "product_owner_service": "hws.service.type.vpc",
                "name": "EIP",
                "description": "EIP"
            }
```

```
    },
    {
        "basic_info": {
            "resource_type_code": "hws.resource.type.vm.image",
            "product_owner_service": "hws.service.type.ec2",
            "name": "ECS image",
            "description": "ECS image"
        }
    },
    {
        "basic_info": {
            "resource_type_code": "hws.resource.type.vm",
            "product_owner_service": "hws.service.type.ec2",
            "name": "ECS",
            "description": "ECS"
        }
    }
    ]
}
```

Returned Values

📖 NOTE

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
400	CBC.0100	Invalid parameter.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

4.1.4 Querying Usage Types

Function

This API is used to query resource usage types on the partner sales platform.

Constraints

This API can be invoked using the partner AK/SK or token.

URI

GET /v2/products/usage-types

Table 4-11 Header parameter

Parameter	Mandatory	Value Range	Description
X-Language	No	A maximum of 8 characters	Language. • **zh_CN**: Chinese • **en_US**: English Default value: **zh_CN**

Table 4-12 Query parameters

Parameter	Mandatory	Type	Value Range	Description
resource_type_code	No	String	A maximum of 64 characters	Resource type code. For example, the VM resource type code of ECS is **hws.resource.type.vm**. To obtain a specific resource type, call the API in 4.1.2 Querying Resource Types. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. If the value is **""**, it can be used as a filter criterion.
offset	No	Integer	0 to 1000000000	Offset, which starts from 0. The default value is **0**. **NOTE** This parameter is used for pagination. Retain its default value **0** if pagination is not required. **offset** indicates the offset relative to the first data record among all that meets the conditions configured. If you set offset to **1**, the second and subsequent data records are returned. For example, if there 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned. If there are 20 records that meet query conditions, when you set offset to **0** and limit to **10** for the first page and set offset to **10** and limit to **10** for the second page, then each page will respectively have 10 records.
limit	No	Integer	1 to 100	Number of records queried each time. The default value is **10**.

Request

Request Parameters

None

Example Request

```
GET https://bss.myhuaweicloud.eu/v2/products/usage-types?offset=0&limit=3 HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
X-Language: zh_CN
```

Response

Response Parameters

Parameter	Type	Value Range	Description
error_code	String	A maximum of 20 characters	Error code. For details, see Returned Values. This parameter is returned only when the query failed.
error_msg	String	A maximum of 1000 characters	Error description. This parameter is returned only when the query failed.
total_count	Integer	-	Total number.
usage_types	List<UsageType>	-	Usage type list. For details, see Table 4-13.

Table 4-13 UsageType

Parameter	Type	Value Range	Description
code	String	A maximum of 64 characters	Usage type code, for example, **reqNumber**.
name	String	A maximum of 1024 characters	Usage type name, for example, the number of invoking times.
resource_type _code	String	A maximum of 64 characters	Resource type code. For example, the resource type code of VM is **hws.resource.type.vm**.
service_type_ code	String	A maximum of 64 characters	Cloud service type code. For example, the cloud service type code of OBS is **hws.service.type.obs**.

Parameter	Type	Value Range	Description
resource_type _name	String	A maximum of 200 characters	Resource type. For example, the resource type of ECS is **Cloud Host**.
service_type_ name	String	A maximum of 200 characters	Cloud service type. For example, the cloud service type of ECS is **Elastic Cloud Server**.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
 "total_count": 6048,
 "usage_types": [
  {
   "code": "flow",
          "name": "Video connection traffic",
   "resource_type_code": "hws.resource.type.live.videoconnect",
   "service_type_code": "hws.service.type.live",
   "resource_type_name": "Video connection",
   "service_type_name": "Live streaming"
  },
  {
   "code": "reqNumber",
          "name": "Invoking times",
   "resource_type_code": "hws.resource.type.pca.quantity",
   "service_type_code": "hws.service.type.ccm",
   "resource_type_name": "Number of private certificates",
   "service_type_name": "The cloud certificate management service"
  },
  {
   "code": "dailyalarmnum",
          "name": "Alarms",
   "resource_type_code": "hws.resource.type.aicms.cdfl",
   "service_type_code": "hws.service.type.aimgs",
   "resource_type_name": "The fault identification and root cause locating service",
   "service_type_name": "The modeling service"
  }
 ]
}
```

Returned Values

📖 NOTE

- **4***xx*: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
- **5***xx*: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.
400	CBC.0100	Parameter error.

4.1.5 Querying Measurement Units

Function

This API is used to query the resource usage, measurement unit for the duration and amount of a yearly/monthly resource, as well as the measurement unit type on the partner sales platform.

Constraints

This API can be invoked using the partner AK/SK or token.

URI

GET /v2/bases/measurements

Table 4-14 Header parameter

Parameter	Manda tory	Value Range	Description
X-Languag e	No	A maximu m of 8 character s	Language. - **zh_CN**: Chinese - **en_US**: English Default value: **zh_CN**

Request

Request Parameters

None

Example Request

```
GET https://bss.myhuaweicloud.eu/v2/bases/measurements HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
X-Language: zh_CN
```

Response

Response Parameters

Parameter	Type	Value Range	Description
error_code	String	A maximum of 20 characters	Error code. For details, see Returned Values. This parameter is returned only when the query failed.
error_msg	String	A maximum of 1000 characters	Error description. This parameter is returned only when the query failed.
measure_units	List<MeasureUnitRest>	-	Measurement unit information. For details, see Table 4-15.

Table 4-15 MeasureUnitRest

Parameter	Type	Value Range	Description
measure_id	Integer	-	Measurement unit ID. For example, **10** indicates GB.
measure_name	String	A maximum of 128 characters	Measurement unit name, which is returned based on the language type. Example: GB.
abbreviation	String	A maximum of 64 characters	Abbreviation of a measurement unit name. For example, the abbreviation of GB is **G**.
measure_type	Integer	-	Measurement type. • **1**: Currency • **2**: Duration • **3**: Traffic

Parameter	Type	Value Range	Description
			4: Quantity **7**: Capacity **9**: Number of lines **10**: Period **11**: Frequency **12**: Count **16**: Bandwidth **17**: Capacity-duration **18**: Query rate **19**: Bandwidth (1000) **20**: Performance test usage **21**: Area **22**: Video **23**: Throughput **24**: Resolution **26**: Deduction unit for a general resource package **30**: Throughput x Duration **31**: Number/Duration **40**: Traffic (1000) **41**: 1K tokens

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
    "measure_units": [
        {
            "measure_id": 0,
            "measure_name": "Day",
            "abbreviation": "d",
            "measure_type": 2
        },
        {
            "measure_id": 1,
            "measure_name": "USD",
            "abbreviation": "YDollar",
            "measure_type": 1
        },
        {
            "measure_id": 10,
            "measure_name": "GB",
```

```
            "abbreviation": "G",
            "measure_type": 3
        }
    ]
}
```

Returned Values

📖 NOTE

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

4.1.6 Querying the Measurement Unit Number System

Function

This API is used to query the measurement unit number system on the partner sales platform.

Constraints

This API can be invoked using the partner AK/SK or token.

URI

GET /v2/bases/conversions

Table 4-16 Request parameters

Parameter	Manda tory	Type	Value Range	Description
measure_ty pe	No	Integer	-	Measurement type. • **1**: Currency • **2**: Duration • **3**: Traffic • **4**: Quantity • **7**: Capacity • **9**: Number of lines • **10**: Period • **11**: Frequency

Parameter	Manda tory	Type	Value Range	Description
				• **12**: Count • **16**: Bandwidth • **17**: Capacity-duration • **18**: Query rate • **19**: Bandwidth (1000) • **20**: Performance test usage • **21**: Area • **22**: Video • **23**: Throughput • **24**: Resolution • **26**: Deduction unit for a general resource package • **30**: Throughput x Duration • **31**: Number/Duration • **40**: Traffic (1000) • **41**: 1K tokens If this parameter is not included in the request, is left empty, or is set to **null**, it will not be used as a filter criterion.

Request

Request Parameters

None

Example Request

```
GET https://bss.myhuaweicloud.eu/v2/bases/conversions?measure_type=3 HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
```

Response

Response Parameters

Parameter	Type	Value Range	Description
error_code	String	A maximu m of 20 character s	Error code. For details, see Returned Values. This parameter is returned only when the query failed.
error_msg	String	A	Error description. This parameter is returned only

Parameter	Type	Value Range	Description
		maximum of 1000 characters	when the query failed.
conversions	List<Conversion>	-	Measurement unit conversion information. For details, see Table 4-17.

Table 4-17 Conversion

Parameter	Type	Value Range	Description
measure_id	Integer	-	Measurement unit ID. For example, **10** indicates GB.
ref_measure_id	Integer	-	Measurement unit ID after conversion. For example, **11** indicates MB.
conversion_ratio	Long	-	Conversion ratio. Example: If the measurement unit is GB and the target unit is MB, the conversion ratio is 1024 (1 GB = 1024 MB).
measure_type	Integer	-	Measurement type. • **1**: Currency • **2**: Duration • **3**: Traffic • **4**: Quantity • **7**: Capacity • **9**: Number of lines • **10**: Period • **11**: Frequency • **12**: Count • **16**: Bandwidth • **17**: Capacity-duration • **18**: Query rate • **19**: Bandwidth (1000) • **20**: Performance test usage • **21**: Area • **22**: Video

Parameter	Type	Value Range	Description
			• **23**: Throughput • **24**: Resolution • **26**: Deduction unit for a general resource package • **30**: Throughput x Duration • **31**: Number/Duration • **40**: Traffic (1000) • **41**: 1K tokens

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
   "conversions": [
      {
         "measure_id": 10,
         "ref_measure_id": 11,
         "conversion_ratio": 1024,
         "measure_type": 3
      },
      {
         "measure_id": 0,
         "ref_measure_id": 5,
         "conversion_ratio": 1440,
         "measure_type": 2
      }
   ]
}
```

Returned Values

◪ NOTE

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

4.2 Querying the Price of a Product

4.2.1 Querying the Price of a Pay-Per-Use Product

Function

Partners can query the price of a pay-per-use product by criteria on the sales platform.

If the tenant who purchases the product enjoys a discount, the discount amount and the final price can be obtained from the query result.

If the tenant has enjoyed multiple types discounts, the system will return the commercial discount amount and the final price preferentially.

> ⚠️ **CAUTION**
>
> ● Ensure that you provide the correct service type, region, resource type, and resource specification are provided. Otherwise, an error may be reported.

Constraints

This API can be invoked using the customer token replaced by the partner token.

URI

POST /v2/bills/ratings/on-demand-resources

Request

Request Parameters

Parameter	Mandatory	Type	Value Range	Description
project_id	Yes	String	A maximum of 64 characters	Project ID. **NOTE** ● If the customer token is used, invoke the API for obtaining a user token with the assume_role method to obtain the project ID of the target region. For details, see **Step 2** in How Can I Replace a Partner Token with a Customer Token. ● To call this API, an IAM member account must be authorized by the IAM master account. For details, see Creating a User Group and Assigning Permissions.
product_infos	Yes	List<DemandProductInfo>	A maximum of 100 values	Indicates the product information list. For details, see Table 4-18.
inquiry_pre	No	Integer	-	Precision of the price query result. The

Parameter	Mandat ory	Type	Value Range	Description
cision				default value of this parameter is **0** (default precision of the price query result). • 0: The default precision of the query result. The result contains a maximum of six decimal places with the unit of USD, such as USD 0.000001. • 1: The result contains a maximum of 10 decimal places with the unit of USD, such as USD 1.0000000001. **NOTE** Value **0** and value **1** make differences only when the query result contains at least six decimal places.

Table 4-18 DemandProductInfo

Parameter	Mandat ory	Type	Value Range	Description
id	Yes	String	A maximu m of 64 character s	The ID is used to identify the mapping between the inquiry result and the request and must be unique in an inquiry.
cloud_servic e_type	Yes	String	A maximu m of 400 character s	Cloud service type code. For example, the cloud service type code of OBS is **hws.service.type.obs**. To obtain a specific service type, call the API in 4.1.1 Querying Cloud Service Types.
resource_ty pe	Yes	String	A maximu m of 400 character s	Resource type code. For example, the VM resource type code of ECS is **hws.resource.type.vm**. To obtain a specific resource type, call the API in 4.1.2 Querying Resource Types. The relationship between ResourceType and CloudServiceType is as follows: A resource type represents a resource contained in the cloud service type, and the cloud service type is a combination of multiple resource types.
resource_sp ec	Yes	String	A maximu m of 400 character s	Resource specifications. For details, see related cloud service documentation. The following provides examples of services and resource specifications:

Parameter	Mandatory	Type	Value Range	Description

				• ECS
				
				Add **.win** or **.linux** to the end of the ECS flavor ID based on the OS type, for example, s2.small.1.linux. Call the API for querying details about flavors and extended flavor information to obtain the flavor IDs.
				
				• Bandwidth
				  – 12_bgp: dynamic BGP bandwidth billed by traffic
				  – 12_sbgp: static BGP bandwidth billed by traffic
				  – 19_bgp: dynamic BGP bandwidth billed by bandwidth
				  – 19_sbgp: Static BGP bandwidth billed by bandwidth
				  – 19_share: Shared bandwidth billed by bandwidth
				
				• IP address:
				  – 5_bgp: dynamic BGP public IP address
				  – 5_sbgp: static BGP public IP address
				
				• EVS
				  – SATA: common I/O EVS disk
				  – SAS: high I/O EVS disk
				  – GPSSD: general-purpose SSD EVS disk
				  – SSD: ultra-high I/O EVS disk
				  – ESSD: Extreme SSD
				  – GPSSD2.storage: General-purpose SSD V2 storage
				  – GPSSD2.iops: General-purpose SSD V2 iops
				  – GPSSD2.throughput: General-purpose SSD V2 throughput

region	Yes	String	A maximum of 64 characters	Cloud service region code, for example, eu_west_101.
usage_factor	Yes	String	A maximu	Usage factor. Usage factors are case-insensitive. The value is the same

Parameter	Mandatory	Type	Value Range	Description
			m of 64 characters	as the usage factor value in the SDR. The mapping between cloud services and usage factors is as follows: • Cloud server: **Duration** • Cloud disk: **Duration** • EIP: **Duration** • Bandwidth: **Duration** or **upflow** • Marketplace image: **Duration** You can call the API in 4.1.4 Querying Usage Types to obtain the value of parameter **code** in Table 4-13. The value indicates the billing factor of each cloud service.
usage_value	Yes	BigDecimal	-	Usage value. For example, if you want to inquire a product price by hour, set **usageValue** to **1** and **usageMeasureID** to **4** (hour).
usage_measure_id	Yes	Integer	A maximum of 4 characters	Usage unit. You can call the API in 4.1.5 Querying Measurement Units to obtain the value. For example, if you want to inquire a product price by hour, set **usageValue** to **1** and **usageMeasureID** to **4** (hour).
subscription_num	Yes	Integer	[1-10000]	Number of subscriptions.
available_zone	No	String	A maximum of 64 characters	Available zone ID. Available zone IDs are case-insensitive. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, it cannot be used as a filter criterion.
resource_size	No	Integer	[1-2147483647]	Resource capacity. It can be the subscribed volume size or bandwidth size. This parameter is mandatory for a linear product. Linear products are those whose size must be specified during a subscription, such as hard disks and bandwidth. For example, you can select 10 GB or 20 GB during a disk subscription. For non-linear products, if this parameter is not included in the request parameters or is set to **null**, it cannot be used as a filter criterion.

Parameter	Mandatory	Type	Value Range	Description
size_measure_id	No	Integer	A maximum of 4 characters	Resource capacity measurement ID. The options are: • **15**: Mbit/s (used when the bandwidth is subscribed) • **17**: GB (used when an EVS disk is subscribed to) • **14**: amount (times) This field should be filled together with **resource_size** or left blank. Linear products are those whose size must be specified during a subscription, such as hard disks and bandwidth. For example, you can select 10 GB or 20 GB during a disk subscription. For non-linear products, if this parameter is not included in the request parameters or is set to **null**, it cannot be used as a filter criterion.

Example Request

```
POST https://bss.myhuaweicloud.eu/v2/bills/ratings/on-demand-resources HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
{
    "project_id": "06488a********832f55c016b0e337d7",
    "product_infos": [
        {
            "id": "1",
            "cloud_service_type": "hws.service.type.ec2",
            "resource_type": "hws.resource.type.vm",
            "resource_spec": "c3.3xlarge.2.linux",
            "region": "eu-west-101",
            "usage_factor": "Duration",
            "usage_value": 2,
            "usage_measure_id": 4,
            "subscription_num": 1,
            "available_zone": null
        },
        {
            "id": "2",
            "cloud_service_type": "hws.service.type.ebs",
            "resource_type": "hws.resource.type.volume",
            "resource_spec": "SSD",
            "region": "eu-west-101",
            "usage_factor": "Duration",
            "usage_value": 2,
            "usage_measure_id": 4,
            "subscription_num": 1,
```

```
          "resource_size": 10,
          "size_measure_id": 17
      },
      {
          "id": "3",
          "cloud_service_type": "hws.service.type.vpc",
          "resource_type": "hws.resource.type.ip",
          "resource_spec": "5_bgp",
          "region": "eu-west-101",
          "usage_factor": "Duration",
          "usage_value": 3,
          "usage_measure_id": 4,
          "subscription_num": 1,
          "available_zone": null
      },
      {
          "id": "4",
          "cloud_service_type": "hws.service.type.vpc",
          "resource_type": "hws.resource.type.bandwidth",
          "resource_spec": "12_sbgp",
          "region": "eu-west-101",
          "usage_factor": "upflow",
          "usage_value": 4,
          "usage_measure_id": 10,
          "subscription_num": 1,
          "available_zone": "cn-north-1a",
          "resource_size": 1,
          "size_measure_id": 15
      }
  ],
  "inquiry_precision": 1
}
```

Response

Response Parameters

Parameter	Type	Value Range	Description
error_code	String	A maximum of 20 characters	Status code. For details, see Returned Values. This parameter is returned only when the query failed.
error_msg	String	A maximum of 1000 characters	Error description. This parameter is returned only when the query failed.
amount	BigDecimal	-	Final price after discount
discount_amount	BigDecimal	-	Discount amount (difference between the list price and the final price).
official_websi	BigDecimal	-	List price of a pay-per-use product

Parameter	Type	Value Range	Description
te_amount			
measure_id	Integer	A maximum of 4 characters	Measurement unit ID. 1: USD
currency	String	A maximum of 20 characters	Currency. USD If the parameter is left blank, USD is used.
product_rating_results	List<DemandProductRatingResult>	-	Product price query result. For details, see Table 4-19.

Table 4-19 DemandProductRatingResult

Parameter	Type	Value Range	Description
id	String	A maximum of 64 characters	The ID is used to identify the mapping between the inquiry result and the request and must be unique in an inquiry.
product_id	String	A maximum of 64 characters	Product ID.
amount	BigDecimal	-	Final price after discount
discount_amount	BigDecimal	-	Discount amount (difference between the list price and final price).
official_website_amount	BigDecimal	-	List price of a pay-per-use product
measure_id	Integer	A maximum of 4 characters	Measurement unit ID. 1: USD
discount_rating_results	List<DemandDiscountRatingResult>	-	Discount details, including the product promotion information and commercial or partner discount information. For details, see Table 4-20.

Table 4-20 DemandDiscountRatingResult

Parameter	Type	Value Range	Description
discount_id	String	A maximum of 64 characters	Discount ID.

discount_type	Integer	A maximum of 4 characters	Discount type.
			• Commercial discounts:
			  – 605: Contract commercial discount in the HUAWEI CLOUD BE scenario
			  – 606: Contract commercial discount in the reseller BE scenario
			• Partner discounts:
			  607: Partner authorized discount

amount	BigDecimal	-	Discounted amount.
measure_id	Integer	A maximum of 4 characters	Measurement unit ID. 1: USD
discount_name	String	A maximum of 256 characters	Discount name.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
    "amount": 8.128,
    "discount_amount": 0.0,
    "official_website_amount": 8.128,
    "measure_id": 1,
    "currency": "USD",
    "product_rating_results": [
        {
            "id": "1",
            "product_id": "00301-243025-0--0_merge",
            "amount": 5.48,
            "discount_amount": 0.0,
            "official_website_amount": 5.48,
            "measure_id": 1,
            "discount_rating_results": []
        },
```

```
    {
        "id": "2",
        "product_id": "00301-290407774-0--1",
        "amount": 0.028,
        "discount_amount": 0.0,
        "official_website_amount": 0.028,
        "measure_id": 1,
        "discount_rating_results": []
    },
    {
        "id": "3",
        "product_id": "00301-238601-0--0_merge",
        "amount": 0.06,
        "discount_amount": 0.0,
        "official_website_amount": 0.06,
        "measure_id": 1,
        "discount_rating_results": []
    },
    {
        "id": "4",
        "product_id": "00301-290407706-0--1",
        "amount": 2.56,
        "discount_amount": 0.0,
        "official_website_amount": 2.56,
        "measure_id": 1,
        "discount_rating_results": []
    }
    ]
}
```

Returned Values

☐ NOTE

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.

- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
400	CBC.0100	Parameter error.
400	CBC.99006006	Product not found.
400	CBC.99006050	Incorrect usage unit.
400	CBC.99006055	The queried amount exceeds the upper limit.
400	CBC.99006074	The billing item does not exist.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

4.2.2 Querying the Price of a Yearly/Monthly Product

Function

Partners can use this API to query prices of yearly/monthly products for new subscriptions on their sales platforms.

If the tenant who purchases the product enjoys a discount, the discount amount and the final price can be obtained from the query result.

If the customer enjoys multiple discounts, the system returns the rating result for each discount. The system preferentially uses the rating result of the commercial discount if the customer selects automatic payment.

> ⚠️ **CAUTION**
>
> ● Ensure that you provide the correct service type, region, resource type, region and resource specification. Otherwise, an error may be reported.

Constraints

This API can be invoked using the customer token replaced by the partner token.

URI

POST /v2/bills/ratings/period-resources/subscribe-rate

Request

Request Parameters

Parameter	Mandatory	Type	Value Range	Description
project_id	Yes	String	A maximum of 64 characters	Project ID. **NOTE** ● If the customer token is used, invoke the API for obtaining a user token with the assume_role method to obtain the project ID of the target region. For details, see **Step 2** in How Can I Replace a Partner Token with a Customer Token. ● To call this API, an IAM member account must be authorized by the IAM master account. For details, see Creating a User Group and Assigning Permissions.
product_infos	Yes	List<PeriodProductInfo>	A maximum of 100 values	Product information list. For details, see Table 4-21.

Table 4-21 PeriodProductInfo

Parameter	Mandatory	Type	Value Range	Description
id	Yes	String	A maximum of 64 characters	The ID is used to identify the mapping between the inquiry result and the request and must be unique in an inquiry.
cloud_service_type	Yes	String	A maximum of 400 characters	Cloud service type code. For example, the cloud service type code of OBS is **hws.service.type.obs**. To obtain a specific service type, call the API in 4.1.1 Querying Cloud Service Types.
resource_type	Yes	String	A maximum of 400 characters	Resource type code. For example, the VM resource type code of ECS is **hws.resource.type.vm**. To obtain a specific resource type, call the API in 4.1.2 Querying Resource Types. The relationship between ResourceType and CloudServiceType is as follows: A resource type represents a resource contained in the cloud service type, and the cloud service type is a combination of multiple resource types.
resource_spec	Yes	String	A maximum of 400 characters	Resource specifications. For details, see related cloud service documentation. The following provides examples of services and resource specifications: ● ECS Add **.win** or **.linux** to the end of the ECS flavor ID based on the OS type, for example, s2.small.1.linux. Call the API for querying details about flavors and extended flavor information to obtain the flavor IDs. ● Bandwidth – 12_bgp: dynamic BGP bandwidth billed by traffic – 12_sbgp: static BGP bandwidth billed by traffic – 19_bgp: dynamic BGP bandwidth billed by bandwidth – 19_sbgp: Static BGP bandwidth billed by bandwidth – 19_share: Shared bandwidth

Parameter	Mandat ory	Type	Value Range	Description

				billed by bandwidth
				• IP address:
				  – 5_bgp: dynamic BGP public IP address
				  – 5_sbgp: static BGP public IP address
				• RDS:
				  You can call the API for querying database specifications to obtain the RDS specifications.
				• DCS:
				  You can call the API for querying service specifications to obtain the DCS specifications.
				• EVS:
				  – SATA: Common I/O
				  – SAS: High I/O
				  – GPSSD: General-purpose SSD
				  – SSD: Ultra-high I/O
				  – ESSD: Extreme SSD
				  – GPSSD2.storage: General-purpose SSD V2 storage

region	Yes	String	A maximu m of 64 character s	Cloud service region code, for example, eu_west_101.
period_type	Yes	Integer	[0-4]	Period type of a yearly/monthly product order. • **0**: Day • **2**: Month • **3**: Year • **4**: Hour
period_num	Yes	Integer	[1-21478 3647]	Number of periods of a yearly/monthly product order.
subscription _num	Yes	Integer	[1-10000]	Number of subscriptions of a yearly/monthly product order.
available_zo ne	No	String	A maximu m of 64 character s	AZ identifier, for example, **cn-north-1a**. AZ identifiers are case-insensitive. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, it cannot be used as a filter

Parameter	Mandatory	Type	Value Range	Description
				criterion.
resource_size	No	Integer	[1-2147483647]	Resource capacity. It can be the subscribed volume size or bandwidth size. This parameter is mandatory for a linear product. Linear products are those whose size must be specified during a subscription, such as hard disks and bandwidth. For example, you can select 10 GB or 20 GB during a disk subscription. For non-linear products, if this parameter is not included in the request parameters or is set to **null**, it cannot be used as a filter criterion.
size_measure_id	No	Integer	-	Resource capacity measurement ID. The options are as follows: **15**: Mbit/s (used when the bandwidth is subscribed) **17**: GB (used when a cloud disk is subscribed) **14**: amount This parameter is mandatory for a linear product. Linear products are those whose size must be specified during a subscription, such as hard disks and bandwidth. For example, you can select 10 GB or 20 GB during a disk subscription. For non-linear products, if this parameter is not included in the request parameters or is set to **null**, it cannot be used as a filter criterion.

Example Request

```
POST https://bss.myhuaweicloud.eu/v2/bills/ratings/period-resources/subscribe-rate
HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
{
   "project_id":
"84c53ec51e794a4888fb0f5c0cfb24208b9a7edf90024702adbec2b2fd72e5f2",
   "product_infos": [
      {
         "id": "1",
      "cloud_service_type": "hws.service.type.ec2",
```

```
                        "resource_type": "hws.resource.type.vm",
                    "resource_spec": "c6.2xlarge.2.linux",
                     "region": "eu-west-101",
                     "available_zone": "eu-west-101a",
                     "resource_size": null,
                     "size_measure_id": null,
                     "period_type": 2,
                     "period_num": 1,
                     "subscription_num": 1
                     },
                     {
                     "id": "2",
                     "cloud_service_type": "hws.service.type.vpc",
                     "resource_type": "hws.resource.type.ip",
                     "resource_spec": "5_bgp",
                     "region": "eu-west-101",
                     "available_zone": null"eu-west-101a",
                     "resource_size": null,
                     "size_measure_id": 15,
                     "period_type": 2,
                     "period_num": 1,
                     "subscription_num": 1
                     },
                     {
                     "id": "3",
                     "cloud_service_type": "hws.service.type.ebs",
                     "resource_type": "hws.resource.type.volume",
                     "resource_spec": "GPSSD",
                     "region": "eu-west-101",
                     "available_zone": "eu-west-101a",
                     "resource_size": 40,
                     "size_measure_id": 17,
                     "period_type": 2,
                     "period_num": 1,
                     "subscription_num": 1
                      },
                      {
                        "id": "4",
                     "cloud_service_type": "hws.service.type.vpc",
                     "resource_type": "hws.resource.type.bandwidth",
                     "resource_spec": "19_bgp",
                     "region": "eu-west-101",
                     "available_zone":"eu-west-101a",
                     "resource_size": 40,
                     "size_measure_id": 15,
                     "period_type": 2,
                     "period_num": 1,
                     "subscription_num": 1
                      }
                  ]
}
```

Response

Response Parameters

Parameter	Type	Value Range	Description
error_code	String	A maximum of 20 characters	Status code. For details, see Returned Values. This parameter is returned only when the query failed.
error_msg	String	A maximum of 1000 characters	Error description. This parameter is returned only when the query failed.
official_website_rating_result	List<OfficialWebsiteRatingResultObject>	-	The result for querying the list price of a yearly/monthly product. For details, see Table 4-22.
optional_discount_rating_results	List<OptionalDiscountRatingResult>	-	Rating results by discount if optional discounts exist. Each optional discount has a rating result. For details, see Table 4-24.
currency	String	A maximum of 20 characters	Currency. USD If the parameter is left blank, USD is used.

Table 4-22 OfficialWebsiteRatingResult

Parameter	Type	Value Range	Description
official_website_amount	BigDecimal	-	Price of a yearly/monthly product on the official website.
measure_id	Integer	A maximum of 4 characters	Measurement unit ID. 1: USD
product_rating_results	List<PeriodProductOfficialRatingResult>	-	Price query result. For details, see Table 4-23.

Table 4-23 Price query result

Parameter	Type	Value Range	Description
id	String	A maximum	ID, which comes from the ID in the request.

Parameter	Type	Value Range	Description
		of 64 characters	
product_id	String	A maximum of 64 characters	Yearly/monthly product ID.
official_website_amount	BigDecimal	-	Price of a yearly/monthly product on the official website.
measure_id	Integer	A maximum of 4 characters	Measurement unit ID. • 1: USD

Table 4-24 OptionalDiscountRatingResult

Parameter	Type	Value Range	Description
discount_id	String	A maximum of 64 characters	Discount ID.
amount	BigDecimal	-	Final price after the discount. Amount= official_website_amount - discountAmount
official_website_amount	BigDecimal	-	Price of a yearly/monthly product on the official website.
discount_amount	BigDecimal	-	Amount of an available discount, such as commercial discounts, partner discounts, promotion discounts, and coupons.
measure_id	Integer	A maximum of 4 characters	Measurement unit ID. 1: USD
discount_type	Integer	A maximum of 32 characters	Discount type. • Commercial discounts: – 605: Contract commercial discount in the HUAWEI CLOUD BE scenario – 606: Contract commercial discount in the reseller BE scenario • Partner discounts: 607: Partner authorized discount

Parameter	Type	Value Range	Description
discount_name	String	A maximum of 256 characters	Discount name.
best_offer	Integer	-	Optimal discount. • 0: No (default value) • 1: Yes Optimal discount: The system selects a discount from the commercial discount and partner discount. The discount with the maximum discount amount is the optimal discount. If the discount amounts are the same, the system uses the commercial discount first. The promotional discount and coupon are not in the calculation of the optimal discount.
product_rating_results	List<PeriodProductRatingResult>	-	Product price query result. For details, see Table 4-25.

Table 4-25 PeriodProductRatingResult

Parameter	Type	Value Range	Description
id	String	A maximum of 64 characters	ID, which comes from the ID in the request.
product_id	String	A maximum of 64 characters	Yearly/monthly product ID.
amount	BigDecimal	-	Final price after the discount. Amount= official_website_amount - discountAmount
official_website_amount	BigDecimal	-	Price of a yearly/monthly product on the official website.
discount_amount	BigDecimal	-	Amount of an available discount, such as commercial discounts, partner discounts, promotion discounts, and coupons.
measure_id	Integer	A maximum of 4	Measurement unit ID. 1: USD

Parameter	Type	Value Range	Description
		characters	

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
    "official_website_rating_result": {
        "official_website_amount": 529.67,
        "installment_official_website_amount": null,
        "installment_period_type": null,
        "measure_id": 1,
        "product_rating_results": [
            {
                "id": "1",
                "product_id": "OFFI777523764289028104,
                "official_website_amount": 182.07,
                "measure_id": 1,
                "installment_official_website_amount": null,
                "installment_period_type": null
            },
            {
                "id": "2",
                "product_id": "OFFI7773468780061772800",
                "official_website_amount": 0.0,
                "measure_id": 1,
                "installment_official_website_amount": null,
                "installment_period_type": null
            },
            {
                "id": "3",
                "product_id": "OFFI7764022381277517698",
                "official_website_amount": 5.6,
                "measure_id": 1,
                "installment_official_website_amount": null,
                "installment_period_type": null
            },
            {
                "id": "4",
                "product_id": "OFFI7771135464818663425",
                "official_website_amount": 342.0,
                "measure_id": 1,
                "installment_official_website_amount": null,
                "installment_period_type": null
            }
        ]
    },
    "optional_discount_rating_results": [],
```

```
        "currency": "USD"
}
```

Returned Values

📖 **NOTE**

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
400	CBC.0100	Parameter error.
400	CBC.99006006	Product not found.
400	CBC.99006055	The queried amount exceeds the upper limit.
403	CBC.0151	Access denied.
429	CBC.0250	Connection request control triggered.
500	CBC.0999	Other errors.

4.2.3 Querying the Renewal Price of a Yearly/Monthly Resource

Function

Customers can query the renewal price of a yearly/monthly resource by criteria on the partner sales platform.

📖 **NOTE**

- If a primary resource has resources attached, the renewal price will include the price of the primary resource and that of the attached. The information of the attached resources can also be accessed through 7.4.1 Querying Customer's Yearly/Monthly Resources.
- Note: When a newly purchased EVS disk is attached to an ECS, the EVS disk is not necessarily an attached resource of the ECS. The precise information of the attached resources can only be accessed through 7.4.1 Querying Customer's Yearly/Monthly Resources.

Constraints

Only customer AK/SK can be used to call the API. Since partners are not allowed to buy products with their own accounts, let alone yearly/monthly products.

URI

POST /v2/bills/ratings/period-resources/renew-rate

Request

Request parameters

Parameter	Mandatory	Parameter Type	Value Range	Description
resource_ids	Yes	List<String>	[1-10]	Primary resource IDs A maximum of 10 resource IDs are supported. Determine whether a resource is a primary resource or not by the **is_main_resource**, a response parameter described in 7.4.1 Querying Customer's Yearly/Monthly Resources.
period_type	Yes	Integer	[2|3]	Period type: • **2**: Month • **3**: Year
period_num	Yes	Integer	[1-11]	Number of periods: • Month: 1 to 11 • Year: 1 to 3
include_relative_resources	No	Boolean	-	Specifies whether to include associated resources for renewal price querying. • false: Not included. • true: Included. If this parameter is not included in the request or is set to **""**, the default value **false** is used.

Request Sample

```
POST https://bss.myhuaweicloud.eu/v2/bills/ratings/period-resources/renew-rate
HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
{
    "resource_ids": ["230221_169ee********9d5b8af6a38f099abea"],
    "period_type": 2,
    "period_num": 1,
      "include_relative_resources": false
}
```

Response

Response Parameters

Parameter	Parameter Type	Value Range	Description

Parameter	Parameter Type	Value Range	Description
error_code	String	A maximum of 20 characters	Status code For details, see 0.
error_msg	String	A maximum of 1,000 characters	Error description
currency	String	A maximum of 20 characters	Currency USD If the parameter is left blank, USD is used.
renew_inquiry_results	List<RenewInquiryResultInfo>	--	Renew price inquiry result of the primary resources and their attached resources For details, see Table 4-26.
official_website_rating_result	OfficialWebsiteRatingResult Object	--	For list price of a primary resource and its attached resources, see Table 4-27.
optional_discount_rating_results	List<OptionalDiscountRatingResult>	--	Price inquiry result with an optional discount applied. If there are multiple optional discounts, different price inquiry results can be returned with a different discount applied each time. For details, see Table 4-28.
fail_resource_infos	List<FailResourceInfo>	--	Resource information for a failed query. For details, see 0.

Table 4-26 RenewInquiryResultInfo

Parameter	Parameter Type	Description
resource_id	String	Resource ID. **NOTE** If the request contains the **include_relative_resources** field, the ID of the associated primary resource will be returned.
amount	String	Renewal price of primary resources and their attached resources Unit: USD **NOTE** If the request contains the **include_relative_resources** field, the renewal amount of the associated primary resource is returned.

Table 4-27 OfficialWebsiteRatingResult

Parameter	Parameter Type	Value Range	Description
official_website_amount	String	A maximum of 64 characters	List price Unit: USD

Table 4-28 OptionalDiscountRatingResult

Parameter	Parameter Type	Value Range	Description
discount_id	String	A maximum of 64 characters	Discount ID.
amount	String	A maximum of 64 characters	Final price after the discount Unit: USD Amount= official_website_amount - discount_amount
official_website_amount	String	A maximum of 64 characters	List price Unit: USD
discount_amount	String	A maximum of 64 characters	Amount of an available discount, such as commercial discounts, partner discounts, promotion discounts, and coupons Unit: USD
discount_type	Integer	A maximum of 32 characters	Discount type • Commercial discounts: – 605: Contract commercial discount in the Huawei Cloud BE scenario – 606: Contract commercial discount in the reseller BE scenario • Partner discounts: 607: Partner authorized discount - discount rate
discount_name	String	A maximum of 256 characters	Discount name
best_offer	Integer	-	Optimal discount or not • 0: No (default value) • 1: Yes

Parameter	Parameter Type	Value Range	Description
			Optimal discount is a discount selected from the commercial discount and partner discount. The discount with the maximum discount amount is the optimal discount. If the discount amounts are the same, the system uses the commercial discount first. The promotional discount and coupon are not in the calculation of the optimal discount.

Resource information for a failed query

Parameter	Parameter Type	Description
error_code	String	Status code For details, see 0.
error_msg	String	Error description
resource_id	String	Resource ID.

Status code: 200

Response Sample

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
    "currency": "CNY",
    "renew_inquiry_results": [{
        "resource_id": "230221_169ee********9d5b8af6a38f099abea",
        "amount": "800.0"
    }],
    "official_website_rating_result": {
        "official_website_amount": "800.0",
        "installment_official_website_amount": null,
        "installment_period_type": null
    },
    "optional_discount_rating_results": [],
    "fail_resource_infos": []
}
```

Status Codes

☐ NOTE

- **4**xx: indicates an error resulting from client, such as the request contains bad syntax or an invalid parameter. You need to check the statement and its format and make a request again.

- **5**xx: indicates an error to the Huawei Cloud system, which prevented the system from fulfilling the request from client. You can contact Huawei Cloud customer service to handle the issue.

HTTP Status Code	Error Code	Description
200	CBC.30050007	Renewal price inquiry is not applicable to non-primary resources.
200	CBC.30050008	The period type or number of periods for the resource does not exist.
200	CBC.30050009	The resources have expired and been deleted or do not exist.
200	CBC.30050010	This operation is not allowed because some resources included in your orders are to be paid.
200	CBC.30050011	Resources are being unsubscribed from or changed.
200	CBC.30050013	Renewal not supported.
400	CBC.0100	Incorrect parameter
400	CBC.99006006	The required product cannot be found.
400	CBC.99006024	Failed to query product information.
400	CBC.99006016	Failed to query coupon information.
400	CBC.99006017	Failed to query customer information.
400	CBC.99006050	Incorrect usage unit
400	CBC.99006055	The queried amount exceeds the upper limit.
400	CBC.99006066	Billing query failed
400	CBC.99006073	Project not found
400	CBC.30050012	There are duplicate resource IDs.
403	CBC.0151	Access denied
403	CBC.0154	Invalid or expired token
500	CBC.0999	Other errors

5 Customer Management

5.1 Customer Registration

5.1.1 Verifying Customer Registration Information

Function

This API is used to check whether the account name, and mobile number or email address entered by the customer can be used for registration.

📖 **NOTE**

For the registration with mobile numbers, whether the number of registered mobile numbers exceeds the upper limit will be checked.

Constraints

This API can be invoked using the partner AK/SK or token only.

URI

POST /v2/partners/sub-customers/users/check-identity

Request

Request parameters

Parameter	Mandatory	Type	Value Range	Description
search_type	Yes	String	[email|mobile|name]	The options are email, mobile, or name.
search_	Yes	String	A maximum	Mobile number, email address, or account

Parameter	Mandatory	Type	Value Range	Description
value			of 64 characters	name. • The mobile number must comply with the regular expression "^\d{4}-\d+$". The value contains the country code and starts with 00. The format is "00XX-XXXXXXXX". • The email address must consist of an email prefix and an email domain, as well as the (@) symbol. • **name**: The value must comply with the regular expression "^([a-zA-Z-]([a-zA-Z0-9_-]){4,31})$" and contains 5 to 32 characters. The value cannot start with **op_** or **shadow_** and cannot contain only digits. It must start with a letter (case-insensitive) or a hyphen (-).

Example Request

```
POST https://bss.myhuaweicloud.eu/v2/partners/sub-customers/users/check-identity
HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ


{
  "search_type": "name",
  "search_value": "ceshiyonghu001"
}
```

Response

Response Parameters

Parameter	Type	Value Range	Description
error_code	String	A maximum of 16 characters	Error code. For details, see Returned Values. This parameter is returned only when a failure occurs.
error_msg	String	A maximum of 1024 characters	Error description. This parameter is returned only when a failure occurs.
check_result	String	A maximum of 32	• **available**: The account name, mobile number, or email address is valid. • **used_by_user**: The account name, mobile number, or

Param eter	Type	Value Range	Description
		characters	email address is in use.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
    "error_code": "CBC.0000",
    "error_msg": "success",
    "check_result": "available"
}
```

Returned Values

> 📖 NOTE
>
> - **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
> - **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
400	CBC.0100	Parameter error.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

5.1.2 Sending a Verification Code

Function

If a customer enters an email address during registration, the system sends a registration verification code to the email address to verify the information.

Constraints

This API can be invoked only by the partner AK/SK or token.

The verification codes are sent only during registration. After invoking this API, you need to invoke the API in 5.1.3 Creating a Customer to create the registered customers.

URI

POST /v2/bases/verificationcode/send

Request

Request Parameters

Param eter	Man dator y	Type	Value Range	Description
receive r_type	Yes	Integer	[2]	Verification code type. 2: Send an email verification code.
timeout	No	Integer	[1-3000]	Timeout of sending a verification code. If this parameter is not included in the request parameters or is set to **null**, the default timeout interval **10 minutes** is used. If the value of this parameter is greater than **60**, the value is fixed to 5 minutes. Unit: minutes
email	Yes	String	A maximu m of 64 character s	Email that receives the verification code.
lang	No	String	A maximu m of 16 character s	Language in which the email verification code is sent. • **zh-cn**: Chinese • **en-us**: English If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, the default value **en-us** is used.

Example Request

```
POST  https://bss.myhuaweicloud.eu/v2/bases/verificationcode/send HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ

{
   "receiver_type":2,
   "timeout": 5,
  "email":"***@163.com",
   "lang":"en-us"
}
```

Response

Response Parameters

Parameter	Type	Value Range	Description
error_code	String	A maximum of 16 characters	Error code. For details, see Returned Values. This parameter is returned only when a failure occurs.
error_msg	String	A maximum of 1024 characters	Error description. This parameter is returned only when a failure occurs.

Example Response

```
HTTP/1.1 204 No Content
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
```

Returned Values

☐ NOTE

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
400	CBC.0100	Parameter error.
400	CBC.99000035	You are not a customer of a partner yet.
400	CBC.99004002	Failed to generate the verification code.
400	CBC.99004003	The verification code is successfully generated but fails to be sent.

HTTP Value	Error Code	Description
400	CBC. 99004 004	Empty email address./Invalid format.
400	CBC. 99004 015	The number of verification code sending times has reached the upper limit (15 times per hour, 60 times per day).
401	CBC. 0154	Invalid or expired token.
403	CBC. 0151	Access denied.
500	CBC. 0999	Other errors.

5.1.3 Creating a Customer

Function

This API is used to create a Huawei Cloud account for a customer when the customer creates an account on your sales platform, and bind the customer account on the partner sales platform to the HUAWEI CLOUD account. In addition, the Huawei Cloud account is bound to the partner account.

> ⚠️ **CAUTION**
>
> - After a HUAWEI CLOUD account is created for a customer, SAML authentication is required if the customer wants to switch from the partner sales platform to the Huawei Cloud official website. For details, see "SAML Authentication" in Web UI.
> - If you do not enter the email address when creating a customer, the customer cannot receive any email notification from Huawei Cloud. The customer needs to log in to the Huawei Cloud to add the email address by themselves.
> - When the API for creating a customer is invoked, Huawei Cloud will synchronously create a Huawei Cloud customer account and send the customer ID and account name to the partner platform. Then, Huawei Cloud associates the customer with the partner asynchronously. To query the association result, you can invoke the API described in 5.2.1 Querying Customers.
> - Newly created customers are associated with their partners in the reseller model by default.

Constraints

- This API can be invoked using the partner AK/SK or token only.

- Huawei Cloud Customer Agreement and Privacy Statement must be displayed on the page for creating a customer on the partner sales platform.
- Obtain the verification code using the API in 5.1.2 Sending a Verification Code and then invoke this API if you enter the email address when creating a customer.
- The password must contain at least eight characters, which will take effect since August 1, 2022.

URI

POST /v2/partners/sub-customers

Request

Request Parameters

Parameter	Mandatory	Type	Value Range	Description
domain_area	Yes	String	A maximum of 2 characters	Two-letter ID representing the country/region of the customer. The ID complies with the ISO 3166 standard. Example: Ireland (IE)
xaccount_id	Yes	String	A maximum of 128 characters	Unique user ID on the partner sales platform. The ID is allocated by the partner.
xaccount_type	Yes	String	A maximum of 64 characters	Platform ID assigned by Huawei to a partner. This value is assigned by Huawei. For details about how to obtain the platform ID, see How Do I Obtain the xaccountType Value?
domain_name	No	String	[5-32]	HUAWEI CLOUD username of the customer. If this parameter is left blank, the value is generated randomly. The value cannot start with **op_** or **shadow_** and cannot contain only digits. The verification length is 5 to 32 digits and the verification rules are ^([a-zA-Z_-]([a-zA-Z0-9_-])*)$. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, the value is randomly generated.
email	No	String	A	Email address.

Parameter	Mandat ory	Type	Value Range	Description
			maximum of 64 characters	Format: The value must contain **@**. If this parameter is not included in the request parameters or is set to **null**, no value is returned. If this parameter is set to **""**, **""** is returned.
verification_c ode	No	String	[6]	Verification code. Invoke the API described in 5.1.2 Sending a Verification Code to obtain the verification code. If no email address is available, you do not need to enter the verification code. If this parameter is not included in the request parameters or is set to **null**, this parameter will not be used. It cannot be set to **""**.
password	No	String	The value can be a string of 8 to 32 characters.	The password must meet the following rules: • Contains at least two of the following character types: uppercase letters, lowercase letters, digits, and special characters. • Differs from the account name or the account name in reverse order. • Does not contain the email address. If this parameter is left blank, a user does not have a password and cannot directly log in to HUAWEI CLOUD. In this case, the user can only switch to HUAWEI CLOUD from the partner system using SSO. If this parameter is not included in the request parameters or is set to **null**, the password is randomly generated. This parameter cannot be set to **""**.
is_close_mar ket_ms	No	String	A maximum of 10 characters	Whether to disable the marketing message sending function. • **true**: Disable this function. • **false**: Retain this function

Parameter	Mandat ory	Type	Value Range	Description
				enabled (default). If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, **false** is returned.
indirect_partn er_id	No	String	A maximum of 64 characters	Reseller ID. For details about how to obtain such IDs, see 6.1.1 Querying the List of Huawei Cloud Resellers. This parameter is mandatory for creating a customer for a Huawei Cloud reseller. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, this parameter will not be used.
include_assoc iation_result	No	Boolean	-	Whether to return the result of associating a partner and sub-customer. • **true**: Returns the association result. • **false**: Does not return the association result. The default value is **false**. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, **false** is returned.

Example Request

```
POST  https://bss.myhuaweicloud.eu/v2/partners/sub-customers HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ

{
  "domain_name": "test",
  "email": "***@163.com",
  "verification_code": "253***",
  "domain_area": "IE",
  "xaccount_id": "35rey****",
  "xaccount_type": "***_IDP",
  "password": "*******",
  "is_close_market_ms": "true",
  "indirect_partner_id": "a0d736********aab6502d1a828c1809",
  "include_association_result": "false"
}
```

Response

Response Parameters

Parameter	Type	Value Range	Description
error_code	String	A maximum of 16 characters	Error code. For details, see **Returned Values**. This parameter is returned only when a failure occurs.
error_msg	String	A maximum of 1024 characters	Error description. This parameter is returned only when a failure occurs.
domain_id	String	A maximum of 64 characters	Customer ID. This parameter is returned only when the operation is successful or an error whose code is CBC.99000050 occurs.
domain_name	String	A maximum of 64 characters	HUAWEI CLOUD username of the customer. • If the request contains this parameter, the response must contain the same parameter value as the request. • If the request does not contain this parameter, the response contains a 32-bit character string randomly generated by the system. This parameter is returned only when the operation is successful or an error whose code is CBC.99000050 occurs.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
  "domain_id": "06a7969058802f0c0f01c00b91846780",
  "domain_name": "a0d736359ada40aab6502d1a828c1809"
}
```

Returned Values

☐ NOTE

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
400	CBC.0100	Parameter error. Check whether the input parameters meet the requirements according to the request parameter descriptions.
400	CBC.0101	Invalid parameter.
400	CBC.50010059	Customer association not supported for distributors.
400	CBC.99000038	The account name already exists.
400	CBC.99000028	The email address already exists.
400	CBC.99000031	Invalid account name.
400	CBC.5016	Invalid email address format.
400	CBC.99000039	Duplicate xAccountId.
400	CBC.99000004	An exception occurred when the customer authorized rights to the partner.
400	CBC.99000036	Invalid password.
400	CBC.99000034	Currently, registration with HUAWEI CLOUD is not available for users in this country.
400	CBC.99000037	You do not have the permission to operate this Huawei Cloud reseller.
500	CBC.99000050	Query for the result of associating partner and its sub-customer timed out. Refer to 5.2.1 Querying Customers to check the association result.
400	CBC.99000051	Customer creation failed because this mobile number or email address has been preregistered by Huawei.
400	CBC.99004007	Invalid email address.
400	CBC.99004008	Invalid verification code.
400	CBC.99004009	The verification code is available, but the number of verification failures is greater than 3.
400	CBC.99004010	The verification code entered by the client is incorrect.
400	CBC.99005035	This API cannot be used by a sandbox account.
401	CBC.0154	Invalid or expired token.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.
400	CBC.50010085	Customer association not allowed. The account of this partner has been restricted.
400	CBC.50010086	Customer association not allowed. This partner is a

HTTP Value	Error Code	Description
		Huawei Cloud reseller, and the account of its associated distributor has been restricted.
400	CBC.50010120	Customer development not supported. There are no credits granted for the partner.

5.2 Customer Management

5.2.1 Querying Customers

Function

This API is used to query your customers.

Visit Querying Customers to learn about how to query customers in Partner Center.

Constraints

This API can be invoked using the partner AK/SK or token only.

Debugging

URI

POST /v2/partners/sub-customers/query

Request

Request parameters

Parameter	Mandatory	Type	Value Range	Description
account_name	No	String	A maximum of 64 characters	Account name. If the customer has created an IAM user, enter the account name of the master account. For details about the two concepts, see "Account" and "IAM User" in Basic Concepts. Fuzzy search is supported. Only prefix, suffix, or middle part can be used for fuzzy search. The content you enter for fuzzy search cannot contain spaces. If this parameter is not included in the request parameters, is set to

Parameter	Manda tory	Type	Value Range	Description
				"", or is set to **null**, it cannot be used as a filter criterion.
customer	No	String	A maximum of 64 characters	Name used by customer for real-name authentication, which can be queried using fuzzy search. Only prefix, suffix, or middle part can be used for fuzzy search. The content you enter for fuzzy search cannot contain spaces. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, it cannot be used as a filter criterion.
offset	No	Integer	0 to 40,000,000	Offset, which starts from 0. The default value is **0**. **NOTE** This parameter is used for pagination. Retain its default value **0** if pagination is not required. **offset** indicates the offset relative to the first data record among all that meets the conditions configured. If you set offset to **1**, the second and subsequent data records are returned. For example, if there 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned. If there are 20 records that meet query conditions, when you set offset to **0** and limit to **10** for the first page and set offset to **10** and limit to **10** for the second page, then each page will respectively have 10 records.
limit	No	Integer	Maximum value: 100	Number of customers queried each time. The default value is **10**.
label	No	String	A maximum of 64 characters	Tag. Fuzzy search is supported. Only prefix, suffix, or middle part can be used for fuzzy search. The content you enter for fuzzy search cannot contain spaces. The letters entered for search are case-sensitive. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, it cannot be used as a filter criterion.
association _type	No	String	A maximum of 2	Association type. • 1: Referral

Parameter	Manda tory	Type	Value Range	Description
			characters	• 3: Reseller If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, it cannot be used as a filter criterion.
associated_ on_begin	No	String	A maximum of 20 characters	Start time of the association time range (UTC time). Value format: YYYY-MM-DD'T'hh:mm:ss'Z', for example, **2019-05-06T08:05:01Z**. If this parameter is not included in the request parameters or is set to **null**, it cannot be used as a filter criterion.
associated_ on_end	No	String	A maximum of 20 characters	End time of the association time range (UTC time). Value format: YYYY-MM-DD'T'hh:mm:ss'Z', for example, **2019-05-06T08:05:01Z**. If this parameter is not included in the request parameters or is set to **null**, it cannot be used as a filter criterion.
indirect_pa rtner_id	No	String	A maximum of 64 characters	Reseller ID. For details about how to obtain the ID, see 6.1.1 Querying the List of Huawei Cloud Resellers. This parameter is mandatory for querying the list of customers of a Huawei Cloud reseller.

Example Request

```
POST https://bss.myhuaweicloud.eu/v2/partners/sub-customers/query HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
{
  "account_name": "betahc_kehu107",
  "customer": "sun***01",
  "offset": "0",
  "limit": "10",
  "label": "sunny",
  "association_type": "1",
  "associated_on_begin": "2019-05-06T08:05:01Z",
  "associated_on_end": "2019-05-06T08:05:01Z",
```

```
    "customer_id":"065024********e90f44c01cbccfa280",
    "indirect_partner_id": "si3fjg8ugf********"
}
```

Response

Response parameters

Parameter	Type	Value Range	Description
error_code	String	A maximum of 16 characters	Error code. This parameter is returned only when a failure occurs. For details, see Returned Values.
error_msg	String	A maximum of 1024 characters	Error description. This parameter is returned only when a failure occurs.
customer_infos	List<CustomerInfo>	-	Customer list. For details, see Table 5-1.
count	Integer	-	Total number of records.

Table 5-1 Customer information

Parameter	Type	Value Range	Description
customer	String	A maximum of 128 characters	Name that has passed the real-name authentication.
account_name	String	A maximum of 128 characters	Account name. If the customer has created an IAM user, the account name of the master account is returned.
customer_id	String	A maximum of 64 characters	Customer account ID.
associated_on	String	A maximum of 20 characters	Time when a customer is associated with a partner. The value is UTC time in "yyyy-MM-dd 'T' HH:mm:ss 'Z'" format, such as **2019-05-06T08:05:01Z**. *HH* ranges from 0 to 23, and *mm* and *ss* ranges from 0 to 59.
association_type	String	A maximum of 2 characters	Association type. • 1: Referral • 3: Reseller.
label	String	A maximum of 64 characters	Tag.
telephone	String	A maximum of	Customer phone number.

Parameter	Type	Value Range	Description
		20 characters	
verified_status	String	A maximum of 5 characters	Real-name authentication status. • -1: The real name is not authenticated. • 0: Real-name authentication is under review. • 1: The real-name authentication is not passed. • 2: The real name is authenticated.
country_code	String	A maximum of 10 characters	Country code, which is the country code prefix of a phone number. Example: 0086 for China
customer_type	Integer	-	Customer type. • -1: None • 0: Individual • 1: Enterprise When a customer is registered, **customerType** is **-1**. The customer can set **customerType** in the account center or select the enterprise or individual real-name authentication to determine the customer type.
is_frozen	Integer	-	Whether to freeze the account. • 0: No • 1: Only account • 2: Account and resources
account_managers	List<AccountManager>	A maximum of 10 managers	Customer manager list. Only 1 account manager can be configured at present. For details, see Table 5-2.
xaccount_id	String	A maximum of 128 characters	Unique user ID on the partner sales platform. The ID is allocated by the partner.
xaccount_type	String	A maximum of 64 characters	Platform ID assigned by Huawei to a partner. This value is assigned by Huawei. For details about how to obtain the platform ID, see How Do I Obtain the xaccountType Value?
customer_level	String	A maximum of 64 characters	Customer tier. • V0 • V1 • V2

Parameter	Type	Value Range	Description
			• V3
			• V4
			• V5

Table 5-2 AccountManager

Parameter	Type	Value Range	Description
account_name	String	A maximum of 128 characters	Name of the account manager.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
  "customer_infos": [
    {
      "customer": "sun***01",
      "account_name": "betahc_kehu107",
      "customer_id": "0b11fa********870f20c003f6a53940",
      "associated_on": "2021-01-05T06:35:51Z",
      "association_type": "1",
      "label": "sunny",
      "telephone": "134****6666",
      "verified_status": "2",
      "country_code": "0086",
      "customer_type": "0",
      "is_frozen": "0",
      "account_managers": [
        {
          "account_name": "tan_ma"
        }
      ],
      "xaccount_id": "98**9707",
      "xaccount_type": "***_IDP",
      "customer_level": "V0"
    }
  ],
  "count": "1"
}
```

Returned Values

 NOTE

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
400	CBC.0100	Parameter error.
400	CBC.99000037	You do not have the permission to operate this Huawei Cloud reseller.
401	CBC.0154	Invalid or expired token.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

5.2.2 Freezing a Customer Account

Function

A partner can freeze an account of a customer associated with the partner by reseller model.

Visit Freezing a Customer Account to learn about how to freeze a customer account.

Constraints

This API can be invoked using the partner AK/SK or token only.

URI

POST /v2/partners/sub-customers/freeze

Request

Request Parameters

Parameter	Manda tory	Type	Value Range	Description
customer_ids	Yes	List<String>	A maximum of 10 IDs	IDs of customers whose accounts are to be frozen. You can call the API in 5.2.1 Querying Customers to obtain the customer ID.
reason	Yes	String	A maximum	Account freezing reason.

Parameter	Manda tory	Type	Value Range	Description
			of 256 characters	
indirect_pa rtner_id	No	String	Maximum length: 64 characters	Reseller ID. For details about how to obtain the ID, see 6.1.1 Querying the List of Huawei Cloud Resellers. This parameter is mandatory for freezing the customers of a reseller.

Example Request

```
POST https://bss.myhuaweicloud.eu/v2/partners/sub-customers/freeze HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
{
    "customer_ids": [
        "0bb8e9********760f6fc010ebfd95e1"
    ],
    "reason": "Arrears",
    "indirect_partner_id": "0b5e9b********0c0f0fc00874a9e000"


}
```

Response

Response Parameters

Parameter	Type	Value Range	Description
error_code	String	A maximum of 20 characters	Error code. This field is not returned when the operation is successful or partially failed. For details, see Returned Values.
error_msg	String	A maximum of 2,000 characters	Error description. This field is not returned when the operation is successful or partially failed.
error_details	List<ErrorD etail>	-	Error cause description. This field is returned only when the operation is partially failed. For details, see Table 5-3.

Table 5-3 ErrorDetail

Parameter	Type	Value Range	Description
error_code	String	A maximum of	Error code.

Parameter	Type	Value Range	Description
		20 characters	For details, see Returned Values. The returned status code is 200.
error_msg	String	A maximum of 2,000 characters	Error message.
id	String	A maximum of 256 characters	ID. This parameter corresponds to **customer_ids**.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
    "error_details":[]
}
```

Returned Values

📖 NOTE

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
400	CBC.0100	Parameter error.
400	CBC.99000000	You do not have the operation permission to this customer.
400	CBC.99000035	You are not a customer of a partner yet.
400	CBC.99000037	You do not have the permission to operate this Huawei Cloud reseller.
200	CBC.99005024	This API cannot be invoked because the association type of the customer is incorrect.
403	CBC.0150	Invalid operation.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

5.2.3 Unfreezing a Customer Account

Function

A partner can unfreeze an account of a customer associated with the partner by reseller model.

Visit Unfreezing a Customer Account to lean about how to unfreeze a customer account.

Constraints

This API can be invoked using the partner AK/SK or token only.

URI

POST /v2/partners/sub-customers/unfreeze

Request

Request Parameters

Parameter	Mandatory	Type	Value Range	Description
customer_ids	Yes	List<String>	A maximum of 10 IDs	IDs of customers whose accounts are to be unfrozen. You can call the API in 5.2.1 Querying Customers to obtain the customer ID.
reason	Yes	String	A maximum of 256 characters	Account unfreezing reason.
indirect_partner_id	No	String	Maximum length: 64 characters	Reseller ID. For details about how to obtain the ID, see 6.1.1 Querying the List of Huawei Cloud Resellers. This parameter is mandatory for unfreezing the customers of a reseller.

Example Request

```
POST https://bss.myhuaweicloud.eu/v2/partners/sub-customers/unfreeze HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ

{
    "customer_ids": [
        "065024********e90f44c01cbccfa280",
        "065faa********ce0fddc007a6cb6f40"
    ],
    "reason": "The customer has topped up its account.",
        "indirect_partner_id": "0b5e9b********0c0f0fc00874a9e000"
```

```
}
```

Response

Response Parameters

Parameter	Type	Value Range	Description
error_code	String	A maximum of 20 characters	Error code. This field is not returned when the operation is successful or partially failed. For details, see Returned Values.
error_msg	String	A maximum of 2,000 characters	Error description. This field is not returned when the operation is successful or partially failed.
error_details	List<ErrorDetail>	-	Error cause description. This field is returned only when the operation is partially failed. For details, see Table 5-4.

Table 5-4 ErrorDetail

Parameter	Type	Value Range	Description
error_code	String	A maximum of 20 characters	Error code. For details, see Returned Values. The returned status code is 200.
error_msg	String	A maximum of 2,000 characters	Error message.
id	String	A maximum of 256 characters	ID. This parameter corresponds to **customer_ids**.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
   "error_details":[]
}
```

Returned Values

 NOTE

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
400	CBC.0100	Parameter error.
400	CBC.99000000	You do not have the operation permission to this customer.
400	CBC.99000035	You are not a customer of a partner yet.
400	CBC.99000037	You do not have the permission to operate this Huawei Cloud reseller.
200	CBC.99005024	API access failed. The association type of the customer is not supported.
403	CBC.0150	Invalid operation.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

6 Managing Huawei Cloud Resellers

6.1 Querying Huawei Cloud Resellers

6.1.1 Querying the List of Huawei Cloud Resellers

Function

A Huawei Cloud distributor can query its associated Huawei Cloud resellers.

Constraints

This API can only be invoked using the AK/SK or token of Huawei Cloud distributors.

URI

POST /v2/partners/indirect-partners/query

Request

Request parameters

Parameter	Mandatory	Type	Maximum Length of Characters/Value Range	Description
account_name	No	String	64 characters	Account name of a reseller. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, it cannot be used as a filter criterion.
associated_on_begin	No	String	20 characters	Start time of the association between a reseller and a distributor.

Parameter	Mandatory	Type	Maximum Length of Characters/Value Range	Description
				The time is in the UTC format (time zone is required), for example, *2016-03-28**T***00:00:00***Z*. If this parameter is not included in the request parameters or is set to **null**, it cannot be used as a filter criterion.
associated_on_end	No	String	20 characters	End time of the association between a reseller and a distributor. The time is in the UTC format (time zone is required), for example, *2016-03-28**T***00:00:00***Z*. If this parameter is not included in the request parameters or is set to **null**, it cannot be used as a filter criterion.
indirect_partner_id	No	String	64 characters	Reseller ID. For details about how to obtain such IDs, see 6.1.1 Querying the List of Huawei Cloud Resellers. This parameter is mandatory if you want to query a specific reseller.
offset	No	Integer	0 to 40,000,000	Offset, starting from **0**. The default value is **0**. **NOTE** This parameter is used for pagination. Retain its default value **0** if pagination is not required. **offset** indicates the offset relative to the first data record among all that meets the conditions configured. If you set offset to **1**, the second and subsequent data records are returned. For example, if there 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned. If there are 20 records that meet query conditions, when you set offset to **0** and limit to **10** for the first page and set offset to **10** and limit to **10** for the second page, then each page will respectively have 10 records.
limit	No	Integer	[1, 100]	Maximum number of records in each query. The default value is **10**.

Example Request

```
POST https://bss.myhuaweicloud.eu/v2/partners/indirect-partners/query HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
{
  "account_name": "account_name",
  "associated_on_begin": "2017-12-17T10:32:02Z",
  "associated_on_end": "2017-12-17T10:32:02Z",
  "offset": 0,
  "limit": 10,
  "indirect_partner_id": "c9e731c4663646988ef4cdb3122837b6"
}
```

Response

Response Parameters

Parameter	Type	Maximum Length of Characters/Value Range	Description
error_code	String	20 characters	Status code. For details, see Status Codes. This parameter is returned only when the query failed.
error_msg	String	1000 characters	Error description. This parameter is returned only when the query failed.
count	Integer	[0, Maximum integer]	Number of records that meet the search conditions. This parameter is returned only when the operation is successful.
indirect_partners	List<IndirectPartnerInfo>	-	Reseller list. For details, see Table 6-1.

Table 6-1 IndirectPartnerInfo

Parameter	Type	Maximum Length of Characters/Value Range	Description
indirect_partner_id	String	64 characters	Reseller ID.
mobile_phone	String	20 characters	Mobile number of a reseller.
email	String	200	Email address of a reseller.

Parameter	Type	Maximum Length of Characters/Value Range	Description
		characters	
account_name	String	64 characters	Account name of a reseller.
name	String	255 characters	Reseller name.
associated_on	String	20 characters	Time when a reseller is associated with a Huawei Cloud distributor. The time is in the UTC format (time zone is required), for example, *2016-03-28*T*00:00:00***Z**.
account_manager_id	String	64 characters	Account name of an account manager for login
account_manager_name	String	255 characters	Account manager name.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
  "count": 1,
  "indirect_partners": [
    {
      "indirect_partner_id": "c9e731c4663646988ef4cdb3122837b6",
      "mobile_phone": "186xxxxxxxxx",
      "email": "xxx@huawei.com",
      "account_name": "account_name",
      "name": "account_name2",
      "associated_on": "2017-12-17T10:32:02Z",
      "account_manager_id":"manager_id",
      "account_manager_name":"manager_name"
    }
  ]
}
```

Status Codes

☐ NOTE

- **4***xx*: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.

- **5***xx*: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Status Code	Error Code	Description
400	CBC.0100	Incorrect parameter.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

7 Transaction Management

7.1 Managing Customers' Budgets

7.1.1 Querying Customer Budgets

Function

This API is used to query the budget of a customer for the partner to determine whether to adjust the budget.

Click here to learn about how to query the budget of a customer.

Constraints

This API can be invoked only by the partner account AK/SK or token.

URI

GET /v2/partners/sub-customers/budget

The following table describes the parameters.

Table 7-1 Query parameters

Parameter	Mandatory	Type	Value Limit	Description

Parameter	Mandatory	Type	Value Limit	Description
customer_id	Yes	String	64	Customer account ID. You can call the API in 5.2.1 Querying Customers to obtain the customer ID.
indirect_partner_id	No	String	64	Reseller ID. For details about how to obtain the ID, see 6.1.1 Querying the List of Huawei Cloud Resellers. This parameter is mandatory for querying the list of customers of a Huawei Cloud reseller.

Request

Request Parameters

None

Request sample

```
GET
https://bss.myhuaweicloud.eu/v2/partners/sub-customers/budget?customer_id=06ffbcd4
6880d3f30f62c001a49be460&indirect_partner_id=0b5e9bb21980d20c0f0fc00874a9e000
HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
```

Response

Response Parameters

Parameter	Type	Value Limit	Description
error_code	String	20	Error code. For details, see Returned Values. This parameter is returned only when a failure occurs.
error_msg	String	2000	Error description. This parameter is returned only when a failure occurs.
budget_amount	BigDecimal	-	Initial budget.
used_amount	BigDecimal	-	Used budget. The data displayed in the system may have certain deviation and latency.
measure_id	Integer	-	Unit: 1: dollar
currency	String	4	Currency:

Parameter	Type	Value Limit	Description
			USD
budget_type	String	-	Budget type **MONTHLY**: Monthly budget **PACKAGE**: One-time budget

Response sample

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
    "budget_amount": 50.0,
    "used_amount": 1.0,
    "measure_id": 1,
    "currency": "USD",
    "budget_type":"MONTHLY"
}
```

Returned Values

☐ NOTE

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
400	CBC.0100	Parameter error.
400	CBC.99000037	You do not have the permission to operate this Huawei Cloud reseller.
400	CBC.99005024	This API cannot be invoked because the association type of the customer is incorrect.
403	CBC.0151	Access denied.
403	CBC.0150	Invalid operation.
500	CBC.0999	Other errors.

7.1.2 Setting Customers' Budgets

Function

This API is used to set or adjust a customer's budget.

Click here to learn about how to query the budget of a customer.

Constraints

This API can be invoked only by the partner account AK/SK or token.

URI

POST /v2/partners/sub-customers/budget

Request

Request Parameters

Parameter	Mandatory	Type	Value Limit	Description
customer_id	Yes	String	64	Customer account ID. You can call the API in 5.2.1 Querying Customers to obtain the customer ID.
budget_amount	Yes	BigDecimal	(0-2147483647]	Target amount, which can be accurate to two decimal places. Unit: USD
cancel_partner_frozen	No	String	-	Whether to unfreeze the account when setting the customer budget. • **0**: No • **1**: Yes The default value is **0**. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, the default value **0** is used.
indirect_partner_id	No	String	64	Reseller ID. For details about how to obtain the ID, see 6.1.1 Querying the List of Huawei Cloud Resellers. This parameter is mandatory for querying the list of customers of a Huawei Cloud reseller. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, this parameter will not be used.
budget_type	No	String	-	Budget type **MONTHLY**: Monthly budget **PACKAGE**: One-time budget The default value is **MONTHLY**. If this parameter is not included in the request parameters or is set to **null**, the default value **MONTHLY** is used. The value of this parameter cannot be an empty string.

Example Request

```
POST https://bss.myhuaweicloud.eu/v2/partners/sub-customers/budget HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
{
    "customer_id": "053a48736500d5f40ffec01689b88480",
    "budget_amount": 100,
    "cancel_partner_frozen": 0,
,
    "budget_type":"MONTHLY"
    "indirect_partner_id": "0b5e9b********0c0f0fc00874a9e000"
}
```

Response

Response Parameters

Parameter	Type	Value Limit	Description
error_code	String	20	Error code. For details, see Returned Values. This parameter is returned only when a failure occurs.
error_msg	String	2000	Error description. This parameter is returned only when a failure occurs.

Example Response

```
HTTP/1.1 204 No Content
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
```

Returned Values

📖 NOTE

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.

- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
400	CBC.0100	Parameter error.
400	CBC.50000030	Setting budgets not supported. This reseller's budget quota is insufficient.
400	CBC.5000003	Budget setting permissions have been revoked. This reseller

HTTP Value	Error Code	Description
	3	cannot set budgets.
400	CBC.99000037	You do not have the permission to operate this Huawei Cloud reseller.
400	CBC.99005024	This API cannot be invoked because the association type of the customer is incorrect.
403	CBC.0151	Access denied.
403	CBC.0150	Invalid operation.
500	CBC.0999	Other errors.

7.2 Coupons Management

7.2.1 Querying Coupons

Function

Partners can query information about their coupons.

Partners can following the instructions described in Viewing Cash Coupons to view the issued cash coupons in Partner Center, and view details about a cash coupon.

📖 **NOTE**

Huawei CloudEuropean website does not provide flexi-purchase coupons or discount coupons.

Constraints

When this API is invoked using the AK/SK or token of a partner, coupons of this partner and of this partner's resellers will be returned. If you need to query the coupons of a customer, use the token of this customer.

URI

GET /v2/promotions/benefits/coupons

The following table describes the parameters.

Table 7-2 Request parameters

Parameter	Mandatory	Type	Value Range	Description
coupon_id	No	String	A maximum of 64	Coupon ID. If this parameter is not included in the request parameters or is left empty, it

Parameter	Manda tory	Type	Value Range	Description
			characters	cannot be used as a filter criterion.
order_id	No	String	A maximum of 64 characters	Order ID. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion.
promotion_ plan_id	No	String	A maximum of 64 characters	Promotion plan ID. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion.
coupon_typ e	No	Integer	[1-4]	Coupon type. • 1: Cash coupon If this parameter is not included in the request parameters, is left empty, or is set to **null**, it cannot be used as a filter criterion. It cannot be set to **""**.
status	No	Integer	[1-5]	Customer coupon status. • 1: Inactivated • 2: To be used • 3: Used • 4: Expired If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. **NOTE** For used, expired, and reclaimed coupons, data within 12 months after expiration can be queried.
active_start _time	No	String	A maximum of 64 characters	Activation time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z** The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. It cannot be set to **""** or **null**.
active_end_ time	No	String	A maximum of 64 characters	End time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z** The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59.

Parameter	Mandatory	Type	Value Range	Description
				If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. It cannot be set to **""** or **null**.
offset	No	Integer	0 to maximum integer	Offset, which starts from 0. The default value is **0**. **NOTE** This parameter is used for pagination. Retain its default value **0** if pagination is not required. **offset** indicates the offset relative to the first data record among all that meets the conditions configured. If you set offset to **1**, the second and subsequent data records are returned. For example, if there 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned. If there are 20 records that meet query conditions, when you set offset to **0** and limit to **10** for the first page and set offset to **10** and limit to **10** for the second page, then each page will respectively have 10 records.
limit	No	Integer	[1-100]	Number of coupons queried each time. The default value is **10**.
source_id	No	String	A maximum of 255 characters	Coupon source. If the coupon is sent by a partner, the parameter value is the partner ID. To query coupons issued by a partner, enter the partner ID. If this parameter is not included, is left empty, or is set to **null**, it cannot be used as a filter criterion. If it is set to **""**, it can be used as a filter criterion.

Request Message

Request Parameters

No.

Example Request

```
GET https://bss.myhuaweicloud.eu/v2/promotions/benefits/coupons HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
```

Response Message

Response Parameters

Parameter	Type	Value Range	Description
error_code	String	A maximum of 16 characters	Error code. For details, see Returned Values.
error_msg	String	A maximum of 1024 characters	Error description.
count	Integer	-	Total number of records that meet the search criteria.
user_coupons	List<IQuery UserCoupon sResult>	-	Coupon records. For details, see Table 7-3.

Table 7-3 IQueryUserCouponsResult

Parameter	Type	Description
coupon_id	String	Coupon ID.
coupon_code	String	Coupon code.
status	Integer	Coupon status • 1: Inactivated • 2: To be used • 3: Used • 4: Expired • 5: Withdrawn
customer_id	String	Customer account ID.
coupon_type	Integer	Coupon type. • 1: Cash coupon
measure_id	Integer	Measurement unit. 1: Dollar
face_value	Double	Coupon amount.
valid_time	String	Effective time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z**
expire_time	String	Expiration time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'"

Parameter	Type	Description
		format, such as **2019-05-06T08:05:01Z**
order_id	String	Order ID. **NOTE** If a coupon is used for multiple times, order IDs involved are separated by semicolons (;). If a coupon is used in a combined payment, order IDs involved are separated by commas (,). Example: CS1904011928GIBHC1,CS1904011928GIBHC2,CS1904011928GIBHC3;CS1904011928GIBHCB. Not all returned orders used the coupon.
promotion_plan_id	String	Promotion plan ID.
plan_name	String	Promotion plan name.
plan_desc	String	Promotion plan description.
media_type	Integer	Medium type. • 1: E-coupon • 2: Paper coupon
fetch_method	Integer	Obtaining method. • 1: Claimed online • 2: Redeemed online • 3: Issued online • 4: Obtained offline • 5: Rewarded based on events
use_limits	List<ICouponUseLimitInfoV2>	Coupon usage limits. For details, see Table 7-4.
active_time	String	Activation time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z**
reserve_time	String	Usage time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z**
promotion_id	String	Promotion ID.
create_time	String	Creation time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z**
coupon_version	Integer	Coupon version. • 2: Coupons can be used repeatedly.
balance	Double	Coupon balance. Unit: USD
lock_order_id	String	ID of the order for the coupon.

Parameter	Type	Description
coupon_usage	String	Coupon usage.
is_frozen	String	Whether a coupon is frozen. • 0: No • 1: Yes
currency	String	Currency. The options are as follows: USD
extend_param1	String	Extended field.

source_id	String	Coupon source.
		• If the coupon is sent by a partner, the parameter value is the partner ID.
		• If the coupon is issued for an activity, the parameter value is the activity ID.
		  – Coupons redeemed by cloud beans: Cloud bean ID
		  – Coupons issued as rewards of accumulated consumption: Consumption accumulation reward ID
		  – Coupons issued as rewards for lucky draw: Lucky draw ID
		  – Coupons issued based on events: Event ID
		  – Customized coupons: Creator ID

Table 7-4 ICouponUseLimitInfoV2

Parameter	Type	Description
use_limiti_info_id	String	Usage limit ID.
limit_key	String	Usage limit. For details about the value, see Table 7-5.
value1	String	Value 1.
value2	String	Value 2.
value_unit	String	Value unit.
limit_type	String	Limit type.
promotion_plan_id	String	Promotion plan ID.

Table 7-5 limit_key requirements for **ICouponUseLimitInfo**

Key	Meaning	Description	Remarks
baseValue	Order amount.	**value1** specifies the lower limit of the order amount, and **value2** specifies the upper limit of the order amount.	Cash coupons, flexi-purchase coupons, and discount coupons are supported.
serviceType	Cloud service type.	Only **value1** is valid. To obtain a specific cloud service type, call the API in 4.1.1 Querying Cloud Service Types.	Cash coupons, flexi-purchase coupons, and discount coupons are supported.
regionCode	Region code.	**value1** specifies the region code, and **value2** specifies the region name.	Cash coupons, flexi-purchase coupons, and discount coupons are supported.
productId	Product ID	You can configure multiple product IDs. Separate them using commas (,).	Cash coupons, flexi-purchase coupons, and discount coupons are supported.
subscribeType	Order type.	Only **value1** is valid. The value can be: • **new**: Order placement • **renew**: Order renewal • **change**: Order change	Cash coupons, flexi-purchase coupons, and discount coupons are supported.
firstOrderInService	Restriction for the first-time purchase.	Only **value1** is valid.	Cash coupons, flexi-purchase coupons, and discount coupons are supported.
cycleNum	Number of periods.	Only **value1** is valid.	Cash coupons, flexi-purchase coupons, and discount coupons are supported.
cycleType	Trial use period type.	• 0: Yearly/monthly (unlimited) • 1. Yearly/monthly (yearly) • 2: Yearly/monthly (monthly) • 3: Yearly/monthly (daily) • 4: Yearly/monthly (hourly) • 5: Pay-per-use • 6: General purpose • 7: One-off payment	Cash coupons, flexi-purchase coupons, and discount coupons are supported. Discount coupons support only the yearly/monthly mode.

Key	Meaning	Description	Remarks
		• 8: Reserved instance • 11: Savings plan	
simultaneous UseWithEmpo werDiscount	Whether cash coupons can be used together with authorized discounts.	Whether cash coupons can be used with authorized discounts (including commercial discounts and discounts authorized by partners). • **0**: No • **1**: Yes	Cash coupons, flexi-purchase coupons, and discount coupons are supported. The value for discount coupons can only be **0**.
usageTimes	Whether coupons can be used for multiple times.	The value is specified in **value1**. The value can be: • 0: Used for unlimited times • 1: Used for only once • N: Used for *N* times. (For cash coupons of the old version, *N* is fixed at **1**.)	• When **CouponType** is set to **2** (discount coupons), this parameter can only be set to **1**, and if this parameter is not specified or is set to a non-1 value, the parameter value is **1**. • When **CouponType** is set to **1** (cash coupons) (or **4** (flexi-purchase coupons), if this parameter is not specified or is set to a value other than **0** or **1**, the parameter value is **0**.
isOnlyForStric tSelected	Whether the coupons can only be used for Featured Products on KooGallery.	The value is specified in **value1**. The value can be: • 0: No • 1: Yes If there is no such restriction, the value is **0**. This restriction applies only to flexi-purchase coupons.	Flex-purchase coupons are supported.
isRebate	Whether coupons are counted in to the	The value is specified in **value1**. The value can be: • 0: No	Flex-purchase coupons are supported.

Key	Meaning	Description	Remarks
	partner incentive rebates.	• 1: Yes This restriction applies only to flexi-purchase coupons.	
serviceTypeBlackList	Service type blacklist.	Service type blacklist. The service type code is specified in **value1**. This restriction applies only to flexi-purchase coupons.	Flex-purchase coupons are supported.
minConsumeDiscount	Minimum customer consumption discount.	The value is specified in **value1**. The value ranges from 0 to 1 (excluding 0 and 1).	Cash coupons and flexi-purchase coupons are supported.
isForAnnualContracts	Whether coupons can only be used for yearly/monthly (one-year) orders.	The value can be: • 0: No • 1: Yes	Cash coupons and discount coupons are supported.
simultaneousUseWithPromotionProduct	Whether cash coupons can be used together with promotional products.	The value is specified in **value1**. The value can be: • 0: No • 1: Yes	Cash coupons and discount coupons are supported.
simultaneousUseWithPromotionDiscount	Whether cash coupons can be used together with promotion discounts.	The value is specified in **value1**. The value can be: • 0: No • 1: Yes	Cash coupons are supported.
simultaneousUseWithDiscountCoupon	Whether cash coupons can be used together with discount coupons.	The value is specified in **value1**. The value can be: • 0: No • 1: Yes	Cash coupons are supported.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
  "count": "1",
  "user_coupons": [
    {
      "coupon_id": "CP19092406014086E3",
      "coupon_code": "CP19092406014086E3",
      "status": "2",
      "customer_id": "c9e731c4663646988ef4cdb3122837b6",
      "coupon_type": "1",
      "measure_id": "1",
      "face_value": "100",
      "valid_time": "2019-09-16T16:00:00Z",
      "expire_time": "2019-09-16T16:00:00Z",
      "order_id": "CS1904011928GIBHC",
      "promotion_plan_id": "promotionPlanId5322584",
      "plan_name": "532 USDCoupon name",
      "plan_desc": "532 USDCoupon desc",
      "media_type": "1",
      "fetch_method": "1",
      "use_limits": [
        {
          "use_limiti_info_id": "CP19092406014086E3",
          "limit_key": "simultaneousUseWithDiscountCoupon",
          "value1": "1",
          "value2": "",
          "value_unit": "",
          "limit_type": "=",
          "promotion_plan_id": "promotionPlanId5322584"
        }
      ],
      "active_time": "2019-09-16T16:00:00Z",
      "reserve_time": "2019-09-16T16:00:00Z",
      "promotion_id": "promotionPlanId5322584",
      "create_time": "2019-09-16T16:00:00Z",
      "coupon_version": "2",
      "balance": "100",
      "lock_order_id": "CS1904011928GIBHC",
      "coupon_usage": "170719190603338056FEH60VIRWEP",
      "is_frozen": "0",
      "currency": "USD",
      "extend_param1": "2019091702368200",
      "source_id": "c9e731c4663646988ef4cdb3122837b6"
    }
  ]
}
```

Returned Values

📖 **NOTE**

- **4***xx*: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
- **5***xx*: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
400	CBC.0100	Parameter error.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors

7.3 Managing Yearly/Monthly Orders

7.3.1 Querying Orders

Function

After a customer purchases yearly/monthly resources, it can query the orders in different statuses, such as in the pending approval, processing, canceled, completed, and pending payment statuses.

A partner can log in to Partner Center and follow the instructions described in here to view orders of a customer.

📖 **NOTE**

If you want to query the resource information of a specified order, invoke this API to obtain the order ID and then invoke the API described in 7.4.1 Querying Customer's Yearly/Monthly Resources. Enter the order ID in the request to query the resource information.

Constraints

This API can be invoked using the AK/SK or token of the partner or of the partner's customer. If partner's AK/SK or token is used, the orders paid by all customers of the partner can be queried.

URI

GET /v2/orders/customer-orders

Table 7-6 Query parameters

Param eter	Manda tory	Type	Value Range	Description

Parameter	Mandatory	Type	Value Range	Description
order_id	No	String	A maximum of 64 characters	Order ID. Order IDs are case insensitive. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. **NOTE** When special characters are used for query, perform the URL code conversion. For example, **%** should be converted to **%25**.
customer_id	No	String	A maximum of 64 characters	Customer account ID. To obtain the customer ID, call the API in 5.2.1 Querying Customers. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion.
create_time_begin	No	String	A maximum of 20 characters	Start time of order creation. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z** The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. The range queried cannot exceed one year.
create_time_end	No	String	A maximum of 20 characters	End time of order creation. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z** The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. The range queried cannot exceed one year.
service_type_code	No	String	A maximum of 64 characters	Cloud service type code. For example, the cloud service type code of OBS is **hws.service.type.obs**. Cloud service type code is case insensitive. You can call 4.1.1 Querying Cloud Service Types to obtain a specific service type. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion.
status	No	Integer	-	Order status. The value can be: 1: Pending approval 3: Processing

Param eter	Manda tory	Type	Value Range	Description
				• 4: Canceled • 5: Completed • 6: Pending payment • 9: To be confirmed If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion.
order_t ype	No	String	A maximum of 64 characters	Order type. The value can be: • 1: New purchase • 2: Renewal • 3: Change • 4: Unsubscription • 10: Yearly/monthly to pay-per-use • 11: Pay-per-use to yearly/monthly • 13: Trial • 14: Commercial use • 15: Price adjustment If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion.
limit	No	Integer	1 to 100	Number of orders queried each time. The default value is **10**. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, the default value **10** is used.
offset	No	Integer	0 to a maximum integer	Offset, which starts from 0. The default value is **0**. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, the default value **10** is used. **NOTE** This parameter is used for pagination. Retain its default value **0** if pagination is not required. **offset** indicates the offset relative to the first data record among all that meets the conditions configured. If you set offset to **1**, the second and subsequent data records are returned. For example, if there 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned. If there are 20 records that meet query conditions, when you set offset to **0** and limit to **10** for the first page and set offset to **10** and limit to **10** for the second page, then each page will respectively have 10 records.

Param eter	Manda tory	Type	Value Range	Description
order_ by	No	String	A maximum of 36 characters	Sorting order of the orders. This parameter is case insensitive. You can sort the orders by creation time. If you set the value to **createTime**, the system sorts orders by creation time in ascending order. If you set the value to **-createTime**, the system sorts orders by creation time in descending order. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion.
payme nt_time _begin	No	String	A maximum of 20 characters	Start time of order payment. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z** The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. The range queried cannot exceed one year.
payme nt_time _end	No	String	A maximum of 20 characters	End time of order payment. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z** The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. The range queried cannot exceed one year.
indirect _partne r_id	No	String	A maximum of 64 characters	Reseller ID. For details about how to obtain such IDs, see 6.1.1 Querying the List of Huawei Cloud Resellers.
method	No	String	64	Query method. • **oneself**: Query your own orders. • **sub_customer**: Query customer orders that are paid for by you. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, the default value **oneself** is used.

Request

Request Parameters

None

Example Request

```
GET
https://bss.myhuaweicloud.eu/v2/orders/customer-orders?order_id=CS1905251035OA1AF&
customer_id=c9e731c4663646988ef4cdb3122837b6&create_time_begin=2020-05-06T08:05:01
Z&create_time_end=2020-05-07T08:05:01Z&service_type_code=hws.service.type.obs&stat
us=5&order_type=1&limit=10&offset=0&order_by=-createTime&payment_time_begin=2020-0
5-06T08:05:01Z&payment_time_end=2020-05-07T08:05:01Z&indirect_partner_id=646988ef4
cdb3122834feswrygfd HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
```

Response

Response Parameters

Parameter	Type	Maximum Length	Description
error_code	String	20	Status code. For details, see Returned Values.
error_msg	String	2000	Error description.
total_count	Integer	An integer greater than or equal to 0	An integer greater than or equal to 0. Number of records that match the query conditions.
order_infos	List<CustomerOrderV2>	-	- Order details. For details, see Table 7-7.

Table 7-7 CustomerOrderV2

Parameter	Type	Maximum Length	Description
order_id	String	64	Order ID
customer_id	String	A maximum of 64 characters	Customer account ID.
service_type_code	String	A maximum of 64	Cloud service type code. For example, the cloud service type code of OBS is **hws.service.type.obs**.

Parameter	Type	Maximum Length	Description
		characters	
service_type _name	String	A maximum of 200 characters	Cloud service type. For example, the cloud service type of ECS is **Elastic Cloud Server**.
source_type	Integer	-	Customer order source type. The value can be: • 1. Customer • 2. Agent • 3: Contract • 4: Distributor
status	Integer	-	Order status. The value can be: • 1: Pending approval • 2: Pending refund • 3: Processing • 4: Canceled • 5: Completed • 6: Pending payment • 9: To be confirmed • 10: To be shipped • 11: To be received • 12: Pending pick-up • 13: Exchange in progress
order_type	Integer	-	Order type. The value can be: • 1: New purchase • 2: Renewal • 3: Change • 4: Unsubscription • 10: Yearly/monthly to pay-per-use • 11: Pay-per-use to yearly/monthly • 13: Trial • 14: Commercial use • 15: Price adjustment
official_amo unt	Double	-	Order amount (list price). In the unsubscription order, this amount equals the value of **amount_after_discount**.
amount_after _discount	Double	-	Order amount after a discount (excluding the vouchers or cards).
measure_id	Integer	-	Order amount unit.

Parameter	Type	Maximum Length	Description
			• 1: 1 Yuan/Dollar
create_time	String	A maximum of 20 characters	Creation time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z** The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59.
payment_time	String	A maximum of 20 characters	Payment time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z** The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59.
currency	String	A maximum of 4 characters	Currency code.
contract_id	String	A maximum of 64 characters	Contract ID.
amount_info	AmountInfoV2 Object	-	Order details For details, see Table 7-8.

Table 7-8 AmountInfoV2

Parameter	Type	Value Range	Description
discounts	List<DiscountItemV2>	-	Item For details, see Table 7-9.
flexipurchase_coupon_amount	Double	-	Flexi-purchase coupon amount (reserved).
coupon_amount	Double	-	Cash coupon amount.
stored_card_amount	Double	-	Stored-value card amount (reserved).
commission_amount	Double	-	Handling fee (only for unsubscription orders).
consumed_amount	Double	-	Consumptions (only for unsubscription orders).

Table 7-9 DiscountItemV2

Parameter	Type	Value Range	Description
discount_type	String	A maximum of 8 characters	Discount type. • **200**: Promotion product discount • **300**: Promotion discount coupon • **301**: Promotion coupon • **302**: Promotion flexi-purchase coupon • **500**: Specified discount for agent subscription • **501**: Specified exemption for agent subscription • **502**: Specified buy-it-now price for agent subscription • **600**: Discount specified in the discount and rebate contract • **601**: Discount specified in the channel frame contract • **602**: Discount specified in the designated-purpose fund contract • **603**: Discount specified in the directly signed offline contract • **604**: Discount specified in the authorized telemarketing contract • **605**: Discount specified in the commercial contract • **606**: Discount specified in the channel commercial contract • **607**: Partner authorized discount • **609**: Discount for order price adjusting • **610**: Discount amount • **700**: Promotion discount • **800**: Top-up account discount
discount_amount	Double	-	Discounted amount.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
```

```
    "total_count": 1,
    "order_infos": [
        {
            "order_id": "CS1905251035OA1AF",
            "customer_id": "17a80a9f9d3949ddb60ee73a5b3c9618",
            "service_type_code": "hws.service.type.rds",
            "source_type": 1,
            "status": 5,
            "order_type": 1,
            "amount_after_discount": 0,
            "official_amount": 100,
            "measure_id": 1,
            "create_time": "2020-05-06T09:08:03Z",
            "payment_time": "2020-05-06T09:08:03Z",
            "currency": "USD",
            "contract_id": null,
            "amount_info": {
                "discounts": [
                    {
                        "discount_type": "700",
                        "discount_amount": 15
                    },
                    {
                        "discount_type": "302",
                        "discount_amount": 85
                    }
                ],
                "flexipurchase_coupon_amount": 85,
                "coupon_amount": 0,
                "stored_card_amount": 0,
                "commission_amount": null,
                "consumed_amount": null
            }
        } ]
}
```

Returned Values

> **NOTE**
>
> - **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
> - **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
400	CBC.0100	Parameter error.
400	CBC.0101	Invalid parameter.
400	CBC.99000037	You do not have the permission to operate this reseller.

HTTP Value	Error Code	Description
400	CBC.30000010	Operation not supported because the order is invalid or does not exist.
403	CBC.0155	Request denied. The possible causes are as follows: The account authentication information is incorrect. The account or member account does not have the permission to call the API.
500	CBC.0999	Other errors.

7.3.2 Querying Order Details

Function

Customers can view order details on the partner sales platform.

For details about how to view order details in Billing Center, see Viewing Order Details.

📖 **NOTE**

If you want to query the resource information of a specified order, invoke the API described in 7.4.1 Querying Customer's Yearly/Monthly Resources and enter the order ID in the request to query the resource information.

Constraints

This API can be invoked using the AK/SK or token of the partner or AK/SK or token of the partner's customer.

URI

GET /v2/orders/customer-orders/details/{order_id}

The following table describes the parameters.

Table 7-10 Path parameters

Parameter	Mandatory	Value Range	Description
order_id	Yes	A maximum of 64 characters	Order ID. The system will return the orders if the orders are queried.

Table 7-11 Query parameters

Parameter	Mandatory	Value Range	Description
offset	No	0 to a maximum integer	Offset, which starts from 0. The default value is **0**. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, the default value **0** is used. **NOTE** This parameter is used for pagination. Retain its default value **0** if pagination is not required. **offset** indicates the offset relative to the first data record among all that meets the conditions configured. If you set offset to **1**, the second and subsequent data records are returned. For example, if there 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned. If there are 20 records that meet query conditions, when you set offset to **0** and limit to **10** for the first page and set offset to **10** and limit to **10** for the second page, then each page will respectively have 10 records.
limit	No	1 to 100	Number of records displayed per page. The default value is **10**. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, the default value **10** is used.
indirect_partner_id	No	A maximum of 64 characters	Reseller ID. For details about how to obtain such IDs, see 6.1.1 Querying the List of Huawei Cloud Resellers. This parameter is mandatory only when a distributor queries order details of customers associated with its resellers. Otherwise, the order details of the distributor's own customers will be queried.

Table 7-12 Message header parameter

Parameter	Mandatory	Type	Value Range	Description
X-Language	No	String	A maximum of 10 characters	Language. • **zh_CN**: Chinese • **en_US**: English Default value: **zh_CN**

Request

Request Parameters

None

Example Request

```
GET
https://bss.myhuaweicloud.eu/v2/orders/customer-orders/details/CS19040119281JMYC?l
imit=10&offset=0&indirect_partner_id=c9e731c4663646988ef4cdb3122837b6 HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
```

Response

Response Parameters

Parameter	Type	Value Range	Description
error_code	String	A maximum of 20 characters	Status code. For details, see Returned Values.
error_msg	String	A maximum of 2,000 characters	Error description.
order_info	CustomerOrderEntityV2 Object	-	Order details. For details, see Table 7-13.
total_count	Integer	-	Order item ID array.
order_line_items	List<OrderLineItemEntityV2>	-	ID of the primary order item mapping the order item. For details, see Table 7-14.

Table 7-13 CustomerOrderEntityV2

Parameter	Type	Maximum Length	Description
order_id	String	64	Order ID.
customer_id	String	A maximum of 64 characters	Customer account ID.

Parameter	Type	Maximum Length	Description
service_type _code	String	-	Cloud service type code. For example, the cloud service type code of OBS is **hws.service.type.obs**.
service_type _name	String	A maximum of 200 characters	Cloud service type. For example, the cloud service type of ECS is **Elastic Cloud Server**.
source_type	Integer	-	Customer order source type. The value can be: • 1. Customer • 2. Agent • 3: Contract • 4: Distributor
status	Integer	-	Order status. The value can be: • 1: Pending approval • 2: Pending refund • 3: Processing • 4: Canceled • 5: Completed • 6: Pending payment • 9: To be confirmed • 10: To be shipped • 11: To be received • 12: Pending pick-up • 13: Exchange in progress
order_type	Integer	-	Order type. The value can be: • 1: New purchase • 2: Renewal • 3: Change • 4: Unsubscription • 10: Yearly/monthly to pay-per-use • 11: Pay-per-use to yearly/monthly • 13: Trial • 14: Commercial use • 15: Price adjustment
official_amo unt	Double	-	Order amount (list price). In the unsubscription order, this amount equals the value of **amount_after_discount**.
amount_after	Double	-	Order amount after a discount (excluding the

Parameter	Type	Maximum Length	Description
_discount			vouchers or cards).
measure_id	Integer	-	Order amount unit. • 1: 1 Yuan/Dollar
create_time	String	A maximum of 20 characters	Creation time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z** The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59.
payment_time	String	A maximum of 20 characters	Payment time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z** The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59.
amount_info	AmountInfoV2 Object	-	Order deduction details. For details, see Table 7-15.
currency	String	A maximum of 4 characters	Currency code.
contract_id	String	A maximum of 64 characters	Contract ID.
user_name	String	A maximum of 64 characters	Order creator name • If the order is placed by the customer, the login name of the operator who places the order is returned. • If the order is placed by the operation personnel at the background, **Operation personnel** is returned. • If the order is automatically placed by the operation system, **Operation system** is returned.

Table 7-14 OrderLineItemEntityV2

Parameter	Type	Value Range	Description
order_line_item_id	String	A maximum of 64	Order ID.

Parameter	Type	Value Range	Description
		characters	
service_type _code	String	A maximum of 64 characters	Cloud service type code. For example, the cloud service type code of OBS is **hws.service.type.obs**.
service_type _name	String	A maximum of 200 characters	Cloud service type. For example, the cloud service type of ECS is **Elastic Cloud Server**.
product_id	String	A maximum of 64 characters	Product ID.
product_spec _desc	String	A maximum of 512 characters	Product specification description.
period_type	Integer	-	Period type. The options are as follows: • **0**: Day • **1**: Week • **2**: Month • **3**: Year • **4**: Hour • **5**: One-off • **6**: Pay-per-use (reserved) • **7**: By usage report (reserved)
period_num	Integer	-	Number of periods. **NOTE** The value of this parameter is **null** for an unsubscription order.
effective_tim e	String	A maximum of 20 characters	Effective time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z** The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59.
expire_time	String	A maximum of 20 characters	Expiration time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z** The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59.
subscription_	Integer	-	Number of subscriptions.

Parameter	Type	Value Range	Description
num			
amount_after _discount	Double	-	Order amount after a discount (excluding the vouchers or cards).
official_amo unt	Double	-	Order amount (list price). In the unsubscription order, the amount is equal to the value of **currencyAfterDiscount**.
amount_info	AmountInfo V2 Object	-	Order deduction details. For details, see Table 7-15.
currency	String	A maximum of 4 characters	Currency code.
category_cod e	String	A maximum of 64 characters	Product catalog code.
product_own er_service	String	A maximum of 64 characters	Type code of a cloud service. Cloud service type code. For example, the cloud service type code of OBS is **hws.service.type.obs**. To obtain a specific service type, call the API in 4.1.1 Querying Cloud Service Types.
commercial_ resource	string	A maximum of 64 characters	Type code of a commercial resource. Resource type code. For example, the VM resource type code of ECS is **hws.resource.type.vm**. To obtain a specific resource type, call the API in 4.1.2 Querying Resource Types.

Table 7-15 AmountInfoV2

Parameter	Type	Value Range	Description
discounts	List<Discou ntItemV2>	-	Fee item. For details, see Table 7-16.
flexipurchase _coupon_am ount	Double	-	Flexi-purchase coupon amount (reserved).
coupon_amo unt	Double	-	Cash coupon amount.

Parameter	Type	Value Range	Description
stored_card_ amount	Double	-	Stored-value card amount (reserved).
commission_ amount	Double	-	Handling fee (only for unsubscription orders).
consumed_a mount	Double	-	Consumption amount (only for unsubscription orders).

Table 7-16 DiscountItemV2

Parameter	Type	Value Range	Description
discount_typ e	String	A maximum of 8 characters	Discount type. • **200**: Promotion product discount • **300**: Promotion discount coupon • **301**: Promotion coupon • **302**: Promotion flexi-purchase coupon • **500**: Specified discount for agent subscription • **501**: Specified exemption for agent subscription • **502**: Specified buy-it-now price for agent subscription • **600**: Discount specified in the discount and rebate contract • **601**: Discount specified in the channel frame contract • **602**: Discount specified in the designated-purpose fund contract • **603**: Discount specified in the directly signed offline contract • **604**: Discount specified in the authorized telemarketing contract • **605**: Discount specified in the commercial contract • **606**: Discount specified in the channel commercial contract • **607**: Partner authorized discount • **609**: Discount for order price adjusting • **610**: Discount amount • **700**: Promotion discount • **800**: Top-up account discount

Parameter	Type	Value Range	Description
discount_amount	Double	-	Discounted amount.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
    "total_count": 2,
    "order_info": {
        "order_id": "CS18122203217MRPB",
        "customer_id": "982f05775ec94da390c3f174b058fb46",
        "service_type_code": "hws.service.type.obs",
        "source_type": 1,
        "status": 5,
        "order_type": 4,
        "amount_after_discount": -277.92,
        "official_amount": -277.92,
        "measure_id": 1,
        "create_time": "2018-12-21T19:21:03Z",
        "payment_time": null,
        "currency": "USD",
        "contract_id": null,
        "amount_info": {
            "discounts": [],
            "flexipurchase_coupon_amount": null,
            "coupon_amount": null,
            "stored_card_amount": null,
            "commission_amount": 30.88,
            "consumed_amount": 0.0
        },
        "user_name": "h******55"
    },
    "order_line_items": [
        {
            "order_line_item_id": "CS18122203217MRPB-000001",
            "service_type_code": "hws.service.type.ebs",
            "product_id": "00301-01026-0--1",
            "product_spec_desc": "High I/OHigh I/O|40.0GB",
            "period_type": 3,
            "period_num": null,
            "effective_time": "2018-12-21T19:21:03Z",
            "expire_time": "2019-12-22T15:59:59Z",
            "subscription_num": 1,
            "amount_after_discount": -33.12,
            "official_amount": -33.12,
            "amount_info": {
```

```
            "discounts": [],
            "flexipurchase_coupon_amount": null,
            "coupon_amount": null,
            "stored_card_amount": null,
            "commission_amount": 3.68,
            "consumed_amount": 0.0
        },
        "currency": "USD",
        "category_code": "hws.resource.storage1.evs",
        "product_owner_service": null,
        "commercial_resource": null
    },
    {
        "order_line_item_id": "CS18122203217MRPB-000002",
        "service_type_code": "hws.service.type.ec2",
        "product_id": "00301-02019-0--1",
        "product_spec_desc": "General ComputingGeneral
Computing|s2.medium.4|1vCPUs|4GB|linux",
        "period_type": 3,
        "period_num": null,
        "effective_time": "2018-12-21T19:21:03Z",
        "expire_time": "2019-12-22T15:59:59Z",
        "subscription_num": 1,
        "amount_after_discount": -244.8,
        "official_amount": -244.8,
        "amount_info": {
            "discounts": [],
            "flexipurchase_coupon_amount": null,
            "coupon_amount": null,
            "stored_card_amount": null,
            "commission_amount": 27.2,
            "consumed_amount": 0.0
        },
        "currency": "USD",
        "category_code": "hws.resource.computing.ecs",
        "product_owner_service": null,
        "commercial_resource": null
    }
  ]
}
```

Returned Values

> **NOTE**
>
> - **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
> - **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
400	CBC.0100	Parameter error.

HTTP Value	Error Code	Description
400	CBC.0101	Invalid parameter.
400	CBC.99000037	You do not have the permission to operate this reseller.
400	CBC.30000010	Operation not supported because the order is invalid or does not exist.
403	CBC.0155	Request denied. The possible causes are as follows: The account authentication information is incorrect. The account or member account does not have the permission to call the API.
500	CBC.0999	Other errors.

7.3.3 Paying Yearly/Monthly Product Orders

Function

A customer can invoke this API to pay yearly-monthly product orders in the pending payment status.

Customers can follow the instructions described in Payment to pay yearly/monthly product orders in the pending payment status in Billing Center.

📖 NOTE

- This API supports both monthly settlement and balance payment. Monthly settlement is preferred.
- Balance payment includes cash account payment and credit account payment. If both accounts have balance, the cash account payment is preferred.
- Restrictions for using a discount and coupon at the same time:
- If the restriction attribute of a coupon contains field **simultaneousUseWithEmpowerDiscount** with a value of **0**, the coupons, commercial discounts, and partner-authorized discounts cannot be used together.
- If the restriction attribute of a coupon contains field **minConsumeDiscount** and the values of **discount_ratio** for all the order items are less than the value of **minConsumeDiscount**, the discount and coupon cannot be used at the same time.
- If the restriction attribute of a coupon contains field simultaneousUseWithPromotionDiscount with a value of **0**, the discount and coupon cannot be used at the same time.
- When this API is invoked by a unified accounting member, if their enterprise master account has coupons available for the orders, the coupons are automatically applied without the need to include coupon IDs in a request.

Constraints

This API can be invoked only by the customer AK/SK or token.

URI

POST /v3/orders/customer-orders/pay

Request

Request Parameters

Parameter	Mandatory	Type	Maximum Length of Characters	Description
order_id	Yes	String	A maximum of 64 characters	Order ID. The value is the same as the **order_id** value in the response message of invoking the API described in 7.3.1 Querying Orders or the **order_ids** value in the response message of API described in 7.4.2 Renewing Subscription to Yearly/Monthly Resources.
use_coupon	Yes	String	[YES|NO]	Whether coupons are used for order payment. If this parameter is set to **YES**, the **coupon_infos** field is mandatory. If this parameter is set to **NO**, the value of **coupon_infos** is ignored. • **YES**: indicates that the coupons are used for payment. • **NO**: indicates that the coupons are not used for payment.
use_discount	Yes	String	[YES|NO]	Whether a discount is used for the order payment. If this parameter is set to **YES**, the **discount_infos** field is mandatory. If this parameter is set to **NO**, the value of **discount_infos** is ignored. • **YES**: indicates that the discount is used for payment. • **NO**: indicates that the discount is not used for payment.
coupon_infos	No	List<CouponSimpleInfo>	A maximum of 3 IDs are supported.	For details, see Table 7-17. This parameter is reserved. If **use_coupon** is set to **YES**, this parameter is mandatory. If **use_coupon** is set to **NO**, this parameter can be left empty. Otherwise, a message indicating parameter error is displayed. **CAUTION** When this API is invoked by a unified accounting member, if their enterprise master account has coupons available for the orders, the coupons are automatically applied without the need to include coupon IDs in a request.

Parameter	Mandatory	Type	Maximum Length of Characters	Description
discount_infos	No	List<DiscountSimpleInfo>	Only one discount ID is allowed.	For details, see Table 7-18. Discount ID list. If **use_discount** is set to **YES,** this parameter is mandatory. If **use_discount** is set to **NO**, this parameter can be left empty. Otherwise, a message indicating parameter error is displayed.

Table 7-17 CouponSimpleInfo

Parameter	Mandatory	Type	Maximum Length of Characters	Description
id	Yes	String	A maximum of 64 characters	Coupon ID.
type	Yes	Integer	[300-303]	Coupon type. • **300**: Discount coupon (reserved) • **301**: Promotion coupon • **302**: Promotion flexi-purchase coupon (reserved) • **303**: Promotion stored-value card (reserved)

Table 7-18 DiscountSimpleInfo

Parameter	Mandatory	Type	Maximum Length of Characters	Description
id	Yes	String	A maximu	Discount ID.

Paramete r	Manda tory	Type	Maxim um Length of Charac ters	Description
			m of 64 characte rs	
type	Yes	Integer	[0,2,3]	Discount type. • 0: promotion discount • 2: commercial discount • 3: discount granted by a partner

Example Request

```
POST https://bss.myhuaweicloud.eu/v3/orders/customer-orders/pay HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
{
    "use_coupon":"YES",
    "use_discount":"YES",
    "coupon_infos": [
        {
            "id": "CP200527025610NGSC",
            "type": 301
        }
    ],
    "discount_infos": [
        {
            "id": "PDP2011260815047721TYT48G0BA02EI",
            "type": 1
        }
    ],
    "order_id": "CS20052715001E4CR"
}
```

Response

Response Parameters

Status code: 204

Success is returned by default.

Status code: 400

Parameter	Type	Maximum Length of Characters	Description
error_code	String	A maximum 10 characters	Error code. For details, see Returned Values.
error_msg	String	A maximum of 256 characters	Error description.
quota_infos	List<QuotaInfo>	-	List of the resources whose quota or capacity is insufficient. For details, see Table 7-19. This parameter is valid only when **error_code** is set to **CBC.99003141**. • If the quota is insufficient, notify the customer to submit a service ticket on the HUAWEI CLOUD official website to increase the quota and then pay the order. • If the capacity is insufficient, notify the customer to place an order again. • If the specifications have changed, notify the customer to place an order again.
enterprise_project_auth_result	List<EnterpriseProject>	-	Information about the enterprise project whose fund is insufficient. For details, see Table 7-20. This parameter is valid only when **error_code** is set to **CBC.99003155**.

Table 7-19 QuotaInfo

Parameter	Type	Description
region	String	Cloud service region code, for example, eu_west_101.
service_type _code	String	Cloud service type code. For example, the cloud service type code of OBS is **hws.service.type.obs**.
resource_typ e_code	String	Resource type code. For example, the resource type code of VM is **hws.resource.type.vm**. The relationship between ResourceType and CloudServiceType is as follows: A resource type represents a resource contained in the cloud service type, and the cloud service type is a combination of multiple resource

Parameter	Type	Description
		types.
resource_spe c_code	String	Resource specifications of the subscribed cloud service products. For example, the resource specification of a small-scale VM is **s2.small.1.linux**.
service_type _name	String	Cloud service type. For example, the cloud service type of ECS is **Elastic Cloud Server**.
resource_typ e_name	String	Resource type. For example, the resource type of ECS is **Cloud Host**.
auth_result	Integer	Verification result of the change of the cloud service quota, capacity, or specifications. • 1: The quota is insufficient. • 2: The capacity is insufficient. • 3: The resource specifications are incorrect. This value is valid only when the resource specifications change between the time when a customer places an order and the time when the customer pays the order. • 4: The associated resource information is incorrect. This value is valid only when the resource specifications change between the time when a customer places an order and the time when the customer pays the order. • 99: Other errors. This value is valid only when the resource specifications change between the time when a customer places an order and the time when the customer pays the order.
available_zo ne	String	AZ ID.

Table 7-20 EnterpriseProject

Parameter	Type	Description
enterprise_p roject_id	String	ID of the enterprise project where an order belongs. • 0: ID of a default project • -1 or null: Non-project ID
enterprise_p roject_name	String	Enterprise project name.
auth_status	Integer	Verification result of the enterprise project's fund quota. 10: The fund quota is insufficient./The project is invalid. 11: The organization budget quota is insufficient.

Example Response

```
HTTP/1.1 204 No Content
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
```

Returned Values

📖 NOTE

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Status Code	Error Code	Description
400	CBC.99000046	Insufficient budget.
500	CBC.30000010	Operation not allowed because the order is invalid or does not exist.
400	CBC.99003106	The order status has changed and no payment can be made.
400	CBC.99003108	This discount cannot be used for this order.
400	CBC.99003110	The order has not been paid before the expiration time. Please re-submit the order.
400	CBC.99003112	The coupon or stored-value card has been used.
400	CBC.99003116	The restriction to selected coupon regulates that the coupon cannot be used with the discount at the same time.
400	CBC.99003117	The selected discount is less than the minimum discount rate configured for the selected coupon. Note: For example, if the minimum discount rate configured for a coupon is 90% and the selected discount is less than 90% in all order lines, the discount cannot be used.
400	CBC.99003141	The cloud service quota or capacity is insufficient, or the resource specifications have changed.
400	CBC.99003147	Discounts and cash coupons cannot be both used.
400	CBC.99003155	The enterprise project's fund quota is insufficient, or the project is invalid.
400	CBC.99003156	Coupons applicable to KooGallery products cannot be used together with dedicated coupons.

HTTP Status Code	Error Code	Description
400	CBC.99003162	The payment time must be earlier than the specified effective time.
400	CBC.99003198	Insufficient budget of the organization.
400	CBC.99005003	Insufficient balance.
400	CBC.99006093	Failed to obtain the tax rate.
400	CBC.7281	Renewal, unsubscription, or payment not supported. Your account has been frozen.
400	CBC.99008040	Too many attempts.
500	CBC.0999	Other errors.
400	CBC.99000088	Your payment is being processed.
400	CBC.99000089	Operation failed. Sub-orders of a combine order cannot be processed independently.

7.3.4 Canceling Orders in the Pending Payment Status

Function

A customer can invoke this API to cancel orders in the pending payment status.

Customers can follow the instructions described in Cancellation to cancel yearly/monthly product orders in the pending payment status in Billing Center.

📖 **NOTE**

Only the orders in the pending payment status can be canceled.

Constraints

This API can be invoked only by the customer AK/SK or token.

URI

PUT   /v2/orders/customer-orders/cancel

Request

Request Parameters

Parameter	Mandatory	Type	Value Range	Description
order_id	Yes	String	A maximu	Order ID. The value is the same as the value of

Param eter	Manda tory	Type	Value Range	Description
			m of 64 character s	**order_id** in the response of the API described in 7.3.1 Querying Orders.

Example Request

```
PUT https://bss.myhuaweicloud.eu/v2/orders/customer-orders/cancel HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
{
  "order_id": "CS170926155954NO7"
}
```

Response

Response Parameters

Table 7-21 Response parameters

Para meter	Type	Value Range	Description
error_ code	String	A maximum of 10 characters	Status code. For details, see Returned Values.
error_ msg	String	A maximum of 256 characters	Error description.

Example Response

```
HTTP/1.1 204 No Content
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
```

Returned Values

📖 NOTE

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
400	CBC.0100	Parameter error.
400	CBC.99005010	Orders in this state cannot be canceled.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.
400	CBC.99000089	Operation failed. Sub-orders of a combine order cannot be processed independently.

7.3.5 Querying the Amount of Unsubscription Orders

Function

A customer can query the resources and original orders of the unsubscription amount for an unsubscription order or degrade order on the partner sales platform.

☐ NOTE

- After you invoke the API in 7.4.3 Unsubscribing from Yearly/Monthly Resources to generate an unsubscription order ID, you can invoke this API to query the resources and amount of an unsubscription order. For example, after you invoke the API in 7.4.3 Unsubscribing from Yearly/Monthly Resources, you can invoke this API to query the original order ID and original subscription renewal order ID.
- You can query original order IDs for only unsubscription orders generated after May 2018.

Constraints

This API can be invoked using the customer token replaced by the partner token.

URI

GET   /v2/orders/customer-orders/refund-orders

Table 7-22 Query parameters

Parameter	Mandatory	Type	Value Range	Description
order_id	Yes	String	A maximum of 64 characters	ID of an unsubscription or degrade order.

Request

Request Parameters

None

Example Request

```
GET
https://bss.myhuaweicloud.eu/v2/orders/customer-orders/refund-orders?order_id=CS19
04190917GIBHC HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
```

Response

Response Parameters

Parameter	Type	Description
error_code	String	Status code. For details, see **Status Code**.
error_msg	String	Error description.
total_count	Integer	Total queries.
refund_infos	List<OrderRefundInfoV2>	Resource list. For details, see Table 7-23.

Table 7-23 OrderRefundInfoV2

Parameter	Type	Description
id	String	Record ID.
amount	BigDecimal	Amount. • A negative number indicates the unsubscription amount. • A positive number indicates the handling fee for unsubscription.
measure_id	String	Fee unit. • 1: 1 Yuan/Dollar
customer_id	String	Customer account ID.
resource_type_code	String	Resource type code. For example, the VM resource type code of ECS is **hws.resource.type.vm**.
service_type_code	String	Cloud service type code. For example, the cloud service type code of OBS is **hws.service.type.obs**.
resource_type_name	String	Resource type. For example, the resource type of ECS is **Cloud Host**.
service_type_name	String	Cloud service type. For example, the cloud service type of ECS is **Elastic Cloud Server**.

Parameter	Type	Description
region_code	String	Cloud service region code, for example, eu_west_101.
base_order_id	String	ID of the original order corresponding to the unsubscription amount, consumption amount, or unsubscription handling fee.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
    "total_count": 1,
    "refund_infos": [
        {
            "id": "ccefa7ff-****-****-99f5-bb25a2551217",
            "amount": -3,
            "measure_id": "1",
            "customer_id": "075a5d********ffb75c20a82d228130",
            "resource_type_code": "hws.resource.type.volume",
            "service_type_code": "hws.service.type.ebs",
            "resource_type_name": "EVS",
            "service_type_name": "EVS",
            "region_code": "eu-west-101",
            "base_order_id": "CS2006******1F8CI"
        }
    ]
}
```

Status Code

> **NOTE**
>
> - **4xx**: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
> - **5xx**: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
400	CBC.99005026	The order is not a degrade or unsubscription order.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

7.4 Managing Yearly/Monthly Resources

7.4.1 Querying Customer's Yearly/Monthly Resources

Function

A customer can query one or all yearly/monthly resources on the partner sales platform.

📖 **NOTE**

If you need to renew resources that already take effect after you successfully invoke this API, you can invoke the API described in 4.2.2 Querying the Price of a Yearly/Monthly Product to query the price for the yearly/monthly resources and then invoke the API described in 7.4.2 Renewing Subscription to Yearly/Monthly Resources to renew the subscription.

Constraints

- This API can be invoked using the customer AK/SK or token only.
- This API queries resources successfully provisioned only.
- If the parameter is left empty, for example, no parameter is transferred, the value is **null**, the value is an empty JSON array, or the value is an empty string, a specified number of resources (specified by **limit**, which is **10** by default) are returned for the user.

URI

POST /v2/orders/suscriptions/resources/query

Request

Request Parameters

Table 7-24 Request parameters

Para meter	Manda tory	Type	Value Range	Description
resour ce_ids	No	list<Stri ng>	[0-50]	Resource IDs. Queries resources with the specified resource IDs. When **only_main_resource** is **0**, the system queries the specified resources and their auxiliary resources. A maximum of 50 IDs can be used at the same time. If this parameter is not included in the request parameters, is left empty, or is set to **null**, it cannot be used as a filter criterion. Records that meet other search criteria are returned. **NOTE** A resource ID is allocated by a cloud service after the resource is provisioned, such as **server_id** for ECS.
order_ id	No	String	A maximu m of 64	Order ID. This parameter can be used for querying the resources in a specified order. If this parameter is not included in the request

Para meter	Manda tory	Type	Value Range	Description
			characte rs	parameters, is set to **""**, or is set to **null**, it cannot be used as a filter criterion. Records that meet other search criteria are returned. **NOTE** When special characters are used for query, perform the URL code conversion. For example, **%** should be converted to **%25**.
only_ main_ resour ce	No	Integer	0, 1	Whether to query only the primary resources. This parameter is invalid when **resource_ids** are IDs of attached resources. In this case, the system queries the attached resources. • **0**: Queries both the primary resources and attached resources. • **1**: Queries only the primary resources. The default value is **0**. If this parameter is not included in the request parameters or is set to **null**, the default value **0** is used. **NOTE** A primary resource takes the primary position in the associated resources. • For ECS, ECS is the primary resource, and EVS is the attached resource. • For VPC, if the shared bandwidth is used, the bandwidth is the primary resource, and EIPs are the attached resource. If the exclusive bandwidth is used, EIPs are the primary resources, and the bandwidth is the attached resource.
status _list	No	list<Inte ger>	[0-10]	Resource status. Queries resources in a specified status. If there are multiple statuses, separate them using commas (,). • **2**: Provisioned • **4**: Frozen • **5**: Expired If this parameter is not included in the request parameters, is left empty, or is set to **null**, it cannot be used as a filter criterion. Resources in all statuses are returned.
offset	No	Integer	0 to 214748 3646	Offset, starting from **0**. The default value is **0**. **NOTE** This parameter is used for pagination. Retain its default value **0** if pagination is not required. **offset** indicates the offset relative to the first data record among all that meets the conditions configured. If you set offset to **1**, the second and subsequent data records are returned.

Para meter	Manda tory	Type	Value Range	Description
				For example, if there 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned. If there are 20 records that meet query conditions, when you set offset to **0** and limit to **10** for the first page and set offset to **10** and limit to **10** for the second page, then each page will respectively have 10 records.
limit	No	Integer	1 to 500	Number of records queried each time. The default value is **10**.
expire _time _begi n	No	String	20	Start time of a period during which there are expired resources. The time is in the UTC format *yyyy-MM-dd'T'HH:mm:ss'Z'*, for example, **2019-05-06T08:05:01Z**. The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, it cannot be used as a filter criterion. Records that meet other search criteria are returned.
expire _time _end	No	String	20	End time of a period during which there are expired resources. The time is in the UTC format *yyyy-MM-dd'T'HH:mm:ss'Z'*, for example, **2019-05-06T08:05:01Z**. The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, it cannot be used as a filter criterion. Records that meet other search criteria are returned.
servic e_type _code	No	String	64	Cloud service type code. For example, the cloud service type code of OBS is **hws.service.type.obs**. You can call the 4.1.1 Querying Cloud Service Types API to query the type of a cloud service. If this parameter is not included in the request parameters or is set to **null**, it cannot be used as a filter criterion. This parameter cannot be left empty or set to an empty string. There will be parameter verification.

Example Request

```
POST https://bss.myhuaweicloud.eu/v2/orders/suscriptions/resources/query HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
{
    "resource_ids":[
        "0A063A********BC8548E65D0089A905"
    ],
    "order_id":"CS1905251035OA***",
```

```
   "only_main_resource":1,
   "status_list":[
      2
   ],
   "offset":0,
   "limit":10,
   "expire_time_begin":"2021-09-01T08:05:01Z",
   "expire_time_end":"2021-09-03T08:05:01Z",
   "service_type_code": "hws.service.type.obs"
}
```

Response

Response Parameters

Param eter	Type	Description
error_c ode	String	Error code. For details, see Returned Values.
error_ msg	String	Error description.
data	List<OrderInstance V2>	Resource list. For details, see Table 7-25.
total_c ount	Integer	Total number of records

Table 7-25 OrderInstanceV2

Para meter	Type	Description
id	String	Internal ID of the resource to be provisioned. The ID generated after the resource is provisioned is **resource_id**.
resour ce_id	String	Resource ID.
resour ce_na me	String	Resource instance name.
region _code	String	Cloud service region code, for example, eu_west_101.
servic e_type _code	String	Cloud service type code. For example, the cloud service type code of OBS is **hws.service.type.obs**.
resour ce_typ e_cod	String	Resource type code. For example, the VM resource type code of ECS is **hws.resource.type.vm**.

Para meter	Type	Description
e		
resour ce_spe c_cod e	String	Specification of a cloud service resource. For example, a VM resource specification is **s2.small.1.linux** (.win or .linux should be added at the end of the specification).
servic e_type _name	String	Cloud service type. For example, the cloud service type of ECS is **Elastic Cloud Server**.
resour ce_typ e_nam e	String	Resource type. For example, the resource type of ECS is **Cloud Host**.
projec t_id	String	Resource project ID.
produ ct_id	String	Product ID.
parent _resou rce_id	String	Parent resource ID
is_mai n_reso urce	Integer	Primary resource or not. • **0**: Attached resource • **1**: Primary resource
status	Integer	Resource status. • **2**: Provisioned • **3**: Closed (not visible to customers) • **4**: Frozen • **5**: Expired
effecti ve_ti me	String	Effective time of a resource. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z**
expire _time	String	Expiration time of a resource. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z**
expire _polic y	Integer	Billing policy after a resource expires. • **0**: Entering the grace period upon expiration • **1**: Yearly/monthly to pay-per-use • **2**: Automatically deleted upon expiration (directly deleted from resources that take effect) • **3**: Automatically renewed upon expiration • **4**: Automatically frozen upon expiration

Para meter	Type	Description
		• **5**: Automatically deleted upon expiration (deleted from resources in the retention period) **NOTE** Only **3** indicates that the resource is automatically renewed. In other cases, the expiration policy for non-automatic renewal is used.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
  "data": [
  {
    "id": "01154-54600027-0",
    "resource_id": "0A063A11905F42BC8548E65D0089A905",
    "resource_name": "0A063A11905F42BC8548E65D0089A905name",
    "region_code": "eu-west-101",
    "service_type_code": "hws.service.type.ebs",
    "resource_type_code": "hws.resource.type.volume",
    "resource_spec_code": "SSD",
    "project_id": "1dd89a5fe99e4cca80edca61e737477a",
    "product_id": "2fd338aca5ae4a01aac81deaa900e441",
    "parent_resource_id": "9ad02e1ad3394d1bb3da48890fbc4c06",
    "is_main_resource": 1,
    "status": 2,
    "effective_time": "2020-05-03T09:11:10Z",
    "expire_time": "2020-06-03T09:11:10Z",
    "expire_policy": 0
   }
  ],
 "total_count": 1
}
```

Returned Values

📖 **NOTE**

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.

- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
400	CBC.0100	Parameter error.

HTTP Value	Error Code	Description
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

7.4.2 Renewing Subscription to Yearly/Monthly Resources

Function

A customer can renew subscription to yearly/monthly resources on the partner sales platform.

When subscription to yearly/monthly resources of a customer is about to expire, the customer can renew the subscription to the resources.

Customers can follow the instructions described in **Manually Renewing a Resource** to renew the subscription to the yearly/monthly resources in Billing Center.

> 📖 NOTE
>
> - If a primary resource has resources attached, the system renews the subscription to both the primary resource and its attached ones after this API is invoked. You can invoke 7.4.1 Querying Customer's Yearly/Monthly Resources to obtain the details of the attached resources.
> - If a newly purchased EVS disk is attached to an ECS, but this disk is not the attached to any of the ECS primary resources, you must invoke 7.4.1 Querying Customer's Yearly/Monthly Resources to obtain the details of the ECS primary resources and its attached ones.
> - This API supports automatic payment. For details about how to use discounts or coupons during payment, see 10.7 Support for Discounts or Coupons.

Constraints

This API can be invoked only by the customer AK/SK or token. This is because that partners cannot buy products by themselves.

URI

POST /v2/orders/subscriptions/resources/renew

Request

Request Parameters

Parameter	Mandatory	Type	Value Range	Description
resource_ids	Yes	List<String>	[1-10]	Resource IDs. Only the primary resource ID is supported. A maximum of 10 resource IDs can be configured. To determine the primary resources, query **is_main_resource** in the response of the API described in 7.4.1 Querying Customer's Yearly/Monthly Resources.

Parameter	Mandatory	Type	Value Range	Description
period _type	Yes	Integer	2, 3	Period type. The value can be: • 2: month • 3: year
period _num	Yes	Integer	1 to 11	Number of periods. • Month: 1 to 11 • Year: 1 to 3
expire _polic y	No	Integer	0 to 3	Expiration policy. This field has been discarded. Do not use this field. This parameter will not take effect. • 0: Entering a grace or retention period • 1: Yearly/monthly to pay-per-use • 2: Automatic unsubscription • 3: Automatic renewal
is_aut o_pay	No	Integer	0, 1	Whether enable automatic payment. • 0: No • 1: Yes If this parameter is not included in the request parameters or is set to **null**, the default value is **0** indicating not to enable the automatic payment.

Example Request

```
POST https://bss.myhuaweicloud.eu/v2/orders/subscriptions/resources/renew HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
{
    "resource ids": [
        "96308d5efd7841b9a4dac673d84d0e14"
    ],
    "period_type": 2,
    "period_num": 1,
    "expire_policy": 1,
    "is_auto_pay": 0
}
```

Response

Response Parameters

Status code: 200

Table 7-26 Response body parameters

Parameter	Type	Description
order_ids	List<String>	List of order IDs generated when resource subscription is renewed.
fail_resource_infos	List<FailResourceInfo>	List of resources that failed to be renewed. This parameter has a value only when there are resources that fail to be renewed. For details, see Table 7-27. This parameter is reserved.

Table 7-27 FailResourceInfo

Parameter	Type	Description
error_code	String	Error code. For details, see 0. This parameter is reserved.
error_msg	String	Error description. This parameter is reserved.
resource_id	String	Resource ID. This parameter is reserved.

Status code: 400

Table 7-28 Response body parameters

Parameter	Type	Description
error_code	String	Status code. For details, see Returned Values.
error_msg	String	Error description.
order_ids	List<String>	List of order IDs generated when resource subscription is renewed.
expiredResourceIds	List<String>	List of expired or non-existent resources. This parameter has a value only when the error code is **CBC.99003016**.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
```

```
{
  "order_ids": [
    "CS19040119281JMYC"
  ],
  "fail_resource_infos":[]
}
```

Returned Values

📖 NOTE

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
400	CBC.0100	Parameter error.
400	CBC.30010036	Renewal is only supported for primary resources.
400	CBC.30010069	The renewal period does not exist.
400	CBC.30050006	Automatic order payment failed.
400	CBC.99000092	Incorrect subscription period.
400	CBC.99003100	This operation is not allowed because some resources are included in your orders to be paid.
400	CBC.7281	Renewal, payment, or unsubscription not supported. Your account has been frozen.
400	CBC.99003016	The resources have expired and been deleted or do not exist.
400	CBC.99003144	You have orders in progress and cannot perform the current operation.
400	CBC.99003154	The sum of the existing and renewal durations has exceeded the maximum allowed. Select another renewal duration.
400	CBC.99003634	Resources in discount packages must be renewed as a whole and cannot be renewed together with other resources.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

7.4.3 Unsubscribing from Yearly/Monthly Resources

Function

If a customer has subscribed to a yearly/monthly resource, the customer can use this API to unsubscribe from the resource, including the renewed part and currently used part. The customer cannot use the resources after unsubscription.

Customers can follow the instructions described in Unsubscription to unsubscribe from the yearly/monthly resources in Billing Center.

📖 NOTE

- A yearly/monthly resource can be unsubscribed from only after it has been successfully paid and provisioned.
- If a primary resource has resources attached, the system cancels the subscription to both the primary resource and its attached ones after this API is invoked. You can invoke 7.4.1 Querying Customer's Yearly/Monthly Resources to obtain the details of the attached resources.
- If a newly purchased EVS disk is attached to an ECS, but this disk is not the attached to any of the ECS primary resources, you must invoke 7.4.1 Querying Customer's Yearly/Monthly Resources to obtain the details of the ECS primary resources and its attached ones.
- After invoking this API, you can also invoke the API described in 7.3.5 Querying the Amount of Unsubscription Orders to query the orders corresponding to the unsubscription order amounts.
- Confirm the resource information and the refund before unsubscribing from in-use resources. After being unsubscribed from, the resources not in the recycle bin cannot be restored. If you wan to continue using these resources, unsubscribe from the subscription term renewed but not used yet.

Constraints

This API can be invoked only by the customer AK/SK or token. This is because that partners cannot buy products by themselves.

URI

POST /v2/orders/subscriptions/resources/unsubscribe

Request

Request Parameters

Parameter	Mandatory	Type	Value Range	Description
resource_ids	Yes	List<String>	A maximum 10 IDs	Resource IDs. Up to 10 resource IDs can be entered at a time. Only IDs of primary resources and child resources that are attached to primary resources are supported. The parent resource ID is required in whole-set sales scenarios. Determine whether a resource is a primary resource based on **is_main_resource** in the response of the API described in 7.4.1 Querying Customer's Yearly/Monthly Resources.
unsubs	Yes	Integer	1, 2	Unsubscription type. The value can be:

Param eter	Manda tory	Type	Value Range	Description
cribe_t ype				• 1: Unsubscribe from the resource and its renewal periods. • 2: Unsubscribe from only the resource renewal periods.
unsubs cribe_r eason_t ype	No	Integer	1 to 5	Unsubscription cause. The value can be: • 1: The product is of poor usability. • 2: The product functions cannot meet the requirements. • 3: Customers do not know how to use the product, or the product operations are complex. • 4: Customers are not satisfied with the service. • 5: Others
unsubs cribe_r eason	No	String	A maxim um of 512 charact ers	Unsubscription reason, which is generally specified by the customer.

Example Request

```
POST https://bss.myhuaweicloud.eu/v2/orders/subscriptions/resources/unsubscribe HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
{
  "resource_ids": [
    "21e09f37c5c9420c8746ad5c71fb3aab"
  ],
  "unsubscribe_type": 1,
  "unsubscribe_reason_type": 5,
  "unsubscribe_reason": "test"
}
```

Response

Response Parameters

Param eter	Type	Description
error_c ode	String	Status code. For details, see Returned Values.
error_	String	Error description.

Param eter	Type	Description
msg		
order_i ds	List\<String\>	Unsubscription order IDs.
fail_res ource_i nfos	List\<FailResourceI nfo\>	List of resources that failed to be unsubscribed from. This parameter has a value only when there are resources that fail to be unsubscribed from. For details, see 0. This parameter is reserved.

Table FailResourceInfo

Parameter	Type	Description
error_code	String	Status code. For details, see **Returned Values**. This parameter is reserved.
error_msg	String	Error description. This parameter is reserved.
resource_id	String	Resource ID. This parameter is reserved.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
  "order_ids": [
    "CS19040119281JMYC"
  ],
  "fail_resource_infos":[]
}
```

Returned Values

◯ NOTE

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description

HTTP Value	Error Code	Description
400	CBC.0100	Parameter error.
400	CBC.99003012	The resource ID does not exist.
400	CBC.99003100	This operation is not allowed because some resources are included in your orders to be paid.
400	CBC.99003128	The resource does not have renewed periods or the renewed periods have taken effect, and the renewal periods cannot be unsubscribed.
400	CBC.99003185	The associated resources of a cloud service cannot be operated independently.
400	CBC.99003643	For cloud services for which invoices have been issued, unsubscription is not supported.
400	CBC.99003647	Unsubscription not supported for this pay-per-use package.
400	CBC.99003649	Unsubscription not supported for cloud services in trial use.
400	CBC.99003652	Unsubscription is not supported for DevCloud packages.
400	CBC.99003654	If there is a bandwidth add-on package, you cannot unsubscribe from the renewal period.
400	CBC.99003656	Operation not allowed. Your resource has been frozen.
400	CBC.99006066	An error occurred during the query of the fee information.
403	CBC.0151	Access denied.
400	CBC.99003651	Unsubscription not supported. An operation associated with this instance is in progress.
500	CBC.0999	Other errors.

7.4.4 Enabling Automatic Subscription Renewal for Yearly/Monthly Resources

Function

A customer can use this API to enable automatic subscription renewal for its long-term yearly/monthly resources to prevent the resources from being deleted when they are expired.

Customers can follow the instructions described in Enabling Auto-Renewal to enable automatic subscription renewal for yearly/monthly resources in Billing Center.

📖 **NOTE**

- The customer can enable automatic subscription renewal only after the customer successfully pays its yearly/monthly resource order.
- For details about the yearly/monthly products supporting automatic subscription renewal, see **Auto-Renewal Rules**.
- Before invoking this API, you can invoke the API described in 7.4.1 Querying Customer's Yearly/Monthly Resources to query the resource ID, resource expiration date, and deduction policy after the resource is expired.
- After you enable automatic subscription renewal, the fee will be deducted at 03:00 7 days before the product expiration date. Ensure that you have enough budget. If the first attempt to deduct the fee fails due to the insufficient budget, the system will continue the attempts at 03:00 every day until the fee is deducted successfully, or will retain the product resources till the last allowed day.
- The renewed period is the same as the original resource subscription period.

Constraints

This API can be invoked only by the customer AK/SK or token.

URI

POST /v2/orders/subscriptions/resources/autorenew/{resource_id}

The following table describes the parameters.

Table 7-29 Path parameters

Parameter	Mandatory	Value Range	Description
resource_id	Yes	A maximum of 64 characters	Resource ID. You can obtain the resource ID by invoking the API described in 7.4.1 Querying Customer's Yearly/Monthly Resources. The attached resource IDs will be configured together when you configure primary resource IDs. • For example, ECS is the primary resource, and EVS is the attached resource. • If the shared bandwidth is used, the bandwidth is the primary resource, and EIPs are the attached resource. • If the exclusive bandwidth is used, EIPs are the primary resources, and the bandwidth is the attached resource. If automatic renewal is enabled for the secondary resource, the primary resource will also be renewed.

Request

Request Parameters

None

Example Request

```
POST
https://bss.myhuaweicloud.eu/v2/orders/subscriptions/resources/autorenew/eb1cac79-
773b-414b-8915-6c3eed8ddf24 HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
```

Response

Response Parameters

Parameter	Type	Description
error_code	String	Status code. For details, see Returned Values.
error_msg	String	Error description.

Example Response

```
HTTP/1.1 204 No Content
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
```

Returned Values

 NOTE

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
400	CBC.0100	Parameter error.
400	CBC.99003012	The resource ID does not exist.
400	CBC.99003602	Automatic renewal is not supported for expired or frozen resources.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

7.4.5 Disabling Automatic Subscription Renewal for Yearly/Monthly Resources

Function

A customer can disable automatic subscription renewal when needed. After disabling this function, the customer needs to manually renew the subscription to the resources before they expire.

Customers can follow the instructions described in Disabling Auto-Renewal to disable automatic subscription renewal for yearly/monthly resources in Billing Center.

☐ NOTE

- The prerequisite is that you have invoked the API described in 7.4.4 Enabling Automatic Subscription Renewal for Yearly/Monthly Resources to enable automatic subscription renewal, or have configured the expiration policy to automatic renewal when you invoke the API described in 7.4.2 Renewing Subscription to Yearly/Monthly Resources.
- Yearly/monthly resources supporting the disabling of automatic subscription renewal are same as those supporting the enabling of automatic subscription renewal.
- Before invoking this API, you can invoke the API described in 7.4.1 Querying Customer's Yearly/Monthly Resources to query the resource ID, resource expiration date, and deduction policy after the resource is expired.

Constraints

This API can be invoked only by the customer AK/SK or token.

URI

DELETE /v2/orders/subscriptions/resources/autorenew/{resource_id}

The following table describes the parameters.

Table 7-30 Path parameters

Parameter	Mandatory	Value Range	Description
resource_id	Yes	A maximum of 64 characters	Resource ID. You can obtain the resource ID by invoking the API described in 7.4.1 Querying Customer's Yearly/Monthly Resources. The attached resource IDs will be configured together when you configure primary resource IDs. • For example, ECS is the primary resource, and EVS is the attached resource. • If the shared bandwidth is used, the bandwidth is the primary resource, and EIPs are the attached resource. • If the exclusive bandwidth is used, EIPs are the primary resources, and the bandwidth is the attached resource.

Request

Request Parameters

None

Example Request

```
DELETE
https://bss.myhuaweicloud.eu/v2/orders/subscriptions/resources/autorenew/eb1cac79-
773b-414b-8915-6c3eed8ddf24 HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
```

Response

Response Parameters

Para meter	Type	Description
error _cod e	String	Status code. For details, see Returned Values.
error _msg	String	Error description.

Example Response

```
HTTP/1.1 204 No Content
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
```

Returned Values

◻ NOTE

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
400	CBC.0100	Parameter error.
400	CBC.9900301 2	The resource ID does not exist.
400	CBC.9900360 5	Automatic renewal has been canceled and you cannot perform the current operation.

HTTP Value	Error Code	Description
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

7.4.6 Enabling/Canceling the Change from Yearly/Monthly to Pay-per-Use upon Expiration

Function

A customer can change the billing mode of resources from yearly/monthly to pay-per-use after the resources expire. The pay-per-use mode takes effect upon a yearly/monthly expiration.

Customers can follow the instructions described in From Yearly/Monthly to Pay-per-Use to enable the change from yearly/monthly to pay-per-use upon expiration in Billing Center.

☐ NOTE

- The customer can enable the change from yearly/monthly to pay-per-use only after it has paid the yearly/monthly subscription.
- The billing mode of solution portfolio products cannot be changed from yearly/monthly to pay-per-use.
- Before invoking this API, you can invoke the API described in 7.4.1 Querying Customer's Yearly/Monthly Resources to query the resource ID, resource expiration date, and deduction policy after the resource is expired.
- With the change from yearly/monthly to pay-per-use enabled, after a yearly/monthly package expires, you will be billed for subsequently used resources on a pay-per-use basis.
- To cancel the change from yearly/monthly to pay-per-use, you must enable the change by calling the API described in 7.4.6 Enabling/Canceling the Change from Yearly/Monthly to Pay-per-Use upon Expiration or set the expiration policy to Pay-per-Use After Expiration by calling the API described in 7.4.2 Renewing Subscription to Yearly/Monthly Resources.

REST API

This API can be invoked only by the customer AK/SK or token.

URI

POST /v2/orders/subscriptions/resources/to-on-demand

The following table describes the parameters.

Request

Request Parameters

Parameter	Mandatory	Type	Value Range	Description
operation	Yes	String	A maximu	Used to enable or cancel the change from yearly/monthly to pay-per-use.

Parameter	Mand atory	Type	Value Range	Description
			m of 64 characte rs	• **SET_UP**: Enable • **CANCEL**: Cancel
resource_id s	Yes	list<string >	[1-100]	Resource ID. You can obtain the resource ID by invoking the API described in 7.4.1 Querying Customer's Yearly/Monthly Resources. A maximum of 100 IDs of only primary resources can be set. After this parameter is set, both the primary resource and its attached resources are changed to pay-per-use resources. This field is mandatory. You can refer to parameter **is_main_resource** in the response of the API described in 7.4.1 Querying Customer's Yearly/Monthly Resources to check whether the resource is primary.

Example Request

```
POST https://bss.myhuaweicloud.eu/v2/orders/subscriptions/resources/to-on-demand
HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
{
    "operation":"SET_UP",
    "resource_ids":["0c3248018ed54b1e8e3ecbab1b0989ce"]
}
```

Response

Response Parameters

Parameter	Type	Value Range	Description
error_code	String	A maximu m of 20 character s	Error code. For details, see Returned Values.
error_msg	String	A maximu m of 1000 character	Error description.

Parameter	Type	Value Range	Description
		s	
error_details	List<Error Detail>	A maximum of 100 records	This parameter is returned when HTTP 200 is displayed. If some operations fail, only failure records are returned. If all the operations succeed, the record is empty. For details, see Table 7-31.

Table 7-31 ErrorDetail

Parameter	Type	Value Range	Description
id	String	A maximum of 128 characters	ID of a batch processing message.
error_code	String	A maximum of 20 characters	Error code. For details, see Returned Values.
error_msg	String	A maximum of 1000 characters	Error description.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
    "error_details": []
}
```

Returned Values

◯ NOTE

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
400	CBC.0100	Parameter error.

HTTP Value	Error Code	Description
400	CBC.99003609	The billing mode of this product type cannot be changed to pay-per-use.
200	CBC.99003610	The billing mode of resources in the grace or retention period cannot be changed to pay-per-use.
400	CBC.99003611	The billing mode of pay-per-usage packages cannot be changed to pay-per-use.
400	CBC.99003012	The resource ID does not exist.
400	CBC.99003622	The billing mode of solutions cannot be changed to pay-per-use.
400	CBC.99003623	Cannot be changed to the pay-per-use billing mode because there are transactions being processed.
400	CBC.99003624	Cannot be changed to the pay-per-use billing mode because the resource has been frozen due to security reasons.
400	CBC.99003626	Cannot be changed to the pay-per-use billing mode because this account has been frozen.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

7.5 Managing Resource Packages

7.5.1 Querying Resource Packages

Function

This API is used to query resource packages.

Constraints

This API can be invoked only by the customer AK/SK or token.

⚠️ **CAUTION**

If a resource package has expired for more than 18 months, its information cannot be queried.

URI

POST /v3/payments/free-resources/query

Table 7-32 Header parameter

Parameter	Mandatory	Value Range	Description
X-Language	No	A maximum of 8 characters	Language. • **zh_CN**: Chinese • **en_US**: English Default value: **zh_CN**

Request

Request Parameters

Parameter	Mandatory	Type	Value Range	Description
region_code	No	String	A maximum of 64 characters	Cloud service region code. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, it cannot be used as a filter criterion.
order_id	No	String	A maximum of 64 characters	Order ID. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, it cannot be used as a filter criterion.
product_id	No	String	A maximum of 64 characters	Resource package ID. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, it cannot be used as a filter criterion.
product_name	No	String	A maximum of 256 characters	Resource package name. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, it cannot be used as a filter criterion.
enterprise_project_id	No	String	A maximum of 64 characters	Enterprise project ID. This parameter is mandatory if you want to query the resources of an enterprise project. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, the resources not included in the enterprise project are queried.
status	No	Integer	(0, 4)	Status:

Parameter	Mandatory	Type	Value Range	Description
				• **0**: Not effective • **1**: In effect • **2**: Used up • **3**: Expired • **4**: Unsubscribed If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, it cannot be used as a filter criterion.
offset	No	Integer	(0, 999999)	Offset, starting from **0**. The default value is **0**. **NOTE** This parameter is used for pagination. Retain its default value **0** if pagination is not required. **offset** indicates the offset relative to the first data record among all that meets the conditions configured. If you set offset to **1**, the second and subsequent data records are returned. For example, if there 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned. If there are 20 records that meet query conditions, when you set offset to **0** and limit to **10** for the first page and set offset to **10** and limit to **10** for the second page, then each page will respectively have 10 records.
limit	No	Integer	(1, 1000)	Number of records queried each time. The default value is **10**.
service_type_code_list	No	List<String>	[0-10]	The ID of the cloud service type. The value is case-insensitive. For example, the cloud service type code of OBS is **hws.service.type.obs**. You can call the 4.1.1 Querying Cloud Service Types API to query the type of a cloud service. If this parameter is not included in the request, is left empty, or is set to **null**, it cannot be used as a filter criterion, and records that meet other search criteria are returned.

Example Request

```
POST https://bss.myhuaweicloud.eu/v3/payments/free-resources/query HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
```

```
{
    "region_code": "cn-north-7",
    "order_id": "CS21043011259RWXXTA",
    "product_id": "90301-296014-0--0",
    "product_name": "HUAWEI CLOUD WeLink",
    "enterprise_project_id": null,
    "status": 1,
    "offset": 0,
    "limit": 10,
    "service_type_code_list": [
        "hws.service.type.obs",
        "hws.service.type.vpc"
    ]
}
```

Response

Response Parameters

Parameter	Type	Value Range	Description
error_code	String	20	Error code. For details, see Returned Values. This parameter is returned only when the query failed.
error_msg	String	1000	Error description. This parameter is returned only when the query failed.
free_resource_packages	List<FreeResourcePackage>	-	Resource package list. For details, see Table 7-33.
total_count	Integer	-	Total number of records

Table 7-33 FreeResourcePackage

Parameter	Type	Value Range	Description
order_instance_id	String	A maximum of 64 characters	Identifier of a subscribed resource package.
order_id	String	A maximum of 64 characters	Order ID. If the value of **source_type** is **1**, this parameter is left empty.
product_id	String	A	Resource package ID.

Parameter	Type	Value Range	Description
		maximum of 64 characters	
product_name	String	A maximum of 256 characters	Resource package name.
enterprise_project_id	String	A maximum of 64 characters	Enterprise project ID.
enterprise_project_scope	Integer	(0, 1)	Enterprise projects for which resource packages are used: • **0**: All enterprise projects • **1**: Specific enterprise projects
effective_time	String	A maximum of 20 characters	Time when a resource package is purchased. The value is in UTC format.
expire_time	String	A maximum of 20 characters	Expiration time of a resource package. The value is in UTC format.
status	Integer	(0, 4)	Status: • **0**: Not effective • **1**: In effect • **2**: Used up • **3**: Expired • **4**: Unsubscribed
service_type_code	String	A maximum of 64 characters	Cloud service type code. For example, the cloud service type code of OBS is **hws.service.type.obs**.
service_type_name	String	A maximum of 200 characters	Cloud service type. For example, the cloud service type of ECS is **Elastic Cloud Server**.

Parameter	Type	Value Range	Description
region_code	String	A maximum of 64 characters	Cloud service region code.
source_type	Integer	(0, 1)	Source of a resource package. The options are as follows: • **0**: Order • **1**: Gifted by DevCloud
bundle_type	String	[ATOMIC_PKG|BUNDLE_PKG]	Bundle binding type. The options are as follows: • **ATOMIC_PKG**: Atomic package • **BUNDLE_PKG**: Combined package
quota_reuse_mode	Integer	(1,2)	Use model. The options are as follows: • **1**: Resettable Indicates that the purchased pay-per-use resource package can be reset at a specified period. For example, if you purchase a 1-year 40 GB pay-per-use resource package with **quota_reuse_mode** set to **1** and **quota_reuse_cycle** to **4**, then the resource package will be reset each month (you will get 40 GB resource each month) within the year. • **2**: Not resettable Indicates that the purchased resource package will not be reset. For example, if you purchase a 1-year 40 GB pay-per-use resource package with **quota_reuse_mode** set to **2**, the resource package will not be reset, and you will get 40 GB resource within the year.
free_resources	List<FreeResource>	-	For details about resource items (ID-specific) in a resource package, see Table 7-34.

Table 7-34 FreeResource

Parameter	Type	Value Range	Description
free_resource_id	String	A maximum of 64 character	Resource ID. A resource package contains multiple resources, and each resource has a usage type.

Parameter	Type	Value Range	Description
		s	
usage_type_na me	String	A maximu m of 1024 character s	Usage type name.
amount	String	A maximu m of 32 character s	Remaining resource quota of a package whose **quota_reuse_mode** is **Resettable**, that is, the remaining resource quota in the current reset period.
original_amou nt	String	A maximu m of 32 character s	Original resource quota of a package whose **quota_reuse_mode** is **Resettable**, that is, the total resource quota in each reset period.
measure_id	Integer	-	Measurement unit of the quota of a free resource package. You call the API in 4.1.5 Querying Measurement Units to obtain the value.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
    "total_count": 1,
    "free_resource_packages": [
        {
            "order_instance_id": "01154-228300268-0",
            "order_id": "CS21043011259RWXXTA",
            "product_id": "90301-296014-0--0",
            "product_name": "HUAWEI CLOUD WeLink",
            "enterprise_project_id": null,
            "enterprise_project_scope": 0,
            "effective_time": "2021-04-30T03:30:56Z",
            "expire_time": "2021-05-31T15:59:59Z",
            "status": 1,
            "service_type_code": "hws.service.type.cpts",
            "region_code": "cn-north-7",
            "source_type": 0,
            "bundle_type": "ATOMIC_PKG",
            "quota_reuse_mode": 2,
            "free_resources": [
                {
```

```
                "free_resource_id": "d4463497-991b-439d-9ab6-23f9ed197fe9",
                "usage_type_name": "Duration",
                "amount": 100,
                "original_amount": 100,
                "measure_id": 34
            }
        ]
    }
  ]
}
```

Returned Values

📖 NOTE

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Status Code	Error Code	Description
400	CBC.0100	Incorrect parameter.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

7.5.2 Viewing Resource Package Usage

Function

Partners can query the resource package usage of customers on the partner sales platform by resource.

Constraints

This API can be invoked only by the customer AK/SK or token.

⚠️ CAUTION

If a resource package has expired for more than 18 months, its information cannot be queried.

URI

POST /v2/payments/free-resources/usages/details/query

Table 7-35 Header parameter

Parameter	Manda tory	Value Range	Description
X-Languag e	No	A maximu m of 8 character s	Language. • **zh_CN**: Chinese • **en_US**: English Default value: **zh_CN**

Request

Request Parameters

Parameter	Manda tory	Type	Value Range	Description
free_resour ce_ids	Yes	List<strin g>	A maximu m of 100 records	List of resource item IDs. Each ID contains a maximum of 64 bytes. Resource ID. A resource package contains multiple resources, and a resource has a usage type. The resource ID is obtained from the response of the API in 7.5.1 Querying Resource Packages.

Example Request

```
POST https://bss.myhuaweicloud.eu/v2/payments/free-resources/usages/details/query
HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ

{
    "free_resource_ids": [
        "d4463497-991b-439d-9ab6-23f9ed197fe9"
    ]
}
```

Response

Response Parameters

Parameter	Type	Maxim um Length of Charact ers	Description

Parameter	Type	Maximum Length of Characters	Description
error_code	String	20	Error code. For details, see **Returned Values**. This parameter is returned only when the query failed.
error_msg	String	1000	Error description. This parameter is returned only when the query failed.
free_resources	List<FreeResourceDetail>	-	Resource information (resource details) in a resource package. For details, see Table 7-36.

Table 7-36 FreeResourceDetail

Parameter	Type	Maximum Length of Characters	Description
free_resource_id	String	A maximum of 64 characters	Resource ID. A resource package contains multiple resources, and a resource has a usage type.
free_resource_type_name	String	-	Resource type name.
quota_reuse_cycle	Integer	-	Reset period. This parameter is valid only when **quota_reuse_mode** is set to **1** (Resettable). • 1: Hour • 2: Day • 3: Week • 4: Month • 5: Year
quota_reuse_cycle_type	Integer	-	Reset period type. This field is valid only when **quota_reuse_mode** is set to **1** (Resettable). • 1: Reset by calendar period

Parameter	Type	Maximum Length of Characters	Description
			Indicates that the resource package is reset by calendar month or calendar year. For example, if you set **quota_reuse_cycle** to **4** (month) and **quota_reuse_cycle_type** to **1**, the resource package is reset on the first day of each month. • 2: Reset by order period Indicates that the resource package is reset by order period. For example, if you set **quota_reuse_cycle** to **4** (month), **quota_reuse_cycle_type** to **2**, and you purchase this resource package on the 15th day of the month, then the resource package will be reset on the 15th day of each month.
usage_type_name	String	-	Usage type name.
start_time	String	-	Start time. The value is in UTC format. • If **quota_reuse_mode** is set to **1**, the value is the start time of the reset period for the current time. • If **quota_reuse_mode** is set to **2**, the value is the time when the purchased instance takes effect.
end_time	String	-	End time. The value is in UTC format. • If **quota_reuse_mode** is set to **1**, the value is the end time of the reset period for the current time. • If **quota_reuse_mode** is set to **2**, the value is the time when the purchased instance becomes invalid.
amount	BigDecimal	-	Remaining resource quota of a package whose **quota_reuse_mode** is **Resettable**, that is, the remaining resource quota in the current reset period.
original_amount	BigDecimal	-	Original resource quota of a package whose **quota_reuse_mode** is **Resettable**, that is, the total resource quota in each reset period.
measure_id	Integer	-	Measurement unit of the quota of a free resource package. Call the API in 4.1.5 Querying Measurement Units to obtain the

Parameter	Type	Maximum Length of Characters	Description
			value.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
    "free_resources": [
        {
            "free_resource_id": "d4463497-991b-439d-9ab6-23f9ed197fe9",
            "free_resource_type_name": "test1",
            "quota_reuse_cycle": 4,
            "quota_reuse_cycle_type": 1,
            "usage_type_name": "Duration",
            "start_time": "2021-04-30T03:30:56Z",
            "end_time": "2021-05-31T15:59:59Z",
            "amount": 100,
            "original_amount": 100,
            "measure_id": 37
        }
    ]
}
```

Returned Values

☐ NOTE

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Status Code	Error Code	Description
400	CBC.0100	Incorrect parameter.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

7.5.3 Querying Resource Package Usage Details

Function

Customers can query the resource usage details on the partner sales platform.

Constraints

This API can be invoked only by the customer AK/SK or token.

URI

GET /v2/bills/customer-bills/free-resources-usage-records

Table 7-37 Request parameters

Parameter	Mandatory	Type	Value Range	Description
free_resource_id	No	String	A maximum of 64 characters	Resource ID. A resource package contains multiple resources, and a resource has a usage type. The resource ID is obtained from the response of the API in 7.5.1 Querying Resource Packages. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion.
product_id	No	String	A maximum of 64 characters	Product ID, that is, resource package ID. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion.
resource_type_code	No	String	A maximum of 64 characters	Resource type code. For example, the VM resource type code of ECS is **hws.resource.type.vm**. To obtain a specific resource type, call the API in 4.1.2 Querying Resource Types. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion.
deduct_time_begin	Yes	String	A maximum of 10 characters	Start time of resources deduction, which is in *YYYY-MM-DD* format (GMT+08:00).
deduct_time_end	Yes	String	A maximum of 10 characters	End time of resource deduction, which is in *YYYY-MM-DD* format (GMT+08:00).

Parameter	Manda tory	Type	Value Range	Description
				NOTE The gap between the start time and end time must be less than or equal to 90 days.
offset	No	Integer	0 to maximum integer	Offset, starting from **0**. The default value is **0**. **NOTE** This parameter is used for pagination. Retain its default value **0** if pagination is not required. **offset** indicates the offset relative to the first data record among all that meets the conditions configured. If you set offset to **1**, the second and subsequent data records are returned. For example, if there 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned. If there are 20 records that meet query conditions, when you set offset to **0** and limit to **10** for the first page and set offset to **10** and limit to **10** for the second page, then each page will respectively have 10 records.
limit	No	Integer	[1-1000]	Maximum number of records in each query. The default value is **10**.

Request

Request Parameters

None

Example Request

```
GET
https://bss.myhuaweicloud.eu/v2/bills/customer-bills/free-resources-usage-records?
free_resource_id=free_resource_id&product_id=product_id&resource_type_code=resourc
e_type_code&deduct_time_begin=2021-10-01&deduct_time_end=2021-10-31&offset=0&limit
=10 HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
```

Response

Response Parameters

Parameter	Type	Value Range	Description
error_code	String	20	Error code.

Parameter	Type	Value Range	Description
			For details, see Returned Values. This parameter is returned only when the query failed.
error_msg	String	1000	Error description. This parameter is returned only when the query failed.
free_resource_records	List<FreeResourceRecord>	Maximum number: 1000	Resource package usage details. For details, see Table 7-38.
total_count	Integer	-	Total number of records that meet the conditions.

Table 7-38 FreeResourceRecord

Parameter	Type	Value Range	Description
deduct_time	String	A maximum of 20 characters	Time when a resource is deducted. UTC time. The format is *yyyy-MM-dd*'**T**'*HH:mm:ss*'**Z**', for example, 2021-10-13T10:01:49Z.
free_resource_id	String	A maximum of 64 characters	Resource ID. A resource package contains multiple resources, and a resource has a usage type.
resource_id	String	A maximum of 64 characters	Resource ID.
resource_type_code	String	A maximum of 64 characters	Resource type code. For example, the resource type code of VM is **hws.resource.type.vm**.
resource_type_name	String	A maximum of 200 characters	Resource type. For example, the resource type of ECS is **Cloud Host**.
resource_tag	String	A	Resource tag.

Parameter	Type	Value Range	Description
		maximum of 10,240 characters	
product_id	String	A maximum of 64 characters	Product ID, that is, resource package ID.
product_name	String	A maximum of 256 characters	Product name, that is, resource package name.
usage_type_code	String	A maximum of 64 characters	Usage type
available_amount	String	A maximum of 64 characters	Available resources before deduction
remaining_amount	String	A maximum of 64 characters	Available resources after deduction.
used_amount	String	A maximum of 64 characters.	Deducted resource amount.
measure_id	Integer	-	Measurement unit of the quota of a free resource package. Call the API in 4.1.5 Querying Measurement Units to obtain the value.
effective_time	String	A maximum of 20 characters	Start time of using a resource (UTC time).
expire_time	String	A maximu	End time of resource usage (UTC time).

Parameter	Type	Value Range	Description
		m of 20 characters	

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
    "free_resource_records": [
        {
            "deduct_time": "2021-10-19T08:04:25Z",
            "free_resource_id": "43248428-8409-47cd-b115-6a5872e2200b",
            "resource_id": "resourceInstanceId_north1_obs_10120001112",
            "resource_type_code": "",
            "resource_tag": "--",
            "product_id": "90301-247012-0--0",
            "product_name": "OBS storage package 10 TB Monthly subscription Beijing7",
            "usage_type_code": "",
            "available_amount": "10190",
            "remaining_amount": "10140",
            "used_amount": "50",
            "measure_id": 10,
            "effective_time": "2021-10-13T10:01:49Z",
            "expire_time": "2021-10-13T11:00:00Z"
        }
    ],
    "total_count": 1
}
```

Returned Values

◫ NOTE

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Status Code	Error Code	Description
400	CBC.0100	Incorrect parameter.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

7.6 Managing Pay-Per-Use Resources

7.6.1 Querying Customer's Pay-Per-Use Resources

Function

A partner can query the pay-per-use resources that have been provisioned for customers associated with the partner in the Reseller model.

Constraints

- This API can be invoked using the partner AK/SK or token only.
- The data obtained using this API is for reference only because it has a delay, and the delay for each cloud service is different.

URI

POST /v2/partners/sub-customers/on-demand-resources/query

Table 7-39 Header parameter

Parameter	Manda tory	Value Range	Description
X-Languag e	No	A maximu m of 8 character s	Language. • **zh_CN**: Chinese • **en_US**: English Default value: **zh_CN**

Request

Request Parameters

Parame ter	Man dator y	Type	Value Range	Description
custome r_id	Yes	String	A maximum of 64 characters	Customer account ID. To obtain the customer ID, call the API in 5.2.1 Querying Customers.
region_c ode	No	String	A maximum of 64 characters	Cloud service region code. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, it cannot be used as a filter criterion.
service_ type_co de	No	String	A maximum of 64	Cloud service type code. For example, the cloud service type code of OBS is **hws.service.type.obs**. To obtain a specific

Parameter	Mandatory	Type	Value Range	Description
			characters	service type, call the API in 4.1.1 Querying Cloud Service Types. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, it cannot be used as a filter criterion.
resource_ids	No	List<Stirng>	A maximum of 50 IDs	Uses IDs to query resources in a batch. It is used to query the resources corresponding to specified resource IDs. A maximum of 50 IDs can be transferred at the same time. If this parameter is not included in the request parameters, is left empty, or is set to **null**, it cannot be used as a filter criterion.
effective_time_begin	No	String	A maximum of 20 characters	Start time of the validity period. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z**. The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, it cannot be used as a filter criterion.
effective_time_end	No	String	A maximum of 20 characters	End time of the validity period. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z**. The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59. If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, it cannot be used as a filter criterion.
offset	No	Integer	0 to maximum integer	Offset, which starts from 0. The default value is **0**. **NOTE** This parameter is used for pagination. Retain its default value **0** if pagination is not required. **offset** indicates the offset relative to the first data record among all that meets the conditions configured. If you set offset to **1**, the second and subsequent data records are returned. For example, if there 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned. If there are 20 records that meet query conditions, when you set offset to **0** and limit to **10** for the first page and set offset to **10** and limit to **10** for the second page, then each page will respectively have 10 records.

Parameter	Mandatory	Type	Value Range	Description
limit	No	Integer	1 to 100	Number of records queried each time. The default value is **10**.
status	No	Integer	1 to 6	Resource status. • 1: Normal (provisioned) • 2: Grace period • 3. Freezing • 4: Changing • 5: Canceling If this parameter is not included in the request parameters or is set to **null**, it cannot be used as a filter criterion.
indirect_partner_id	No	String	A maximum of 64 characters	Reseller ID. For details about how to obtain such IDs, see 6.1.1 Querying the List of Huawei Cloud Resellers. This parameter is mandatory only when a distributor queries pay-per-use resources of customers associated with its resellers. Otherwise, the pay-per-use resources of the distributor's own customers will be queried.

Example Request

```
POST
https://bss.myhuaweicloud.eu/v2/partners/sub-customers/on-demand-resources/query
HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
X-Language: zh_CN
{
    "indirect_partner_id": "051a8a834180d3fb0f25c006b1998800",
    "offset": 0,
    "limit": 10,
    "effective_time_begin": "2020-04-02T08:56:26Z",
    "effective_time_end": "2020-05-02T08:56:26Z",
    "customer_id": "0846606cf580d45f0fd6c01e10c07540",
    "service_type_code": "hws.service.type.ebs",
    "resource_ids": [
    "batch-volume-16380-00024604"
    ],
    "region_code": "cn-east-2",
    "status": 1
}
```

Response

Response Parameters

Parameter	Type	Description
error_code	String	Status code. For details, see Returned Values.
error_msg	String	Error description.
resources	List<CustomerResourceV2>	Customer resources. For details, see Table 7-40.
total_count	Integer	Total number of query records.

Table 7-40 CustomerResourceV2

Parameter	Type	Description
customer_id	String	Customer account ID.
region_code	String	Cloud service region code.
availability_zone_code	String	AZ code.
service_type_code	String	Cloud service type code. For example, the cloud service type code of OBS is **hws.service.type.obs**.
resource_type_code	String	Resource type code. For example, the VM resource type code of ECS is **hws.resource.type.vm**.
service_type_name	String	Cloud service type. For example, the cloud service type of ECS is **Elastic Cloud Server**.
resource_type_name	String	Resource type. For example, the resource type of ECS is **Cloud Host**.
resource_id	String	Resource ID.
resource_name	String	Resource instance name.
effective_time	String	Effective time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z**. The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59.

Parameter	Type	Description
		UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z**. The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59.
expire_time	String	Expiration time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z**. The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z**. The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59.
status	Integer	Resource status. • 1: Normal (provisioned) • 2: Grace period • 3. Freezing • 4: Changing • 5: Canceling • 6: Canceled
resource_spec_code	String	Specification of a cloud service resource. For example, a VM resource specification is **s2.small.1.linux** (.win or .linux should be added at the end of the specification).
resource_info	String	Capacity of pay-per-use resources. The value is in "resourceInfo": "{\"specSize\":40.0}" format.
product_spec_desc	String	Product specification description. Example: • ECS: General computing-plus | c6.2xlarge.4 | 8 vCPUs | 32 GB | Linux • Disk: EVS_SATA_LXH01 | 40.0 GB

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
    "resources": [
    {
     "customer_id": "0846606cf580d45f0fd6c01e10c07540",
     "region_code": "cn-east-2",
     "availability_zone_code": "cn-east-2-a",
     "service_type_code": "hws.service.type.ebs",
```

```
      "resource_type_code": "hws.resource.type.volume",
      "resource_id": "batch-volume-16380-00024604",
      "resource_name": "batch-volume",
      "effective_time": "2020-04-02T08:56:26Z",
      "expire_time": "2020-05-02T08:56:26Z",
      "status": 1,
      "resource_spec_code": "SATA",
      "resource_info": "{\"specSize\":2235.0}",
      "product_spec_desc": "High IO|40.0GB"
      }
    ],
    "total_count": 1
}
```

Returned Values

> **NOTE**
>
> - **4*xx***: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
>
> - **5*xx***: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
400	CBC.0100	Parameter error.
400	CBC.99000000 0	You do not have the operation permission to the customer.
400	CBC.99000003 7	You do not have the permission to operate this reseller.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

8 Bill Management

8.1 Managing Customer Consumptions

8.1.1 Querying Customer Resource Usage

Function

This API is used to query customer resource usage.

> **NOTICE**
>
> The resource usage data has a latency. Therefore, the data cannot be used when there are high requirements on data accuracy, such as for usage monitoring or budget control.

File

A partner can subscribe to the customer resource usage in HUAWEI CLOUD Partner Center to learn the resource usage of the customer. For details, see 10.5 File Subscription.

> **NOTE**
>
> - The system generates the customer resource usage file containing the data generated till the previous day from 12:00 to 20:00 (GMT+8:00) (not later than 24:00) every day. Therefore, the partner needs to configure a schedule task in the partner sales platform to obtain the customer resource usage file at 24:00 every day.
> - The partner who subscribes to the customer resource usage in Partner Center can obtain the resource usage details file as of the following day (GMT+08:00).

1.   Link to obtain the file

   https://*bucketname*.obs.*Endpoint*.myhuaweicloud.eu/customerUsage/*filename*

Table 8-1 Parameter description

Parameter	Description
bucketname	Name of an OBS bucket. Only OBS buckets purchased on Huawei Cloud in the Hong Kong region can be used. For details about how to create a bucket, see Creating a Bucket. **NOTE** You cannot use your account to buy OBS buckets. Instead, you can use your customers' accounts to do so.
Endpoint	Domain name or IP address of the server bearing the REST service endpoint.
customerUsage	Name of the folder for storing the customer resource usage details uploaded by the system.
filename	File name. The file name format is **customerUsageV2_*YYYYMM*_*YYYYMMDD*.tar.gz**. • The file is a compressed package. • *YYYYMM* indicates the month of the data to be exported. For example, if the data for February 2019 is exported, *YYYYMM* should be **201902**. • *YYYYMMDD* specifies the date when the customer resource usage data is exported. For example, if the file name is **customerUsageV2_201902_20190301.tar.gz**, the data generated from February 1, 2019 to February 28, 2019 is exported on March 1, 2019. Files in the package are in the format of **customerUsageV2_*YYYYMM*_*YYYYMMDD*_*XXXXXXXX*.csv**. Each .csv file contains 100,000 records.

2. Generation time of the resource usage details

   Resource usage data is summarized by month. The monthly usage details contain incremental data starting from the first day of each month. The usage details may change after being generated. Therefore, obtain the latest data.

   – The system generates the resource usage details from 12:00 to 20:00 (GMT+8:00) (not later than 24:00) every day.

   – The usage details of each month are generated on the first day of the following month. For example, the usage details of July are generated on August 1.

   – The month-to-date usage details of the current month and all usages details of the last month are generated on the second to fourth day of the current month. For example, the usage details of August 1 and August 2 and of July are generated on August 3.

   – The usage details of this month are generated on the fifth day to the end of this month. For example, the usage details from August 1 to August 5 are generated on August 6.

3. File fields

   File: **customerUsageV2_*YYYYMM*_*YYYYMMDD*_*XXXXXXXX*.csv**

Parameter	Type	Maximum Length of Characters	Description
Billing Cycle	String	256	Billing cycle of the consumption record
Customer ID	String	256	Domain ID of a customer
Transaction Time	String	256	Transaction time in the format of UTC
Billing Mode	String	8	Billing mode. The options are as follows: • 1: Yearly/monthly • 3: Pay-per-use • 10: Reserved instances
Bill Type	String	8	Bill type: • 1: Expenditure - purchase • 2: Expenditure - renewal • 3: Expenditure - change • 4: Refund - unsubscription • 5: Expenditure - use • 8: Expenditure - auto-renewal • 9: Adjustment - compensation • 12: Expenditure - hourly billing • 13: Expenditure - unsubscription handling fee • 14: Expenditure - month-end deduction for support plan • 15: Expenditure - tax • 16: Adjustment - deduction • 17: Expenditure - difference amount (min. guaranteed-actual) **NOTE** Expenditure-difference amount (min. guaranteed-actual) determines the fees that a customer needs to pay if the customer does not reach the minimum expenditure limit stipulated in the signed contract. This rule is applicable to direct sales customers and referral customers who use postpaid method. • 20: Refund - change • **24**: Refund-changing to Pay-Per-Use • 100: Refund - unsubscription tax • 101: Adjustment - tax compensation • 102: Adjustment - tax deduction
Resource ID	String	256	Resource instance ID If the resource is a reserved instance, the value is the reserved

Parameter	Type	Maximum Length of Characters	Description
			instance ID.
Resource Name	String	256	Resource name entered when a customer creates a resource instance. **NOTE** If the entered character strings are risky, such as {"=", "+", "-", "@"}, followed by non-pure numbers, then double quotation marks will be added for that field, one at the beginning of the field and the other at the end.
Resource Tag	String	11,000	Resource tag. Customers can set tags when managing resources. If a customer purchases a resource package product that is not specific to a certain resource, this field is left empty. **NOTE** If the entered character strings are risky, such as {"=", "+", "-", "@"}, followed by non-pure numbers, then double quotation marks will be added for that field, one at the beginning of the field and the other at the end.
Service Type Code	String	64	Cloud service type code. For example, the cloud service type code of OBS is **hws.service.type.obs**. To obtain a specific service type, call the API in 4.1.1 Querying Cloud Service Types.
Resource Type Code	String	100	Resource type code. For example, the VM resource type code of ECS is **hws.resource.type.vm**. To obtain a specific resource type, call the API in 4.1.2 Querying Resource Types.
Product ID	String	256	Product ID.
Product Name	String	256	Product name
Specifications	String	256	Product specifications. Example: General Computing|s2.small.1|1vCPUs|1GB|linux
Region Code	String	64	Cloud service region code, for example, eu-west-101.
Project ID	String	256	ID of the project to which a resource belongs. You can select a project when purchasing a resource.
Order ID/Transacti	String	256	Order ID generated when a customer places the order. This parameter is available only for yearly/monthly products. In other cases, this

Parameter	Type	Maximum Length of Characters	Description
on ID			parameter is left empty.
Order Type	String	256	Order type. This parameter is available only for yearly/monthly products. This parameter is left empty in the following cases: • 1: New purchase • 2: Renewal • 3: Change • 4: Unsubscription • 10: Yearly/monthly to pay-per-use • 11: Pay-per-use to yearly/monthly • 13: Trial • 14: Commercial use • 15: Price adjustment
Period Number	String	256	Duration of a yearly/monthly subscription. **NOTE** • This parameter is available only for yearly/monthly products. In other cases, this parameter is left empty. • The value can be an integer, or a decimal.
Period Type	String	256	Period type for yearly/monthly products. This parameter is available only for yearly/monthly products. In other cases, this parameter is left empty. • 0: Daily • 2: Monthly • 3: Yearly • 4: Hourly • 99: Unknown
Usage Type	String	256	Usage type, which can be obtained by calling the API described in 4.1.4 Querying Usage Types.
Usage	String	256	Total resource usage
Usage Unit	String	256	Usage unit To obtain the unit, call the API in 4.1.5 Querying Measurement Units.
Package Usage	String	256	Used amount of the package. The used resources are not calculated using the pay-per-use price.
Unit (Package	String	256	Unit of the usage in the package To obtain the unit, call the API in 4.1.5

Parameter	Type	Maximum Length of Characters	Description
Usage)			Querying Measurement Units.
Reserved Instance Usage	String	256	Used reserved instance. The used resources are not calculated using the pay-per-use price.
Unit (Reserved Instance Usage)	String	256	Usage unit for reserved instance To obtain the unit, call the API in 4.1.5 Querying Measurement Units.
Expenditure Amount	String	256	Transaction price listed on the HUAWEI CLOUD official website, excluding the commercial discount provided by HUAWEI CLOUD for partners Unit: USD **NOTE** If HUAWEI CLOUD writes off the outstanding amount as required or refunds the over-deducted amount, a record with the negative amount will be generated.
Unit Price	String	256	Unit price of a pay-per-use product. This parameter has a value only when the price is the same. For tiered billing, this parameter is left empty.
Unit	String	256	Unit of the product. • The unit of linear products is USD/{*linear unit*}/month or USD/{*linear unit*}/hour. • The unit of non-linear products is USD/month or USD/hour. **NOTE** The linear unit is the unit of linear products (those come in sizes). For example, the linear unit of the hard disk is GB, and that of the bandwidth is Mbit/s. For example, 0.6 USD/10,000 times. The unit price is 0.6, the price unit is dollar, and the step is 10,000 times. The unit price is 0.6 and the price unit is USD/10,000 times.
Combined Order No	String	256	The combined order number generated when a customer places orders. This parameter is available only for yearly/monthly products. In other cases, this parameter is left empty. This parameter is reserved.
Product Type Name	String	200	Product type name
Resource Type Name	String	200	Resource type name

4. File example

Billing Cycle, Customer ID, Transaction Time, Billing Mode, Bill Type, Resource ID, Resource Name, Resource Tag, Service Type Code, Resource Type Code, Product ID, Product Name, Specifications, Region Code, Project ID, Order ID/Transaction ID, Order Type, Period Number, Period Type, Usage Type, Usage, Usage Unit, Package Usage, Unit (Package Usage), Reserved Instance Usage, Unit (Reserved Instance Usage), Expenditure Amount, Unit Price, Unit, Combined Order No, Product Type Name, Resource Type Name

Apr-21, 4FB84D6C27DB4C768B0940560C2AB2CE, 2021-04-26 16:13:35 GMT+08:00, 1, 1, 34ae3e78-d93e-4d46-9bc7-aa8532e44d18, FALSE, 111, hws.service.type.ebs,hws.resource.type.volume, 5797403154426640, GD3 linear EVS disk_ Monthly, GD3 linear EVS disk_ Monthly 1, cn-north-1, ab7eb17368654ff4b1bb3c63c6a478e0,CS20012416121ADNL2, 1, 1, 99, Duration-1, 12312.125, 1, 123, 3, 120, 1, 8400, 12312.123, 1, CS20012416121ADNL3, Elastic Cloud Server, Cloud Host

8.2 Managing Partner Bill

8.2.1 Querying Monthly Bills

Function

You can query your monthly bills that cover amount due, expenditures, refunds, and adjustments.

For details about how to query monthly bills in the Partner Center, click here.

📖 **NOTE**

The partner bill for each month is generated before 12:00 (Beijing Time) on the fifth day of the next month.

Constraints

This API can be invoked only by the partner account AK/SK or token.

URI

GET /v2/bills/partner-bills/postpaid-bill-summary

The following table describes the parameters.

Table 8-2 Query parameters

Parameter	Manda tory	Type	Value Range	Description
bill_cycle	Yes	String	A maximum of 10 characters	Month when a bill is generated. Format: YYYY-MM

Request

Request parameters

None

Example Request

```
GET
https://bss.myhuaweicloud.eu/v2/bills/partner-bills/postpaid-bill-summary?bill_cyc
le=2020-12 HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
```

Response

Response parameters

Parameter	Type	Value Range	Description
error_code	String	A maximum of 16 characters	Error code. For details, see Returned Values. This parameter is returned only when a failure occurs.
error_msg	String	A maximum of 1024 characters	Error description. This parameter is returned only when a failure occurs.
bill_cycle	String	A maximum of 10 characters	Month when a bill is generated. This parameter is returned only when the query is successful. Format: YYYY-MM
initial_amount_due	BigDecimal	-	Amount due (tax included) in a bill. Amount due (output tax included) = Expenditures + Refunds + Adjustments
consume_amount	BigDecimal	-	Expenditures in a bill.
refunds	BigDecimal	-	Refunds in a bill.
adjustments	BigDecimal	-	Partner's adjustments in a billing cycle, for example, arrears write-offs.
tax_amount	BigDecimal	-	Output tax in a bill, which is not included in the amount due.
currency	String	A maximum of 8 characters	This parameter is returned only when the query is successful. USD

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
    "bill_cycle": "2020-12",
    "initial_amount_due": 90,
    "consume_amount": 140,
    "refunds": -30,
    "adjustments": -20,
    "tax_amount": 10,
    "currency": "USD"
}
```

Returned Values

📖 NOTE

- **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
- **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

HTTP Value	Error Code	Description
400	CBC.0100	Invalid parameter
403	CBC.0151	Access denied.
500	CBC.0999	Other errors

8.2.2 Querying Bill Details of Monthly Expenditures

Function

This API is used to query bill details of monthly expenditures.

For details about how to query the bill details of monthly expenditures in the Partner Center, click here.

Bill File

A partner can subscribe to the partner bill (customer resource usage) in the HUAWEI CLOUD Partner Center. For details, see 10.5 File Subscription. Your sales platform will calculate the customer expenditures and generate the customer bills based on this bill and then you can perform reconciliation with HUAWEI CLOUD.

1. Link to Obtain the File

   https://*bucketname*.obs.*Endpoint*.myhuaweicloud.eu/customerBill/*filename*

Table 8-3 Parameter descriptions

Parameter	Description
bucketname	OBS bucket name. Only OBS buckets purchased on Huawei Cloud in the Hong Kong region can be used. For details about how to create a bucket, see Creating a Bucket. **NOTE** You cannot use your account to buy OBS buckets. Instead, you can use your customers' accounts to do so.
Endpoint	Domain name or IP address of the server bearing the REST service endpoint.
customerBill	Name of the folder for storing the partner bill details file uploaded by the system.
filename	File name. • The name of a bill details file is in **customerBill_***YYYYMM***.tar.gz** format. In the preceding command, **customerBill_***YYYYMM***.tar.gz** is a compressed package. The files contained in the package are named in **customerBill_***YYYYMM_xxxx***.csv** format. Each CSV file contains 100,000 records.

2. File Generation Cycle

   The file is generated each natural month.

   The system automatically creates the file of previous month before 12:00 (Beijing Time) at the fifth day of each month and uploads the file to the created OBS bucket. If the upload fails on the current day, the system uploads the file again next day. If the upload still fails, the system uploads the file the day after that day. The system can try a maximum of five times. Every time when the upload fails, the system sends a failure notification email to the email address of the partner.

3. File Fields

Parameter	Type	Value Limit	Description
Customer ID	String	64	Domain ID of a customer.
Product ID	String	64	Product ID
Product type code	String	64	Cloud service type code. For example, the cloud service type code of OBS is **hws.service.type.obs**. To obtain a specific service type, call the API in 4.1.1 Querying Cloud Service Types.
Resource type code	String	100	Resource type code. For example, the VM resource type code of ECS is **hws.resource.type.vm**. To obtain a specific resource type, call the API in 4.1.2 Querying Resource Types.

Parameter	Type	Value Limit	Description
Cloud service region code	String	64	Cloud service region code, for example, eu-west-101.
Billing mode	String	2	**0**: Yearly/monthly **1**: Pay-per-use **2**: Reserved instance–upfront payment **3**: Reserved instance–hourly billing **6**: Savings plan-discount
Official website price	BigDecimal	-	List price or promotional price at which customers purchased Huawei Cloud products, in USD.
Fee generation time	String	32	Time when fees are generated. The format is *YYYY-MM*, indicating year-month.
Order ID	String	64	Order ID. This field is available only for yearly/monthly subscriptions.
Usage	BigDecimal	-	Usage (usage of packages and reserved instances not included). This field is available only for pay-per-use subscriptions.
Usage Unit	Integer	-	Usage unit. You can call the API in 4.1.5 Querying Measurement Units to obtain the value.
Whether a spot ECS	String	1	**2**: Yes
Cash coupon amount	BigDecimal	-	Cash coupon amount, in USD. It specifies the amount deducted using cash coupons.
Flexi-purchase coupon amount	BigDecimal	-	Flexi-purchase coupon amount
Stored-value card amount	BigDecimal	-	Stored-value card amount
Settlement product type	Integer	-	**0**: Common product **1**: Promotional product **2**: Hybrid hosting products **5**: Stored-value card **6**: Marketplace products **7**: Spot ECSs **8**: FCS (reserved) **11**: Special price request **60**: KooGallery product discounts in resales

Parameter	Type	Value Limit	Description
Partner preference ratio	BigDecimal	-	Discount percentage for each settlement type. Leave this parameter empty when **Partner Preferential Type** is set to **1**.
Currency	String	3	USD
Billing cycle	String	32	Billing cycle, in the *YYYY-MM* format.
Customer account	String	64	HUAWEI CLOUD username of the customer.
Customer name	String	192	Name used by the customer for real-name authentication. If the customer does not perform real-name authentication, this field is left blank.
Product name	String	576	Product name.
Product type name	String	192	Cloud service name, which can be obtained by calling the API in 4.1.1 Querying Cloud Service Types.
Resource type name	String	192	Resource type name, which can be obtained by calling the API in 4.1.2 Querying Resource Types.
Cloud service region name	String	96	Cloud service region.
Package Usage	BigDecimal	-	Used amount of the package. The used resources are not calculated using the pay-per-use price.
Unit (Package Usage)	Integer	-	Package usage unit. For details, see **Usage Unit**. If the package usage is 0, this field is left blank.
Reserved Instance Usage	BigDecimal	-	Used reserved instance. The used resources are not calculated using the pay-per-use price.
Unit (Reserved Instance Usage)	Integer	-	Reserved instance usage unit. For details, see **Usage Unit**. If the reserved instance usage is 0, this field is left blank.
Bill Type	String	1	Type of a bill item. • 0: Expenditure • 1: Unsubscription • 2: Huawei write-off
BizID	String	64	Business ID.
BizItemID	String	64	Business item ID.

Parameter	Type	Value Limit	Description
Amount After Coupons	BigDecimal	-	Consumption amount of a customer, excluding the amount of flexi-purchase coupons, cash coupons, and stored-value cards.
Amount Due	BigDecimal	-	Bill amount that a partner must pay.
Specifications	String	256	Product specifications, such as **General Computing|s2.small.1|1vCPUs|1GB|linux**. General Computing|s2.small.1|1vCPUs|1GB|linux
Billing item	String	256	Billing item To obtain a specific billing item, call the API in 4.1.4 Querying Usage Types. The value is the same as the usage type in SDRs. The mappings between cloud services and usage types are as follows: ● ECS: **Duration** ● EVS: **Duration** ● EIP: **Duration** ● Bandwidth: **Duration** (by bandwidth) or **upflow** (by traffic) ● Marketplace image: **Duration**
Unit Price	BigDecimal	-	Unit price. ● For the unit price of a pay-per-use product, this parameter has a value only when the price is the same. For tiered billing, this parameter is left empty. ● Unit price of a yearly/monthly product is returned only in the following scenarios: 　– Yearly/monthly subscription, renewal, specification downsizing, specification upgrade, and capacity expansion 　– Simple pricing ● Unit price of a reserved instance is returned only in the following scenarios: 　– Subscription, renewal, specification downsizing, specification upgrade, capacity expansion, and pay-per-use 　– Simple pricing
Unit	String	256	Price unit For example, the price is 0.6 yuan/10,000 times. The unit price is 0.6, the price unit is yuan, and the step is 10,000 times. The unit price is 0.6 and the price unit is yuan/10,000 times.

Parameter	Type	Value Limit	Description
Payment	BigDecimal	-	• When **Partner Preferential Type** is set to **0**, the settlement amount is calculated as follows: Settlement amount = List price x (1 – Partner discount ratio). • When **Partner Preferential Type** is set to **1**, the settlement amount is calculated based on the fixed unit price. The settlement amount includes the cash coupon amount and does not include the tax amount. Unit: USD ($) This parameter is returned only when a coupon quota has been converted for partner use only.
Partner cash coupon amount	BigDecimal	-	Amount of the cash coupon that is deducted after a discount is used. Unit: USD ($)
Whether to Refund Coupons	String	-	Whether to refund partner's cash coupon generated during the refund. Unit: USD ($) • **Y**: yes • **N**: no This parameter is returned only when a coupon quota has been converted for partner use only.
Cash Payment	BigDecimal	-	Amount that needs to pay after partner's cash coupons are deducted. Unit: USD ($) This parameter is returned only when a coupon quota has been converted for partner use only. **NOTE** • If **Scene** is set to **Y**, this parameter value is calculated as follows: Partner amount without tax = Settlement amount – Partner coupon • If **Scene** is set to **N**, the partner amount without tax equals the settlement amount.
Tax Amount	BigDecimal	-	Tax amount. If tax determination is not involved or the tax base is 0, the tax amount is 0. Unit: USD ($) This parameter is returned only when a coupon quota has been converted for partner use only.
Billing Item Name	String	-	Usage type name. To obtain a specific type, call the API in 4.1.4 Querying Usage Types.
Partner Preferential Type	String	-	Partner Preferential Type. The options are as follows: • **0**: Discount • **1**: Fixed unit price
Combined Order No.	String	256	The combined order number generated when a customer places orders. This parameter is available

Parameter	Type	Value Limit	Description
			only for yearly/monthly products. In other cases, this parameter is left empty.

☐ NOTE

- When **Partner Preferential Type** is set to **0**, Amount due = List price x (1 – Partner discount ratio) – Partner coupon + Tax amount.
- When **Partner Preferential Type** is set to **1**, Amount due = Settlement amount - Partner coupon + Tax amount.

4. Sample File

Customer ID, Product ID, Product type code, Resource type code, Cloud service region code, Billing mode, Official website price, Fee generation time, Order ID, Usage, Usage Unit, Whether a spot ECS, Cash coupon amount, Flexi-purchase coupon amount, Stored-value card amount, Settlement product type, Partner preference ratio, Currency, Billing cycle, Customer account, Customer name, Product name, Product type name, Resource type name, Cloud service region name, Package Usage, Unit (Package Usage), Reserved Instance Usage,Unit(Reserved Instance Usage), Bill Type, BizID, BizItemID, Amount After Coupons, Amount Due, Specifications, Billing item, Unit Price, Unit, Payment, Partner cash coupon amount, Whether to Refund Coupons, Cash Payment, Tax Amount, Billing Item Name, Partner Preferential Type, Combined Order No.

05876442ca80d5cc0f2dc01c66d6d0c0, 00301-25435-0--0, hws.service.type.ebs, hws.resource.type.volume, cn-east-2, 0, 30.3, Jan-21, CS2008210926C178U, 2664000, 6, 2, 0, 0, 0, 11, 0.75, USD, Jan-21, xiajing_zs_hff, Ai********Company, GD3 linear EVS Ondemand, Elastic Volume Service, Volume, CN North-Ulanqab3, 0, 6, 0, 6, 0, 1100886031001, 0310015570361001_ONDEMAND, 210.1008, 147.07056, mon IO|4056.000000GB, Duration, 0.00007, Dollar/GB/Hour, 147.07056, 0, N, 147.07056, 0, 147.07056, 0, N, 147.07056, 0, Duration, 147.07056, 0, N, 147.07056, 0, Duration, 0, BO2023050900011.

9 Managing Service Tickets

Partners and customers can submit HUAWEI CLOUD service tickets on the partner sales platform. When receiving the service tickets, the HUAWEI CLOUD after-sales service team will assist the customers to handle the problems related to HUAWEI CLOUD usage.

Related APIs

API	API Definition
Creating a service ticket	
Querying templates	
Querying service ticket list	
Querying service ticket details	
Performing operations on a service ticket	
Adding messages	

For details, see .

10 Appendix
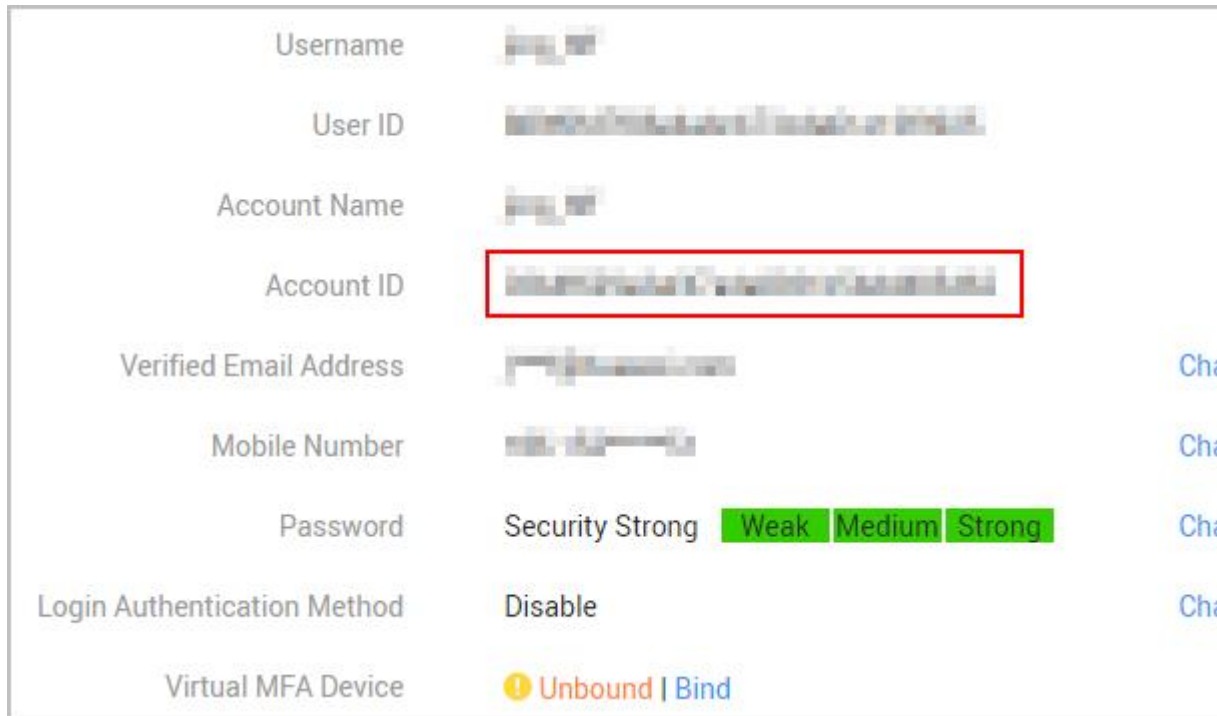
10.1 How Do I Obtain Customers' customer_id or domain_id?

You can direct customers to Huawei Cloud from your sales platform. If a customer creates a Huawei Cloud account after being directed from your own platform, the **customer_id** can be obtained from the association result notification sent by Huawei Cloud. For details, see Basic Configuration. If you invoke a CBC API to create an account for a customer, the **customer_id** is returned through the **domainId** field in the response.

You can sign in to Huawei Cloud using your customers' accounts and passwords to obtain **customer_id** from the **My Credential** page.

Visit **My Credential** at https://console.eu.huaweicloud.com/iam/#/mine/apiCredential.

10.2 Switching to the HUAWEI CLOUD Page and Binding the HUAWEI CLOUD Account

The following describes how to bind a customer account on the partner sales platform with the HUAWEI CLOUD account on the web UI. You can create a HUAWEI CLOUD account and bind it with the customer account, or directly bind an existing HUAWEI CLOUD account with the customer account. The following scenarios are involved:

- A customer has created an account on the partner sales platform and does not have a HUAWEI CLOUD account. The customer needs to create such an account and bind it with the account on the partner sales platform.

- Before creating an account on the partner sales platform, a customer has created a HUAWEI CLOUD account. The customer needs to create an account on the partner sales platform and bind it with the HUAWEI CLOUD account.

Subsequent operations, such as product purchasing and subscription query, depend on the customer's HUAWEI CLOUD account in this scenario.

Figure 10-1 shows the procedure for binding a HUAWEI CLOUD account with a customer account on the partner sales platform and notifying the binding result.

Figure 10-1 Binding a HUAWEI CLOUD account
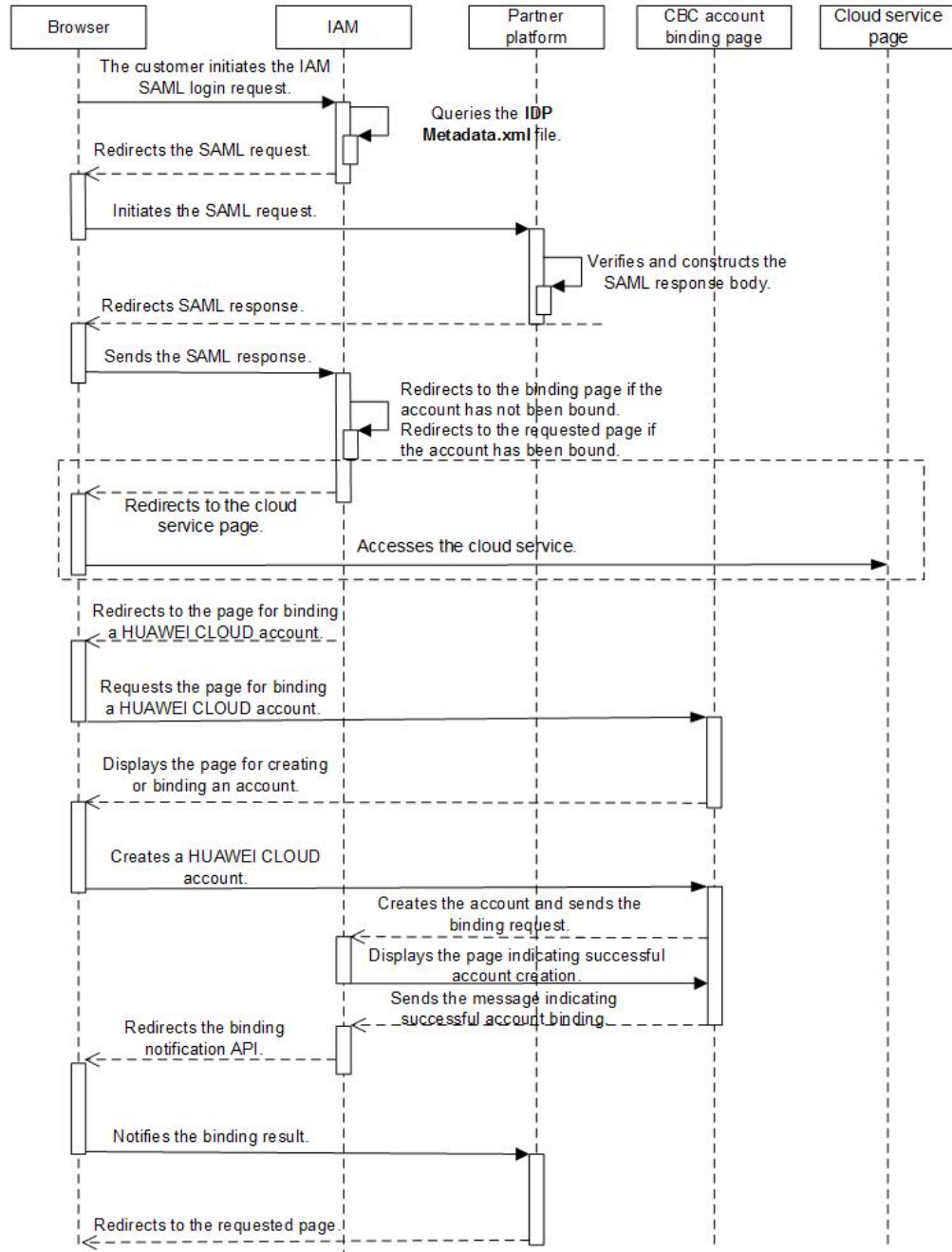
1. A partner's customer uses a browser to call the HUAWEI CLOUD login link. IAM sends the SAML request.

    a. The customer uses a browser to call the HUAWEI CLOUD login link.

Parameter	Manda tory	Description	Example
xAccountTyp e	Yes	Indicates the identifier of the partner sales platform, which is globally unique. The value is	ZXT

Parameter	Manda tory	Description	Example
		provided by Huawei. After the partner configures the access parameters on the Partner Center page, the partner ID is generated. For details about how to obtain the platform ID, see How Do I Obtain the xaccountType Value?	
isFirstLogin	No	If no HUAWEI CLOUD account is bound, this parameter is mandatory and must be set to **true**. Otherwise, the value can be left empty or set to **false**.	true
service	No	Indicates the redirection address after login. The encodeURIComponent function is used for coding.	

    b. IAM receives the login request of the partner's customer, locates the **SingleSignOnService** configuration item in the **IDP Metadata.xml** file based on the **xAccountType** value, and sends the **samlRequest** request to the required path.

▼ Query String Parameters   view source   view URL encoded

    SAMLRequest: jVLLbtswEPwVgnc97bguYT1wYwQ1kDaqpeTQS8F5K4k3RSp82K2/vpRstwkKGLnuY2Z2ZhfXvzqBdqANVzLD5RhjBJKpissmvw/lbTDH18uFoZ1Ie7JytpVbeHFgLPKL0pBjJ38NOS6Ko4YZI2oEhlpFi9eWOpGFMeq2sYkpgtDI...
    O84g4ftXYZba3tDoqg5BNQTha2je+BMKFeFTHVkknycTqKh5Xg08EYDw3+QGK29PC6pHU86o/KqDwWvQDZ+fcAbKpGXVnMBI1IabaHiGpiNiuIeo1ulGYunZ7imwgBGm3WGfzhBX0TTP7UAsn+qWNWmWh7qu+xZ7tmHpHmegvKjJqfG8B38WzbGwL...
    Jg0lcxjNyNSPTqzCep98xyk92feLyGM9lb38ehwz5X3Z5kN8XJUaP5zj9AD6FR0Z2/Tq1y8D07Ctevi+YRfSa6O/PfPXIm3WuBGe/0UoItb/RQK23xWoHo8sdtZe1D8VeBfU4Sqym0nCQFqMiH+C/OSp4zUG/94dwtDypffvTyz8=
    RelayState: _9inzak3sg5bypjdc3winbzenfvqq44ft2o5d
    SigAlg: http://www.w3.org/2001/04/xmldsig-more#rsa-sha256
    Signature: fwTq+fIy6XQlAccVHqTf3GWLgVYLU1qdx0XI2yO2SxXfA2J6aBAYoIFPhNihdc0po7ytJPnvXv8HX7OHE1i2c4L18R9YWwR6ZrGeDOaoNGx9xFNJGVAVHh8PbHRQ1gU3mlacI1dLYeNxC2KD7Lr2us134repcr6hyn0rqYW1+Ac=

Parameter	Description
SAMLRequest	Indicates the response message body. The response message is in XML format. IAM then compresses the message, encodes the message using Base64, and URL encodes the message. • If the partner uses the SAML toolkits, this parameter can be directly used. The partner does not need to parse the XML file. • If the partner needs to parse the XML file, the partner needs to URL decode the message, decode the message using Base64, and decompress the message (zip.inflate). For details, see Sample Code for Parsing the SAMLRequest.
RelayState	Indicates the response parameters for SAML.
SigAlg	Indicates the signature algorithm. Huawei uses SHA256 for signatures by default. HTTP://WWW.W3.ORG/2001/04/XMLDSIG-MORE#RSA-SHA2 56
Signature	Indicates the signature. The signature is used to verify the initiator of a request. When initiating a request, HUAWEI CLOUD uses the private key

Parameter	Description
	to sign *SAMLRequest={ SAMLRequest }&RelayState={ RelayState }&SigAlg={ SigAlg }* in request *https://www.test.com/saml/login?SAMLRequest={SAMLRequest }&RelayState={ RelayState}&SigAlg={ SigAlg}&Signature={ Signature }* and then performs Base64 coding to obtain the signature value.
	The signature algorithm is specified by the **SigAlg** field.
	When receiving the request, the receiver verifies the signature value using the public key provided by HUAWEI CLOUD (the value in the **<ds:X509Certificate></ds:X509Certificate>** tag in the **SP Metadata.xml** file).
	If the signature verification succeeds, the request is sent by HUAWEI CLOUD, and the follow-up operations can be performed. Otherwise, the request is invalid.

2. The partner sales platform generates the SAML response message and sends it to HUAWEI CLOUD IAM.

   a. The partner sales platform obtains the HUAWEI CLOUD public key and the response message path of **samlResponse** from the **SP Metadata.xml** file. For details, see **Example, Public Key, and Response Path** in Obtaining the SP Metadata File.

   b. The partner sales platform constructs the response message body **response.xml** for the SAML response.

      The response message body is in XML format. For the correct response message body and its parameter description, see the following displayed content.

> **NOTICE**
>
> The following content is for reference only. The description in the comments must be modified. The time and ID defined by SAML vary depending on the message. Therefore, it is recommended that you should not directly modify the response message content. Instead, you shall use the SAML toolkits to generate the response message.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!-- Parameter InResponseTo needs to be the same as the ID configuration item
of AuthnRequest in the SAML request message. -->
<!-- Parameter Destination needs to be the same as the Location value in the
AssertionConsumerService tag in the SP Metadata.xml file. -->
<saml2p:Response Consent="urn:oasis:names:tc:SAML:2.0:consent:unspecified"
ID="_d794dc393ae6724e236003bf0b917cf0"
Destination="https://auth.huaweicloud.com/authui/saml/SAMLAssertionConsume
r"
InResponseTo="_dck4mm08qmdhc8k4nuir07hghetdqqg8umg5"
IssueInstant="2018-10-30T08:21:41.740Z" Version="2.0"
   xmlns:saml2p="urn:oasis:names:tc:SAML:2.0:protocol">
 <!-- Must be the same as the entityID value in the IDP Metadata.xml file.
-->
```

```
  <saml2:Issuer Format="urn:oasis:names:tc:SAML:2.0:nameid-format:entity"

xmlns:saml2="urn:oasis:names:tc:SAML:2.0:assertion">https://www.test.com</
saml2:Issuer>
  <saml2p:Status>
    <saml2p:StatusCode Value="urn:oasis:names:tc:SAML:2.0:status:Success" />

<saml2p:StatusMessage>urn:oasis:names:tc:SAML:2.0:status:Success</saml2p:S
tatusMessage>
  </saml2p:Status>
  <saml2:Assertion ID="_2320c40ac7b5e857b2d0d4ea0c8758c3"
IssueInstant="2018-10-30T08:21:41.740Z" Version="2.0"
    xmlns:saml2="urn:oasis:names:tc:SAML:2.0:assertion"
    xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <!-- Must be the same as the entityID value in the IDP Metadata.xml file.
-->
    <saml2:Issuer>https://www.test.com</saml2:Issuer>
    <ds:Signature xmlns:ds="http://www.w3.org/2000/09/xmldsig#">
      <ds:SignedInfo>
        <ds:CanonicalizationMethod
Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#" />
        <ds:SignatureMethod
Algorithm="http://www.w3.org/2001/04/xmldsig-more#rsa-sha256" />
  <!-- The value after "URI #" must be the same as the ID in the Assertion tag.
-->
        <ds:Reference URI="#_2320c40ac7b5e857b2d0d4ea0c8758c3">
          <ds:Transforms>
            <ds:Transform
Algorithm="http://www.w3.org/2000/09/xmldsig#enveloped-signature" />
            <ds:Transform
Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#">
              <ec:InclusiveNamespaces PrefixList="xsd"
                xmlns:ec="http://www.w3.org/2001/10/xml-exc-c14n#" />
            </ds:Transform>
          </ds:Transforms>
          <ds:DigestMethod
Algorithm="http://www.w3.org/2001/04/xmlenc#sha256" />
  <!-- The value of DigestValue is the digest of the Assertion tag object. The
digest algorithm is the same as that of DigestMethod. -->

<ds:DigestValue>rFxrycznfGNYOnprZIFJJou4ro0Mz65+43MIR5F0+H4=</ds:DigestVal
ue>
        </ds:Reference>
      </ds:SignedInfo>
      <!-- Partner signature value. For details about how to obtain the value,
see the following description. -->
      <ds:SignatureValue>

YqTWQngAPfGqQmWa610PM7LeefqWdKuveUVINrqL67NoHJIDa2WxLwdVzoJIlJh64QiNPr6+nd
mL
DCMgIC5F/9ijuzhIICZcc6lHNIjy6EsPkKRjfo9oeoVAqLgG/kmVQYeHLBID0y11RNXXpAVY4n
hJ
26KiIVGt7ywyKAmhichE+eW/UYAGiOI5vkfgD2gZUGV+yPkv64k7xK4yAH3mL2NaCPuw/90e4e
nm
iUx0YuazDwM5FiRUSMpcJs0rcNmS6clWAUcCzbOx+y2vJGtTjHb7k3UsmpnTop5eYNp94+sDPE
```

```
at 8FaV4SgafMEL5z54gpe8+//9yOWEvlBs1b0RYg==
        </ds:SignatureValue>
      <ds:KeyInfo>
       <ds:X509Data>
        <!-- Partner public key certificate. The certificate must be the one
specified in the IDP Metadata.xml file. -->
          <ds:X509Certificate>
MIIBIjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEAhK3L160NjP9EhBGQOC2s4r+Wc62bkR
kc

nUxfhiZwCwJdQCykzuLOAoATnfoEamV5W25xtSS5kFs+4OC0mYVpKcI3SWoydX+UE5Qik5UfJ8
Dt

G1AvSEKhSluyO9axrV5Uv089jMxBnlm/R+xND73WcZM11yIbKJEZSTCEDfh+KnFbMw108umFMd
en

RZCrNWUJoSp/90XeG0V2Nmj7Fkq72skSifwIASLRq9KqLbmh1QwUX+AoWpHK/jRUBustMBmG1n
1i


AqpD4EBjjBOB27k1wXZ30+IoJt8IZmfSZRFoNn5VFWXNeEmZlaQvGSvd3Tyyw2/Wr+w/8Mags6
9C mpeX6QIDAQAB
        </ds:X509Certificate>
       </ds:X509Data>
      </ds:KeyInfo>
    </ds:Signature>
    <saml2:Subject>
    <!-- The value of NameQualifier must be the same as the entityID value in
the SP Metadata.xml file. -->
      <saml2:NameID
Format="urn:oasis:names:tc:SAML:2.0:nameid-format:transient"
NameQualifier="https://auth.huaweicloud.com/">Some NameID
value</saml2:NameID>
      <saml2:SubjectConfirmation
Method="urn:oasis:names:tc:SAML:2.0:cm:bearer">
        <!-- Parameter InResponseTo needs to be the same as the ID configuration
item of AuthnRequest in the samlRequest message. -->
        <saml2:SubjectConfirmationData
InResponseTo="_dck4mm08qmdhc8k4nuir07hghetdqqg8umg5"
NotBefore="2018-10-28T08:21:41.740Z"
NotOnOrAfter="2018-11-01T08:21:41.740Z"
Recipient="https://auth.huaweicloud.com/authui/saml/SAMLAssertionConsumer"
/>
      </saml2:SubjectConfirmation>
    </saml2:Subject>
    <saml2:Conditions NotBefore="2018-10-28T08:21:41.740Z"
NotOnOrAfter="2018-11-01T08:21:41.740Z">
      <saml2:AudienceRestriction>
      <!-- Must be the same as the entityID value in the SP Metadata.xml file.
-->
        <saml2:Audience>https://auth.huaweicloud.com/</saml2:Audience>
      </saml2:AudienceRestriction>
    </saml2:Conditions>
    <saml2:AttributeStatement>
      <!-- For values between<saml2:AttributeValue> and
</saml2:AttributeValue>, see the following table. -->
      <saml2:Attribute FriendlyName="xUserId" Name="xUserId"
NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-format:uri">
        <saml2:AttributeValue
```

```
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="xsd:string">*******</saml2:AttributeValue>
      </saml2:Attribute>
<!-- The values of xAccountId and xUserId must be the same. -->
      <saml2:Attribute FriendlyName="xAccountId" Name="xAccountId"
NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-format:uri">
        <saml2:AttributeValue
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="xsd:string">********</saml2:AttributeValue>
      </saml2:Attribute>
      <saml2:Attribute FriendlyName="bpId" Name="bpId"
NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-format:uri">
        <saml2:AttributeValue
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="xsd:string">******</saml2:AttributeValue>
      </saml2:Attribute>
      <saml2:Attribute FriendlyName="email" Name="email"
NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-format:uri">
        <saml2:AttributeValue
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:type="xsd:string"
/>
      </saml2:Attribute>
      <saml2:Attribute FriendlyName="name" Name="name"
NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-format:uri">
        <saml2:AttributeValue
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="xsd:string">******</saml2:AttributeValue>
      </saml2:Attribute>
      <saml2:Attribute FriendlyName="mobile" Name="mobile"
NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-format:uri">
        <saml2:AttributeValue
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="xsd:string">*****</saml2:AttributeValue>
       </saml2:Attribute>
   </saml2:AttributeStatement>
   <saml2:AuthnStatement AuthnInstant="2018-10-30T08:21:41.741Z">
     <!-- Must be the same as the entityID value in the SP Metadata.xml file.
-->
     <saml2:SubjectLocality Address="https://auth.huaweicloud.com/" />
     <saml2:AuthnContext>

<saml2:AuthnContextClassRef>urn:oasis:names:tc:SAML:2.0:ac:classes:unspeci
fied</saml2:AuthnContextClassRef>
     </saml2:AuthnContext>
   </saml2:AuthnStatement>
  </saml2:Assertion>
</saml2p:Response>
```

The partner signature value is in standard XML format, and the signature type is **enveloped-signature**. You are advised to use the SAML library provided by a third party for signature.

The signature procedure is as follows.

i.   Obtain the signature object (**Assertion**).

```
<saml2:Assertion ID="_2320c40ac7b5e857b2d0d4ea0c8758c3"
IssueInstant="2018-10-30T08:21:41.740Z" Version="2.0"
```

```
    xmlns:saml2="urn:oasis:names:tc:SAML:2.0:assertion"
    xmlns:xsd="http://www.w3.org/2001/XMLSchema">
......

</saml2:Assertion>
```

ii. Obtain the tag object (**Signature**).

```
<ds:Signature
    xmlns:ds="http://www.w3.org/2000/09/xmldsig#">
    <ds:SignedInfo>
        <ds:CanonicalizationMethod
Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#" />
        <ds:SignatureMethod
Algorithm="http://www.w3.org/2000/09/xmldsig#rsa-sha256" />
        <ds:Reference URI="#_2320c40ac7b5e857b2d0d4ea0c8758c3">
            <ds:Transforms>
                <ds:Transform
Algorithm="http://www.w3.org/2000/09/xmldsig#enveloped-signature" />
                <ds:Transform
Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#">
                    <ec:InclusiveNamespaces

xmlns:ec="http://www.w3.org/2001/10/xml-exc-c14n#"
                                  PrefixList="xs" />
                </ds:Transform>
            </ds:Transforms>
            <ds:DigestMethod
Algorithm="http://www.w3.org/2000/09/xmldsig#sha256" />
            <ds:DigestValue>......</ds:DigestValue>
        </ds:Reference>
    </ds:SignedInfo>
    <!-- Third-party signature value -->
    <ds:SignatureValue>
    ......
    </ds:SignatureValue>
    <ds:KeyInfo>
        <ds:X509Data>
            <!-- Third-party public key certificate -->
            <ds:X509Certificate>
            ......
        </ds:X509Certificate>
        </ds:X509Data>
    </ds:KeyInfo>
</ds:Signature>
```

iii. Generate the **DigestValue** value for the signature object **Assertion**.

1) Convert **Assertion** according to the algorithm defined in **Transform** of **Signature**.

2) Generate a digest for the object obtained in 1) according to the algorithm specified in **DigestMethod**.

3) Place the generated digest value in the **DigestValue** tag.

iv. Use the private key in **Step 6** in Generating a Certificate to generate the **SignatureValue** value for the **SignedInfo** object signature.

1) Convert **SignedInfo** according to the algorithm defined in **CanonicalizationMethod**

2) Generate the signature value for the object obtained in 1) according to the signature algorithm defined in **SignatureMethod**. Place the obtained signature value in **SignatureValue**.

v. Combine the values of **DigestValue** and **SignatureValue** to form the final **Signature** object. Place the value in **Assertion** as its sub-element.

The signature is displayed as follows.

```
<saml2:Assertion ID="_2320c40ac7b5e857b2d0d4ea0c8758c3"
IssueInstant="2018-10-30T08:21:41.740Z" Version="2.0"
   xmlns:saml2="urn:oasis:names:tc:SAML:2.0:assertion"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema">
   ......
   <ds:Signature
      xmlns:ds="http://www.w3.org/2000/09/xmldsig#">
      ......
    <!-- Third-party signature value -->
      <ds:SignatureValue>
      ......
     </ds:SignatureValue>
      <ds:KeyInfo>
         <ds:X509Data>
      <!-- Third-party public key certificate -->
            <ds:X509Certificate>
            ......
          </ds:X509Certificate>
            </ds:X509Data>
        </ds:KeyInfo>
    </ds:Signature>
</saml2:Assertion>
```

Table 10-1 Description of parameters between **<saml2:AttributeValue>** and **</saml2:AttributeValue>**

Parameter	Description
xUserId	Indicates the user ID of the partner's customer on the partner sales platform.
xAccountId	Indicates the account ID of the partner's customer on the partner sales platform.
bpId	
email	Indicates the email address. This parameter is optional. The parameter must meet the following requirements: • Must be unique for each customer. • A maximum of 64 characters • Passes the verification using the following regular expression: **^[azA-Z0-9.!#$%&'*+\\/=?^_`{\|}~-]+@[a-zA-Z0-9](?:[a-zA-Z0-9-]{0,61}[a-zA-Z0-9])?(?:\\.[azA-Z0-9](?:[a-zA-Z0-9-]{0,61}[a-zA-Z0-9])?)*$**
name	Indicates the HUAWEI CLOUD account name of the partner.

Parameter	Description
	This parameter is optional.
	The parameter must meet the following requirements:
	• Must be 5 to 32 characters long.
	• Can contain only letters, digits, hyphens (-), and underscores (_), and cannot start with a digit. Can contain spaces in the middle.
	• Passes the verification using the following regular expression: **^([a-zA-Z_\\-][0-9a-zA-Z_\\-]*)+$**

ⓒ **NOTE**

Table 10-1 involves the account ID and user ID because HUAWEI CLOUD IAM has account and user concepts. For details about the two concepts, see "Account" and "IAM User" in .

c. If the customer has logged in to the partner sales platform, the SAML response message is returned directly. Otherwise, the SAML response message is displayed after the login.

Send a POST request to the HUAWEI CLOUD response path **AssertionConsumerService** in 2.a. The parameters must be in the Form Data format.

TQUq1IFJ7%2FFNMFHFlKQgbKijySZlM8uQqb%2FKSFxN%2B9S6dvim%2BAatPgbxX9hj0pfR%2BHEXEPzRNndS
wX6LQaqPQ%2F%2Bc4IJufmvz7Rue%2FAA%3D%3D&RelayState=_lidh2rjxc81dnuc72qmpbslf4bml6r9fgk
n8rNI5twTosXm0NhZDj%2BGnfVBfG9T4X5nisoK843vRqzY1JCPmb0swQWb%2FFHryetP9deoceEBkTgf81xM1
HCPUJ%2BNSZc5aUinPUDIn9gxGsEMosv8f%2FcYPe1GL%2F9iMS1ChGElk18Rmj6Y5F3SVrFEsVVYMckzPPAzh
L2Ts%2B4BW8YbdqeUyfIKJwruVfX8KoHdC8xCl8bRN5mOHqAjCMYTQAJrCm%2BBGJVxUXit0gYeqkYH6dYkVfk
BgDXY1GUeOQqdckhgT36Aiz2GCZwK7lpvhAEFi2xMZGZU4xlKVZNYY1yzfjMBl64pMsyd3JDrzZfcbraPnTBaz
Upgrade-Insecure-Requests: 1
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64) AppleWebKit/537.36 (KHTML, like Gecko)
Form Data   view source   view URL encoded
SAMLResponse: PD94bWwgdmVyc2lvbj0iMS4wIiBlbmNvZGluZz0iVVRGLTgiPz4KPHNhbWwycDpSZXNwb25
MDAzYmYwYjkxN2NmMCIgSW5SZXNwb25zZVRvPSJfZGNrNG1tMDhxbWRoYzhrNG51aXwN2hnaGV0ZHFxZzh1bk
1lczp0YzpTQU1MOjIuMDpwcm90b2NvbCI+PHNhbWwyOklzc3VlciBGb3JtYXQ9InVybjpvYXNpczpuYW1lczpC
Pmh0dHBzOi8vaWRwLmlzZXNNvbC5jb20vaWRwL3NoaWJib2xldGg8L3NhbWwyOklzc3Vlcj48c2FtbDJwOlN0Y1
RhdHVzTWVzc2FnZT51cm46b2FzaXM6bmFtZXM6dGM6U0FNTDoyLjA6c3RhdHVzOlN1Y2Nlc3M8L3NhbWwyYycDpT
IElzc3VlSW5zdGFudD0iMjAxOC0xMC0zMFQwODoyMTo0MS43NDBaIiBWZXJzaW9uPSIyLjAiIHhtbG5zOnNhbbW

Parameter	Description
SAMLResponse	Identifies the string obtained by encoding the SAML response message body in 2.b using Base64.
RelayState	The value of this parameter is the same as that in the SAML request message.

3. Create a HUAWEI CLOUD account and bind it with the customer account on the partner sales platform.

After the SAML response message is returned, IAM checks whether there is a HUAWEI CLOUD account already bound with the customer account on the partner sales platform based on the response message. If the required HUAWEI CLOUD account exists, the

partner can directly log in to HUAWEI CLOUD. If the required HUAWEI CLOUD account does not exist, the page for creating and binding a HUAWEI CLOUD account is displayed.

– shows the page for creating a HUAWEI CLOUD account. The partner configures the required parameters on the page for creating a HUAWEI CLOUD account and clicks **Create And Bind** to create a HUAWEI CLOUD account and bind the account with the customer account on the partner sales platform.

– If the partner's customer already has a HUAWEI CLOUD account, click **Bind Account** on the page shown in . On the displayed page, configure the required parameters as prompt and click **Bind Account** to bind the HUAWEI CLOUD account with the customer account on the partner sales platform.

☐ NOTE

The customer cannot bind its customer account on the partner sales platform to its existing HUAWEI CLOUD account if this account is in one of the following conditions:

- In arrears
- Associated to another partner
- Used to sign a special contract with HUAWEI CLOUD, such as offline directly-signed contract, authorized telemarketing contract with discounts, or directly-signed special offer contract) with HUAWEI CLOUD
- A consulting partner account in use or pending approval
- An enterprise subaccount or an enterprise primary account associated with an enterprise subaccount
- Containing valid reserved instances

4. HUAWEI CLOUD notifies the account binding result using the binding notification API provided by the partner through browser redirection.

a. Obtain the request parameters **bindRequest**, **SigAlg**, and **Signature**.

b. Decode the signature using Base64 and use the signature algorithm **SigAlg** to perform signature verification for the **bindRequest** parameters.

☐ NOTE

HUAWEI CLOUD uses the private key used for SAML interconnection to verify the signature. The partner uses the public key (value of the **<ds:X509Certificate></ds:X509Certificate>** tag in the **SP Metadata.xml** file) used by HUAWEI CLOUD for SAML interconnection to verify the signature.

c. If the signature verification succeeds, decode the binding request using Base64 to obtain JSON strings and perform required operations based on the JSON data processing procedure. If the signature verification fails, the request is invalid and the processing is terminated.

10.3 How Do I Obtain the xaccountType Value?

The xaccountType value is the system ID of your partner sales platform. You can obtain the ID of your partner sales platform on the **Configure** page.

NOTICE

To obtain the value of **xaccountType**, you need to configure the access parameters on the **Support Center** > **API Management** page of Partner Center first.

For details, see .

After you configure the access parameters, you can obtain the **xaccountType** value (**Partner Platform ID** value) on the **Configure** page.
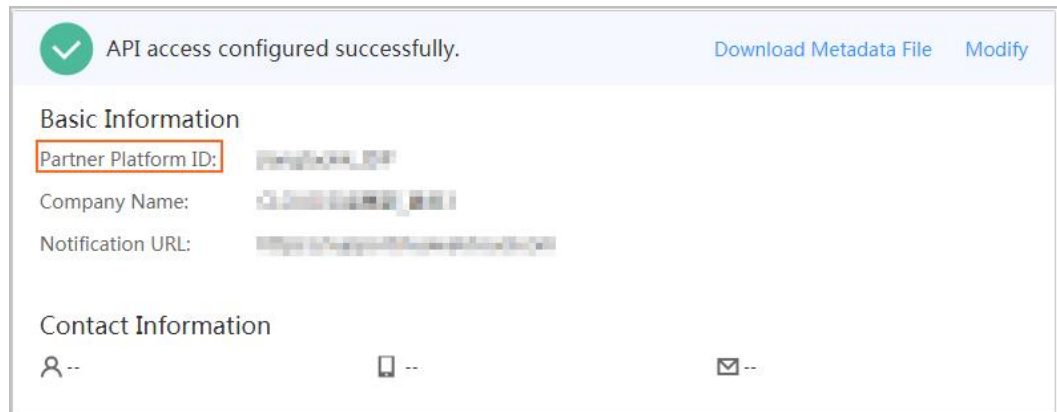
10.4 How Can I Replace a Partner Token with a Customer Token

Operations

1. Invoke the IAM API to obtain your Huawei Cloud account token. For details, see .

☐ NOTE

For details about the IAM API endpoints, see . If the **scope** field in the request body is **domain**, use the endpoint with **Region** being **All**. If the **scope** field is set to **project**, you can use the endpoint with **Region** being **All**, or the endpoint of the region to which the project belongs.

In this step, no token needs to be transferred. You only need to add **Content-Type** to the header, and set its value to **application/json**. As shown in Figure 10-2, the **x-subject-token** field in the red box on the **Headers** tab is your account token.

Example request

```
{
    "auth": {
        "identity": {
            "methods": [
                "password"
            ],
            "password": {
                "user": {
                    "name": "Partner's Huawei Cloud account",
                    "domain": {
                    "name": "Partner's Huawei Cloud account",
                    },
                    "password": "XXXXX"
                }
            }
        },
        "scope": {
            "domain": {
                "name": "Partner's Huawei Cloud account",
            }
```
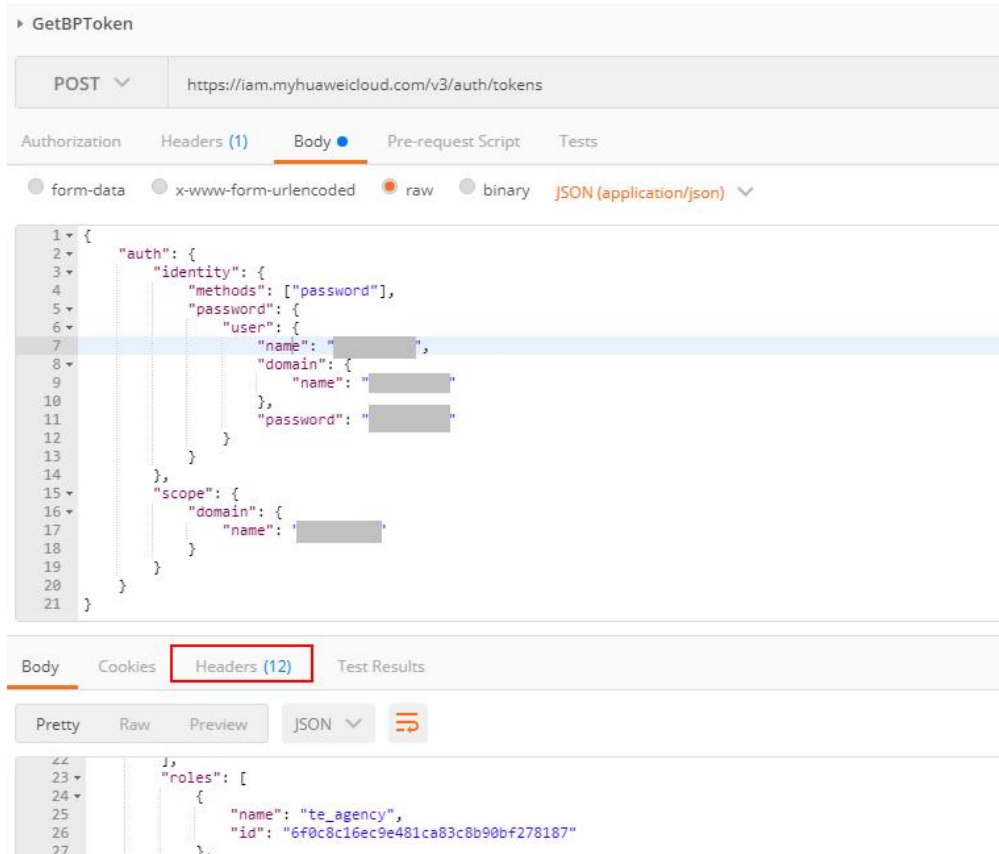
```
            }
        }
}
```

Figure 10-2 Obtaining partner's HUAWEI CLOUD account token

2. Invoke the IAM API to obtain the customer account token. For details, see .

    Add **Content-Type** and **X-Auth-Token** to the request header. Set **Content-Type** to **application/json** and **X-Auth-Token** to the BP token obtained in 1. As shown in Figure 10-3, the **x-subject-token** field in the red box on the **Headers** tab is the customer account token. A partner can use the customer's HUAWEI CLOUD account token to perform operations on resources in the customer's HUAWEI CLOUD account.

    Example request:

```
{
    "auth": {
        "identity": {
            "methods": [
                "assume_role"
            ],
            "assume_role": {
                "domain_name": "Customer's Huawei Cloud account",
                "agency_name": "Agency name (xaccountType)"
            }
        },
        "scope": {
```
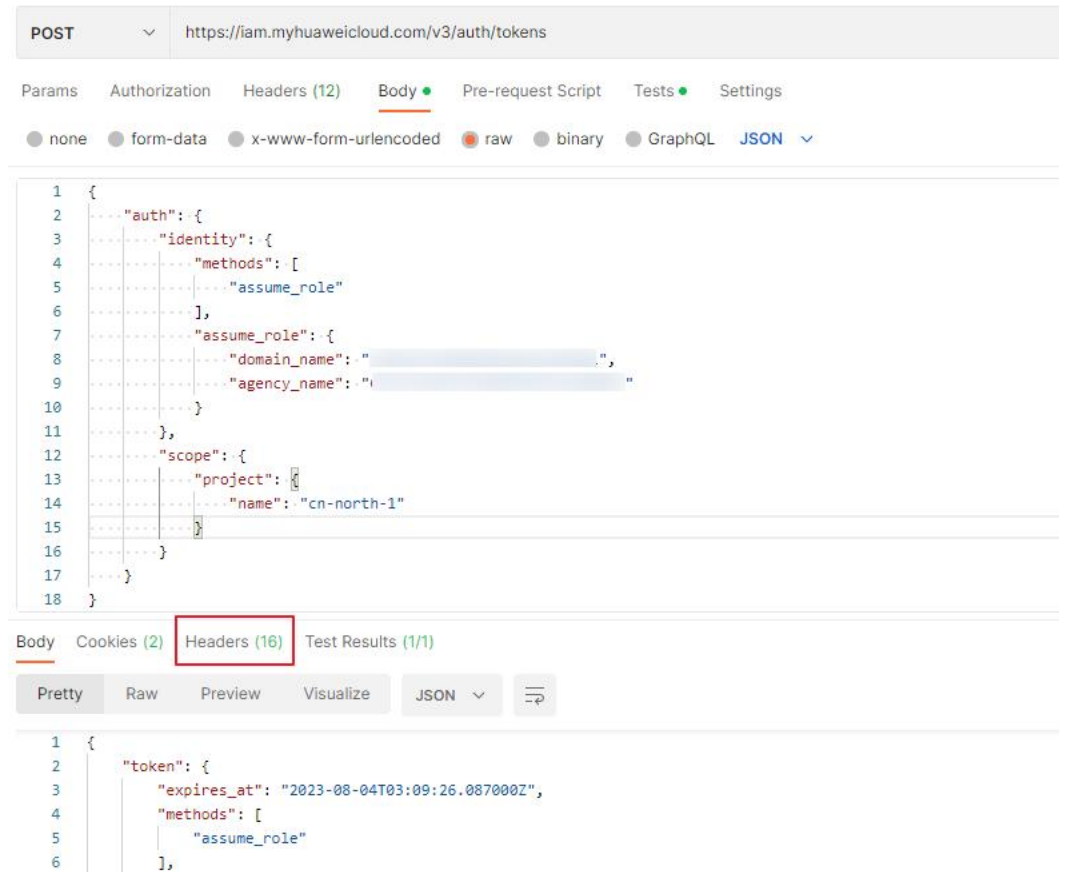
```
        "project": {
            "name": "The name of the project to which the customer's resources
belong
        }
    }
  }
}
```

Figure 10-3 Obtaining customer's HUAWEI CLOUD account token

Response body descriptions

– **readonly** indicates that the account has the Tenant Guest permissions. **te_admin** indicates that the account has the Tenant Administrator permissions.

Figure 10-4 Permissions descriptions

– Information marked in the red box in Figure 10-5 is the project ID.
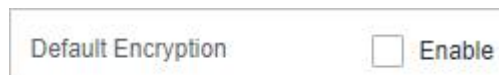
Figure 10-5 Project ID

10.5 File Subscription

Partners can subscribe to files in the Partner Center on HUAWEI CLOUD.

> **NOTE**
>
> - Do not enable **Default Encryption** when other tenants have obtained the permission to access your OBS bucket.
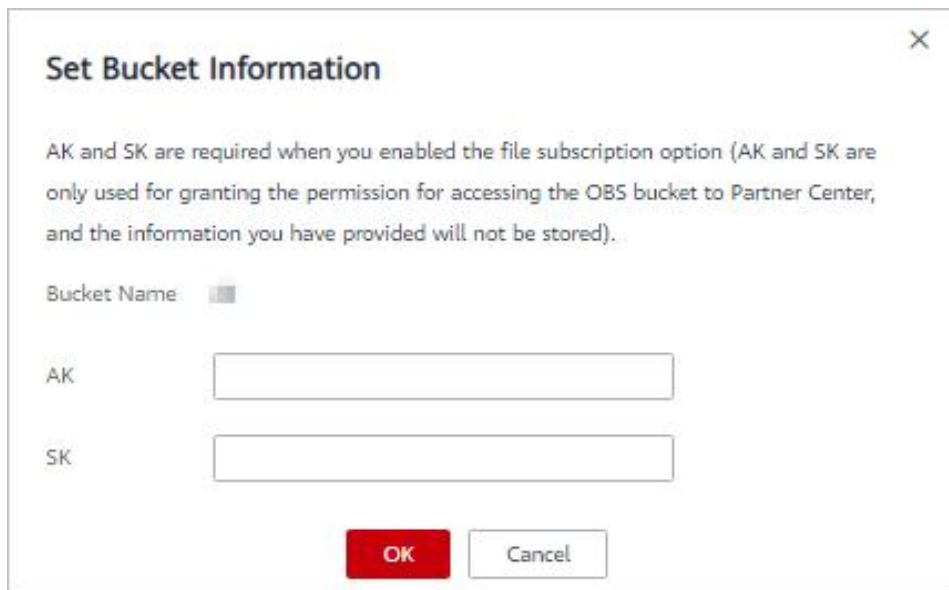
Procedure

Step 1 Use the partner account to log in to Partner Center. In the navigation pane on the left, choose　> API Management.

Step 2 Click **File Subscription**.

Step 3 If the partner has enabled real-name authentication, the bucket information is displayed on the **File Subscription** page.

Select the files to be subscribed to and click **Save**.

In the **Set Bucket Information** dialog box, enter the AK and SK of the OBS bucket and click **OK**.

Step 4 If the partner has not enabled real-name authentication, the bucket information is not displayed on the **File Subscription** page.

Enter the OBS bucket name, select the files to be subscribed to, and click **Save**.

In the **Set Bucket Information** dialog box, enter the AK and SK of the OBS bucket and click **OK**.

⚠ CAUTION

- AK and SK are mandatory.
- If your account is in arrears, pay off the outstanding fees in a timely manner. Otherwise, you cannot receive the subscription files. If you do not renew the subscription or pay off the outstanding fees after the retention period ends, the OBS bucket will be released, and the data stored in the bucket will be deleted. You are not allowed to subscribe files.

----End

10.6 How Do I Upload the Attachment for Real-Name Authentication?

If a partner's customers buy products from HUAWEI CLOUD Chinese mainland website and want to perform real-name authentication, customers need to upload pictures of the certificates for HUAWEI CLOUD to read to complete the real-name authentication.

Procedure

Step 1 Log in to the HUAWEI CLOUD Partner Center using your partner account. In the navigation pane on the left, choose **Support Center** > **API Management**.

Step 2 Click the **Configure** icon in the flowchart to switch to the **Configure** page. Enable **Upload Photos of Handheld ID Cards Required for Real-Name Authentication**.
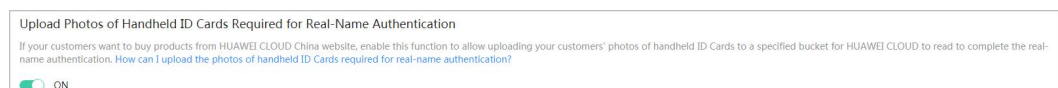
📖 NOTE

Skip this step if **Upload Photos of Handheld ID Cards Required for Real-Name Authentication** has been enabled when partners configure the access parameters.

Step 3 For details about how to create an OBS bucket, see **Creating a Bucket**.

📖 NOTE

- A partner account cannot be used to purchase resources. Therefore, partners need to use a common HUAWEI CLOUD account to log in to the system and create a bucket.
- To change a bucket, partners need to go to the configuration modification page, cancel subscription to all files, and disable attachment uploading for real-name authentication. Then, the partners can add a bucket on the configuration modification page.
- Different partners cannot share the same bucket.
- Only OBS buckets purchased on Huawei Cloud in the **EU-Ireland** region can be used.

Step 4 Upload the attachment for real-name authentication to the OBS bucket created by the partner..

----End

10.7 Support for Discounts or Coupons

When a partner invokes the interface described in 7.4.2 Renewing Subscription to Yearly/Monthly Resources to renew the subscription, it can configure automatic payment.

- If the **isAutoPay** parameter is set to **1**, automatic payment is enabled. Discounts and coupons can be used in automatic payment.

  For details about the payment rules, see **Rule Description** in .

10.8 Status Code

Table 10-2 lists the HTTP response status code.

Table 10-2 HTTP response status code

Status Code	Coding	Description
100	Continue	The client continues sending the request. This interim response is used to inform the client that the initial part of the request has been received and has not yet been rejected by the server.
101	Switching Protocols	Switching protocols. The target protocol must be more advanced than the source protocol. For example, the current HTTP protocol is switched to a later version.
201	Created	The request for creating a resource or task has been fulfilled.
202	Accepted	The request has been accepted, but the processing has not been completed.
203	Non-Authoritative Information	The server successfully processed the request, but is returning information that may be from another source.

Status Code	Coding	Description
204	NoContent	The server has successfully processed the request, but has not returned any content. The status code is returned in response to an HTTP OPTIONS request.
205	Reset Content	The server has fulfilled the request, but the requester is required to reset the content.
206	Partial Content	The server has processed certain GET requests.
300	Multiple Choices	There are multiple options for the location of the requested resource. The response contains a list of resource characteristics and addresses from which the customer or customer agent (such as a browser) can choose the most appropriate one.
301	Moved Permanently	The requested resource has been assigned a new permanent URI, and the new URI is contained in the response.
302	Found	The requested resource resides temporarily under a different URI.
303	See Other	Retrieve a location. The response to the request can be found under a different URI and should be retrieved using a GET or POST method.
304	Not Modified	The requested resource has not been modified. In such a case, there is no need to retransmit the resource since the client still has a previously-downloaded copy.
305	Use Proxy	The requested resource must be accessed through a proxy.
306	Unused	The HTTP status code is no longer used.
400	BadRequest	Invalid request. The client should not repeat the request without modifications.
401	Unauthorized	The status code is returned after the client provides the authentication information, indicating that the authentication information is incorrect or invalid.
402	Payment Required	This status code is reserved for future use.
403	Forbidden	The server understood the request, but is refusing to fulfill it. The client should not repeat the request without modifications.
404	NotFound	The requested resource cannot be found.

Status Code	Coding	Description
		The client should not repeat the request without modifications.
405	MethodNotAllowed	The method specified in the request is not supported for the requested resource. The client should not repeat the request without modifications.
406	Not Acceptable	The server cannot fulfill the request according to the content characteristics of the request.
407	Proxy Authentication Required	This status code is similar to 401, but indicates that the client must first authenticate itself with the proxy.
408	Request Time-out	The request timed out. The client may repeat the request without modifications at any later time.
409	Conflict	The request could not be processed due to a conflict. This status code indicates that the resource that the client attempts to create already exits, or the request fails to be processed because of the update of the conflict request.
410	Gone	The requested resource is no longer available. The status code indicates that the requested resource has been deleted permanently.
411	Length Required	The server refuses to process the request without a defined Content-Length.
412	Precondition Failed	The server does not meet one of the preconditions that the requester puts on the request.
413	Request Entity Too Large	The request is larger than that a server is able to process. The server may close the connection to prevent the client from continuing the request. If the server cannot process the request temporarily, the response will contain a Retry-After header field.
414	Request-URI Too Large	The URI provided was too long for the server to process.
415	Unsupported Media Type	The server is unable to process the media format in the request.
416	Requested range not satisfiable	The requested range is invalid.
417	Expectation Failed	The server fails to meet the requirements of the Expect request-header field.
422	UnprocessableEntity	The request is well-formed but is unable to be processed due to semantic errors.

Status Code	Coding	Description
429	TooManyRequests	The client has sent more requests than its rate limit is allowed within a given amount of time, or the server has received more requests than it is able to process within a given amount of time. In this case, it is advisable for the client to re-initiate requests after the time specified in the Retry-After header of the response expires.
500	InternalServerError	The server is able to receive the request but it could not understand the request.
501	Not Implemented	The server does not support the requested function.
502	Bad Gateway	The server is acting as a gateway or proxy and receives an invalid request from a remote server.
503	ServiceUnavailable	The requested service is invalid. The client should not repeat the request without modifications.
504	ServerTimeout	The request cannot be fulfilled within a given time. This status code is returned to the client only when the **Timeout** parameter is specified in the request.
505	HTTP Version not supported	The server does not support the HTTP protocol version used in the request.

10.9 Error Codes

When a partner invokes an operations API provided by Huawei Cloud, the response body contains the error code and error code description.

> **NOTICE**
>
> - **4**xx: This class of HTTP status code is intended for situations in which the error seems to have been caused by the client, for example, the request contains bad syntax or incorrect parameters. You must ensure the request is correct.
> - **5**xx: This class of HTTP status code is intended for cases in which the Huawei Cloud server is aware that it has encountered an error or is otherwise incapable of performing the request. In this case, contact Huawei Cloud customer service.

Error Code Structure Format

```
{
  "error_code": "xxxx",
```

```
    "error_msg": "xxxx"
}
```

Error Codes

Table 10-3 Error codes

Status Code	Error Code	Error Message	Description
200	CBC.0000	Success.	Succeeded.
403	CBC.0150	Access denied. The customer does not belong to the website you are now at.	Access failed. You are not a client of this website.
400	CBC.180000 16	Insufficient permissions. Contact your associated partner.	Insufficient permissions. Contact your partner.
400	CBC.180000 48	Too many independent accounting members. Specify a member account for query.	Too many independent accounting members. Specify a member account for query.
200	CBC.3002	The resource has been locked.	The resource has been locked.
200	CBC.3006	Unsupported cloud service type.	Unsupported cloud service type.
200	CBC.3016	Expired resources exist.	Expired resources exist.
200	CBC.300500 07	It is not a primary resource, and the renewal quotation is not allowed.	Renewal price inquiry is not available for non-primary resources.
200	CBC.300500 08	The period type or number of periods for the resource does not exist.	The period type or the number of periods for the resource is unavailable.
200	CBC.300500 09	The resources do not exist or has been deleted due to expiration.	The resources have expired and been deleted or do not exist.
200	CBC.300500 10	This operation is not allowed because some resources are	Some resources are included in your orders to be paid. The operation is not supported.

Status Code	Error Code	Error Message	Description
		included in the unpaid orders.	
200	CBC.300500 11	The resources are being unsubscribed from or changed.	Resources are being unsubscribed from or changed.
200	CBC.300500 13	The product cannot be renewed.	Renewal not supported.
200	CBC.3106	The order status has changed and no payment can be made.	The order status has changed and no payment can be made.
200	CBC.3112	The coupon or stored-value card has been used.	The coupon or stored-value card has been used.
200	CBC.3124	Resources have been unsubscribed from.	Resources have been unsubscribed from.
200	CBC.3144	Operation not supported. There is an order in progress for this resource.	You have orders in progress and cannot perform the current operation.
200	CBC.3128	The resource does not have renewed periods or its renewed periods have taken effect, and the renewal periods cannot be unsubscribed from.	The resource does not have renewed periods or its renewed periods have taken effect, and the renewal periods cannot be unsubscribed from.
200	CBC.3141	Cloud service quota or capacity is insufficient, or the resource specifications have changed.	Cloud service quota or capacity is insufficient, or the resource specifications have changed.
200	CBC.3155	Insufficient enterprise project fund quota, or invalid project.	Insufficient enterprise project fund quota, or invalid project.
200	CBC.3162	The add-on package you purchased does not meet payment requirements.	The add-on package you purchased does not meet payment requirements.
200	CBC.3185	The cloud service can only be	The cloud service can only be unsubscribed from as a whole.

Status Code	Error Code	Error Message	Description
		unsubscribed from as a whole.	
200	CBC.3638	Subscription to bandwidth add-on packages cannot be renewed.	Subscription to bandwidth add-on packages cannot be renewed.
200	CBC.3640	Bandwidth add-on packages cannot be unsubscribed from.	Bandwidth add-on packages cannot be unsubscribed from.
200	CBC.5005	The customer is being authenticated by HUAWEI CLOUD.	The customer is being authenticated by HUAWEI CLOUD.
200	CBC.500000 45	No frequent operations are allowed for the same coupon quota.	No frequent operations are allowed for the same coupon quota. You are in the process of allocating coupon quotas. Wait until the process ends.
200	CBC.5006	The customer type (individual/enterprise) is different from the customer type stored in HUAWEI CLOUD.	The customer type (individual/enterprise) is different from the customer type stored in HUAWEI CLOUD.
200	CBC.5007	The subscribed products must belong to the same region.	The subscribed products must belong to the same region.
200	CBC.5020	Partial failure.	Partial failure.
200	CBC.5023	The account type does not match the association type.	The account type does not match the association type.
200	CBC.5024	This API cannot be invoked because the association type of the customer is incorrect.	This API cannot be invoked because the association type of the customer is incorrect.
200	CBC.5041	Resources in this order have been unsubscribed.	Resources in this order have been unsubscribed.
200	CBC.5042	Resources cannot be found.	Resources cannot be found.
200	CBC.6001	Required param resource id or riInstanceId is null	The resource ID or reserved instance ID is empty.

Status Code	Error Code	Error Message	Description
		or empty.	
200	CBC.6055	Calculate result exceeds max value.	The queried amount exceeds the upper limit.
200	CBC.6006	The required product cannot be found.	The required product cannot be found.
400	CBC.0100	parameter error.	Invalid parameter.
400	CBC.0101	Invalid parameter.	Invalid parameter.
400	CBC.18000014	Inactive Cost Management.	Cost Center not enabled.
500	CBC.30000010	Invalid order (maybe the order does not exist), unable to operate.	Operation not allowed because the order is invalid or does not exist.
400	CBC.30000052	The resource or account has been already frozen.	Operation not allowed. Your resource has been frozen.
400	CBC.30010035	resource deleted.	Resource deleted.
400	CBC.30010036	Renewal is only supported for primary resources.	Renewal is only supported for primary resources.
400	CBC.30010069	The renewal period does not exist.	The renewal period does not exist.
400	CBC.30050006	Automatic order payment failed.	Automatic order payment failed.
400	CBC.30050012	Duplicate resource ID.	There are duplicate resource IDs.
400	CBC.5001	You has not been a partner.	You are not a partner yet.
400	CBC.5002	The customer does not exist.	The customer does not exist.
400	CBC.5003	Insufficient balance.	Insufficient balance.
400	CBC.5004	You do not have the operation permission to the customer.	You do not have the operation permission to the customer.
400	CBC.50010059	Customer association not supported for distributors.	Customer association not supported for distributors.

Status Code	Error Code	Error Message	Description
400	CBC.500100 85	Customer association not allowed. The account of this partner has been restricted.	Customer association not allowed. The account of this partner has been restricted.
400	CBC.500100 86	Customer association not allowed. This partner is a Huawei Cloud reseller, and the account of its associated distributor has been restricted.	Customer association not allowed. This partner is a Huawei Cloud reseller, and the account of its associated distributor has been restricted.
400	CBC.706000 26	Huawei Cloud cannot review the information you submitted for real-name authentication. Contact your account manager.	Sorry, Huawei Cloud cannot review your real-name authentication information. Please contact your account manager for assistance.
400	CBC.7151	Expired verification code.	Expired verification code.
400	CBC.7152	Incorrect verification code.	Incorrect verification code.
400	CBC.7188	The customer has passed real-name authentication or is being reviewed.	The customer has passed real-name authentication or is being reviewed.
400	CBC.7191	The number of real-name authentication times of the customer exceeds the upper limit.	The number of real-name authentication times of the customer exceeds the upper limit.
400	CBC.7202	Real-name authentication failed.	Real-name authentication failed.
400	CBC.7219	Real-name authentication information does not match the facial image.	Real-name authentication information does not match the facial image.
400	CBC.7253	The picture of the ID	The picture of the ID card is invalid

Status Code	Error Code	Error Message	Description
		card is invalid or blurred.	or blurred.
400	CBC.7254	Currently, registration with HUAWEI CLOUD is not available to users in this country.	Currently, registration with HUAWEI CLOUD is not available to users in this country.
400	CBC.7255	The ID information or mobile number is incorrect.	The ID information or mobile number is incorrect.
400	CBC.7256	The legal entity information is incorrect.	The legal entity information is incorrect.
400	CBC.7257	The enterprise information is incorrect.	The enterprise information is incorrect.
400	CBC.7265	You are a partner and cannot be authenticated as an individual using your real name.	You are a partner and cannot be authenticated as an individual using your real name.
400	CBC.7267	The member account is being associated with a master account and cannot perform real-name authentication again.	The member account is being associated with a master account and cannot perform real-name authentication again.
400	CBC.7281	Renewal, payment, or unsubscription not supported. Your account has been frozen.	Renewal, unsubscription, or payment not supported. Your account has been frozen.
400	CBC.990000 00	You do not have the operation permission to the customer.	You do not have the operation permission to the customer.
400	CBC.990000 04	An exception occurred when the customer authorized rights to the partner.	An exception occurred when the customer authorized rights to the partner.
400	CBC.990000 26	Incorrect verification code.	Incorrect verification code.
400	CBC.990000 27	Expired verification code.	Expired verification code.

Status Code	Error Code	Error Message	Description
400	CBC.9900000 28	The email address already exists.	Invalid email address. Email already in-use.
400	CBC.9900000 31	Invalid DomainName.	Invalid DomainName.
400	CBC.9900000 32	Invalid email address.	Invalid email address.
400	CBC.9900000 34	Currently, registration with HUAWEI CLOUD is not available to users in this country.	Currently, registration with HUAWEI CLOUD is not available to users in this country.
400	CBC.9900000 35	This customer has not been associated with you.	You are not a customer of a partner yet.
400	CBC.9900000 36	Invalid password.	Invalid password.
400	CBC.9900000 37	You do not have the permission to operate this Huawei Cloud reseller.	You do not have the permission to operate this Huawei Cloud reseller.
400	CBC.9900000 38	The account name already exists.	The account name already exists.
400	CBC.9900000 39	xAccountId exists.	Duplicate xAccountId.
400	CBC.9900000 46	Insufficient budget.	Insufficient budget.
400	CBC.9900000 49	BindType can not be resale.	The customer associated in Reseller model has no account balance.
400	CBC.9900000 51	Customer creation failed because this mobile number or email address has been preregistered by Huawei.	Customer creation failed because this mobile number or email address has been pre-registered by Huawei.
400	CBC.9900000 55	Referral model not supported.	Referral model not supported.
400	CBC.9900000 82	You have exceeded the maximum verification code requests allowed.	Maximum verification code requests reached.
400	CBC.9900000	We have received your payment and it	Your payment is being processed.

Status Code	Error Code	Error Message	Description
	88	is currently being processed. Please do not attempt to make the payment again.	
400	CBC.9900000 89	The current operation can only be performed on combined orders.	Operation failed. Sub-orders of a combine order cannot be processed independently.
400	CBC.9900000 92	Incorrect subscription period.	Incorrect subscription period.
400	CBC.9900030 04	The resource has dependencies.	The resource has dependencies.
400	CBC.9900030 12	The resource ID does not exist.	The resource ID does not exist.
400	CBC.9900030 16	The resources have expired and been deleted or do not exist.	The resources have expired and been deleted or do not exist.
400	CBC.9900031 00	This operation is not allowed because some resources are included in your orders to be paid.	This operation is not allowed because some resources are included in your orders to be paid.
400	CBC.9900031 06	The order status has changed and no payment can be made.	The order status has changed and no payment can be made.
400	CBC.9900031 08	Unavailable discount.	Unavailable discount.
400	CBC.9900031 10	The order has not been paid before the expiration time. Please re-submit the order.	The order has not been paid before the expiration time. Please re-submit the order.
400	CBC.9900031 12	The coupon or stored-value card has been used.	The coupon or stored-value card has been used.
400	CBC.9900031 15	An error occurred. Try again later.	An error occurred. Try again later.
400	CBC.9900031 16	The restriction to selected coupon regulates that the coupon cannot be used with the	The restriction to selected coupon regulates that the coupon cannot be used with the discount at the same time.

Status Code	Error Code	Error Message	Description
		discount at the same time.	
400	CBC.990031 17	The selected discount is less than the minimum discount rate configured for the selected coupon. Note: For example, if the minimum discount rate configured for a coupon is 90% and the selected discount is less than 90% in all order lines, the discount cannot be used.	The selected discount is less than the minimum discount rate configured for the selected coupon. Note: For example, if the minimum discount rate configured for a coupon is 90% and the selected discount is less than 90% in all order lines, the discount cannot be used.
400	CBC.990031 24	Resources have been unsubscribed from.	Resources have been unsubscribed from.
400	CBC.990031 28	The resource does not have renewed periods or its renewed periods have taken effect, and the renewal periods cannot be unsubscribed from.	The resource does not have renewed periods or its renewed periods have taken effect, and the renewal periods cannot be unsubscribed from.
400	CBC.990031 41	Cloud service quota or capacity is insufficient, or the resource specifications have changed.	Cloud service quota or capacity is insufficient, or the resource specifications have changed.
400	CBC.990031 44	Operation not supported. There is an order in progress for this resource.	You have orders in progress and cannot perform the current operation.
400	CBC.990031 47	Discounts and cash coupons cannot be used together.	Discounts and cash coupons cannot be used together.
400	CBC.990031 51	This discount cannot be used together with other discounts.	This discount cannot be used together with other discounts.
400	CBC.990031 54	The sum of the existing and renewal	Subscription plus renewal too long. Select shorter renewal.

Status Code	Error Code	Error Message	Description
		durations has exceeded the maximun. Select another renewal duration.	
400	CBC.9900031 55	Insufficient enterprise project fund quota, or invalid project.	Insufficient enterprise project fund quota, or invalid project.
400	CBC.9900031 56	Coupons applicable to Marketplace products cannot be used together with dedicated coupons.	Coupons applicable to KooGallery products cannot be used together with dedicated coupons.
400	CBC.9900031 62	The payment time must be earlier than the specified effective time.	The payment time must be earlier than the specified effective time.
400	CBC.9900031 85	The cloud service can only be unsubscribed from as a whole.	The cloud service can only be unsubscribed from as a whole.
400	CBC.9900031 98	Insufficient organization budget.	Insufficient budget of the organization.
400	CBC.9900036 02	Automatic renewal is not supported for expired or frozen resources.	Automatic renewal is not supported for expired or frozen resources.
400	CBC.9900036 05	Theautomatic renewal has been canceled. The current operation cannot be performed.	Automatic renewal has been canceled and you cannot perform the current operation.
400	CBC.9900036 09	The billing mode of this product type cannot be converted into pay-per-use.	The billing mode of this product type cannot be converted into pay-per-use.
200	CBC.9900036 10	The billing mode of resources in the grace or retention period cannot be converted into pay-per-use.	The billing mode of resources in the retention period cannot be converted into pay-per-use.
400	CBC.990036	The billing mode of	The billing mode of pay-per-usage

Status Code	Error Code	Error Message	Description
	11	pay-per-usage packages cannot be converted into pay-per-use.	packages cannot be converted into pay-per-use.
400	CBC.990036 22	The billing mode of solutions cannot be converted into pay-per-use.	The billing mode of solutions cannot be converted into pay-per-use.
400	CBC.990036 23	Cannot be converted into the pay-per-use billing mode because there are transactions being processed.	Cannot be converted into the pay-per-use billing mode because there are transactions being processed.
400	CBC.990036 24	Cannot be converted into the pay-per-use billing mode because the resource has been frozen due to security reasons.	Cannot be converted into the pay-per-use billing mode because the resource has been frozen due to security reasons.
400	CBC.990036 26	Cannot be converted into the pay-per-use billing mode because this account has been frozen.	Cannot be converted into the pay-per-use billing mode because this account has been frozen.
400	CBC.990036 31	Unsubscribed,deleted, and released resources cannot be renewed.	Resources that are being unsubscribed, deleted, or released cannot be renewed.
400	CBC.990036 34	Resources in discount packages must be renewed as a whole and cannot be renewed together with other resources.	Resources in discount packages must be renewed as a whole and cannot be renewed together with other resources.
400	CBC.990036 38	Subscription to bandwidth add-on packages cannot be renewed.	Subscription to bandwidth add-on packages cannot be renewed.
400	CBC.990036 43	Unsubscriptionis not allowed for cloud services that have been invoiced.	For cloud services for which invoices have been issued, unsubscription is not supported.
400	CBC.990036 45	Unsubscription not supported for the service type of the	Unsubscription not supported for this cloud service type.

Status Code	Error Code	Error Message	Description
		resource.	
400	CBC.990036 47	Unsubscription not supported for this pay-per-use package.	Unsubscription not supported for this pay-per-use package.
400	CBC.990036 49	Unsubscription not supported for cloud services in trial use.	Unsubscription not supported for cloud services in trial use.
400	CBC.990036 50	Unsubscription not supported for this cloud service from the KooGallery.	Unsubscription not supported for this cloud service from the KooGallery.
400	CBC.990036 51	Unsubscription not supported. An operation associated with this instance is in progress.	Unsubscription not supported. An operation associated with this instance is in progress.
400	CBC.990036 52	Unsubscription is not supported for DevCloud packages.	Unsubscription is not supported for DevCloud packages.
400	CBC.990036 54	This renewal period cannot be canceled because it includes an add-on bandwidthpackage.	If there is a bandwidth add-on package, you cannot unsubscribe from the renewal period.
400	CBC.990036 56	Operation not allowed. Your account has been frozen.	Operation not allowed. Your resource has been frozen.
400	CBC.990040 01	The template does not exist.	The template does not exist.
400	CBC.990040 02	Failed to generate the verification code.	Failed to generate the verification code.
400	CBC.990040 03	The verification code is successfully generated but fails to be sent.	The verification code is successfully generated but fails to be sent.
400	CBC.990040 04	Empty email address./Invalid format.	Empty email address./Invalid format.
400	CBC.990040 05	Empty mobile number./Invalid format.	Empty mobile number./Invalid format.

Status Code	Error Code	Error Message	Description
400	CBC.9900400 08	Invalid verification code.	Invalid verification code.
400	CBC.9900400 09	The verification code is available, but the number of verification failures is greater than 3.	The verification code is available, but the number of verification failures is greater than 3.
400	CBC.9900400 10	The verification code entered is incorrect.	The verification code entered is incorrect.
400	CBC.9900400 15	The number of verification code sending times has reached the upper limit (15 times per hour, 60 times per day).	The number of verification code sending times has reached the upper limit (15 times per hour, 60 times per day).
400	CBC.9900500 03	Your balance is insufficient.	Insufficient balance.
400	CBC.9900500 10	Orders in this state cannot be canceled.	Orders in this state cannot be canceled.
400	CBC.9900500 36	The customer does not support payment via interface.	The customer does not support payment via interface.
400	CBC.9900500 24	This API cannot be invoked because the association type of the customer is incorrect.	This API cannot be invoked because the association type of the customer is incorrect.
400	CBC.9900500 26	The order is not a degrade or unsubscription order.	The order is not a degrade or unsubscription order.
400	CBC.9900500 30	The partner did not complete real-name authentication or bucket authentication.	The partner did not complete real-name authentication or bucket authentication.
400	CBC.9900500 35	This API cannot be used by a sandbox account.	This API cannot be used by a sandbox account.
400	CBC.9900500 42	The resource cannot be found or unsubscribed from.	The resource cannot be found or unsubscribed from.

Status Code	Error Code	Error Message	Description
400	CBC.9900600 06	Product not found.	Product not found.
400	CBC.9900600 16	Failed to query coupon information.	Failed to query coupon information.
400	CBC.9900600 17	Failed to query customer details.	Failed to query customer information.
400	CBC.9900600 24	Failed to query product information.	Failed to query product information.
400	CBC.9900600 50	Incorrect usage measurement unit.	Incorrect usage unit
400	CBC.9900600 55	The queried amount exceeds the upper limit.	The queried amount exceeds the upper limit.
400	CBC.9900600 66	An error occurred during the query of the fee information.	An error occurred during the query of the fee information.
400	CBC.9900600 73	Project not found.	Project not found.
400	CBC.9900600 74	The billing item does not exist.	The billing item does not exist.
400	CBC.9900600 93	Failed to obtain tax rate information.	Failed to obtain the tax rate.
400	CBC.9900071 88	The customer has passed real-name authentication or is being reviewed.	This customer has completed real-name authentication or is currently being authenticated.
400	CBC.9900071 89	The number of users who used the certificate ID for real-name authentication has reached the maximum limit.	The number of users who used the certificate ID for real-name authentication has reached the maximum limit.
400	CBC.9900071 91	The number of real-name authentication times of the customer exceeds the upper limit.	The number of real-name authentication times of the customer exceeds the upper limit.
400	CBC.9900071 93	The certificate ID is from an invalid certificate and	The certificate ID is from an invalid certificate and cannot be used for real-name authentication.

Status Code	Error Code	Error Message	Description
		cannot be used for real-name authentication.	
400	CBC.990072 53	The picture of the ID card is invalid or blurred.	The picture of the ID card is invalid or blurred.
400	CBC.990072 56	The legal entity information is incorrect.	The legal entity information is incorrect.
400	CBC.990072 57	The enterprise information is incorrect.	The enterprise information is incorrect.
400	CBC.990072 61	This bank is not supported. Please try other bank cards.	The bank card is not supported. Try another bank card.
400	CBC.990072 65	Other errors.	Other errors.
400	CBC.990072 67	The member account is being associated with a master account and cannot perform real-name authentication again.	The member account is being associated with a master account and cannot perform real-name authentication again.
400	CBC.990080 40	Too many attempts.	Too many attempts.
401	CBC.0154	Invalid or expired token.	Invalid or expired token.
403	CBC.0150	Invalid operation.	Invalid operation.
403	CBC.0151	Access denied.	Access denied.
403	CBC.0155	The request was a valid request, but the server is refusing to respond to it.	The request was a valid request, but the server is refusing to respond to it.
429	CBC.0250	Connection request control triggered.	Connection request control triggered.
500	CBC.0999	Other errors.	Other errors.
500	CBC.4001	The template does not exist.	The template does not exist.
500	CBC.4002	Failed to generate the verification code.	Failed to generate the verification code.

Status Code	Error Code	Error Message	Description
500	CBC.4003	The verification code is successfully generated but fails to be sent.	The verification code is successfully generated but fails to be sent.
500	CBC.4004	The email address is empty.	The email address is empty.
500	CBC.4005	Empty mobile number./Invalid format.	Empty mobile number/Invalid format.
500	CBC.4006	Failed to verify the mobile number.	Failed to verify the mobile number.
500	CBC.4007	Failed to verify the email address.	Failed to verify the email address.
500	CBC.4008	Invalid verification code.	Invalid verification code.
500	CBC.4009	The verification code is available, but the number of verification failures is greater than 3.	The verification code is available, but the number of verification failures is greater than 3.
500	CBC.4015	The number of verification code sending times has reached the upper limit.	The number of verification code sending times has reached the upper limit.
500	CBC.5012	The account name already exists.	The account name already exists.
500	CBC.5013	The email address already exists.	The email address already exists.
500	CBC.5014	The mobile number already exists.	The mobile number already exists.
500	CBC.5015	Invalid account name.	Invalid account name.
500	CBC.5016	Invalid email address.	Invalid email address.
400	CBC.5017	Invalid mobile number.	Invalid mobile number.
500	CBC.5018	Duplicate xAccountId.	Duplicate **xAccountId**.

Status Code	Error Code	Error Message	Description
500	CBC.5019	The number of customers exceeds the license limit.	The number of customers exceeds the license limit.
500	CBC.5025	An exception occurred when the customer authorized rights to the partner.	An exception occurred when the customer authorized rights to the partner.
500	CBC.7001	Failed to allocate money to the member account because the primary account is not associated with the sub-account.	Failed to allocate money to the member account because the primary account is not associated with the sub-account.
500	CBC.7004	The initiated service operation does not meet the service check item requirement.	The initiated service operation does not meet the service check item requirement.
500	CBC.7181	the validity period of the credit line allocated or recovered has expired.	The credit limit allocated to or withdrawn from the customer account has expired.
500	CBC.7189	The number of users who used the certificate ID for real-name authentication has reached the maximum limit.	The number of users who used the certificate ID for real-name authentication has reached the maximum limit.
500	CBC.7193	The certificate ID is from an invalid certificate and cannot be used for real-name authentication.	The certificate ID is from an invalid certificate and cannot be used for real-name authentication.
500	CBC.7228	Invalid password.	Invalid password.
500	CBC.990000 50	Query for the result of associating partner and its sub-customer timed out. Use the API for querying customers to check the association result.	Query for the result of associating partner and its sub-customer timed out. Use the API for querying customers to check the association result.