**Partner Center**

# API Reference

**Issue**        71
**Date**        2024-01-29

# Security Declaration

## Vulnerability

Huawei's regulations on product vulnerability management are subject to the *Vul. Response Process.* For details about this process, visit the following web page:
https://www.huawei.com/en/psirt/vul-response-process
For vulnerability information, enterprise customers can visit the following web page:
https://securitybulletin.huawei.com/enterprise/en/security-advisory

# Contents

# 1 Change History

| Description | Released On |
|---|---|
| This issue is the eighty-third official release.<br><br>This release incorporates the following changes:<br><br>● Added the **email** field to the response of the V2 API for **querying the customer list**. This field indicates the customer email address.<br>● Added the **sub_order_infos** field to the **order_infos** field in the response of the V2 API for **querying the order list**.<br>● Added the **sub_order_infos** field to the **order_infos** field in the response of the V2 API for **querying order details**. Added the **order_id** field (order ID) to the **order_line_items** response field. | 2024-01-20 |
| This issue is the eighty-second official release.<br><br>This release incorporates the following changes:<br><br>● Added the **update_time** (resource update time) and **enterprise_project** (customer resource enterprise project details) response fields to the V2 API for **querying customer's yearly/monthly resources**.<br>● Added response field **consume_time** (expenditure time, which is a UTC time) to the V2 API for **querying customer resource usage**. | 2024-12-23 |
| This issue is the eighty-first official release.<br><br>This release incorporates the following changes:<br><br>● Added response parameters **product_spec_desc** (product specifications), **spec_size** (product instance size), and **spec_size_measure_id** (unit of the product instance size) to the V2 API for **querying yearly/monthly resources**.<br>● Added the **pending_payment_end_time** and **base_product_info** response parameters to the V2 API for **querying order details**. **pending_payment_end_time** indicates the payment end time of an unpaid order, and **base_product_info** indicates the product information in the order line before the change. | 2024-11-26 |

| Description | Released On |
|---|---|
| This issue is the eightieth official release.<br><br>This release incorporates the following changes:<br><br>● In section **Querying Coupons**:<br>  – Deleted the enumerated value **Not activated** from the **status** request parameter of the API.<br>  – Deleted the description **For used, expired, and reclaimed coupons, data within 12 months after expiration can be queried**.<br>  – Added the description that information about cash coupons and discount coupons that have expired for more than one year is not returned.<br>● In sections **Requesting an Individual Real-Name Authentication**, **Requesting an Enterprise Real-Name Authentication**, and **Requesting a Real-Name Authentication Change**:<br>  – Added the error code CBC.99000099: The certificate attachment the customer submitted for real-name authentication exceeded the maximum size allowed.<br>  – Added the error code CBC.99000100: Incorrect format of the certificate attachment the customer submitted for real-name authentication.<br>● Added the **enterprise_projects** field to the response of the API in **Querying Orders**. | 2024-10-29 |
| This issue is the seventy-ninth official release.<br><br>This release incorporates the following change:<br><br>Creating an agency and granting permissions are not supported in **Creating a Customer**. | 2024-10-14 |
| This issue is the seventy-eighth official release.<br><br>This release incorporates the following change:<br><br>Starting from September 1, 2024 00:00:00 GMT+08:00, Huawei Cloud optimizes the billing cycle calculation rules based on the user agreement. After the optimization, the billing cycle will be associated with the expenditure time.<br><br>For more details, see **How Does Huawei Cloud Calculate the Billing Cycle?** | 2024-8-29 |

| Description | Released On |
|---|---|
| This issue is the seventy-seventh official release.<br><br>This release incorporates the following changes:<br><br>• In the V2 API for **freezing customer accounts**, the description "If you need to change the freezing type for an already frozen account, you need to unfreeze the account first" was deleted; the error code **CBC.70300007** and its description "If you need to change the freezing type for an already frozen account, you need to unfreeze the account first" were deleted; and the descriptions of the enumerated values **ACCOUNT** and **ACCOUNT_AND_RESOURCE** of the **freeze_type** parameter were modified. **ACCOUNT**: The account will be frozen. **ACCOUNT_AND_RESOURCE**: Both the account and resources in the account will be frozen.<br><br>• In the V2 API for **unfreezing customer accounts**, the description of the enumerated values **ACCOUNT** and **ACCOUNT_AND_RESOURCE** of **unfreeze_type** were modified. **ACCOUNT**: The account will be unfrozen. **ACCOUNT_AND_RESOURCE**: Both the account and resources in the account will be unfrozen. | 2024-8-29 |
| This issue is the seventy-sixth official release.<br><br>This release incorporates the following change:<br><br>Added the V2 API for **querying expenditure quotas**. | 2024-7-29 |

| Description | Released On |
|---|---|
| This issue is the seventy-fifth official release.<br><br>This release incorporates the following changes:<br><br>● Added the description, "If you need to change the freezing type for an already frozen account, you need to unfreeze the account first", the request parameter, **freeze_type**, and the CBC.70300007 error code, "If you need to change the freezing type for an already frozen account, you need to unfreeze the account first", to the V2 API for **freezing customer accounts**.<br><br>● Added the description, "To unfreeze an account, the unfreezing type must be consistent with the freezing type.", the request parameter, **freeze_type**, and the CBC.50000053 error code, "Unfreeze customer account failed. Selected object and the frozen object do not match", to the V2 API for **unfreezing customer accounts**.<br><br>● Added the CBC.30010035 error code, "Resource deleted", and the CBC.30000067 error code, "Unsubscription not supported. This resource has been deleted or the subscription to this resource has not been synchronized to CBC", to the **V1** and **V2** for unsubscribing from yearly/monthly resources.<br><br>● Added the following description to the V2 API for **querying prices of pay-per-use products**: You can use the price calculator to determine product prices. You can also use the price calculator to get the value of the **product_infos** request parameter when you call the API for querying product prices. For more details, see **price inquiry examples**.<br><br>● Added the following description to the V2 API for **querying prices of yearly/monthly products**: You can use the price calculator to determine product prices. You can also use the price calculator to get the value of the **product_infos** request parameter when you call the API for querying product prices. For more details, see **price inquiry examples**.<br><br>● Added an enumeration (5: withdrawn) to the request parameter, **status** in the V2 API for **querying coupons**.<br><br>● Added an enumeration (3: closed) to the request parameter, **status_list** in the V2 API for **querying customers' yearly/monthly resources**.<br><br>● The V1 API for verifying customer registration information was taken offline. | 2024-6-28 |

| Description | Released On |
|---|---|
| This issue is the seventy-fourth official release. <br><br> This release incorporates the following changes: <br><br> • Added the request parameter, **include_relative_resources** (whether to include associated resources for the query), to the V2 API for **querying the renewal price of a yearly/monthly resource**. Added a description for the response parameter, **RenewInquiryResultInfo.resource_id**. This parameter indicates that if the request contains the **include_relative_resources** field, the renewal amount of the associated primary resource will be returned. <br><br> • Added the request parameters, **service_type_code** (the ID of the cloud service type), to the V2 API for **listing yearly/monthly resources**. <br><br> • Added the **CBC.30010069** error code to the V2 API for **renewing yearly/monthly subscriptions**. This error code indicates that the renewal period does not exist. <br><br> • Added the **CBC.99003154** error code to the V1 API for **renewing subscriptions to yearly/monthly resources**. This error code indicates that the subscription period plus the renewal is too long, so a shorter renewal needs to be selected. <br><br> • Added request parameter **service_type_code_list** to the V3 API for **listing resource packages**. This parameter is used to specify the IDs of cloud service types, and the values are case-insensitive. | 2024-5-28 |
| This issue is the seventy-third official release. <br><br> This release incorporates the following changes: <br><br> • The V1 API for creating customers was taken offline. <br><br> • The V1 API for querying monthly bills was taken offline. <br><br> • Deleted the error code, CBC.99003645 (Unsubscription not supported for this cloud service type), from the V2 API for **8.4.3 Unsubscribing from Yearly/Monthly Resources**. " <br><br> • Deleted the error code, CBC.99003631 (The unsubscribed, deleted, or released resource cannot be renewed), from the V2 API for **8.4.2 Renewing Subscription to Yearly/Monthly Resources**. <br><br> • Deleted error code, 400 CBC.99006073 (Project does not exist), from the V2 API for **4.2.1 Querying the Price of a Pay-Per-Use Product**. <br><br> • Launched the V2 API for **8.1.2 Batch Querying Customer Budgets**. <br><br> • The time limit between order creation and order payment changed to one year for **8.3.1 Querying Orders** and **12.3.2.1 Querying Orders (Old)** APIs. | 2024-4-28 |

| Description | Released On |
|---|---|
| This issue is the seventy-second official release.<br><br>This release incorporates the following change:<br><br>Added the error code, CBC.99003647 (Unsubscription not supported for this pay-per-use package.), to the V2 API for renewing yearly/monthly subscriptions. " | 2024-2-23 |
| This issue is the seventy-first official release.<br><br>This release incorporates the following changes:<br><br>● Added the error code, CBC.99000092 (Incorrect subscription period.), to the V2 API for renewing yearly/monthly subscriptions.<br>● The V1 API for canceling unpaid orders was taken offline.<br>● Added the **Product Type Name** and **Resource Type Name** fields to the old API for querying customer resource usage details.<br>● Added the **Product Type Name** and **Resource Type Name** fields to the API for querying customer resource usage details.<br>● Added the response parameter, budget_type - budget mode, to the V2 API for querying customer budgets.<br>● Added the request parameter, budget_type - budget mode, to the V2 API for setting customer budgets.<br>Added the error code, CBC.50000030 (Setting budgets not supported. This reseller's budget quota is insufficient.).<br><br>Added the error code, CBC.50000033 (Budget setting permissions have been revoked. This reseller cannot set budgets.). | 2024-1-29 |
| This issue is the seventieth official release.<br>● The V1 API for paying yearly/monthly bills was taken offline.<br>● The V1 API for querying refund details was taken offline.<br>● The V1 API for sending verification codes was taken offline.<br>● The V1 API for querying pay-per-use resource lists was taken offline. | 2023-12-26 |
| This issue is the sixty-ninth official release.<br><br>This release incorporates the following change:<br><br>Added the **Action** column in the **API Access Permission (Partner)** section. | 2023-11-15 |
| This issue is the sixty-eighth official release.<br><br>This release incorporates the following change:<br><br>Removed the API (V1) for querying prices by product specification. | 2023-11-1 |

| Description | Released On |
|---|---|
| This issue is the sixty-seventh official release.<br><br>This release incorporates the following changes:<br><br>Added the enumerations, **4: Savings plan-subscription** and **5: Savings plan-hourly billing** to the field, **Billing Mode**, in the bill details generated from the **Querying Bill Details of Monthly Expenditures** API.<br><br>Added the enumeration, **11: Savings plan**, to the field, **Billing Mode** and added the enumeration, **23: Expenditure-savings plans** to the parameter, **bill_type** in the resource usage details generated from the API, **Querying Customer Resource Usage**.<br><br>Added the enumeration, **11: Savings plan** to the parameter, **cycleType** for the API, **Querying coupons**.<br><br>Added the error code, **CBC.99000088: Your payment is being processed**, to the API, **Paying a yearly/monthly order**. | 2023-6-29 |
| This issue is the sixty-sixth official release.<br><br>This release incorporates the following changes:<br><br>● Added section **3.3 API Access Permission (Partner)**. An operator account of a partner needs to obtain permissions before accessing APIs. Roles that have according access permissions can be assigned to this account.<br><br>● Added the error code **"CBC.30050013: Renewal not supported** to **4.2.3 Querying the Renewal Price of a Yearly/Monthly Resource**.<br><br>● The V1 API for synchronizing customer real-name authentication information is taken offline. | 2023-4-18 |
| This issue is the sixty-fifth official release.<br><br>This release incorporates the following change:<br><br>Added the API for **querying the renewal price of a yearly/monthly resource**. Customers can query the renewal price of yearly/monthly resources by criteria. | 2023-3-30 |
| This issue is the sixty-fourth official release.<br><br>This release incorporates the following change:<br><br>Deleted the enumerated value **7: International driver license** of the **verified_type** field in the API for **requesting an individual real-name authentication**. | 2023-2-28 |
| This issue is the sixty-third official release.<br><br>This release incorporates the following change:<br><br>Added the response parameter **fail_resource_infos** to the **8.4.2 Renewing Subscription to Yearly/Monthly Resources** API and the **8.4.3 Unsubscribing from Yearly/Monthly Resources** API. This parameter provides resource information for query failures. | 2023-2-9 |

| Description | Released On |
|---|---|
| This issue is the sixty-second official release.<br><br>This release incorporates the following change:<br><br>Took the API for querying available discounts of an order offline. | 2022-12-27 |
| This issue is the sixty-first official release.<br><br>This release incorporates the following changes:<br><br>● Added the error codes **CBC.50010085 - Customer association not allowed. The account of this partner has been restricted.** and **CBC.50010086 - Customer association not allowed. This partner is a Huawei Cloud reseller, and the account of its associated distributor has been restricted.** to the V2 API for **creating a customer** and V1 API for creating a customer.<br><br>● Added the error code **CBC.70600026 - Sorry, Huawei Cloud cannot review your real-name authentication information. Please contact your account manager for assistance.** to the APIs for **requesting an individual real-name authentication**, **requesting an enterprise real-name authentication**, and **requesting a real-name authentication change**. | 2022-12-13 |
| This issue is the sixtieth official release.<br><br>This release incorporates the following changes:<br><br>● Brought the V1 API for enabling automatic subscription renewal for yearly/monthly resources offline.<br><br>● Brought the V1 API for disabling automatic subscription renewal for yearly/monthly resources offline. | 2022-11-17 |
| This issue is the fifty-ninth official release.<br><br>This release incorporates the following changes:<br><br>● Added the enumerated value **60: KooGallery product discounts in resales** for **Settlement Product Type** in the **Querying Bill Details of Monthly Expenditures** API.<br><br>● Brought the V1 API for enabling automatic subscription renewal offline.<br><br>● Brought the V1 API for disabling automatic subscription renewal offline. | 2022-10-31 |
| This issue is the fifty-eighth official release.<br><br>This release incorporates the following changes:<br><br>Added the V3 API for **paying yearly/monthly product orders**, and moved the V2 API for **paying yearly/monthly product orders** to **12 API to Be Brought Offline**. | 2022-09-27 |

| Description | Released On |
|---|---|
| This issue is the fifty-seventh official release.<br><br>This release incorporates the following changes:<br><br>● Added the request parameter **indirect_partner_id** to the API for **querying orders**. This parameter is used to query the orders of a Huawei Cloud reseller's customer.<br><br>● Added the request parameter **indirect_partner_id** to the API for **querying order details**. This parameter is used to query order details of a Huawei Cloud reseller's customer.<br><br>● Added the request parameter **indirect_partner_id** to the API for **querying the pay-per-use resources of a customer**. This parameter is used to query the pay-per-use resources of a Huawei Cloud reseller's customer.<br><br>● Added error code **CBC.99000037** to the API for **querying orders**.<br><br>● Added error code CBC.99000037 to the API for **querying order details**.<br><br>● Added error code **CBC.99000037** to the API for **querying customer's pay-per-use resources**. | 2022-08-30 |
| This issue is the fifty-sixth official release.<br><br>This release incorporates the following changes:<br><br>● Added the request parameter **indirect_partner_id** to the API for **creating customers** to support creating customers for a Huawei Cloud reseller.<br><br>● Added the request parameter **indirect_partner_id** to the API for **querying customers** to support querying the customers of a Huawei Cloud reseller.<br><br>● Added the request parameter **indirect_partner_id** to the API for **freezing customer accounts** to support freezing the accounts of customers of a Huawei Cloud reseller.<br><br>● Added the request parameter **indirect_partner_id** to the API for **unfreezing customer accounts** to support unfreezing the accounts of customers of a Huawei Cloud reseller.<br><br>● Added the request parameter **indirect_partner_id** to the API for **querying customers' budgets** to support querying the budgets set for the customers of a Huawei Cloud reseller.<br><br>● Added the request parameter **indirect_partner_id** to the API for **setting budgets for customers** to support setting budgets for customers of a Huawei Cloud reseller. | 2022-08-16 |
| This issue is the fifty-fifth official release.<br><br>This release incorporates the following change:<br><br>Changed **Elite Service Provider** to **Huawei Cloud Reseller** and **Marketplace** to **KooGallery**. | 2022-08-10 |

| Description | Released On |
|---|---|
| This issue is the fifty-fourth official release.<br>This release incorporates the following changes:<br>● Changed the length of the value for **password** in the V1 API for create customers. The value can be a string of 8 to 32 characters.<br>● Changed the length of the value for **password** in the V2 API for **creating customer**. The value can be a string of 8 to 32 characters. | 2022-08-02 |
| This issue is the fifty-third official release.<br>This release incorporates the following changes:<br>● Added the error code **CBC.30010035** to the API for **unsubscribing from yearly/monthly resources**.<br>● Added error code **CBC.50010059** to the V1 API for creating a customer.<br>● Added error code **CBC.50010059** to the V2 API for **creating a customer**. | 2022-07-19 |
| This issue is the fifty-third official release.<br>This release incorporates the following change:<br>Added the following description for the API in **8.4.3 Unsubscribing from Yearly/Monthly Resources**: 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. | 2022-07-05 |
| This issue is the fifty-second official release.<br>This release incorporates the following change:<br>Added the enumerated value **2: Account and resources** and changed enumerated value **1: Yes** to **1: Only account** for the response parameter **is_frozen** in **5.3.1 Querying Customers**. | 2022-06-21 |

| Description | Released On |
|---|---|
| This issue is the fifty-first official release.<br><br>This release incorporates the following changes:<br><br>• Added the API for **querying cloud service types**, and moved the old API for **querying cloud service types** to **12 API to Be Brought Offline**.<br><br>• Added the API for **querying resource types**, and moved the old API for **querying resource types** to **12 API to Be Brought Offline**.<br><br>• Added **service_type_name**, indicating the cloud service type, and **resource_type_name**, indicating the resource type, to the response parameters of the APIs for **querying usage types**, paying yearly/monthly product orders, **querying the amount of unsubscription orders**, **querying customer's yearly/monthly resources**, and **querying customer's pay-per-use resources**.<br><br>• Added **service_type_name**, indicating the cloud service type, to the response parameters of the APIs for **querying order details** and **querying resource packages**. | 2022-04-12 |
| This issue is the fiftieth official release.<br><br>This release incorporates the following change:<br><br>The Prepayment model has been changed to the Authorized Distributor model. The transaction model name in Chinese for Referral has been changed, but the English name remains unchanged. | 2022-03-25 |
| This issue is the forty-ninth official release.<br><br>This release incorporates the following change:<br><br>Added error code CBC.99003605 in the response of the V2 API for **canceling automatic renewal for yearly/monthly resources**. | 2022-03-15 |
| This issue is the forty-eighth official release.<br><br>This release incorporates the following changes:<br><br>• Added error code **CBC.30010036** in the response of the API for **renewing subscription to yearly/monthly resources**.<br><br>• Added error code **CBC.99003602** in the response of the API for **enabling automatic subscription renewal for yearly/monthly resources**.<br><br>• Added the enumerated value **20: Refund - change** for the bill type in the file exported through the API for **querying customer resource usage**.<br><br>• Changed **11: Service cross-charging** to **11: Special price request** for the parameter **Settlement Product Type** in the file exported through the **Querying Bill Details of Monthly Expenditures API**.<br><br>• Added section **13.5 File Subscription** in **13 Appendix**. Partners can subscribe to files in the Partner Center on HUAWEI CLOUD. | 2022-01-25 |

| Description | Released On |
|---|---|
| This issue is the forty-seventh official release. This release incorporates the following changes:<br>● Added error code **CBC.0250** to the response of the API for **querying the price of a yearly/monthly product**.<br>● Added error code **CBC.30050006** in the response of the API for **renewing subscription to yearly/monthly resources**.<br>● Added error code **CBC.99003115** to the response of the V2 API for paying yearly/monthly product orders.<br>● Added error code **CBC.99003156** to the response of the V2 API for paying yearly/monthly product orders.<br>● Added error code **CBC.99003156** to the response of the V1 API for paying yearly/monthly product orders. | 2022-01-11 |
| This issue is the forty-sixth official release. This release incorporates the following changes:<br>● Changed the description of error code **CBC.99000051** to **Customer creation failed because this mobile number or email address has been preregistered by Huawei.** for the API in **5.1.3 Creating a Customer**.<br>● Added error code **CBC.99000051** to the API in Creating a Customer (Old). | 2021-12-14 |
| This issue is the forty-fifth official release. This release incorporates the following change:<br>Deleted error code **CBC.99003001** from the API in **8.4.2 Renewing Subscription to Yearly/Monthly Resources**. | 2021-11-30 |
| This issue is the forty-fourth official release. This release incorporates the following changes:<br>● Changed the description of error code **CBC.99005030** returned by the API in **5.2.1 Requesting an Individual Real-Name Authentication** to **The partner did not complete real-name authentication or bucket authentication.**<br>● Added the description of the parameter related to the subscription duration for the API in **9.1.1 Querying Customer Resource Usage**. This parameter can be a non-integer in the exported CSV file. | 2021-11-16 |
| This issue is the forty-third official release. This release incorporates the following change:<br>Change the description of the error message for **CBC.99003016** to "The resources have expired and been deleted or do not exist." in **8.4.2 Renewing Subscription to Yearly/Monthly Resources**. | 2021-11-02 |

| Description | Released On |
|---|---|
| This issue is the forty-second official release.<br><br>This release incorporates the following change:<br><br>Added the description of anti-injection-reconstruction for input parameter values of **Resource Name** and **Resource Tag** in the file of the API for **querying customer resource usage**. | 2021-10-19 |
| This issue is the forty-first official release.<br><br>This release incorporates the following changes:<br><br>● Added the V3 API for **querying resource packages** and moved the V2 API for **querying resource packages** to **12 API to Be Brought Offline**.<br><br>● Added request parameters **expire_time_begin** and **expire_time_end** to the API in **Querying Customer's Yearly/Monthly Resources**. These two parameters are used to query the list of resources that expire in a specified period. | 2021-09-28 |
| This issue is the fortieth official release.<br><br>This release incorporates the following changes:<br><br>● Added error code **CBC.30000010** to the API for paying yearly/monthly product orders.<br><br>● Added a description for the **Unit** parameter in **9.1.1 Querying Customer Resource Usage** to differentiate the unit of the linear products from that of non-linear products. | 2021-08-31 |
| This issue is the thirty-ninth official release.<br><br>This release incorporates the following changes:<br><br>● Added the API for **querying customer resource usage**.<br><br>● Moved the old API **12.4.1 Querying Customer Resource Usage** to **12 API to Be Brought Offline**. | 2021-08-13 |
| This issue is the thirty-eighth official release.<br><br>This release incorporates the following changes:<br><br>● Deleted the old APIs for requesting an individual real-name authentication, requesting an enterprise real-name authentication, and requesting real-name authentication change, and the API for unsubscribing from yearly/monthly products that fail to be provisioned or changed.<br><br>● Added **user_name** in the response parameters of the API in **8.3.2 Querying Order Details** to specify the order creator returned by the API for querying order details. | 2021-07-13 |

| Description | Released On |
|---|---|
| This issue is the thirty-seventh official release.<br><br>This release incorporates the following changes:<br><br>● Added the API for querying the resource packages of a customer in **12.3.4.1 Querying Resource Packages (Old)**.<br>● Added the API for querying the resource package usage in **8.5.2 Viewing Resource Package Usage**.<br>● Added the field **partnerPreferentialType** and changed the calculation method of amount due in **9.2.2 Querying Bill Details of Monthly Expenditures**.<br>● Added response parameters **salePrice**, **stepNum**, **stepNumMeasureId**, and **partnerPreferentialType** in Querying Monthly Bills. These parameters are returned when **partnerPreferentialType** is set to **1**. | 2021-06-15 |
| This issue is the thirty-sixth official release.<br><br>This release incorporates the following change:<br><br>Added Querying Available Discounts of an Order. You can invoke this API to query available discounts when paying an order. | 2021-04-28 |
| This issue is the thirty-fifth official release.<br><br>This release incorporates the following change:<br><br>Added fields **Settlement Amount**, **Partner Coupon**, **Scene**, **Partner Amount Without Tax**, **Tax Amount**, and **Usage Type Name** in **9.2.2 Querying Bill Details of Monthly Expenditures**. These fields are not displayed for partners in the Asia Pacific region. | 2021-02-08 |
| This issue is the thirty-fourth official release.<br><br>This release incorporates the following change:<br><br>Modified **5.3.1 Querying Customers**. Specifically, added fields **xaccount_id**, **xaccount_type**, and **customer_level** for returning the partner sales platform user ID, partner sales platform ID, and customer level, respectively. | 2021-01-28 |
| This issue is the thirty-third official release.<br><br>This release incorporates the following changes:<br><br>Added **4.1.5 Querying Measurement Units** and **4.1.6 Querying the Measurement Unit Number System**. | 2020-12-30 |
| This issue is the thirty-second official release.<br><br>This release incorporates the following changes:<br><br>● Added the V2 interface in **9.2.1 Querying Monthly Bills** and moved the V1 interface in Querying Monthly Bills to **12 API to Be Brought Offline**.<br>● Added the parameter **discount_infos** and table **DiscountSimpleInfo** for the API that is used for paying yearly/monthly product orders to query available discounts that can be used for paying yearly/monthly orders. | 2020-12-16 |

| Description | Released On |
|---|---|
| This issue is the thirty-first official release.<br><br>This release incorporates the following changes:<br><br>Modified the old API for **querying customer resource usage**. The system generates the resource usage details from 12:00 to 20:00 (not later than 24:00) every day. | 2020-12-01 |
| This issue is the thirtieth official release.<br><br>This release incorporates the following changes:<br><br>● Added **4.1.4 Querying Usage Types** for querying usage types.<br><br>● Added **8.4.6 Enabling/Canceling the Change from Yearly/Monthly to Pay-per-Use upon Expiration** for querying resource types.<br><br>● Added the enumerated value "**610**: Discount amount" for parameter **discount_type** in **8.3.1 Querying Orders** and **8.3.2 Querying Order Details**, as well as **12.3.2.1 Querying Orders (Old)** and **12.3.2.2 Querying Order Details (Old)** to be brought offline. | 2020-11-18 |
| This issue is the twenty-ninth official release.<br><br>This release incorporates the following changes:<br><br>Added the API in **Querying Cloud Service Types (Old)**.<br><br>Added the API in **Querying Resource Types (Old)**.<br><br>Added **4.1.3 Querying Resources by Cloud Service Type** for querying resource list by cloud service type. | 2020-11-04 |
| This issue is the twenty-eighth official release.<br><br>This release incorporates the following changes:<br><br>● Add parameter **include_association_result** in **5.1.3 Creating a Customer**. When this parameter is called, the result of associating a partner and its sub-customer will be returned.<br><br>● Moved 14.1.4.6.12 Querying Resource Provisioning Details of an Order to **12 API to Be Brought Offline**. | 2020-10-21 |
| This issue is the twenty-seventh official release.<br><br>This release incorporates the following changes:<br><br>Added **Table 8-44** to support query by language and response parameter **product_spec_desc** (indicating product specifications) in **8.6.1 Querying Customer's Pay-Per-Use Resources**. | 2020-09-28 |

| Description | Released On |
|---|---|
| This issue is the twenty-sixth official release.<br><br>This release incorporates the following changes:<br><br>● Added response parameters **product_owner_service** and **commercial_resource** in **8.3.2 Querying Order Details**.<br><br>● Changed the default value of **measure_id** in the following APIs from cent to dollar. After this modification, the unit for the values of currency-related fields is also changed to dollar. Check the currency unit in use during an API call.<br><br>   – **8.3.1 Querying Orders**<br><br>   – **8.3.2 Querying Order Details**<br><br>   – **8.3.5 Querying the Amount of Unsubscription Orders** | 2020-09-16 |
| This issue is the twenty-fifth official release.<br><br>This release incorporates the following changes:<br><br>● Added the V2 interface in **5.3.2 Freezing a Customer Account** and moved the V1 interface in **12.2.2.3 Freezing a Customer Account (Old)** to **12 API to Be Brought Offline**.<br><br>● Added the V2 interface in **5.3.3 Unfreezing a Customer Account** and moved the V1 interface in **12.2.2.4 Unfreezing a Customer Account (Old)** to **12 API to Be Brought Offline**.<br><br>● Added the V2 interface in **8.1.1 Querying Customer Budgets** and moved the V1 interface in **12.3.1.1 Querying Customers' Budgets (Old)** to **12 API to Be Brought Offline**.<br><br>● Added the V2 interface in **8.1.3 Setting Customer Budgets** and moved the V1 interface in **12.3.1.2 Setting Customers' Budgets (Old)** to **12 API to Be Brought Offline**.<br><br>● Added error codes CBC.99006006, CBC.99006055, and CBC.99006074 in **4.2.1 Querying the Price of a Pay-Per-Use Product** and **4.2.2 Querying the Price of a Yearly/Monthly Product**. | 2020-09-02 |

| Description | Released On |
|---|---|
| This issue is the twenty-fourth official release.<br><br>This release incorporates the following changes:<br><br>● Added the V2 interface in **8.3.5 Querying the Amount of Unsubscription Orders** and moved the V1 interface in Querying the Amount of Unsubscription Orders to **12 API to Be Brought Offline**.<br><br>● Added the V2 interface in **8.4.1 Querying Customer's Yearly/Monthly Resources** and moved the V1 interface in **12.3.3.1 Querying Customer's Yearly/Monthly Resources (Old)** to **12 API to Be Brought Offline**.<br><br>● Added the V2 interface in **8.4.4 Enabling Automatic Subscription Renewal for Yearly/Monthly Resources** and moved the V1 interface in Enabling Automatic Subscription Renewal for Yearly/Monthly Resources to **12 API to Be Brought Offline**.<br><br>● Added the V2 interface in **8.4.5 Disabling Automatic Subscription Renewal for Yearly/Monthly Resources** and moved the V1 interface in Disabling Automatic Subscription Renewal for Yearly/Monthly Resources to **12 API to Be Brought Offline**.<br><br>● Added the V2 interface in **8.6.1 Querying Customer's Pay-Per-Use Resources** and moved the V1 interface in Querying Customer's Pay-Per-Use Resources to **12 API to Be Brought Offline**. | 2020-06-30 |

| Description | Released On |
|---|---|
| This issue is the twenty-third official release.<br><br>This release incorporates the following changes:<br><br>● Added the V2 interface in **8.3.1 Querying Orders** and moved the V1 interface in **12.3.2.1 Querying Orders (Old)** to **12 API to Be Brought Offline**.<br><br>● Added the V2 interface in **8.3.2 Querying Order Details** and moved the V1 interface in **12.3.2.2 Querying Order Details (Old)** to **12 API to Be Brought Offline**.<br><br>● Added the V2 API for paying yearly/monthly product orders. Moved the V1 API from Paying Yearly/Monthly Product Orders (Old) to **12 API to Be Brought Offline**.<br><br>● Added the V2 interface in **8.3.4 Canceling Orders in the Pending Payment Status** and moved the V1 interface in Canceling Orders in the Pending Payment Status to **12 API to Be Brought Offline**.<br><br>● Added the V2 interface in **8.4.2 Renewing Subscription to Yearly/Monthly Resources** and moved the V1 interface in **12.3.3.2 Renewing Subscription to Yearly/Monthly Resources (Old)** to **12 API to Be Brought Offline**.<br><br>● Added the V2 interface in **8.4.3 Unsubscribing from Yearly/Monthly Resources** and moved the V1 interface in **12.3.3.3 Unsubscribing from Yearly/Monthly Resources (Old)** to **12 API to Be Brought Offline**. | 2020-06-17 |
| This issue is the twenty-second official release.<br><br>This release incorporates the following changes:<br><br>Added the V2 interface in **5.1.1 Verifying Customer Registration Information** and moved the V1 interface in Verifying Customer Registration Information (Old) to **12 API to Be Brought Offline**.<br><br>Added the V2 API to **5.2.3 Requesting a Real-Name Authentication Change** and moved the V1 APIs in 14.1.2.1.2 Sending a Verification Code to **12 API to Be Brought Offline**. | 2020-06-03 |

| Description | Released On |
|---|---|
| This issue is the twenty-first official release.<br><br>This release incorporates the following changes:<br><br>Added the V2 API in **5.2.1 Requesting an Individual Real-Name Authentication**, and moved the V1 API for requesting an individual real-name authentication to **12 API to Be Brought Offline**.<br><br>Added the V2 API in **5.2.2 Requesting an Enterprise Real-Name Authentication**, and moved the V1 API for requesting an enterprise real-name authentication to **12 API to Be Brought Offline**.<br><br>Added the V2 API in **5.2.3 Requesting a Real-Name Authentication Change**, and moved the V1 API for requesting a real-name authentication change to **12 API to Be Brought Offline**.<br><br>Added the V2 interface in **5.2.4 Querying the Real-Name Authentication Review Result** and moved the V1 interface in **12.2.1.1 Querying the Real-Name Authentication Review Result (Old)** to **12 API to Be Brought Offline**.<br><br>Added the V2 interface in **5.3.1 Querying Customers**. Added response parameter **account_managers**. Moved the V1 interface in **12.2.1.1 Querying the Real-Name Authentication Review Result (Old)** to **12 API to Be Brought Offline**. | 2020-05-20 |
| This issue is the twentieth official release.<br><br>This release incorporates the following changes:<br><br>Added the V2 interface in **5.1.3 Creating a Customer** and brought the interface in Creating a Customer (Old) offline. | 2020-04-22 |
| This issue is the nineteenth official release.<br><br>This release incorporates the following changes:<br><br>Added **4.2.1 Querying the Price of a Pay-Per-Use Product** and **4.2.2 Querying the Price of a Yearly/Monthly Product**.<br><br>Took the API for querying product prices based on specifications offline. | 2020-03-25 |
| This issue is the eighteenth official release.<br><br>This release incorporates the following changes:<br><br>Added **10.1.1 Querying the Invoice List**. | 2020-01-15 |
| This issue is the seventeenth official release.<br><br>This release incorporates the following changes:<br><br>Added parameter **cooperationType** in the request of the API in Creating a Customer (Old).<br><br>Modified the description of status codes CBC.4004 and CBC.4005 in **5.1.2 Sending a Verification Code**. | 2019-12-18 |

| Description | Released On |
|---|---|
| This issue is the sixteenth official release.<br><br>This release incorporates the following changes:<br><br>Added error code CBC.3016 in **8.4.2 Renewing Subscription to Yearly/Monthly Resources**. This error code indicates that expired resources exist. | 2019-11-20 |
| This issue is the fifteenth official release.<br><br>This release incorporates the following changes:<br><br>• Added **12.2.2.3 Freezing a Customer Account (Old)**.<br>• Added **12.2.2.4 Unfreezing a Customer Account (Old)**.<br>• Added response parameter **isFrozen** in **12.2.2.1 Querying Customers (Old)**. This parameter is used to indicate whether the customer account is frozen.<br>• Added request parameter **cancelPartnerFrozen** in **12.3.1.2 Setting Customers' Budgets (Old)**. This parameter is used to specify whether to unfreeze the customer account while setting the budget for the customer.<br>• Added the **Amount after Coupons** and **Amount Due** fields in **9.2.2 Querying Bill Details of Monthly Expenditures**. | 2019-10-23 |
| This issue is the fourteenth official release.<br><br>This release incorporates the following changes:<br><br>Added **11 Managing Service Tickets**. | 2019-09-25 |
| This issue is the thirteenth official release.<br><br>This release incorporates the following changes:<br><br>• Added response parameter **uplimit** in **5.1.1 Verifying Customer Registration Information**. The parameter indicates whether the number of verification code sending times reaches the upper limit.<br>• Added the section "12.1.2.2.3-Requesting a Real-Name Authentication Change (Old)". | 2019-09-17 |
| This issue is the twelfth official release.<br><br>This release incorporates the following changes:<br><br>• Added response parameter **customerType** in **12.2.2.1 Querying Customers (Old)**. The parameter indicates the customer type.<br>• Added the section "12.1.2.2.1-Requesting an Individual Real-Name Authentication (Old)".<br>• Added the section "12.1.2.2.2-Requesting an Enterprise Real-Name Authentication (Old)".<br>• Added **12.2.1.1 Querying the Real-Name Authentication Review Result (Old)**.<br>• Moved the API in Synchronizing Customer Real-Name Authentication Information to **12 API to Be Brought Offline**. | 2019-09-04 |

| Description | Released On |
|---|---|
| This Issue is the eleventh official release.<br><br>This release incorporates the following changes:<br><br>• Added **8.3.5 Querying the Amount of Unsubscription Orders**.<br><br>• Added **periodType**, **periodNum**, and **categoryCode** to response messages of the API in Querying Monthly Bills. | 2019-08-21 |
| This issue is the tenth official release.<br><br>This release incorporates the following changes:<br><br>• Added 14.1.4.6.12 Querying Resource Provisioning Details of an Order.<br><br>• Added parameters **Project ID** and **Project Tag** to the file in **12.4.1 Querying Customer Resource Usage**. | 2019-08-14 |
| This issue is the ninth official release.<br><br>This release incorporates the following changes:<br><br>• Added error code CBC.0100 in **8.4.1 Querying Customer's Yearly/Monthly Resources**.<br><br>• Moved API in **12.2.2.2 Querying Customers (Old)** to **12 API to Be Brought Offline**. For details about the new API, see **12.2.2.1 Querying Customers (Old)**. | 2019-07-24 |
| This issue is the eighth official release.<br><br>This release incorporates the following changes:<br><br>• Added parameter **categoryCode** in response table **Table 8-16** in **8.3.2 Querying Order Details**.<br><br>• Added **Bill Type** in table **3** in **9.2.2 Querying Bill Details of Monthly Expenditures**.<br><br>• Changed the API for querying customer credit limit to the API for querying customers' budgets in **12.3.1.1 Querying Customers' Budgets (Old)**.<br><br>• Changed the API for setting customer credit limit to the API for setting customers' budgets in **12.3.1.2 Setting Customers' Budgets (Old)**. | 2019-07-10 |

| Description | Released On |
|---|---|
| This issue is the seventh official release.<br>This release incorporates the following changes:<br>• In **8.3.1 Querying Orders**<br>  – Added parameters **currencyOfficial**, **amountInfo**, and **serviceType** in **Table 8-7**.<br>  – Added response parameter tables **Table 8-8** and **Table 8-9**.<br>  – Added status code CBC.0100, CBC.0101, CBC.0151, and CBC.0155.<br>• In **8.3.2 Querying Order Details**<br>  – Added parameters **offset** and **limit** to **Table 8-12**.<br>  – Added response parameters **currencyOfficial**, **amountInfo**, **currencyType**, and **serviceType** in **Table 8-15**.<br>  – Added response parameter tables **Table 8-16**, **Table 8-18**, and **Table 8-19**.<br>  – Added status code CBC.0100, CBC.0101, CBC.0151, and CBC.0155.<br>• Added status code CBC.7254 in Creating a Customer (Old). | 2019-06-26 |
| This issue is the sixth official release.<br>This release incorporates the following changes:<br>• Added parameter **isCloseMarketMs** in the request of API in Creating a Customer (Old). | 2019-06-14 |
| This issue is the fifth official release.<br>This release incorporates the following changes:<br>• Added **9.1 Managing Customer Consumptions**.<br>• Added **13.8 Status Code**.<br>• Added **13.9 Error Codes**. | 2019-05-22 |
| This issue is the fourth official release.<br>This release incorporates the following changes:<br>• Adjusted the sections in **5 Customer Management**, **8 Transaction Management**, and **9 Bill Management** based on service scenarios in **2 Partner Operations Capability APIs (Reseller Model)**.<br>• Added **8.3.2 Querying Order Details**.<br>• Added the API for paying yearly/monthly product orders.<br>• Added **8.3.4 Canceling Orders in the Pending Payment Status**.<br>• Added **8.6.1 Querying Customer's Pay-Per-Use Resources**. | 2019-05-10 |

| Description | Released On |
|---|---|
| This issue is the third official release.<br><br>This release incorporates the following changes:<br><br>● Added 2.1.2.1-Synchronizing Customer Real-Name Authentication Information.<br>● Added 14.1.1.2.1 Querying Product Prices Based on the Product Specifications (Old).<br>● Added **8.3.1 Querying Orders**.<br>● Added **8.4.1 Querying Customer's Yearly/Monthly Resources**.<br>● Added **8.4.2 Renewing Subscription to Yearly/Monthly Resources**.<br>● Added **8.4.3 Unsubscribing from Yearly/Monthly Resources**.<br>● Added **8.4.4 Enabling Automatic Subscription Renewal for Yearly/Monthly Resources**.<br>● Added **8.4.5 Disabling Automatic Subscription Renewal for Yearly/Monthly Resources**. | 2019-04-29 |
| This issue is the second official release.<br><br>This release incorporates the following changes:<br><br>Added the APIs to be supported and their descriptions in **2 Partner Operations Capability APIs (Reseller Model)**. | 2019-04-13 |
| This issue is the first official release. | 2019-03-22 |

# 2 Partner Operations Capability APIs (Reseller Model)

HUAWEI CLOUD provides the operation capabilities in the reseller model for partners to manage customers, credits, coupons, 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 | **Querying Cloud Service Types** | This API is used to query cloud service types on the partner sales platform. |
| | | **Querying Resource Types** | This API is used to query the resource types on the partner sales platform. |
| | | **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. |
| | | **Querying Usage Types** | This API is used to query resource usage types on the partner sales platform. |
| | | **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. |
| | | **Querying the Measurement Unit Number System** | This API is used to query the measurement unit number system on the partner sales platform. |

| Scenario | Sub-Scenario | API Name | Description |
|---|---|---|---|
| | Product price query | **Querying the Price of a Pay-per-Use Product** | Partners can query the price of a pay-per-use product by criteria on the sales platform. |
| | | **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. |
| | | **Querying the Renewal Price of a Yearly/Monthly Resource** | Customers can query the renewal price of a yearly/monthly resource by criteria on the partner sales platform. |
| Customer management | Customer registration | **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. |
| | | **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. |
| | | **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. |
| | Real-name authentication | **Requesting an Individual Real-name Authentication** | This API can be used to submit an individual real-name authentication application. |
| | | **Requesting an Enterprise Real-name Authentication** | This API can be used to submit an enterprise real-name authentication application. |

| Scenario | Sub-Scenario | API Name | Description |
|---|---|---|---|
| | | **Requesting a Real-Name Authentication Change** | This API can be used to submit a real-name authentication change application. |
| | | **Querying the Real-Name Authentication Review Result** | If the response to a real-name authentication application or real-name authentication change application indicates that manual review is required, this API can be used to query the review result. |
| | Customer management | **Querying Customers** | This API is used to query your customers. |
| | | **Freezing a Customer Account** | A partner can freeze an account of a customer associated with the partner by reseller model. |
| | | **Unfreezing a Customer Account** | A partner can unfreeze an account of a customer associated with the partner by reseller model. |
| Reseller management | Querying resellers | **Querying Huawei Cloud Resellers** | A Huawei Cloud distributor can query the list of its associated Huawei Cloud resellers. |
| Credit management | Managing credits | **Querying Consumption Quota** | Partners can query their expenditure quotas. |
| Transaction management | Customer budget management | **Querying Customers' Budgets** | This API is used to query the budget of a customer for the partner to determine whether to adjust the budget. |
| | | **8.1.2 Batch Querying Customer Budgets** | This API is used to batch query budgets of multiple customers. You can decide whether to adjust budgets for your customers based on the query results. |
| | | **Setting Customer Budgets** | This API is used to set or adjust a customer's budget. |
| | Coupon management | **Querying Coupons** | Partners can query information about their coupons. |

| Scenario | Sub-Scenario | API Name | Description |
|---|---|---|---|
| | Yearly/monthly order management | **Querying Orders** | 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. |
| | | **Querying Order Details** | Customers can view order details on the partner sales platform. |
| | | **Paying Yearly/Monthly Product Orders** | A customer can invoke this API to pay yearly-monthly product orders in the pending payment status. |
| | | **Canceling Orders in the Pending Payment Status** | A customer can invoke this API to cancel orders in the pending payment status. |
| | | **Querying the Amount of Unsubscription Orders** | A customer can query the resource type and order of the refund amount of an unsubscription or specification downgrade order on the partner sales platform. |
| | Yearly/Monthly resource management | **Querying Customer's Yearly/Monthly Resources** | A customer can query one or all yearly/monthly resources on the partner sales platform. |
| | | **Renewing Yearly/Monthly Resources** | A customer can renew subscription to yearly/monthly resources on the partner sales platform. |
| | | **Unsubscribing 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. |
| | | **Configuring Automatic 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. |

| Scenario | Sub-Scenario | API Name | Description |
|---|---|---|---|
| | | **Canceling Automatic 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. |
| | | **Enabling/Canceling the Change from Yearly/Monthly to Pay-per-Use upon Expiration** | 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. |
| | Resource package management | **Querying Resource Packages** | This API is used to query resource packages. |
| | | **Querying the Resource Usage** | Partners can query the resource package usage of customers on the partner sales platform by resource. |
| | | **8.5.3 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 | **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 | **Querying Customer Resource Usage** | This API is used to query customer resource usage. |

| Scenario | Sub-Scenario | API Name | Description |
|---|---|---|---|
| | Partner bill management | **9.2.1 Querying Monthly Bills** | You can query your monthly bills that cover amount due, expenditures, refunds, and adjustments. |
| | | **9.2.2 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 **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. |
| Invoice management | Invoice management | **Querying the Invoice List** | Partners can query the invoice list. |
| Managing service tickets | **Managing service tickets** | **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 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**. |

| Parameter | Description |
|---|---|
| Endpoint | Specifies the domain name or IP address of the server bearing the REST service endpoint.<br><br>The operations API endpoint for partner is **bss-intl.myhuaweicloud.com**.<br><br>**NOTE**<br>&bull; This endpoint is a global endpoint and can be used for all regions in Huawei Cloud (International Website).<br>&bull; 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-intl.myhuaweicloud.com/v2/partners/sub-customers



&#9906; **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. <br><br> 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-intl.myhuaweicloud.com/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 <br> This field is mandatory only when AK/SK is used for authentication. | bss-intl.myhuaweicloud.com <br> or <br> bss-intl.myhuaweicloud.com: 443 |

| Field | Description | Mandatory | Example |
|---|---|---|---|
| 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.<br><br>For details about how to obtain a token, see **Token Authentication**. | No<br><br>This field is mandatory only when the token is used for authentication. | The following is part of an example token: MIIPAgYJKoZIhvcNAQc-CoIIO8zCCDu8CAQExDTA LBglghkgBZQMEAgEwgg 1QBgkqhkiG9w0BBwGgg g1BBIINPXsidG9rZ |

📖 **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 **Authentication**.

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

```
POST https://bss-intl.myhuaweicloud.com/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-intl.myhuaweicloud.com/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": "HK",
 "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 3-1** Response header for the API used to create a customer



## (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/register[error_code]:CBC.7156[msg]:{\"error_code\":\"CBC.7156\",\"error_msg\":\"domainName
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 3-2** SAML authentication process
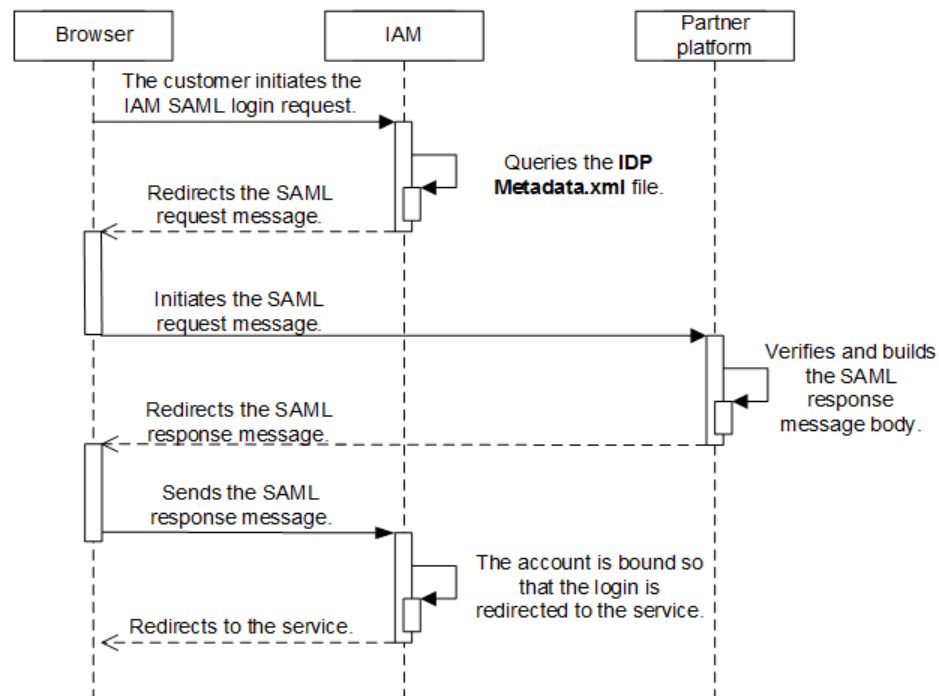


1. A partner's customer uses a browser to call the HUAWEI CLOUD login link. IAM sends the SAML request.

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

   https://auth-intl.huaweicloud.com/authui/saml/login? **xAccountType**=*ZXT*&**isFirstLogin**=*false*&**service**=https%3a%2f %2fconsole-intl.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**.<br><br>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.<br><br>The encodeURIComponent function is used for coding. | https%3a%2f%2fconsole-intl.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:** jVLLbtswEPwVgnc97bguYTlwYwQ1kDeqpeTQS8FSK4kJRSp82K2/vpRstwkKGLnuY2Z2ZhfXvzqBdqANVzLDSRhjBJKpissmw/1bTDH18uFoZ1Ie7JytpVbeHFgLPKL0pB1J8NOS6Ko4YZI2oEh1pFi9eWOpGFHeq2sVkpgtDI0O84g4ftXYZba3tDoqgS8NQTha2je+B8KFeFTHVkknycTqKh5Xg08EYDw3+QGK29PC6pHU86o/KqDwWvQDZ+fcAbKpGKVvnMBI1IabaHiGpiNiuIeo1ulGYwnZ7imwgBGm3WGfzhBX0TTP7UAsn+qWNwWwh7qu+xZ7tmHpHmegvKjJqfG8B38WzbGwLJg01cxjNyNSPTqzCep98xyk92feLyGMYmlb38ehwz5XJZ5kN8XJUaP5zfj9AD6FR0Z2/Tq1y8D07Ctevi+YRfSa6O/PfPXIm3WuBGe/0UoItb/RQK23xWoHo8sdtZe1DBVeBfU4Sqym0nCQFqMiH+C/OSp4zUG/94dwtDypffvTyz8=
**RelayState:** _9inzak3sgSbypjdc3winbzenfvqq44ft2o5d
**SigAlg:** http://www.w3.org/2001/04/xmldsig-more#rsa-sha256
**Signature:** fwTq+fIy6XQlAccVHqTf3GWLgVYLU1qdx0XI2yO2SxXfA2J6aBAYoIFPhNihdc0po7ytJPnvXv8HX7OHE1i2c4L1BR9YWwR6ZrGeDOaoNGx9xFNJGVAVHh8PbHRQ1gU3mlacI1dLYeNxC2KD7Lr2us134repcr6hyn0rqYW1+Ac=

| Parameter | Description |
|---|---|
| SAMLRequest | Indicates the response message body.<br><br>The response message is in XML format. IAM then compresses the message, encodes the message using Base64, and URL encodes the message.<br><br>● If the partner uses the SAML toolkits, this parameter can be directly used. The partner does not need to parse the XML file.<br><br>● 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.<br><br>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.<br><br>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.<br><br>The signature algorithm is specified by the **SigAlg** field.<br><br>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).<br><br>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/SAMLAssertionConsumer"
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:StatusMessage>
 </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:DigestValue>
       </ds:Reference>
     </ds:SignedInfo>
     <!-- Partner signature value. For details about how to obtain the value, see the following description. -->
     <ds:SignatureValue>
```

YqTWQngAPfGqQmWa610PM7LeefqWdKuveUVINrqL67NoHJIDa2WxLwdVzoJlUh64QiNPr6+ndm
L DCMgIC5F/9ijuzhIICZcc6lHNIjy6EsPkKRjfo9oeoVAqLgG/kmVQYeHLBID0y11RNXXpAVY4nhJ
26KiIVGt7ywyKAmhichE+eW/UYAGiOI5vkfgD2gZUGV+yPkv64k7xK4yAH3mL2NaCPuw/90e4enm
iUx0YuazDwM5FiRUSMpcJs0rcNmS6clWAUcCzbOx+y2vJGtTjHb7k3UsmpnTop5eYNp94+sDPEat
8FaV4SgafMEL5z54gpe8+//9yOWEvlBs1b0RYg==
    &lt;/ds:SignatureValue&gt;
    &lt;ds:KeyInfo&gt;
     &lt;ds:X509Data&gt;
     **&lt;!-- Partner public key certificate. The certificate must be the one specified in the IDP Metadata.xml file. --&gt;**
      &lt;ds:X509Certificate&gt;

MIIBIjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEAhK3L160NjP9EhBGQOC2s4r
+Wc62bkRkc nUxfhiZwCwJdQCykzuLOAoATnfoEamV5W25xtSS5kFs+4OC0mYVpKcI3SWoydX
+UE5Qik5UfJ8Dt G1AvSEKhSluyO9axrV5Uv089jMxBnlm/R+xND73WcZM11yIbKJEZSTCEDfh
+KnFbMw108umFMden RZCrNWUJoSp/90XeG0V2Nmj7Fkq72skSifwIASLRq9KqLbmh1QwUX
+AoWpHK/jRUBustMBmG1n1i
      AqpD4EBjjBOB27k1wXZ30+IoJt8IZmfSZRFoNn5VFWXNeEmZ1aQvGSvd3Tyyw2/Wr+w/
8Mags69C mpeX6QIDAQAB
      &lt;/ds:X509Certificate&gt;
     &lt;/ds:X509Data&gt;
    &lt;/ds:KeyInfo&gt;
   &lt;/ds:Signature&gt;
   &lt;saml2:Subject&gt;
   **&lt;!-- The value of NameQualifier must be the same as the entityID value in the SP Metadata.xml file. --&gt;**
   &lt;saml2:NameID Format="urn:oasis:names:tc:SAML:2.0:nameid-format:transient"
**NameQualifier**="*https://auth.huaweicloud.com/*"&gt;Some NameID value&lt;/saml2:NameID&gt;
    &lt;saml2:SubjectConfirmation Method="urn:oasis:names:tc:SAML:2.0:cm:bearer"&gt;
    **&lt;!-- Parameter InResponseTo needs to be the same as the ID configuration item of AuthnRequest in the samlRequest message. --&gt;**
    &lt;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" /&gt;
    &lt;/saml2:SubjectConfirmation&gt;
   &lt;/saml2:Subject&gt;
   &lt;saml2:Conditions NotBefore="2018-10-28T08:21:41.740Z"
NotOnOrAfter="2018-11-01T08:21:41.740Z"&gt;
    &lt;saml2:AudienceRestriction&gt;
    **&lt;!-- Must be the same as the entityID value in the SP Metadata.xml file. --&gt;**
    &lt;saml2:Audience&gt;*https://auth.huaweicloud.com/*&lt;/saml2:Audience&gt;
    &lt;/saml2:AudienceRestriction&gt;
   &lt;/saml2:Conditions&gt;
   &lt;saml2:AttributeStatement&gt;
   **&lt;!-- For values between&lt;saml2:AttributeValue&gt; and &lt;/saml2:AttributeValue&gt;, see the following table. --&gt;**
   &lt;saml2:Attribute FriendlyName="xUserId" Name="xUserId"
NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-format:uri"&gt;
    &lt;saml2:AttributeValue xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="xsd:string"&gt;*******&lt;/saml2:AttributeValue&gt;
   &lt;/saml2:Attribute&gt;
**&lt;!-- The values of xAccountId and xUserId must be the same. --&gt;**
   &lt;saml2:Attribute FriendlyName="xAccountId" Name="xAccountId"
NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-format:uri"&gt;
    &lt;saml2:AttributeValue xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="xsd:string"&gt;********&lt;/saml2:AttributeValue&gt;
   &lt;/saml2:Attribute&gt;
   &lt;saml2:Attribute FriendlyName="bpId" Name="bpId"
NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-format:uri"&gt;
    &lt;saml2:AttributeValue xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="xsd:string"&gt;******&lt;/saml2:AttributeValue&gt;
   &lt;/saml2:Attribute&gt;
   &lt;saml2:Attribute FriendlyName="email" Name="email"
NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-format:uri"&gt;
    &lt;saml2:AttributeValue xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="xsd:string" /&gt;
   &lt;/saml2:Attribute&gt;
   &lt;saml2:Attribute FriendlyName="name" Name="name"
NameFormat="urn:oasis:names:tc:SAML:2.0:attrname-format:uri"&gt;

```
        <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:unspecified</
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. |

| Parameter | Description |
|---|---|
| bpId | Indicates the partner ID.<br>For details, see How Do I Check the Partner ID? |
| email | Indicates the email address.<br>This parameter is optional.<br>The parameter must meet the following requirements:<br>● Must be unique for each customer.<br>● A maximum of 64 characters<br>● 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.<br>This parameter is optional.<br>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%2BHEXEPzRNnd9
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: PD94bWwgdmVyc2lvbj0iMS4wIiBlbmNvZGluZz0iVVRGLTgiPz4KPHNhbWxwcDpSZXNwb25
MDAzYmYwYjkxN2NmMCIgSW5SZXNwb25zZVRvPSJfZGNrNG1tMDhxbWRoYzhrNG51aXwN2hnaGV0ZHFxZzh1b
1lczp0YzpTQU1MOjIuMDpwcm90b2NvbCI+PHNhbWxwOklzc3VlciBGb3JtYXQ9InVybjpvYXNpczpuYW1lczp
Pmh0dHBzOi8vaWRwLmlzZXNvdmC5jb20vaWRwL3NoaWJib2xldGg8L3NhbWxwOklzc3Vlcj48c2FtbDJwOlN0Y
RhdHVzTWVzc2FnZT51cm46b2FzaXM6bmFtZXM6dGM6U0FNTDoyLjA6c3RhdHVzOlN1Y2Nlc3M8L3NhbWxwcpy
IElzc3VlSW5zdGFudD0iMjAxOC0xMC0zMFQwODoyMTo0MS43NDBaIiBWZXJzaW9uPSIyLjAiIHhtbG5zOnNhbW
```

| 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)

API access requires authorization. You can attach roles that contain required permissions for accessing specific APIs to accounts as needed 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.

## ☐ NOTE

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

● For more details, visit:

– **Partner Operation Capability API (Reseller Model)**

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 | Sales > Customers > Customer Management > Customer List > Create Partner Customer |
| | | Sending a verification code | POST /v2/bases/verificationcode/send | BPC_ITEM_SUBCUSTSERV_010118 | Sales > Customers > Customer Management > Customer List > Create Partner Customer |

| Scenario | Sub-Scenario | API Description | URL | Action | Path |
|---|---|---|---|---|---|
| | | Creating a customer | POST /v2/partners/sub-customers | BPC_ITEM_SUBCUSTSERV_010118 | Sales > Customers > Customer Management > Customer List > Create Partner Customer |
| | Real-name authentication | Requesting individual real-name authentication | POST /v2/customers/realname-auths/individual | BPC_ITEM_SUBCUSTSERV_010119 | Sales > Customers > Customer Management > Customer List > Real-name Authentication Synchronization |
| | | Requesting enterprise real-name authentication | POST /v2/customers/realname-auths/enterprise | BPC_ITEM_SUBCUSTSERV_010119 | Sales > Customers > Customer Management > Customer List > Real-name authentication synchronization |
| | | Requesting real-name re-authentication | PUT /v2/customers/realname-auths/enterprise | BPC_ITEM_SUBCUSTSERV_010119 | Sales > Customers > Customer Management > Customer List > Real-name authentication synchronization |
| | | Querying the real-name authentication review result | GET /v2/customers/realname-auths/result | BPC_ITEM_SUBCUSTSERV_010119 | Sales > Customers > Customer Management > Customer List > Real-name authentication synchronization |
| | Customer management | Querying customers | POST /v2/partners/sub-customers/query | BPC_ITEM_SUBCUSTSERV_010100\| BPC_ITEM_SUBCUSTSERV_010500 | • Sales > Customers > Customer Management > Customer List > View Customer List<br>• Sales > Customers > Customer Management > Reseller Customers > View Customers |

| Sce nari o | Sub- Scena rio | API Descrip tion | URL | Action | Path |
|---|---|---|---|---|---|
| | | Freezin g a custom er account | POST /v2/ partners/sub- customers/freeze | BPC_ITEM_SUBCUSTSERV_ 010501\| BPC_ITEM_SUBCUSTSERV_ 010115 | • Sales > Customers > Customer Management > Reseller Customers > Freeze/Unfreeze Accounts <br> • Sales > Customers > Customer Management > Customer List > Freeze/Unfreeze Accounts |
| | | Unfreez ing a custom er account | POST /v2/ partners/sub- customers/ unfreeze | BPC_ITEM_SUBCUSTSERV_ 010501\| BPC_ITEM_SUBCUSTSERV_ 010115 | • Sales > Customers > Customer Management > Reseller Customers > Freeze/Unfreeze Accounts <br> • Sales > Customers > Customer Management > Customer List > Freeze/Unfreeze Accounts |
| Res eller man age men t | Query ing resell ers | Queryin g the list of reseller s | POST /v2/ partners/indirect- partners/query | BPC_ITEM_SALES_020100 | Sales > Resellers > Reseller Management > My Resellers > View Resellers |
| Cred it man age men t | Mana ging credit s | Queryin g balance | GET /v2/partners/ credit/ consumption- quota | BPC_ITEM_ACCOUNT_010 500 | Partner Information > Basic Information > Consumption Quota > View Quota |

| Scenario | Sub-Scenario | API Description | URL | Action | Path |
|---|---|---|---|---|---|
| Transaction Management | Coupon management | Querying coupons | GET /v2/promotions/benefits/coupons | BPC_MENU_FINANCE_100100\|BPC_ITEM_SUBCUSTSERV_050101 | <ul><li>Partner Information > Basic Information > Consumption Quota > View Quota</li><li>Sales > Customers > Customer Orders > Order Payments > Pay for Orders</li></ul> |
| | Yearly/monthly order management | Querying orders | GET /v2/orders/customer-orders | BPC_ITEM_SUBCUSTSERV_060100\|BPC_ITEM_SUBCUSTSERV_060200 | <ul><li>Sales > Customers > Customer Orders > Customer Orders > View Orders</li><li>Sales > Customers > Customer Orders > Reseller Customer Orders > View Orders</li></ul> |
| | | Querying order details | GET /v2/orders/customer-orders/details/{order_id} | BPC_ITEM_SUBCUSTSERV_060100\|BPC_ITEM_SUBCUSTSERV_060200 | <ul><li>Sales > Customers > Customer Orders > Customer Orders > View Orders</li><li>Sales > Customers > Customer Orders > Reseller Customer Orders > View Orders</li></ul> |
| | Managing Pay-Per-Use Resources | Querying customer's pay-per-use resources | POST /v2/partners/sub-customers/on-demand-resources/query | BPC_ITEM_SUBCUSTSERV_010105 | Sales > Customers > Customer Management > Customer List > View Customer Resources |

| Sce nari o | Sub-Scena rio | API Descrip tion | URL | Action | Path |
|---|---|---|---|---|---|
| | Mana ging Custo mers' Budge ts | Queryin g custom er budget | GET /v2/partners/ sub-customers/ budget | BPC_ITEM_SUBCUSTSERV_ 010111\| BPC_ITEM_SUBCUSTSERV_ 010503 | • Sales > Customers > Customer Management > Customer List > Adjust Credit Limit<br>• Sales > Customers > Customer Management > Reseller Customers > Set Monthly Budgets |
| | | Batch queryin g custom er budgets | POST /v2/ partners/sub-customers/ budget/query | BPC_ITEM_SUBCUSTSERV_ 010111\| BPC_ITEM_SUBCUSTSERV_ 010503 | • Sales > Customers > Customer Management > Customer List > Adjust Credit Limit<br>• Sales > Customers > Customer Management > Reseller Customers > Set Monthly Budgets |
| | | Setting custom er budgets | POST /v2/ partners/sub-customers/budget | BPC_ITEM_SUBCUSTSERV_ 010111\| BPC_ITEM_SUBCUSTSERV_ 010503 | • Sales > Customers > Customer Management > Customer List > Adjust Credit Limit<br>• Sales > Customer Business > Customer Management > Reseller Customers > Set Monthly Budgets |
| Bill Man age men t | - | Queryin g monthl y bills of a custom er | GET /v2/bills/ partner-bills/ postpaid-bill-summary | BPC_ITEM_FINANCE_0901 00 | Sales > Financial Information > Partner Bills > Partner Bill > View Partner Bill |

| Sce nari o | Sub- Scena rio | API Descrip tion | URL | Action | Path |
|---|---|---|---|---|---|
| Invo ice Man age men t | Invoic e Mana geme nt | Queryin g the invoice list | GET /v1.0/ {domain_id}/ payments/intl- invoices | BPC_ITEM_FINANCE_0601 00 | Sales > Financial Information > Invoices > Invoice Center > View Invoice Requests |

# 3.4 Request Throttling

## What Is Request Throttling?

Request throttling is a method used by Huawei Cloud to control the frequency of calling open APIs. A quota refers to the maximum number of calls made to a single API within a specified time window.

## Request Throttling for Partner Operations Capability APIs

&#9906; NOTE

Traffic quota: 10/1(s); API request throttling dimensions: source IP address, API, and ParentUid, indicating that a single user or source IP address can send up to 10 requests to the API every second.

| Scen ario | Sub- Scena rio | API | URL | Traffic Quota | Quota Dimension |
|---|---|---|---|---|---|
| Prod uct Mana geme nt | Queryi ng produ ct inform ation | **Querying Cloud Service Types** | GET /v2/products/ service-types | 10/1(s ) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | | **Querying Resource Types** | GET /v2/products/ resource-types | 10/1(s ) | API request throttling dimensions: Source IP address, API, and ParentUid |

| Scenario | Sub-Scenario | API | URL | Traffic Quota | Quota Dimension |
|---|---|---|---|---|---|
| | | **Querying Resources by Cloud Service Type** | GET /v2/products/service-resources | 10/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | | **Querying Usage Types** | GET /v2/products/usage-types | 10/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | | **Querying Measurement Units** | GET /v2/bases/measurements | 10/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | | **Querying the Measurement Unit Number System** | GET /v2/bases/conversions | 10/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | Querying product price | **Querying the Price of a Pay-per-Use Product** | POST /v2/bills/ratings/on-demand-resources | 10/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | | **Querying the Price of a Yearly/ Monthly Product** | POST /v2/bills/ratings/period-resources/subscribe-rate | 30/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |

| Scenario | Sub-Scenario | API | URL | Traffic Quota | Quota Dimension |
|---|---|---|---|---|---|
| | | **Querying the Renewal Price of a Yearly/Monthly Resource** | POST /v2/bills/ratings/period-resources/renew-rate | 10/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |
| Customer Management | Registering a customer | **Verifying Customer Registration Information** | POST /v2/bills/ratings/on-demand-resources | 5/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | | **Sending a Verification Code** | POST /v2/bills/ratings/period-resources/subscribe-rate | 10/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | | **Creating a Customer** | POST /v2/bills/ratings/period-resources/renew-rate | 10/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | Requesting real-name authentication | **Requesting an Individual Real-name Authentication** | POST /v2/customers/realname-auths/individual | 10/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | | **Requesting an Enterprise Real-name Authentication** | POST /v2/customers/realname-auths/enterprise | 10/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |

| Scenario | Sub-Scenario | API | URL | Traffic Quota | Quota Dimension |
|---|---|---|---|---|---|
| | | **Requesting a Real-Name Authentication Change** | PUT /v2/customers/realname-auths/enterprise | 10/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | | **Querying the Real-Name Authentication Review Result** | GET /v2/customers/realname-auths/result | 10/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | Managing customers | **Querying Customers** | POST /v2/partners/sub-customers/query | 10/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | | **Freezing a Customer Account** | POST /v2/partners/sub-customers/freeze | 10/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | | **Unfreezing a Customer Account** | POST /v2/partners/sub-customers/unfreeze | 10/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |
| Reseller Management | Querying resellers | **Querying Huawei Cloud Resellers** | POST /v2/partners/indirect-partners/query | 10/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |

| Scenario | Sub-Scenario | API | URL | Traffic Quota | Quota Dimension |
|---|---|---|---|---|---|
| Credit Management | Managing credits | **Querying Consumption Quota** | GET /v2/partners/credit/consumption-quota | 10/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |
| Transaction Management | Managing customer budgets | **Querying Customers' Budgets** | GET /v2/partners/sub-customers/budget | 25/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | | **Batch Querying Customer Budgets** | POST /v2/partners/sub-customers/budget/query | 10/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | | **Setting Customer Budgets** | POST /v2/partners/sub-customers/budget | 10/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | Managing coupons | **Querying Coupons** | POST /v2/partners/indirect-partners/query | 10/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | Managing yearly/monthly orders | **Querying Orders** | GET /v2/orders/customer-orders | 20/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | | **Querying Order Details** | GET /v2/orders/customer-orders/details/{order_id} | 10/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |

| Scen ario | Sub- Scena rio | API | URL | Traffic Quota | Quota Dimension |
|---|---|---|---|---|---|
| | | **Paying Yearly/ Monthly Product Orders** | POST /v3/orders/ customer-orders/pay | 10/1(s ) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | | **Canceling Orders in the Pending Payment Status** | PUT /v2/orders/ customer-orders/ cancel | 10/1(s ) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | | **Querying the Amount of Unsubscrip tion Orders** | GET /v2/orders/ customer-orders/ refund-orders | 10/1(s ) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | Mana ging yearly / month ly resour ces | **Querying Customer's Yearly/ Monthly Resources** | POST /v2/orders/ suscriptions/resources/ query | 10/1(s ) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | | **Renewing Yearly/ Monthly Resources** | POST /v2/orders/ subscriptions/ resources/renew | 10/1(s ) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | | **Unsubscrib ing from Yearly/ Monthly Resources** | POST /v2/orders/ subscriptions/ resources/unsubscribe | 10/1(s ) | API request throttling dimensions: Source IP address, API, and ParentUid |

| Scen ario | Sub- Scena rio | API | URL | Traffic Quota | Quota Dimension |
|---|---|---|---|---|---|
| | | **Configurin g Automatic Renewal for Yearly/ Monthly Resources** | POST /v2/orders/ subscriptions/ resources/autorenew/ {resource_id} | 10/1(s ) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | | **Canceling Automatic Renewal for Yearly/ Monthly Resources** | DELETE /v2/orders/ subscriptions/ resources/autorenew/ {resource_id} | 10/1(s ) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | | **Enabling/ Canceling the Change from Yearly/ Monthly to Pay-per- Use upon Expiration** | POST /v2/orders/ subscriptions/ resources/to-on- demand | 10/1(s ) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | Mana ging resour ce packa ges | **Querying Resource Packages** | POST /v3/payments/ free-resources/query | 10/1(s ) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | | **Querying the Resource Usage** | POST /v2/payments/ free-resources/usages/ details/query | 10/1(s ) | API request throttling dimensions: Source IP address, API, and ParentUid |
| | | **Querying the Resource Usage** | GET /v2/bills/ customer-bills/free- resources-usage- records | 10/1(s ) | API request throttling dimensions: Source IP address, API, and ParentUid |

| Scenario | Sub-Scenario | API | URL | Traffic Quota | Quota Dimension |
|---|---|---|---|---|---|
| | Managing pay-per-use resources | **Querying Customer's Pay-Per-Use Resources** | POST /v2/partners/sub-customers/on-demand-resources/query | 10/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |
| Bill Management | Managing partner bills | **Querying Monthly Bills** | GET /v2/bills/partner-bills/postpaid-bill-summary | 10/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |
| Invoice Management | Managing invoices | **Querying the Invoice List** | GET /v1.0/{domain_id}/payments/intl-invoices | 10/1(s) | API request throttling dimensions: Source IP address, API, and ParentUid |

## Troubleshooting for Request Throttling Failure

The following is an example of error returned by an API:

{"status_code":429,"request_id":"7e6c1**********c610","error_code":"APIGW.0308","error_message":"The throttling threshold has been reached: policy user over ratelimit,limit:10,time:1 second","encoded_authorization_message":""}

Troubleshooting

Huawei Cloud provides default traffic quotas for partner operations capability APIs. Users can increase the quota based on their service requirements. They can monitor status code 429 and construct a retry mechanism. The retry mechanism should follow an exponential backoff plan to reduce the number of requests if necessary. They can also establish some randomness in the backoff timesheets to avoid severe herd mentality.

## Adjusting Quotas

If the traffic quota cannot meet your service requirements and concurrency scenarios, submit a Huawei Cloud service ticket with the service scenario description attached. After receiving the service ticket, the Huawei Cloud after-sales service team will adjust the quota based on your requirements.

# 4 Product Management

## 4.1 Querying 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.

#### Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

#### 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.<br>• **zh_CN**: Chinese<br>• **en_US**: English<br>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**.<br><br>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 **""**.<br><br>NOTE<br>  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.<br><br>  For example, if there are 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned.<br><br>  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**.<br><br>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-intl.myhuaweicloud.com/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.

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

GET /v2/products/resource-types

**Table 4-4** Header parameter

| Paramete r | Manda tory | Value Range | Description |
|---|---|---|---|
| X-Language | No | A maximu m of 8 characte rs | Language.<br>● **zh_CN**: Chinese<br>● **en_US**: English<br>Default value: **zh_CN** |

**Table 4-5** Query parameters

| Paramete r | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| offset | No | Integer | 0 to 100000 0000 | Offset, which starts from 0. The default value is **0**.<br>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 **""**.<br>**NOTE**<br>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.<br>For example, if there are 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned.<br>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**.<br>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-intl.myhuaweicloud.com/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**. |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| 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. |

| HTTP Status Code | Error Code | Description |
|---|---|---|
| 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.

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## 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. <br> • **zh_CN**: Chinese <br> • **en_US**: English <br> 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**.<br><br>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 **""**.<br><br>NOTE<br>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.<br><br>For example, if there are 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned.<br><br>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**.<br><br>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-intl.myhuaweicloud.com/v2/products/service-resources?
service_type_code=hws.service.type.obs&limit=5&offset=0 HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIlNPXsidG9rZ
X-Language: zh_CN
```

## Response

**Response Parameters**

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| error_code | String | A maximum of 20 characters | Error code.<br>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 |
|---|---|---|---|
| resource_type_code | String | A maximum of 64 characters | Resource type code. Example: **hws.resource.type.general**. |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| product_own er_service | String | A maximu m of 64 character s | Code of the service where a resource belongs. Example: **hws.service.type.offline**. |
| name | String | A maximu m of 1024 character s | Resource type. Example: general specifications. |
| description | String | A maximu m of 1024 character s | 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.

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

GET /v2/products/usage-types

**Table 4-11** Header parameter

| Paramete r | Manda tory | Value Range | Description |
|---|---|---|---|
| X- Language | No | A maximu m of 8 characte rs | Language. <br>● **zh_CN**: Chinese <br>● **en_US**: English <br>Default value: **zh_CN** |

**Table 4-12** Query parameters

| Paramete r | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| resource_t ype_code | No | String | A maximu m of 64 charact ers | 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**. <br><br>If this parameter is not included or is left empty, it will not be used as a filter criterion. If this parameter is set to **""** or **null**, it will be used as a filter criterion. |
| offset | No | Integer | 0 to 100000 000 | Offset, which starts from 0. The default value is **0**. <br><br>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 **""**. <br>**NOTE** <br>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. <br><br>For example, if there are 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned. <br><br>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. |

| Paramete r | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| limit | No | Integer | 1 to 100 | 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-intl.myhuaweicloud.com/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 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 maximu m of 1000 character s | Error description. This parameter is returned only when the query failed. |
| total_count | Integer | - | Total number. |
| usage_types | List<Usa geType> | - | 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**. |
| 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.

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

GET /v2/bases/measurements

**Table 4-14** Header parameter

| Paramete r | Manda tory | Value Range | Description |
|---|---|---|---|
| X-Language | No | A maximu m of 8 characte rs | Language.<br>● **zh_CN**: Chinese<br>● **en_US**: English<br>Default value: **zh_CN** |

## Request

### Request Parameters

None

### Example Request

```
GET https://bss-intl.myhuaweicloud.com/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 maximu m of 20 characte rs | Error code. For details, see **Returned Values**. This parameter is returned only when the query failed. |
| error_msg | String | A maximu m of 1000 characte rs | Error description. This parameter is returned only when the query failed. |
| measure_u nits | List<Me asureUn itRest> | - | 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**. |

| Parameter | Type | Value Range | Description |
|-----------|------|-------------|-------------|
| measure_type | Integer | - | Measurement type. <br><br> ● **1**: Currency <br><br> ● **2**: Duration <br><br> ● **3**: Traffic <br><br> ● **4**: Quantity <br><br> ● 6: length <br><br> ● **7**: Capacity <br><br> ● **9**: Number of lines <br><br> ● **10**: Period <br><br> ● **11**: Frequency <br><br> ● **12**: Count <br><br> ● **15**: Capacity x duration <br><br> ● **16**: Bandwidth <br><br> ● **17**: Capacity-duration <br><br> ● **18**: Query rate <br><br> ● **19**: Bandwidth (1000) <br><br> ● **20**: Performance test usage <br><br> ● **21**: Area <br><br> ● **22**: Video <br><br> ● **23**: Throughput <br><br> ● **26**: Deduction unit for a general resource package <br><br> ● **27**: Number of cores x Duration <br><br> ● **28**: Memory x Duration <br><br> ● **29**: IOPS x Duration <br><br> ● **30**: Throughput x Duration <br><br> ● **31**: Number/Duration <br><br> ● **40**: Traffic (1000) <br><br> ● **41**: 1K tokens <br><br> ● 103: Hong Kong dollar <br><br> ● 104: 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.

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

GET /v2/bases/conversions

**Table 4-16** Request parameters

| Paramete r | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| measure_t ype | No | Integer | 1– 214748 3647 | Measurement type.<br><br>● **1**: Currency<br><br>● **2**: Duration<br><br>● **3**: Traffic<br><br>● **4**: Quantity<br><br>● **6**: length<br><br>● **7**: Capacity<br><br>● **9**: Number of lines<br><br>● **10**: Period<br><br>● **11**: Frequency<br><br>● **12**: Count<br><br>● **15**: Capacity x duration<br><br>● **16**: Bandwidth<br><br>● **17**: Capacity-duration<br><br>● **18**: Query rate<br><br>● **19**: Bandwidth (1000)<br><br>● **20**: Performance test usage<br><br>● **21**: Area<br><br>● **22**: Video<br><br>● **23**: Throughput<br><br>● **26**: Deduction unit for a general resource package<br><br>● **27**: Number of cores x Duration<br><br>● **28**: Memory x Duration<br><br>● **29**: IOPS x Duration<br><br>● **30**: Throughput x Duration<br><br>● **31**: Number/Duration<br><br>● **40**: Traffic (1000)<br><br>● **41**: 1K tokens<br><br>● 103: Hong Kong dollar<br><br>● 104: tokens<br><br>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 **""**. |

# Request

### Request Parameters

None

### Example Request

```
GET https://bss-intl.myhuaweicloud.com/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 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. |
| 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). |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| measure_type | Integer | 1–2147483647 | Measurement type.<br>● **1**: Currency<br>● **2**: Duration<br>● **3**: Traffic<br>● **4**: Quantity<br>● 6: length<br>● **7**: Capacity<br>● **9**: Number of lines<br>● **10**: Period<br>● **11**: Frequency<br>● **12**: Count<br>● **15**: Capacity x duration<br>● **16**: Bandwidth<br>● **17**: Capacity-duration<br>● **18**: Query rate<br>● **19**: Bandwidth (1000)<br>● **20**: Performance test usage<br>● **21**: Area<br>● **22**: Video<br>● **23**: Throughput<br>● **26**: Deduction unit for a general resource package<br>● **27**: Number of cores x Duration<br>● **28**: Memory x Duration<br>● **29**: IOPS x Duration<br>● **30**: Throughput x Duration<br>● **31**: Number/Duration<br>● **40**: Traffic (1000)<br>● **41**: 1K tokens<br>● 103: Hong Kong dollar<br>● 104: 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. Otherwise, an error may be reported.
- You can use the **price calculator** to determine product prices.
- You can also use the price calculator to get the value of the **product_infos** request parameter when you call the API for querying product prices. For more details, see **price inquiry examples**.

## Constraints

This API can be called using the partner token. Before using the partner token to call this API, the partner needs to **request authorization from the customer** or **ask the customer to create an agency for them**.

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## 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.<br>**NOTE**<br>• 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**.<br>• 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**. |

| Parameter | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| inquiry_pr ecision | No | Integer | - | Precision of the price query result. The default value of this parameter is **0** (default precision of the price query result). <br>● 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. <br>● 1: The result contains a maximum of 10 decimal places with the unit of USD, such as USD 1.0000000001. <br>**NOTE** <br>Value **0** and value **1** make differences only when the query result contains at least six decimal places. |

**Table 4-18** DemandProductInfo

| Parameter | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| id | Yes | String | A maxim um of 64 charact ers | The ID is used to identify the mapping between the inquiry result and the request and must be unique in an inquiry. |
| cloud_servi ce_type | Yes | String | A maxim um of 400 charact ers | 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**. |

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| 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. |

| Parameter | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| resource_s pec | Yes | String | A maxim um of 400 charact ers | Resource specifications. For details, see related cloud service documentation.<br><br>The following provides examples of services and resource specifications:<br>● ECS<br>  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.<br>● Bandwidth<br>  – 12_bgp: dynamic BGP bandwidth billed by traffic<br>  – 12_sbgp: static BGP bandwidth billed by traffic<br>  – 19_bgp: dynamic BGP bandwidth billed by bandwidth<br>  – 19_sbgp: Static BGP bandwidth billed by bandwidth<br>  – 19_share: Shared bandwidth billed by bandwidth<br>● IP address:<br>  – 5_bgp: dynamic BGP public IP address<br>  – 5_sbgp: static BGP public IP address<br>● EVS<br>  – SATA: common I/O EVS disk<br>  – SAS: high I/O EVS disk<br>  – GPSSD: general-purpose SSD EVS disk<br>  – SSD: ultra-high I/O EVS disk<br>  – ESSD: Extreme SSD<br>  – GPSSD2.storage: General-purpose SSD V2 storage<br>  – GPSSD2.iops: General-purpose SSD V2 iops |

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| | | | | – GPSSD2.throughput: General-purpose SSD V2 throughput |
| region | Yes | String | A maximum of 64 characters | Cloud service region code, for example, ap-southeast-1. Obtain the value from the **Region** column in **Regions and Endpoints**. |
| usage_factor | Yes | String | A maximum of 64 characters | Usage factor. Usage factors are case-insensitive. The value is the same as the usage factor value in the SDR. The mapping between cloud services and usage factors is as follows:<br><br>● Cloud server: **Duration**<br><br>● Cloud disk: **Duration**<br><br>● EIP: **Duration**<br><br>● Bandwidth: **Duration** or **upflow**<br><br>● Marketplace image: **Duration**<br><br>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.<br><br>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.<br><br>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. |

| Parameter | Mandatory | Type | Value Range | Description |
|-----------|-----------|------|-------------|-------------|
| available_zone | No | String | A maximum of 64 characters | Available zone ID. Available zone IDs are case-insensitive.<br><br>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.<br><br>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.<br><br>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 | A maximum of 4 characters | Resource capacity measurement ID. The options are:<br>● **15**: Mbit/s (used when the bandwidth is subscribed)<br>● **17**: GB (used when an EVS disk is subscribed to)<br>● **14**: amount (times)<br>This field should be filled together with **resource_size** or left blank.<br><br>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.<br><br>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-intl.myhuaweicloud.com/v2/bills/ratings/on-demand-resources HTTP/1.1
Content-Type: application/json

```
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBlINPXsidG9rZ
{
    "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": "ap-southeast-1",
            "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": "ap-southeast-1",
            "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": "ap-southeast-1",
            "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": "ap-southeast-1",
            "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_website_amount | BigDecimal | - | List price of a pay-per-use product |
| measure_id | Integer | A maximum of 4 characters | Measurement unit ID.<br>1: USD |
| currency | String | A maximum of 20 characters | Currency.<br>USD<br>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. |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| 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 the 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.<br>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.<br>● Commercial discounts:<br>　– 605: Contract commercial discount in the HUAWEI CLOUD BE scenario<br>　– 606: Contract commercial discount in the reseller BE scenario<br>● Partner discounts:<br>　607: Partner authorized discount |

| Parameter | Type | Value Range | Description |
|-----------|------|-------------|-------------|
| amount | BigDecimal | - | Discounted amount. |
| measure_id | Integer | A maximum of 4 characters | Measurement unit ID.<br>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.
- You can use the **price calculator** to determine product prices.
- You can also use the price calculator to get the value of the **product_infos** request parameter when you call the API for querying product prices. For more details, see **price inquiry examples**.

## Constraints

This API can be called using the partner token. Before using the partner token to call this API, the partner needs to **request authorization from the customer** or **ask the customer to create an agency for them**.

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug SDK code samples.

## 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.<br>**NOTE**<br>● 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**.<br>● 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. |

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| resource_spec | Yes | String | A maximum of 400 characters | Resource specifications. For details, see related cloud service documentation. <br><br> The following provides examples of services and resource specifications: <br> ● ECS <br> 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. <br> ● Bandwidth <br>   – 12_bgp: dynamic BGP bandwidth billed by traffic <br>   – 12_sbgp: static BGP bandwidth billed by traffic <br>   – 19_bgp: dynamic BGP bandwidth billed by bandwidth <br>   – 19_sbgp: Static BGP bandwidth billed by bandwidth <br>   – 19_share: Shared bandwidth billed by bandwidth <br> ● IP address: <br>   – 5_bgp: dynamic BGP public IP address <br>   – 5_sbgp: static BGP public IP address <br> ● RDS: <br> You can call the API for **querying database specifications** to obtain the RDS specifications. <br> ● DCS: <br> You can call the API for **querying service specifications** to obtain the DCS specifications. <br> ● EVS: <br>   – SATA: Common I/O <br>   – SAS: High I/O |

| Parameter | Manda tory | Type | Value Range | Description |
|-----------|-----------|------|-------------|-------------|
| | | | | – GPSSD: General-purpose SSD<br>– SSD: Ultra-high I/O<br>– ESSD: Extreme SSD<br>– GPSSD2.storage: General-purpose SSD V2 storage |
| region | Yes | String | A maxim um of 64 charact ers | Cloud service region code, for example, ap-southeast-1. Obtain the value from the **Region** column in **Regions and Endpoints**. |
| period_typ e | Yes | Integer | [0-4] | Period type of a yearly/monthly product order.<br>● **0**: Day<br>● **2**: Month<br>● **3**: Year<br>● **4**: Hour |
| period_nu m | Yes | Integer | [1-2147 83647] | Number of periods of a yearly/ monthly product order. |
| subscriptio n_num | Yes | Integer | [1-1000 0] | Number of subscriptions of a yearly/monthly product order. |
| available_z one | No | String | A maxim um of 64 charact ers | AZ identifier, for example, **cn-north-1a**. AZ identifiers are case-insensitive. Obtain the value from the **Availability Zone (AZ)** column in **Regions and Endpoints**.<br>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. |

| Parameter | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| resource_si ze | No | Integer | [1-2147 83647] | Resource capacity. It can be the subscribed volume size or bandwidth size.<br><br>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.<br><br>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_measu re_id | No | Integer | - | Resource capacity measurement ID. The options are as follows:<br><br>● **15**: Mbit/s (used when the bandwidth is subscribed)<br><br>● **17**: GB (used when a cloud disk is subscribed)<br><br>● **14**: amount<br><br>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.<br><br>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-intl.myhuaweicloud.com/v2/bills/ratings/period-resources/subscribe-rate HTTP/1.1
Content-Type: application/json
X-Auth-Token: *MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ*
{
    "project_id": "84c53ec51e794a4888fb0f5c0cfb2420",
    "product_infos": [
        {
            "id": "1",
        "cloud_service_type": "hws.service.type.ec2",
        "resource_type": "hws.resource.type.vm",
            "resource_spec": "s3.medium.4.linux",
        "region": "ap-southeast-1",

```
          "available_zone": "ap-southeast-1a",
          "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": "ap-southeast-1",
          "available_zone": null,
          "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": "ap-southeast-1",
          "available_zone": "ap-southeast-1a",
          "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": "ap-southeast-1",
          "available_zone":"ap-southeast-1a",
          "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. |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| error_msg | String | A maximum of 1000 characters | Error description. This parameter is returned only when the query failed. |
| official_website_rating_result | List<OfficialWebsiteRatingResult Object> | - | 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.<br>USD<br>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.<br>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 of 64 characters | ID, which comes from the ID in the request. |
| 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.<br>• 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.<br>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. |

| Parameter | Type | Value Range | Description |
|-----------|------|-------------|-------------|
| measure_id | Integer | A maximum of 4 characters | Measurement unit ID.<br>1: USD |
| discount_type | Integer | A maximum of 32 characters | Discount type.<br>• Commercial discounts:<br>  – 605: Contract commercial discount in the HUAWEI CLOUD BE scenario<br>  – 606: Contract commercial discount in the reseller BE scenario<br>• Partner discounts:<br>  607: Partner authorized discount |
| discount_name | String | A maximum of 256 characters | Discount name. |
| best_offer | Integer | - | Optimal discount.<br>• 0: No (default value)<br>• 1: Yes<br>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 characters | Measurement unit ID. 1: USD |

**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": 623.78,
        "installment_official_website_amount": null,
        "installment_period_type": null,
        "measure_id": 1,
        "product_rating_results": [
            {
                "id": "1",
                "product_id": "00301-18008-0--0",
                "official_website_amount": 27.2,
                "measure_id": 1,
                "installment_official_website_amount": null,
                "installment_period_type": null
            },
            {
                "id": "2",
                "product_id": "00301-03001-0--0",
```

```
        "official_website_amount": 0,
        "measure_id": 1,
        "installment_official_website_amount": null,
        "installment_period_type": null
    },
    {
        "id": "3",
        "product_id": "00301-170006-0--0",
        "official_website_amount": 5.28,
        "measure_id": 1,
        "installment_official_website_amount": null,
        "installment_period_type": null
    },
    {
        "id": "4",
        "product_id": "00301-34543-0--0",
        "official_website_amount": 591.3,
        "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 **8.4.1 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 **8.4.1 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.

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug SDK code samples.

## 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<br><br>A maximum of 10 resource IDs are supported.<br><br>Determine whether a resource is a primary resource or not by the **is_main_resource**, a response parameter described in **8.4.1 Querying Customer's Yearly/Monthly Resources**. |

| Paramet er | Mand atory | Parame ter Type | Value Range | Description |
|---|---|---|---|---|
| period_ty pe | Yes | Integer | [2\|3] | Period type:<br>● **2**: Month<br>● **3**: Year |
| period_n um | Yes | Integer | [1-11] | Number of periods:<br>● Month: 1 to 11<br>● Year: 1 to 3 |
| include_r elative_r esources | No | Boolean | - | Specifies whether to include associated resources for renewal price querying.<br>● false: Not included.<br>● true: Included.<br>If this parameter is not included in the request or is set to **""**, the default value **false** is used. |

**Request Sample**

```
POST https://bss-intl.myhuaweicloud.com/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 |
|---|---|---|---|
| error_code | String | A maximu m of 20 character s | Status code<br>For details, see **Status Codes**. |
| error_msg | String | A maximu m of 1,000 character s | Error description |

| Parameter | Parameter Type | Value Range | Description |
|---|---|---|---|
| currency | String | A maximum of 20 characters | Currency<br>USD<br>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<br>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 3 OptionalDiscountRating-Result**. |
| fail_resource_infos | List<FailResourceInfo> | -- | Resource information for a failed query. For details, see **resource information for a failed query**. |

**Table 4-26** RenewInquiryResultInfo

| Parameter | Parameter Type | Description |
|---|---|---|
| resource_id | String | Resource ID.<br>**NOTE**<br>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<br>**NOTE**<br>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<br>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<br>● Commercial discounts:<br>– 605: Contract commercial discount in the Huawei Cloud BE scenario<br>– 606: Contract commercial discount in the reseller BE scenario<br>● Partner discounts:<br>607: Partner authorized discount - discount rate |

| Parameter | Parameter Type | Value Range | Description |
|---|---|---|---|
| discount_name | String | A maximum of 256 characters | Discount name |
| best_offer | Integer | - | Optimal discount or not<br>● 0: No (default value)<br>● 1: Yes<br>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<br>For details, see **Table Status Codes**. |
| 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.3005000 7 | Renewal price inquiry is not applicable to non-primary resources. |
| 200 | CBC.3005000 8 | The period type or number of periods for the resource does not exist. |
| 200 | CBC.3005000 9 | The resources have expired and been deleted or do not exist. |
| 200 | CBC.3005000 10 | This operation is not allowed because some resources included in your orders are to be paid. |
| 200 | CBC.3005000 11 | Resources are being unsubscribed from or changed. |
| 200 | CBC.3005000 13 | Renewal not supported. |
| 400 | CBC.0100 | Incorrect parameter |
| 400 | CBC.9900600 6 | The required product cannot be found. |
| 400 | CBC.9900600 24 | Failed to query product information. |
| 400 | CBC.9900600 16 | Failed to query coupon information. |
| 400 | CBC.9900600 17 | Failed to query customer information. |
| 400 | CBC.9900600 50 | Incorrect usage unit |
| 400 | CBC.9900600 55 | The queried amount exceeds the upper limit. |
| 400 | CBC.9900600 66 | Billing query failed |

| HTTP Status Code | Error Code | Description |
|---|---|---|
| 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.

#### Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

#### URI

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

#### Request

Request parameters

| Param eter | Mand atory | Type | Value Range | Description |
|---|---|---|---|---|
| search_ type | Yes | String | [email\| mobile\| name] | The options are email, mobile, or name. |
| search_ value | Yes | String | A maximu m of 64 character s | Mobile number, email address, or account name.<br>● The mobile number must comply with the regular expression "^\d{4}-\d+$". The value contains the country code and starts with 00. The format is "00XX-XXXXXXXX".<br>● The email address must consist of an email prefix and an email domain, as well as the (@) symbol.<br>● **name**: The value must comply with the regular expression "^([a-zA-Z-]([a-zA-Z0-9_-]){4,31})$" 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-intl.myhuaweicloud.com/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

| Param eter | Type | Value Range | Description |
|---|---|---|---|
| error_c ode | String | A maximu m of 16 character s | Error code. For details, see **Returned Values**. This parameter is returned only when a failure occurs. |

| Param eter | Type | Value Range | Description |
|---|---|---|---|
| error_ msg | String | A maximu m of 1024 character s | Error description. This parameter is returned only when a failure occurs. |
| check_ result | String | A maximu m of 32 character s | ● **available**: The account name, mobile number, or email address is valid.<br>● **used_by_user**: The account name, mobile number, or 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.

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

POST /v2/bases/verificationcode/send

## Request

Request Parameters

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| receiver_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 maximum of 64 characters | Email that receives the verification code. |

| Param eter | Man dator y | Type | Value Range | Description |
|---|---|---|---|---|
| lang | No | String | A maximu m of 16 charact ers | Language in which the email verification code is sent.<br>● **zh-cn**: Chinese<br>● **en-us**: English<br>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-intl.myhuaweicloud.com/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

| Param eter | Type | Value Range | Description |
|---|---|---|---|
| error_c ode | String | A maximu m of 16 characte rs | Error code. For details, see **Returned Values**. This parameter is returned only when a failure occurs. |
| error_ msg | String | A maximu m of 1024 characte rs | 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**
>
> - **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.0 100 | Parameter error. |
| 400 | CBC.9 9000 035 | You are not a customer of a partner yet. |
| 400 | CBC.9 9004 002 | Failed to generate the verification code. |
| 400 | CBC.9 9004 003 | The verification code is successfully generated but fails to be sent. |
| 400 | CBC.9 9004 004 | Empty email address./Invalid format. |
| 400 | CBC.9 9004 015 | The number of verification code sending times has reached the upper limit (15 times per hour, 60 times per day). |
| 401 | CBC.0 154 | Invalid or expired token. |
| 403 | CBC.0 151 | Access denied. |
| 500 | CBC.0 999 | 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 Mode**.

- 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 **5.3.1 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.

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## 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: MX for Mexico |

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| 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.<br><br>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.<br><br>If this parameter is left blank, the value is generated randomly.<br><br>The value cannot start with **op_** or **shadow_** and cannot contain only digits.<br><br>The verification length is 5 to 32 digits and the verification rules are ^([a-zA-Z_-]([a-zA-Z0-9_-])*)$.<br><br>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 maximum of 64 characters | Email address.<br><br>Format: The value must contain **@**.<br><br>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. |

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| verification_code | 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: <br>● Contains at least two of the following character types: uppercase letters, lowercase letters, digits, and special characters. <br>● Differs from the account name or the account name in reverse order. <br>● Does not contain the email address. <br>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. <br>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 **""**. |

| Parameter | Mandatory | Type | Value Range | Description |
|-----------|-----------|------|-------------|-------------|
| is_close_market_ms | No | String | A maximum of 10 characters | Whether to disable the marketing message sending function.<br>● **true**: Disable this function.<br>● **false**: Retain this function enabled (default).<br>If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, **false** is returned. |
| 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**.<br>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_association_result | No | Boolean | - | Whether to return the result of associating a partner and sub-customer.<br>● **true**: Returns the association result.<br>● **false**: Does not return the association result.<br>The default value is **false**.<br>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-intl.myhuaweicloud.com/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": "HK",
  "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.<br><br>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.<br><br>● If the request contains this parameter, the response must contain the same parameter value as the request.<br><br>● If the request does not contain this parameter, the response contains a 32-bit character string randomly generated by the system.<br><br>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 **5.3.1 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. |

| HTTP Value | Error Code | Description |
|---|---|---|
| 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 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 Real-Name Authentication

## 5.2.1 Requesting an Individual Real-Name Authentication

### Function

This API can be used to submit an individual real-name authentication application.

An individual customer can refer to the instructions described in **Overall Process** to complete the real-name authentication.

### Constraints

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

- To use this API, partners need to enable **Upload Photos of Handheld ID Cards Required for Real-Name Authentication** on the **Support > Open APIs > Configure** page.

- Images for real-name authentication must be uploaded to the **download** directory of the bucket.

● Only individual certificate authentication can be performed using APIs.

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

POST /v2/customers/realname-auths/individual

## Request

**Request Parameters**

| Parameter | Mandatory | Type | Value Range | Description |
|-----------|-----------|------|-------------|-------------|
| customer_id | Yes | String | A maximum of 64 characters | Customer account ID. You can call the API in **5.3.1 Querying Customers** to obtain the customer ID. |
| identify_type | Yes | Integer | - | Authentication method. **0**: Using the individual certificate |

| Parameter | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| verified_fil e_url | Yes | List<String > | A maximu m of 4 character s | 1. Attachment URL for individual certificate authentication. The URL must be entered in sequence.<br>Assume that the name of the picture for the passport profile page is **abc023** and that for the customer holding the passport profile page is **def004**.<br><br>abc023<br><br>def004<br><br>Enter the URL in the preceding sequence. The file name is case sensitive.<br><br>2. Currently, certificate attachments must be in .jpg, .jpeg, .bmp, .png, .gif, or .pdf format. The maximum size of a single file is 10 MB.<br><br>3. The URL is a relative URL and does not need to contain the bucket name or **download** directory. It only needs to contain the subdirectory and corresponding file name in the **download** directory. Example:<br><br>● If the uploaded attachments are stored in the following location of the bucket, enter **abc023.jpg**:<br>https://*bucketname*.obs.*Endpoint*.myhuaweicloud.com/download/abc023.jpg<br><br>● If the uploaded attachments are stored in the following location of the bucket, enter **test/abc023.jpg**:<br>https://*bucketname*.obs.*Endpoint*. |

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| | | | | myhuaweicloud.com/download/test/abc023.jpg |
| name | Yes | String | A maximum of 255 characters | Name. |
| verified_number | Yes | String | A maximum of 32 characters | Certificate number. |
| xaccount_type | Yes | String | A maximum of 64 characters | Platform ID assigned by Huawei to a partner.<br><br>This value is assigned by Huawei. For details about how to obtain the platform ID, see **How Do I Obtain the xaccountType Value?** |

| Parameter | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| verified_ty pe | No | Integer | - | Certificate type.<br><br>**3**: Passport. Two attachments need to be uploaded: the picture of the profile page, and the picture of the customer holding the passport in hands (the profile page on the front side).<br><br>**5**: Exit-Entry Permit for Traveling to and from Hong Kong and Macao. Three attachments need to be uploaded: the picture of the front side of Exit-Entry Permit (profile page), the picture of the back side of Exit-Entry Permit, and the picture of the customer holding Exit-Entry Permit in hands (profile page on the front side).<br><br>**6**: Mainland Travel Permit for Taiwan Residents. Three attachments need to be uploaded: the picture of the front side of Mainland Travel Permit (profile page), the picture of the back side of Mainland Travel Permit, and the picture of the customer holding Mainland Travel Permit in hands (profile page on the front side).<br><br>**9**: Residence Permit for Hong Kong and Macao Residents. Three attachments need to be uploaded: the picture of the profile side of Residence Permit for Hong Kong and Macao Residents, the picture of the national emblem side of Residence Permit for Hong Kong and Macao Residents, and the picture of the customer holding Residence Permit for Hong Kong and Macao Residents in hands (profile side on the front side). |

| Parameter | Manda tory | Type | Value Range | Description |
|-----------|------------|------|-------------|-------------|
| | | | | **10**: Residence Permit for Taiwan Residents. Three attachments need to be uploaded: the picture of the profile side of Residence Permit for Taiwan Residents, the picture of the national emblem side of Residence Permit for Taiwan Residents, and the picture of the customer holding Residence Permit for Taiwan Residents in hands (profile side on the front side). This parameter needs to be specified only when **identify_type** is set to **0**. |
| change_ty pe | No | Integer | [-1] | Change type. -1: First time real-name authentication |

**Example Request**

```
POST  https://bss-intl.myhuaweicloud.com/v2/customers/realname-auths/individual HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
{
    "verified_number": "949826********2922",
    "verified_file_url": [
        "shimingrenzheng/zhengmian001.jpg",
        "shimingrenzheng/fanmian002.jpg"
    ],
    "name": "wangx_****_001",
    "change_type": -1,
    "customer_id": "068a6d********288536b6ba57d1ffae",
    "verified_type": 3,
    "identify_type": 0,
    "xaccount_type": "***_IDP"
}
```

## Response

**Response Parameters**

Status code: 200

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| is_review | Integer | - | Whether to transfer to manual review. This parameter is returned only when the status code is 200.<br>● **0**: No<br>● **1**: Yes |

Status code: 400

| 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. |
| is_review | Integer | - | Whether to transfer to manual review. This parameter is returned only when the status code is 200.<br>● **0**: No<br>● **1**: Yes |
| fail_check_items | List<String> | - | Error list. |

**Example Response**

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

## Returned Values

📖 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.990 00027 | Expired verification code. |
| 400 | CBC.990 00035 | You are not a customer of a partner yet. |
| 400 | CBC.990 00099 | The certificate attachment the customer submitted for real-name authentication exceeded the maximum size allowed. |
| 400 | CBC.990 00100 | Incorrect format of the certificate attachment the customer submitted for real-name authentication. |
| 400 | CBC.990 05030 | The partner did not complete real-name authentication or bucket authentication. |
| 400 | CBC.990 07188 | This customer has completed real-name authentication or is currently being authenticated. |
| 400 | CBC.990 07189 | The number of users who used the certificate ID for real-name authentication has reached the maximum limit. |
| 400 | CBC.990 07191 | The maximum number of real-name authentication times has been reached. |
| 400 | CBC.990 07193 | The certificate ID is from an invalid certificate and cannot be used for real-name authentication. |
| 400 | CBC.990 07202 | Real-name authentication failed. |
| 400 | CBC.990 07261 | The bank card is not supported. Try another bank card. |
| 400 | CBC.010 0 | Parameter error. |
| 400 | CBC.706 00026 | Huawei Cloud cannot review the information you submitted for real-name authentication. Contact your account manager. |
| 403 | CBC.015 1 | Access denied. |

| HTTP Value | Error Code | Description |
|---|---|---|
| 500 | CBC.0999 | Other errors. |

# 5.2.2 Requesting an Enterprise Real-Name Authentication

## Function

This API can be used to submit an enterprise real-name authentication application.

An enterprise customer can refer to the instructions described in **Overall Process** to complete the real-name authentication.

## Constraints

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

- To use this API, partners need to enable **Upload Photos of Handheld ID Cards Required for Real-Name Authentication** on the **Benefits and Support** > **API Configuration** > **Configure** page.

- Images for real-name authentication must be uploaded to the **download** directory of the bucket.

- Only enterprise certificate authentication can be performed using APIs.

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

POST /v2/customers/realname-auths/enterprise

## Request

**Request Parameters**

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| customer_id | Yes | String | A maximum of 64 characters | Customer account ID. You can call the API in **5.3.1 Querying Customers** to obtain the customer ID. |
| identify_type | Yes | Integer | - | Authentication method. 1: Using the enterprise's certificate scanned copy |

| Paramete r | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| verified_fil e_url | Yes | List<Stri ng> | A maximum of 4 characters | 1. URL of the certificate attachment file used for enterprise certificate authentication. The attachment URL must be entered in sequence. Enter the name of the attachment of the enterprise certificate first. If the enterprise personal information is specified in the request, enter the name of the ID card attachment of the enterprise personal information. The sequence of the enterprise certificate attachments is as follows: First: picture of the front side of the enterprise certificate Second: picture of the back side of the enterprise certificate The sequence of the individual certificate attachments is as follows: First: picture of the profile side of the personal ID card Second: picture of the back side of the personal ID card (national emblem side) If the enterprise does not have a legal entity, and its first attachment is the picture of the front side of the enterprise certificate **abc.023**, and the second is the back side of the enterprise certificate **def004**, and then upload the attachments in the following sequence: abc023 def004 The file name is case sensitive. 2. Currently, certificate attachments must be |

| Paramete r | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| | | | | in .jpg, .jpeg, .bmp, .png, .gif, or .pdf format. The maximum size of a single file is 10 MB. 3. The URL is a relative URL and does not need to contain the bucket name or **download** directory. It only needs to contain the subdirectory and corresponding file name in the **download** directory. Example: <br>● If the uploaded attachments are stored in the following location of the bucket, enter **abc023.jpg**: https:// *bucketname*.obs.*Endpoint*. myhuaweicloud.com/ download/abc023.jpg <br>● If the uploaded attachments are stored in the following location of the bucket, enter **test/ abc023.jpg**: https:// *bucketname*.obs.*Endpoint*. myhuaweicloud.com/ download/test/abc023.jpg |
| corp_nam e | Yes | String | A maximum of 255 characters | Organization name. The value cannot contain only digits, special characters, or spaces. |
| verified_nu mber | Yes | String | A maximum of 32 characters | Enterprise certificate number. |
| xaccount_t ype | 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?** |

| Paramete r | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| certificate_ type | No | Integer | - | Enterprise certificate type.<br>● **0**: Enterprise's business license<br>● **1**: Legal entity certificate<br>● **2**: Legal entity registration certificate<br>● **3**: Administrative law enforcement subject certificate<br>● **4**: Organization code certificate<br>● **99**: Others |
| reg_countr y | No | String | A maximum of 10 characters | Registration country entered for real-name authentication. Enter the two-letter code that stands for the country.<br>For example, enter **CN** for China. |
| reg_addres s | No | String | A maximum of 256 characters | Enterprise registration address for real-name authentication. |
| enterprise _person | No | Enterpris ePerson Object | - | Enterprise person information. For details, see **Table 5-1**. |

**Table 5-1** EnterprisePerson

| Parameter | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| legel_name | Yes | String | A maximum of 255 characters | Legal entity name. |
| legel_id_nu mber | Yes | String | A maximum of 32 characters | Legal entity card ID. |
| certifier_rol e | No | String | A maximum of 32 characters | Legal entity role.<br>legalPerson: Legal representative |

**Example Request**

```
POST  https://bss-intl.myhuaweicloud.com/v2/customers/realname-auths/enterprise HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBlINPXsidG9rZ
{
   "verified_number": "371812********8888",
   "verified_file_url": [
      "gerenshiming/zhengmian001.jpg",
      "gerenshiming/fanmian002.jpg",
      "gerenshiming/chizheng003.jpg"
   ],
  "reg_address": "Beijing"
   "reg_country": "CN",
   "customer_id": "4505ce********de8263e33b57e76abc",
   "certificate_type": 0,
   "corp_name": "test001",
   "enterprise_person": {
      "certifier_role": "legalPerson",
      "legel_name": "wangmoumou",
      "legel_id_number": "371812********8888"
   },
   "identify_type": 1,
   "xaccount_type": "***_IDP"
}
```

## Response

**Response Parameters**

Status code: 200

| Parameter | Type | Value Range | Description |
|-----------|------|-------------|-------------|
| is_review | Integer | - | Whether to transfer to manual review. This parameter is returned only when the status code is 200.<br>● **0**: No<br>● **1**: Yes |

Status code: 400

| 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. |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| is_review | Integer | - | Whether to transfer to manual review. This parameter is returned only when the status code is 200.<br>● **0**: No<br>● **1**: Yes |
| fail_check_it ems | List<Strin g> | - | Error list. This parameter is displayed only when error code CBC.99007004 is returned. For details, see **Table 5-2**. |

**Table 5-2** failCheckItems list

| Item | Description |
|---|---|
|  |  |

**Example Response**

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
  "is_review": "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.01 00 | Parameter error. |
| 400 | CBC.99 000035 | You are not a customer of a partner yet. |
| 400 | CBC.99 000099 | The certificate attachment the customer submitted for real-name authentication exceeded the maximum size allowed. |

| HTTP Value | Error Code | Description |
|---|---|---|
| 400 | CBC.99 000100 | Incorrect format of the certificate attachment the customer submitted for real-name authentication. |
| 400 | CBC.99 005030 | The partner has not enabled real-name authentication, or the bucket authentication has failed.<br><br>For details about how to enable the option, click **here**. |
| 400 | CBC.99 007004 | The initiated service operation does not meet the service check item requirement. |
| 400 | CBC.99 007188 | The customer has passed real-name authentication or is being reviewed. |
| 400 | CBC.99 007191 | The number of real-name authentication times of the customer exceeds the upper limit. |
| 400 | CBC.70 600026 | Huawei Cloud cannot review the information you submitted for real-name authentication. Contact your account manager. |
| 403 | CBC.01 51 | Access denied. |
| 500 | CBC.09 99 | Unknown error occurred. |

# 5.2.3 Requesting a Real-Name Authentication Change

## Function

This API can be used to submit a real-name authentication change application.

For details about how to change an individual account to an enterprise account through real-name authentication, visit **Changing an Individual Account to an Enterprise Account**.

## Constraints

- This API can be invoked only by the partner account AK/SK or token.
- To use this API, partners need to enable **Upload Photos of Handheld ID Cards Required for Real-Name Authentication** on the **Benefits and Support** > **API Configuration** > **Configure** page.
- Images for real-name authentication must be uploaded to the **download** directory of the bucket.
- Real-name authentication change through API only supports changing an individual account to an enterprise account.

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

PUT /v2/customers/realname-auths/enterprise

## Request

**Request Parameters**

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| customer_id | Yes | String | A maximum of 64 characters | Customer account ID. You can call the API in **5.3.1 Querying Customers** to obtain the customer ID. |
| identify_type | Yes | Integer | - | Authentication method. 1: Using the enterprise's certificate scanned copy |

| Paramete r | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| verified_fil e_url | Yes | List<Stri ng> | A maximum of 4 characters | URL of the certificate attachment file used for enterprise certificate authentication. |
| | | | | The attachment URL must be entered in sequence. Enter the name of the attachment of the enterprise certificate first. If the enterprise personal information exists, enter the name of the ID card attachment of the enterprise personal information. |
| | | | | The order of the enterprise certificate attachments is as follows: |
| | | | | First: Picture of the front side of the enterprise certificate |
| | | | | Second: Picture of the back side of the enterprise certificate |
| | | | | The order of the individual certificate attachments is as follows: |
| | | | | First: Picture of the front side of the personal ID card (profile side) |
| | | | | Second: Picture of the back side of the personal ID card (national emblem side) |
| | | | | If the enterprise does not have a legal entity, and its first attachment is the picture of the front side of the enterprise certificate abc.023, and the second attachment is the back side of the enterprise certificate def004, then upload the attachments in the following sequence: |
| | | | | abc023 |
| | | | | def004 |
| | | | | Enter the URL in the preceding sequence. The file name is case sensitive. |
| | | | | Currently, certificate attachments can only be in .jpg, .jpeg, .bmp, .png, .gif, |

| Paramete r | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| | | | | or .pdf format. The maximum size of a single file is 10 MB. |
| | | | | The URL is a relative URL and does not need to contain the bucket name or **download** directory. It only needs to contain the subdirectory and corresponding file name in the **download** directory. Example: |
| | | | | If the uploaded attachments are stored in the following location of the bucket, enter **abc023.jpg**: |
| | | | | https:// *bucketname*.obs.*Endpoint*.myhua weicloud.com/download/ abc023.jpg |
| | | | | If the uploaded attachments are stored in the following location of the bucket, enter **test/ abc023.jpg**: |
| | | | | https:// *bucketname*.obs.*Endpoint*.myhua weicloud.com/download/test/ abc023.jpg |
| corp_nam e | Yes | String | A maximum of 255 characters | Organization name. The value cannot contain only digits, special characters, or spaces. |
| verified_nu mber | Yes | String | A maximum of 32 characters | Enterprise certificate number. |
| change_ty pe | Yes | Integer | [1] | Change type. 1: Change individual real-name authentication to enterprise real-name authentication. |
| xaccount_t ype | 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?** |

| Paramete r | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| certificate_ type | No | Integer | - | Enterprise certificate type.<br><br>● 0: Enterprise's business license<br><br>● 1: Legal entity certificate<br><br>● 2: Legal entity registration certificate<br><br>● 3: Administrative law enforcement subject certificate<br><br>● 4: Organization code certificate<br><br>● 99: Others<br><br>If this parameter is not included in the request parameters or is set to **null**, no value is returned. |
| reg_countr y | No | String | A maximum of 10 characters | Registration country entered for real-name authentication. Enter the two-letter code that stands for the country.<br><br>For example, enter **CN** for China.<br><br>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. |
| reg_addres s | No | String | A maximum of 256 characters | Enterprise registration address for real-name authentication.<br><br>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. |
| enterprise _person | No | Enterpris ePerson Object | - | Enterprise person information. For details, see **Table 5-3**. This parameter is reserved. |

**Table 5-3** EnterprisePerson

| Parameter | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| legel_name | Yes | String | A maximum of 255 characters | Legal entity name. |
| legel_id_nu mber | Yes | String | A maximum of 32 characters | Legal entity card ID. |
| certifier_rol e | No | String | A maximum of 32 characters | Legal entity role.<br>legalPerson: Legal representative |

**Example Request**

```
PUT  https://bss-intl.myhuaweicloud.com/v2/customers/realname-auths/enterprise HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
{
    "verified_number": "371812********8888",
    "verified_file_url": [
        "gerenshiming/zhengmian001.jpg",
        "gerenshiming/fanmian002.jpg",
        "gerenshiming/chizheng003.jpg"
    ],
    "reg_address": "Beijing"
    "reg_country": "CN",
    "customer_id": "4505ce********de8263e33b57e76abc",
    "certificate_type": 0,
    "corp_name": "test001",
    "enterprise_person": {
        "certifier_role": "legalPerson",
        "legel_name": "wangmoumou",
        "legel_id_number": "371812********8888"
    },
    "identify_type": 1,
    "xaccount_type": "***_IDP",
    "change_type":1
}
```

## Response

**Response Parameters**

Status code: 200

| Parameter | Type | Value Range | Description |
|-----------|------|-------------|-------------|
| is_review | Integer | - | Whether to transfer to manual review. This parameter is returned only when the status code is 200.<br>● 0: No<br>● 1: Yes |

Status code: 400

| 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. |
| is_review | Integer | - | Whether to transfer to manual review. This parameter is returned only when the status code is 200.<br>● 0: No<br>● 1: Yes |
| fail_check_items | List<String> | - | Error list. This parameter is displayed only when error code CBC.99007004 is returned. For details, see **Table 5-4**. |

**Table 5-4** failCheckItems list

| Item | Description |
|------|-------------|
| IS_DEBT | The customer's account is in arrears. |
| IS_CREDIT_ACCOUNT | The customer has a credit account and has a credit outstanding amount. |
| IS_ORG_ACCOUNT | The customer account is an enterprise master account or member account. |
| MEM_OF_ORG | Your account and the associated master account belong to the same legal entity. Please cancel the association before performing real-name authentication. |

| Item | Description |
|------|-------------|
| MEN_ANSWERING_ORG | You have received an invitation to associate with another account as a member account. Please reject the invitation and then perform real-name authentication. |
| ORG_INVITING_MEM | Your account is a master account and has invited another member account for association. Please cancel the invitation and then perform real-name authentication. |
| ORG_HAVE_MEM_EQUITY_APPLYING | Your account is a master account. The equity certificate is being reviewed. Please wait for the certificate to be approved, and then perform real-name authentication. |
| MEM_OF_ORG_EQUITY_APPLYING | Your account is a member account. The equity certificate of the associated master account is being reviewed. Please wait for the certificate to be approved, and then perform real-name authentication. |
| ORG_HAVE_MEM_EQUITY_APPROVED | Your account is a master account and already has an equity certificate. Please cancel the member account that as the equity certificate and then perform real-name authentication. |
| MEM_OF_ORG_EQUITY_APPROVED | Your account is a member account and already has an equity certificate. Please cancel the association with the master account and then perform real-name authentication. |

**Example Response**

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
  "is_review": "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.99000035 | You are not a customer of a partner yet. |
| 400 | CBC.99000099 | The certificate attachment the customer submitted for real-name authentication exceeded the maximum size allowed. |
| 400 | CBC.99000100 | Incorrect format of the certificate attachment the customer submitted for real-name authentication. |
| 400 | CBC.99007004 | The initiated service operation does not meet the service check item requirement. |
| 400 | CBC.99007188 | The customer has passed real-name authentication or is being reviewed. |
| 400 | CBC.99007191 | The number of real-name authentication times of the customer exceeds the upper limit. |
| 400 | CBC.70600026 | Huawei Cloud cannot review the information you submitted for real-name authentication. Contact your account manager. |
| 403 | CBC.0151 | Access denied. |
| 500 | CBC.0999 | Unknown error occurred. |

# 5.2.4 Querying the Real-Name Authentication Review Result

## Function

If the response to a real-name authentication application or real-name authentication change application indicates that manual review is required, this API can be used to query the review result.

## Constraints

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

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

GET /v2/customers/realname-auths/result

The following table describes the parameters.

**Table 5-5** Query parameters

| Paramete r | Mandato ry | Type | Value Range | Description |
|---|---|---|---|---|
| customer_ id | Yes | String | A maximum of 64 characters | Customer account ID. You can call the API in **5.3.1 Querying Customers** to obtain the customer ID. |

## Request

**Request Parameters**

None

**Example Request**

```
GET  https://bss-intl.myhuaweicloud.com/v2/customers/realname-auths/result?
customer_id=06a7969058802f0c0f01c00b91846780 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. |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| review_result | Integer | - | Real-name authentication review result. This parameter is returned only when the status code is 200 and the real-name authentication application has been submitted.<br><br>● 0: Under review<br><br>● 1: Failed<br><br>● 2: Approved |
| opinion | String | A maximum of 256 characters | Review comment. This parameter is returned only when the status code is 200 and the review is not approved. |

**Example Response**

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

{
    "review_result": 2,
    "opinion": 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. |
| 403 | CBC.0151 | Access denied. |
| 500 | CBC.0999 | Unknown error occurred. |

# 5.3 Customer Management

## 5.3.1 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 only by the partner AK/SK or token.

### Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

### 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**. <br><br> 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. <br><br> 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. |

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| 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.<br><br>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**.<br>**NOTE**<br>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.<br><br>For example, if there are 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned.<br><br>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**. |

| Paramete r | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| 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. |
| associatio n_type | No | String | A maximum of 2 characters | Association type. <br>● 1: Referral <br>● 3: Reseller <br>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. |

| Paramete r | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| customer_ id | No | String | A maximum of 64 characters | Customer account ID. You can call the API for **5.3.1 Querying Customers** to obtain the value of this parameter, or you can obtain the value of the domain ID from the response of the API for **Creating a Customer**.<br><br>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. |
| indirect_p artner_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-intl.myhuaweicloud.com/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.<br><br>For details, see **Returned Values**. |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| error_msg | String | A maximum of 1024 characters | Error description. This parameter is returned only when a failure occurs. |
| customer_inf os | List<Custo merInfo> | - | Customer list. For details, see **Table 5-6**. |
| count | Integer | - | Total number of records. |

**Table 5-6** Customer information

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| customer | String | A maximum of 128 characters | Name that has passed the real-name authentication. |
| account_nam e | 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_o n | 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_t ype | String | A maximum of 2 characters | Association type. <br> • 1: Referral <br> • 3: Reseller |
| label | String | A maximum of 64 characters | Tag. |
| telephone | String | A maximum of 20 characters | Customer phone number. |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| verified_status | String | A maximum of 5 characters | Real-name authentication status.<br>● -1: The real name is not authenticated.<br>● 0: Real-name authentication is under review.<br>● 1: The real-name authentication is not passed.<br>● 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.<br>Example: 0086 for China |
| customer_type | Integer | - | Customer type.<br>● -1: None<br>● 0: Individual<br>● 1: Enterprise<br>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.<br>● 0: No<br>● 1: Only account<br>● 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 5-7**. |
| 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.<br>This value is assigned by Huawei. For details about how to obtain the platform ID, see **How Do I Obtain the xaccountType Value?** |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| customer_level | String | A maximum of 64 characters | Customer tier.<br>• V0<br>• V1<br>• V2<br>• V3<br>• V4<br>• V5 |
| email | String | A maximum of 256 characters | Customer's email address. |

**Table 5-7** 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",
      "email":"***@163.com"
    }
  ],
  "count": "1"
}
```

## Returned Values

📖 **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.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. |

# 5.3.2 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.

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

POST /v2/partners/sub-customers/freeze

## Request

Request Parameters

| Paramete r | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| customer_ ids | Yes | List<Strin g> | A maximum of 10 IDs | IDs of customers whose accounts are to be frozen.<br><br>You can call the API in **5.3.1 Querying Customers** to obtain the customer ID. |
| reason | Yes | String | A maximum of 256 characters | Account freezing reason. |
| indirect_p artner_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. |
| freeze_typ e | No | String | - | Freezing type.<br><br>• **ACCOUNT**: The account will be frozen.<br><br>• **ACCOUNT_AND_RESOURC E**: Both the account and resources in the account will be frozen.<br><br>Default value: **ACCOUNT**<br><br>If this parameter is not included in the request or is set to **null**, the default value will be used. This parameter cannot be set to an empty string, and enumeration verification will be conducted. |

**Example Request**

```
POST https://bss-intl.myhuaweicloud.com/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",
   "freeze_type": "ACCOUNT"
}
```

## 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.<br><br>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.<br><br>For details, see **Table 5-8**. |

**Table 5-8** ErrorDetail

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| error_code | String | A maximum of 20 characters | Error code.<br><br>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. |

# 5.3.3 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.

📖 NOTE

To unfreeze an account, the unfreezing type must be consistent with the freezing type.

## Constraints

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

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

POST /v2/partners/sub-customers/unfreeze

## Request

Request Parameters

| Paramete r | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| customer_ ids | Yes | List<Strin g> | A maximum of 10 IDs | IDs of customers whose accounts are to be unfrozen.<br><br>You can call the API in **5.3.1 Querying Customers** to obtain the customer ID. |
| reason | Yes | String | A maximum of 256 characters | Account unfreezing reason. |
| indirect_p artner_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. |
| unfreeze_t ype | No | String | - | Unfreezing type<br><br>• **ACCOUNT**: The account will be unfrozen.<br><br>• **ACCOUNT_AND_RESOURC E**: Both the account and resources in the account will be unfrozen.<br><br>Default value: **ACCOUNT**<br><br>If this parameter is not included in the request or is set to **null**, the default value will be used. This parameter cannot be set to an empty string, and enumeration verification will be conducted. |

**Example Request**

POST https://bss-intl.myhuaweicloud.com/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",
        "unfreeze_type": "ACCOUNT"
}
```

## 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 5-9**. |

**Table 5-9** 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. |
| 200 | CBC.50000053 | Unfreeze customer account failed. Selected object and the frozen object do not match. |
| 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.

#### Debugging

You can debug this API **API Explorer**.

#### 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. The time is in the UTC format (time zone is required), for example, *2016-03-28T00:00:00Z*. 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, *2016-03-28T00:00:00Z*. 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. |

| Paramete r | Mand atory | Type | Maximu m Length of Characte rs/Value Range | Description |
|---|---|---|---|---|
| offset | No | Integer | 0 to 40,000,00 0 | Offset, starting from **0**. The default value is **0**.<br>**NOTE**<br>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.<br>For example, if there are 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned.<br>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-intl.myhuaweicloud.com/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 characters | Email address of a reseller. |
| account_name | String | 64 characters | Account name of a reseller. |

| Parameter | Type | Maximum Length of Characters/Value Range | Description |
|---|---|---|---|
| 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 Managing Credits

## 7.1 Querying Consumption Quota

### Function

Partners can use this API to query consumption quotas.

### Constraints

This API can only be invoked with the AK/SK credentials or tokens of cloud solution providers or distributors.

### Debugging

You can debug this API in **API Explorer**. Automatic authentication is supported. API Explorer can automatically generate and debug SDK code examples.

### URI

GET /v2/partners/credit/consumption-quota

**Example request**
```
GET https://bss-intl.myhuaweicloud.com/v2/partners/credit/consumption-quota HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
```

### Response

**Response parameters**

| Parameter | Parameter Type | Value Length Limit | Description |
|-----------|----------------|--------------------|-------------|
| error_code | String | 20 | Error code. For details, see **Status Code**. This parameter is returned only when the query fails. |

| Parameter | Parameter Type | Value Length Limit | Description |
|---|---|---|---|
| error_msg | String | 1,000 | Error description. This parameter is returned only when the query fails. |
| consumption _quota | String | 64 | Consumption quota. |
| amount | String | 64 | Account balance. |
| coupon_amo unt | String | 64 | Cash coupon balance. |
| due_amount | String | 64 | Amount due. |
| unbilled_am ount | String | 64 | Estimated expenditure amount (unbilled). |
| used_consu mption_quot a | String | 64 | Used consumption quota.<br><br>used_consumption_quota = due_amount + unbilled_amount - amount - coupon_amount<br><br>**NOTE**<br>If the account balance or cash coupon balance is greater than the expenditure amount, a negative value will be returned for the used expenditure quota, indicating that the expenditure quota is not used. |
| currency | String | 20 | Currency type.<br>**USD**: US dollar |
| measure_id | Integer | 4 | Measurement unit ID.<br>**1**: USD |

**Example Response**

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
    "consumption_quota": "10000",
    "amount": "10.18",
    "coupon_amount": "10.03",
    "due_amount": "500.28",
    "unbilled_amount": "100.01",
    "used_consumption_quota": "580.08",
    "measure_id": 1,
    "currency": "USD"
}
```

## Status Code

📖 **NOTE**

- **4**xx: Indicates errors caused by the client side, for example, a request containing 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.

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

# 8 Transaction Management

## 8.1 Managing Customers' Budgets

### 8.1.1 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.

**Debugging**

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

**URI**

GET /v2/partners/sub-customers/budget

The following table describes the parameters.

**Table 8-1** Query parameters

| Param eter | Mandat ory | Type | Value Limit | Description |
|---|---|---|---|---|
| custom er_id | Yes | String | 64 | Customer account ID. You can call the API in **5.3.1 Querying Customers** to obtain the customer ID. |
| indirect _partn er_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. In other cases, this parameter will not be used. |

## Request

Request Parameters

None

**Request sample**

```
GET https://bss-intl.myhuaweicloud.com/v2/partners/sub-customers/budget?
customer_id=06ffbcd46880d3f30f62c001a49be460&indirect_partner_id=0b5e9bb21980d20c0f0fc00874a9e00
0 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. |

| Parameter | Type | Value Limit | Description |
|---|---|---|---|
| measure_id | Integer | - | Unit:<br>1: dollar |
| currency | String | 4 | Currency:<br>USD |
| budget_type | String | - | Budget type<br>**MONTHLY**: Monthly budget<br>**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. |

# 8.1.2 Batch Querying Customer Budgets

## Function

This API is used to batch query budgets of multiple customers. You can decide whether to adjust budgets for your customers based on the query results.

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

## Constraints

This API can only be invoked by using the AK/SK or token of cloud solution providers or cloud distributors.

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug SDK code examples.

## URI

POST /v2/partners/sub-customers/budget/query

## Request

Request parameters

| Parameter | Mandatory | Type | Value Limit | Description |
|-----------|-----------|------|-------------|-------------|
| customer_ids | Yes | List<String> | 100 | Customer IDs. Up to 100 customer IDs are supported. If there are IDs of customers that have not been associated with the partner or that are not associated with partner in the resale mode, information of these customers will not be returned.<br><br>You can call the **5.3.1 Querying Customers** API to obtain IDs of customers whose association type is **association_type=3**. |

| Parameter | Mandatory | Type | Value Limit | Description |
|---|---|---|---|---|
| indirect_partner_id | No | String | 64 | Reseller ID. For details about how to obtain reseller IDs, see **6.1.1 Querying the List of Huawei Cloud Resellers**. This parameter is mandatory for querying customers of a Huawei Cloud reseller. |

**Example request**

```
POST https://bss-intl.myhuaweicloud.com/v2/partners/sub-customers/budget/query HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
{
   "customer_ids": ["053a48736500d5f40ffec01689b88480"],
   "
 }
```

## Response

Response parameters

| Parameter | Type | Value Limit | Description |
|---|---|---|---|
| error_code | String | 20 | Error code. For details, see **Status Code**. This parameter is returned only when a failure occurs. |
| error_msg | String | 2,000 | Error description. This parameter is returned only when a failure occurs. |
| measure_id | Integer | - | Unit.<br>**1**: dollar |
| currency | String | 4 | Currency type<br>USD |
| budget_infos | List<BudgetInfo> | 100 | Customer budget. For details, see **#mt_01006/table750511154510**. |

**Table 2 Budget information**

| Parameter | Type | Value Limit | Description |
|---|---|---|---|
| customer_id | String | 64 | Customer account ID. |
| budget_amount | BigDecimal | - | Budget granted |
| used_amount | BigDecimal | - | Used budget. There may be some deviation and latency for the used budget displayed. |
| budget_type | String | - | Budget type.<br>**MONTHLY**: Monthly budget<br>**PACKAGE**: One-time budget |

Example response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
    "measure_id": 1,
    "currency": "USD",
    "budget_infos":[
      {
        "customer_id":"053a********d5f40ffec01689b88480",
        "budget_amount": 50.0,
        "used_amount": 1.0,
        "budget_type":"MONTHLY"
      },{
        "customer_id":"053a********d5f40ffec01689b88481",
        "budget_amount": 40.0,
        "used_amount": 2.0,
        "budget_type":"PACKAGE"
      }
    ]
}
```

## Status Code

☐ 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.

| Status Code | Error Code | Description |
|---|---|---|
| 400 | CBC.0100 | Invalid parameter. |
| 400 | CBC.99000037 | You do not have the permission to operate this Huawei Cloud reseller. |
| 403 | CBC.0151 | Access denied. |
| 403 | CBC.0150 | Invalid operation. |

| Status Code | Error Code | Description |
|---|---|---|
| 500 | CBC.0999 | Other errors. |

# 8.1.3 Setting Customer 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.

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

POST /v2/partners/sub-customers/budget

## Request

Request Parameters

| Para meter | Mand atory | Type | Value Limit | Description |
|---|---|---|---|---|
| custo mer_i d | Yes | String | 64 | Customer account ID. You can call the API in **5.3.1 Querying Customers** to obtain the customer ID. |
| budge t_amo unt | Yes | BigDecima l | (0-2147 483647] | Target amount, which can be accurate to two decimal places.<br>Unit: USD |
| cancel _partn er_fro zen | No | String | - | Whether to unfreeze the account when setting the customer budget.<br>● **0**: No<br>● **1**: Yes<br>The default value is **0**.<br>If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, the default value **0** is used. |

| Para meter | Mand atory | Type | Value Limit | Description |
|---|---|---|---|---|
| indirec t_part ner_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. |
| budge t_type | No | String | - | Budget type<br>**MONTHLY**: Monthly budget<br>**PACKAGE**: One-time budget<br>The default value is **MONTHLY**.<br>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-intl.myhuaweicloud.com/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,
    "indirect_partner_id": "0b5e9b********0c0f0fc00874a9e000",
    "budget_type":"MONTHLY"
}
```

## 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.500000 30 | Setting budgets not supported. This reseller's budget quota is insufficient. |
| 400 | CBC.500000 33 | Budget setting permissions have been revoked. This reseller cannot set budgets. |
| 400 | CBC.990000 37 | You do not have the permission to operate this Huawei Cloud reseller. |
| 400 | CBC.990050 24 | 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. |

# 8.2 Coupons Management

## 8.2.1 Querying Coupons

### Function

Partners can query information about their coupons.

You can follow the instructions described in **Viewing Cash Coupons** to view coupons.

**NOTE**

- Currently, flexi-purchase coupons and discount coupons are not available for the international website.
- Information about cash coupons or discount coupons that have expired for more than one year is not returned.
- If the expiration time of a coupon is earlier than the current time, the coupon is invalid.

## 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. Before doing so, you need to **request authorization from the customer** or **ask the customer to create an agency for you**.

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

GET /v2/promotions/benefits/coupons

The following table describes the parameters.

**Table 8-2** Request parameters

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| coupon_id | No | String | A maximum of 64 characters | Coupon ID.<br>If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. |
| order_id | No | String | A maximum of 64 characters | Order ID.<br>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.<br>If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. |

| Paramete r | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| coupon_ty pe | No | Integer | [1-4] | Coupon type.<br><br>● 1: Cash coupon<br><br>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.<br><br>● 2: To be used<br><br>● 3: Used<br><br>● 4: Expired<br><br>● 5: Withdrawn<br><br>If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. |
| active_star t_time | No | String | A maximu m of 64 character s | Activation start time.<br><br>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.<br><br>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 maximu m of 64 character s | Activation end time.<br><br>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.<br><br>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**. |

| Paramete r | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| offset | No | Integer | 0 to maximu m integer | Offset, which starts from 0. The default value is **0**.<br>**NOTE**<br>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.<br>For example, if there are 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned.<br>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 maximu m of 255 character s | Coupon source. If the coupon is sent by a partner, the parameter value is the partner ID.<br>To query coupons issued by a partner, enter the partner ID.<br>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-intl.myhuaweicloud.com/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<IQueryUserCouponsResult> | - | Coupon records. For details, see **Table 8-3**. |

**Table 8-3** IQueryUserCouponsResult

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

| Parameter | Type | Description |
|---|---|---|
| order_id | String | Order ID.<br>**NOTE**<br>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.<br><br>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.<br>● 1: E-coupon<br>● 2: Paper coupon |
| fetch_method | Integer | Obtaining method.<br>● 1: Claimed online<br>● 2: Redeemed online<br>● 3: Issued online<br>● 4: Obtained offline<br>● 5: Rewarded based on events |
| use_limits | List<ICouponUseLimitInfoV2> | Coupon usage limits.<br>For details, see **Table 8-4**. |
| active_time | String | Activation time.<br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z** |
| reserve_time | String | Usage time.<br>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.<br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z** |
| coupon_version | Integer | Coupon version.<br>● 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.<br>● 0: No<br>● 1: Yes |
| currency | String | Currency. The options are as follows:<br>USD |
| extend_param1 | String | Extended field. |
| source_id | String | Coupon source.<br>● If the coupon is sent by a partner, the parameter value is the partner ID.<br>● If the coupon is issued for an activity, the parameter value is the activity ID.<br>  – Coupons redeemed by cloud beans: Cloud bean ID<br>  – Coupons issued as rewards of accumulated consumption: Consumption accumulation reward ID<br>  – Coupons issued as rewards for lucky draw: Lucky draw ID<br>  – Coupons issued based on events: Event ID<br>  – Customized coupons: Creator ID |

**Table 8-4** ICouponUseLimitInfoV2

| Parameter | Type | Description |
|---|---|---|
| use_limiti_info_id | String | Usage limit ID. |
| limit_key | String | Usage limit. For details about the value, see **Table 8-5**. |
| 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 8-5** 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:<br>● **new**: Order placement<br>● **renew**: Order renewal<br>● **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. |

| Key | Meaning | Description | Remarks |
|---|---|---|---|
| cycleType | Trial use period type. | ● 0: Yearly/monthly (unlimited)<br>● 1. Yearly/monthly (yearly)<br>● 2: Yearly/monthly (monthly)<br>● 3: Yearly/monthly (daily)<br>● 4: Yearly/monthly (hourly)<br>● 5: Pay-per-use<br>● 6: General purpose<br>● 7: One-off payment<br>● 8: Reserved instance<br>● 11: Savings plan | Cash coupons, flexi-purchase coupons, and discount coupons are supported. Discount coupons support only the yearly/monthly mode. |
| simultaneousUseWithEmpowerDiscount | 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).<br>● **0**: No<br>● **1**: Yes | Cash coupons, flexi-purchase coupons, and discount coupons are supported. The value for discount coupons can only be **0**. |

| Key | Meaning | Description | Remarks |
|---|---|---|---|
| usageTimes | Whether coupons can be used for multiple times. | The value is specified in **value1**. The value can be:<br>● 0: Used for unlimited times<br>● 1: Used for only once<br>● 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**.<br>● 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**. |
| isOnlyForStrictSelected | Whether the coupons can only be used for Featured Products on KooGallery. | The value is specified in **value1**. The value can be:<br>● 0: No<br>● 1: Yes<br>If there is no such restriction, the value is **0**. This restriction applies only to flexi-purchase coupons. | Flex-purchase coupons are supported. |

| Key | Meaning | Description | Remarks |
|---|---|---|---|
| isRebate | Whether coupons are counted in to the partner incentive rebates. | The value is specified in **value1**. The value can be:<br>• 0: No<br>• 1: Yes<br>This restriction applies only to flexi-purchase coupons. | Flex-purchase coupons are supported. |
| 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:<br>• 0: No<br>• 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:<br>• 0: No<br>• 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:<br>• 0: No<br>• 1: Yes | Cash coupons are supported. |

| Key | Meaning | Description | Remarks |
|---|---|---|---|
| simultaneousUseWithDiscountCoupon | Whether cash coupons can be used together with discount coupons. | The value is specified in **value1**. The value can be:<br><br>● 0: No<br><br>● 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 |

# 8.3 Managing Yearly/Monthly Orders

## 8.3.1 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 **Viewing a Customer's Orders** 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 **8.4.1 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 of all customers of the partner can be queried.

### Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

### URI

GET /v2/orders/customer-orders

**Table 8-6** Query parameters

| Param eter | Manda tory | Type | Maximu m Length/ Value Range | Description |
|---|---|---|---|---|
| order_ id | No | String | A maximu m of 64 characte rs | Order ID. Order IDs are case insensitive. If this parameter is not included or is left empty, it will not be used as a filter criterion. If it is set to **null**, it can be used as a filter criterion. This parameter cannot be set to **""**.<br>**NOTE**<br>When special characters are used for query, perform the URL code conversion. For example, **%** should be converted to **%25**. |
| custo mer_i d | No | String | A maximu m of 64 characte rs | Customer account ID. To obtain the customer ID, call the API in **5.3.1 Querying Customers**.<br>If this parameter is not included, it will not be used as a filter criterion. If it is set to **null**, it can be used as a filter criterion. This parameter cannot be set to **""** or left empty. |
| create _time_ begin | No | String | A maximu m of 20 characte rs | Start time of order creation.<br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z**<br>The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59.<br>The span between the order creation time and end time cannot be more than 1 year.<br>If this parameter is not included or is left empty, it will not be used as a filter criterion. It cannot be set to **""** or **null**. |

| Param eter | Manda tory | Type | Maximu m Length/ Value Range | Description |
|---|---|---|---|---|
| create _time_ end | No | String | A maximu m of 20 characte rs | End time of order creation.<br><br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z**<br><br>The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59.<br><br>The span between the order creation time and the end time cannot be more than 1 year.<br><br>If this parameter is not included or is left empty, it will not be used as a filter criterion. It cannot be set to **""** or **null**. |
| service _type_ code | No | String | A maximu m of 64 characte rs | 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.<br><br>You can call **4.1.1 Querying Cloud Service Types** to obtain a specific service type.<br><br>If this parameter is not included or is left empty, it will not be used as a filter criterion. If this parameter is set to **""** or **null**, it will be used as a filter criterion. |
| status | No | Integer | - | Order status. The value can be:<br><br>● 1: Pending approval<br>● 3: Processing<br>● 4: Canceled<br>● 5: Completed<br>● 6: Pending payment<br>● 9: To be confirmed<br><br>If this parameter is not included, is left empty, or is set to **null**, it will not be used as a filter criterion. It cannot be set to **""**. |

| Param eter | Manda tory | Type | Maximu m Length/ Value Range | Description |
|---|---|---|---|---|
| order_ type | No | String | A maximu m of 64 characte rs | Order type. The value can be:<br>● 1: New purchase<br>● 2: Renewal<br>● 3: Change<br>● 4: Unsubscription<br>● 10: Yearly/monthly to pay-per-use<br>● 11: Pay-per-use to yearly/monthly<br>● 13: Trial<br>● 14: Commercial use<br>● 15: Price adjustment<br>If this parameter is not included or is left empty, it will not be used as a filter criterion. It cannot be set to **""** or **null**. |
| limit | No | Integer | 1 to 100 | Number of orders queried each time. The default value is **10**.<br>If this parameter is not included, is left empty, or is set to **null**, the value **10** is used. This parameter cannot be set to **""**. |
| offset | No | Integer | 0 to a maximu m integer | Offset, which starts from 0. The default value is **0**.<br>If this parameter is not included, is left empty, or is set to **null**, the value **0** is used. This parameter cannot be set to **""**.<br>**NOTE**<br>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.<br>For example, if there are 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned.<br>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 | Maximu m Length/ Value Range | Description |
|---|---|---|---|---|
| order_ by | No | String | A maximu m of 36 characte rs | 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, is left empty, or is set to **""** or **null**, orders will be sorted by creation time in descending orders. |
| payme nt_tim e_begi n | No | String | A maximu m of 20 characte rs | 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. The span between the order payment start time and end time cannot be more than 1 year. If this parameter is not included or is left empty, it will not be used as a filter criterion. It cannot be set to **""** or **null**. |
| payme nt_tim e_end | No | String | A maximu m of 20 characte rs | 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. The span between the order payment start time and end time cannot be more than 1 year. If this parameter is not included or is left empty, it will not be used as a filter criterion. It cannot be set to **""** or **null**. |

| Param eter | Manda tory | Type | Maximu m Length/ Value Range | Description |
|---|---|---|---|---|
| indirec t_part ner_id | No | String | A maximu m of 64 characte rs | Reseller ID. For details about how to obtain such IDs, see **Query Huawei Cloud Resellers**. If a distributor needs to query orders of their resellers' customers, this parameter must be included. If it is not included, orders of the distributor's customers will be returned. If this parameter is not included or is left empty, it will not be used as a filter criterion. If this parameter is set to **""** or **null**, it will be used as a filter criterion. |
| metho d | No | String | A maximu m of 64 characte rs | 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-intl.myhuaweicloud.com/v2/orders/customer-orders?
order_id=CS1905251035OA1AF&customer_id=c9e731c4663646988ef4cdb3122837b6&create_time_begin=202
0-05-06T08:05:01Z&create_time_end=2020-05-07T08:05:01Z&service_type_code=hws.service.type.obs&status
=5&order_type=1&limit=10&offset=0&order_by=-
createTime&payment_time_begin=2020-05-06T08:05:01Z&payment_time_end=2020-05-07T08:05:01Z&indire
ct_partner_id=646988ef4cdb3122834feswrygfd HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
```

## Response

Response Parameters

| Parameter | Type | Maximum Length/ 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. |
| 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 8-7**. |

**Table 8-7** CustomerOrderV2

| Parameter | Type | Maximum Length | Description |
|---|---|---|---|
| order_id | String | A maximum of 64 characters | Order ID |
| customer_id | String | A maximum of 64 characters | Customer account ID. |
| 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 | Maximum Length | Description |
|-----------|------|----------------|-------------|
| source_type | Integer | - | Customer order source type. The value can be: <br> ● 1. Customer <br> ● 2. Agent <br> ● 3: Contract <br> ● 4: Distributor |
| status | Integer | - | Order status. The value can be: <br> ● 1: Pending approval <br> ● 2: Pending refund <br> ● 3: Processing <br> ● 4: Canceled <br> ● 5: Completed <br> ● 6: Pending payment <br> ● 9: To be confirmed <br> ● 10: To be shipped <br> ● 11: To be received <br> ● 12: Pending pick-up <br> ● 13: Exchange in progress |
| order_type | Integer | - | Order type. The value can be: <br> ● 1: New purchase <br> ● 2: Renewal <br> ● 3: Change <br> ● 4: Unsubscription <br> ● 10: Yearly/monthly to pay-per-use <br> ● 11: Pay-per-use to yearly/monthly <br> ● 13: Trial <br> ● 14: Commercial use <br> ● 15: Price adjustment |
| official_amount | Double | - | Order amount (list price). <br> 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. <br> ● 1: 1 Yuan/Dollar |

| Parameter | Type | Maximum Length | Description |
|-----------|------|----------------|-------------|
| 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 8-8**. |
| enterprise_projects | List<EnterpriseProject> | - | Enterprise project details of a customer order. For details, see **Table 8-10**. **NOTE** You can query enterprise project information for each order in batch unsubscription and renewal scenarios by order ID. |
| sub_order_infos | List<SubCustomerOrderV2> | - | Details of orders in a combined order. For details, see **Table 8-11**. **NOTE** If the order being queried is a combined order, the information of the orders included in the combined order will be returned. If the order being queried is a common order, this field will be left empty. |

**Table 8-8** AmountInfoV2

| Parameter | Type | Maximum Length | Description |
|---|---|---|---|
| discounts | List<DiscountItemV2> | - | Item<br>For details, see **Table 8-9**. |
| 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 8-9** DiscountItemV2

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

**Table 8-10** EnterpriseProject

| Parameter | Type | Maximum Length | Description |
|---|---|---|---|
| id | String | A maximum of 256 characters | Enterprise project ID. |
| name | String | A maximum of 256 characters | Enterprise project name. |

**Table 8-11** SubCustomerOrderV2

| Parameter | Type | Maximum Length | Description |
|---|---|---|---|
| order_id | String | A maximum of 64 characters | Order ID. |
| customer_id | String | A maximum of 64 characters | Customer account ID. |
| 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 e | 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:<br>● 1. Customer<br>● 2. Agent<br>● 3: Contract<br>● 4: Distributor |

| Parameter | Type | Maximum Length | Description |
|---|---|---|---|
| status | Integer | - | Order status. The value can be:<br>● 1: Pending approval<br>● 2: Pending refund<br>● 3: Processing<br>● 4: Canceled<br>● 5: Completed<br>● 6: Pending payment<br>● 9: To be confirmed<br>● 10: To be shipped<br>● 11: To be received<br>● 12: Pending pick-up<br>● 13: Exchange in progress |
| order_type | Integer | - | Order type. The value can be:<br>● 1: New purchase<br>● 2: Renewal<br>● 3: Change<br>● 4: Unsubscription<br>● 10: Yearly/monthly to pay-per-use<br>● 11: Pay-per-use to yearly/monthly<br>● 13: Trial<br>● 14: Commercial use<br>● 15: Price adjustment |

| Parameter | Type | Maximum Length | Description |
|---|---|---|---|
| official_amount | Double | - | Order amount (list price). In the unsubscription order, this amount equals the value of **amount_after_dis count**. |
| amount_after_disc ount | Double | - | Order amount after a discount (excluding the vouchers or cards). |
| measure_id | Integer | - | Order amount unit. <br> • 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 **2019-05-06T08:0 5:01Z** 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 **2019-05-06T08:0 5:01Z** 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. |

| Parameter | Type | Maximum Length | Description |
|-----------|------|----------------|-------------|
| contract_id | String | A maximum of 64 characters | Contract ID. |
| amount_info | AmountInfoV2 Object | - | Order deduction details.<br><br>For details, see **Table 8-8**. |
| enterprise_projects | List<EnterpriseProject> | - | Enterprise project details of a customer order.<br><br>For details, see **Table 8-10**.<br><br>**NOTE**<br>You can query enterprise project information for each order in batch unsubscription and renewal scenarios by order ID. |

**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": "CS2405161952CE7IU5QmodifyJobAndPartFailJob",
            "customer_id": "0c7fd9bdfb80d4170fb1c0056128d420",
            "service_type_code": "hws.service.type.ec2",
            "service_type_name": "Elastic Cloud Server"
            "source_type": 1,
            "status": 5,
            "order_type": 1,
            "amount_after_discount": 274.6,
            "official_amount": 349.5,
            "measure_id": 1,
            "create_time": "2024-05-16T11:52:10Z",
            "payment_time": "2024-05-16T12:18:35Z",
            "currency": "USD",
            "contract_id": null,
            "amount_info": {
                "discounts": [
                    {
                        "discount_type": "700",
                        "discount_amount": 69.9
                    },
                    {
                        "discount_type": "301",
                        "discount_amount": 5.0
                    }
                ],
```

```
                    "flexipurchase_coupon_amount": 0.0,
                    "coupon_amount": 5.0,
                    "stored_card_amount": 0.0,
                    "commission_amount": null,
                    "consumed_amount": null
                },
                "enterprise_projects": [
                    {
                        "id": "0",
                        "name": "default"
                    }
                ],
                "sub_order_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.0101 | Invalid parameter. |
| 400 | CBC.990000 37 | You do not have the permission to operate this reseller. |
| 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. |

# 8.3.2 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 **8.4.1 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 of the partner's customer.

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

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

The following table describes the parameters.

**Table 8-12** Path parameters

| Param eter | Mand atory | Value Range | Description |
|---|---|---|---|
| order_i d | Yes | A maximu m of 64 characte rs | Order ID.<br>The system will return the orders if the orders are queried. |

**Table 8-13** Query parameters

| Parameter | Mandatory | Value Range | Description |
| --- | --- | --- | --- |
| offset | No | 0 to a maximum integer | Offset, which starts from 0. The default value is **0**.<br><br>If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, the default value **0** is used.<br>**NOTE**<br>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.<br><br>For example, if there are 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned.<br><br>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**.<br><br>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 **Query Huawei Cloud Resellers**.<br><br>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 8-14** Message header parameter

| Parameter | Manda tory | Type | Value Range | Description |
|-----------|-----------|------|-------------|-------------|
| X-Language | No | String | A maximu m of 10 character s | Language.<br>• **zh_CN**: Chinese<br>• **en_US**: English<br>Default value: **zh_CN** |

## Request

### Request Parameters

None

### Example Request

```
GET https://bss-intl.myhuaweicloud.com/v2/orders/customer-orders/details/CS19040119281JMYC?
limit=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.<br>For details, see **Returned Values**. |
| error_msg | String | A maximum of 2,000 characters | Error description. |
| order_info | Customer OrderEntit yV2 Object | - | Order details.<br>For details, see **Table 8-15**. |
| total_count | Integer | - | Order item ID array. |
| order_line_i tems | List<Order LineItemE ntityV2> | - | ID of the primary order item mapping the order item.<br>For details, see **Table 8-16**. |

**Table 8-15** CustomerOrderEntityV2

| 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 | - | 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:<br>● 1. Customer<br>● 2. Agent<br>● 3: Contract<br>● 4: Distributor |
| status | Integer | - | Order status. The value can be:<br>● 1: Pending approval<br>● 2: Pending refund<br>● 3: Processing<br>● 4: Canceled<br>● 5: Completed<br>● 6: Pending payment<br>● 9: To be confirmed<br>● 10: To be shipped<br>● 11: To be received<br>● 12: Pending pick-up<br>● 13: Exchange in progress |

| Parameter | Type | Maximum Length | Description |
|-----------|------|----------------|-------------|
| order_type | Integer | - | Order type. The value can be:<br>● 1: New purchase<br>● 2: Renewal<br>● 3: Change<br>● 4: Unsubscription<br>● 10: Yearly/monthly to pay-per-use<br>● 11: Pay-per-use to yearly/monthly<br>● 13: Trial<br>● 14: Commercial use<br>● 15: Price adjustment |
| official_amount | Double | - | Order amount (list price).<br>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).<br>In the unsubscription order, the amount is the refund amount after the handling fee is deducted. |
| measure_id | Integer | - | Order amount unit.<br>● 1: 1 Yuan/Dollar |
| create_time | String | A maximum of 20 characters | Creation time.<br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z**<br>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.<br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z**<br>The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59. |
| amount_info | AmountInfoV2 Object | - | Order deduction details.<br>For details, see **Table 8-18**. |
| currency | String | A maximum of 4 characters | Currency code. |

| Parameter | Type | Maximum Length | Description |
|---|---|---|---|
| contract_id | String | A maximum of 64 characters | Contract ID. |
| user_name | String | A maximum of 64 characters | Order creator name<br>● If the order is placed by the customer, the login name of the operator who places the order is returned.<br>● If the order is placed by the operation personnel at the background, **Operation personnel** is returned.<br>● If the order is automatically placed by the operation system, **Operation system** is returned. |
| pending_pa yment_end _time | String | A maximum of 20 characters | Payment end time of an unpaid order.<br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z**<br>The range of *HH* is 0–23, and the range of *mm* and *ss* is 0–59.<br>**NOTE**<br>A specific value is returned only when the order is in the pending payment state. For other order statuses, the value is **null**. |
| sub_order_i nfos | List<SubCu stomerOrd erEntityV2 > | - | Details of orders in a combined order.<br>For details, see **Table 8-20**.<br>**NOTE**<br>If the order being queried is a combined order, the information of the orders included in the combined order will be returned. If the order being queried is a common order, this field will be left empty. |

**Table 8-16** OrderLineItemEntityV2

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| order_line_i tem_id | String | A maximum of 64 characters | Order ID. |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| 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:<br>● **0**: Day<br>● **1**: Week<br>● **2**: Month<br>● **3**: Year<br>● **4**: Hour<br>● **5**: One-off<br>● **6**: Pay-per-use (reserved)<br>● **7**: By usage report (reserved) |
| period_num | Integer | - | Number of periods.<br>**NOTE**<br>The value of this parameter is **null** for an unsubscription order. |
| effective_time | String | A maximum of 20 characters | Effective time.<br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z**<br>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.<br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z**<br>The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59. |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| subscription_num | Integer | - | Number of subscriptions. |
| amount_after_discount | Double | - | Order amount after a discount (excluding the vouchers or cards). In the unsubscription order, the amount is the refund amount after the handling fee is deducted. |
| official_amount | Double | - | Order amount (list price). In the unsubscription order, this amount equals the value of **amount_after_discount**. |
| amount_info | AmountInfoV2 Object | - | Order deduction details. For details, see **Table 8-18**. |
| currency | String | A maximum of 4 characters | Currency code. |
| category_code | String | A maximum of 64 characters | Product catalog code. |
| product_owner_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**. |
| base_product_info | BaseProductInfo Object | -- | Product information in the order line before the change. For details, see **Table 8-17**. NOTE A specific value is returned only when the **order_type** is set to **Change**. For other order types, the value is **null**. |

| Parameter | Type | Value Range | Description |
|-----------|------|-------------|-------------|
| order_id | String | A maximum of 64 characters | Order ID. |

**Table 8-17** BaseProductInfo

| Parameter | Type | Maximum Length | Description |
|-----------|------|----------------|-------------|
| product_id | String | A maximum of 64 characters | Product ID. |
| product_spec_desc | String | A maximum of 512 characters | Product specification description. |
| category_code | String | A maximum of 64 characters | Product catalog code. |
| product_owner_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 8-18** AmountInfoV2

| Parameter | Type | Value Range | Description |
|-----------|------|-------------|-------------|
| discounts | List<DiscountItemV2> | - | Fee item. For details, see **Table 8-19**. |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| 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 | - | Consumption amount (only for unsubscription orders). |

**Table 8-19** DiscountItemV2

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

**Table 8-20** SubCustomerOrderEntityV2

| Parameter | Type | Maximum Length | Description |
|---|---|---|---|
| order_id | String | A maximum of 64 characters | Order ID. |
| customer_id | String | A maximum of 64 characters | Customer account ID. |
| 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 e | 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:<br>● 1. Customer<br>● 2. Agent<br>● 3: Contract<br>● 4: Distributor |

| Parameter | Type | Maximum Length | Description |
|-----------|------|----------------|-------------|
| status | Integer | - | Order status. The value can be:<br><br>• 1: Pending approval<br>• 2: Pending refund<br>• 3: Processing<br>• 4: Canceled<br>• 5: Completed<br>• 6: Pending payment<br>• 9: To be confirmed<br>• 10: To be shipped<br>• 11: To be received<br>• 12: Pending pick-up<br>• 13: Exchange in progress |
| order_type | Integer | - | Order type. The value can be:<br><br>• 1: New purchase<br>• 2: Renewal<br>• 3: Change<br>• 4: Unsubscription<br>• 10: Yearly/ monthly to pay-per-use<br>• 11: Pay-per-use to yearly/ monthly<br>• 13: Trial<br>• 14: Commercial use<br>• 15: Price adjustment |

| Parameter | Type | Maximum Length | Description |
|---|---|---|---|
| official_amount | Double | - | Order amount (list price).<br><br>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).<br><br>In the unsubscription order, the amount is the refund amount after the handling fee is deducted. |
| measure_id | Integer | - | Order amount unit.<br><br>● 1: 1 Yuan/Dollar |
| create_time | String | A maximum of 20 characters | Creation time.<br><br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z**<br><br>The range of *HH* is 0–23, and the range of *mm* and *ss* is 0–59. |

| Parameter | Type | Maximum Length | Description |
|---|---|---|---|
| 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 8-18**. |
| currency | String | A maximum of 4 characters | Currency code. |
| contract_id | String | A maximum of 64 characters | Contract ID. |

| Parameter | Type | Maximum Length | Description |
|-----------|------|----------------|-------------|
| user_name | String | A maximum of 64 characters | Order creator name<br><br>● If the order is placed by the customer, the login name of the operator who places the order is returned.<br><br>● If the order is placed by the operation personnel at the background, **Operation personnel** is returned.<br><br>● If the order is automatically placed by the operation system, **Operation system** is returned. |

| Parameter | Type | Maximum Length | Description |
|---|---|---|---|
| pending_payment _end_time | String | A maximum of 20 characters | Payment end time of an unpaid order.<br><br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z**<br><br>The range of *HH* is 0–23, and the range of *mm* and *ss* is 0–59.<br><br>**NOTE**<br>A specific value is returned only when the order is in the pending payment state. For other order statuses, the value is **null**. |

**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",
        "pending_payment_end_time": "2024-11-14T15:59:59Z",
        "sub_order_infos": []
    },
```

```
"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/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,
        "base_product_info": null,
        "order_id": null
    },
    {
        "order_line_item_id": "CS18122203217MRPB-000002",
        "service_type_code": "hws.service.type.ec2",
        "product_id": "00301-02019-0--1",
        "product_spec_desc": "General 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,
        "base_product_info": {
            "product_id": "00301-238595-0--0",
            "product_spec_desc": "General computing | s3.small.1 | 1 vCPU| 1 GB | Linux",
            "category_code": "hws.resource.computing.ecs",
            "product_owner_service": "hws.service.type.ec2",
            "commercial_resource": null
        },
        "order_id": "S1812**********RPB"
    }
]
}
```

## 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. |
| 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. |

# 8.3.3 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 discount and coupon cannot be used at the same time.
  - If the restriction attribute of a coupon contains field **simultaneousUseWithContractDiscount** with a value of **0**, the discount and coupon cannot be used at the same time.
  - 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.

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

POST /v3/orders/customer-orders/pay

## Request

Request Parameters

| Paramete r | Mand atory | Type | Maxim um Length of Charac ters | Description |
|---|---|---|---|---|
| order_id | Yes | String | A maxim um of 64 charact ers | Order ID.<br><br>The value is the same as the **order_id** value in the response message of invoking the API described in **8.3.1 Querying Orders** or the **order_ids** value in the response message of API described in **8.4.2 Renewing Subscription to Yearly/Monthly Resources**. |
| use_coupo n | 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.<br>● **YES**: indicates that the coupons are used for payment.<br>● **NO**: indicates that the coupons are not used for payment. |
| use_disco unt | 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.<br>● **YES**: indicates that the discount is used for payment.<br>● **NO**: indicates that the discount is not used for payment. |

| Paramete r | Mand atory | Type | Maxim um Length of Charac ters | Description |
|---|---|---|---|---|
| coupon_in fos | No | List<Cou ponSimpl eInfo> | A maxim um of 3 IDs are support ed. | For details, see **Table 8-21**. 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. |
| discount_i nfos | No | List<Disc ountSim pleInfo> | Only one discoun t ID is allowed . | For details, see **Table 8-22**. 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 8-21** CouponSimpleInfo

| Paramet er | Manda tory | Type | Maxim um Length of Charac ters | Description |
|---|---|---|---|---|
| id | Yes | String | A maxim um of 64 charact ers | Coupon ID. |

| Paramet er | Manda tory | Type | Maxim um Length of Charac ters | Description |
|---|---|---|---|---|
| type | Yes | Integer | [300-3 03] | Coupon type. <br> ● **300**: Discount coupon (reserved) <br> ● **301**: Promotion coupon <br> ● **302**: Promotion flexi-purchase coupon (reserved) <br> ● **303**: Promotion stored-value card (reserved) |

**Table 8-22** DiscountSimpleInfo

| Paramet er | Manda tory | Type | Maxim um Length of Charac ters | Description |
|---|---|---|---|---|
| id | Yes | String | A maxim um of 64 charact ers | Discount ID. |
| type | Yes | Integer | [0,2,3] | Discount type. <br> ● 0: promotion discount <br> ● <br> ● 2: commercial discount <br> ● 3: discount granted by a partner |

**Example Request**

```
POST https://bss-intl.myhuaweicloud.com/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.<br>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.<br>For details, see **Table 8-23**.<br>This parameter is valid only when **error_code** is set to **CBC.99003141**.<br>● 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.<br>● If the capacity is insufficient, notify the customer to place an order again.<br>● If the specifications have changed, notify the customer to place an order again. |

| Parameter | Type | Maximum Length of Characters | Description |
|---|---|---|---|
| enterprise_project_auth_result | List<EnterpriseProject> | - | Information about the enterprise project whose fund is insufficient. For details, see **Table 8-24**. This parameter is valid only when **error_code** is set to **CBC.99003155**. |

**Table 8-23** QuotaInfo

| Parameter | Type | Description |
|---|---|---|
| region | String | Cloud service region code, for example, ap-southeast-1. Obtain the value from the **Region** column in **Regions and Endpoints**. |
| 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 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 types. |
| resource_spec_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_type_name | String | Resource type. For example, the resource type of ECS is **Cloud Host**. |

| Parameter | Type | Description |
|---|---|---|
| auth_result | Integer | Verification result of the change of the cloud service quota, capacity, or specifications.<br>● 1: The quota is insufficient.<br>● 2: The capacity is insufficient.<br>● 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.<br>● 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.<br>● 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_z one | String | AZ ID.<br>For details, see the AZ names of regions listed on the **Regions and Endpoints**, for example, **cn-north-1a**. |

**Table 8-24** EnterpriseProject

| Parameter | Type | Description |
|---|---|---|
| enterprise_ project_id | String | ID of the enterprise project where an order belongs.<br>● 0: ID of a default project<br>● -1 or null: Non-project ID |
| enterprise_ project_na me | String | Enterprise project name. |
| auth_statu s | Integer | Verification result of the enterprise project's fund quota.<br>10: Insufficient fund quota/Invalid project<br>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. |
| 400 | 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.<br><br>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. |
| 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. |

| HTTP Status Code | Error Code | Description |
|---|---|---|
| 400 | CBC.99005036 | Payment via API not allowed for this customer. (Payment by balance and monthly-settled payment are not allowed.) |
| 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. |

# 8.3.4 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.

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

PUT /v2/orders/customer-orders/cancel

## Request

Request Parameters

| Param eter | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| order_i d | Yes | String | A maximu m of 64 characte rs | Order ID. The value is the same as the value of **order_id** in the response of the API described in **8.3.1 Querying Orders**. |

### Example Request

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

## Response

Response Parameters

**Table 8-25** Response parameters

| Para mete r | 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. |

# 8.3.5 Querying the Amount of Unsubscription Orders

## Function

A customer can query the resource type and order of the refund amount of an unsubscription or specification downgrade order on the partner sales platform.

> 📖 **NOTE**
>
> - After the API described in **8.4.3 Unsubscribing from Yearly/Monthly Resources** is called to generate an unsubscription order ID, this API can be called to query the resource type and order to which the amount of the unsubscription order belongs. For example, after you invoke the API in **8.4.3 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 the partner token. Before using the partner token to call this API, the partner needs to **request authorization from the customer** or **ask the customer to create an agency for them**.

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

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

**Table 8-26** Query parameters

| Paramet er | Mandat ory | 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-intl.myhuaweicloud.com/v2/orders/customer-orders/refund-orders?
order_id=CS1904190917GIBHC 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_coun t | Integer | Total queries. |
| refund_inf os | List<OrderRef undInfoV2> | Resource list. For details, see **Table 8-27**. |

**Table 8-27** OrderRefundInfoV2

| Parameter | Type | Description |
|---|---|---|
| id | String | Record ID. |

| Parameter | Type | Description |
|-----------|------|-------------|
| amount | BigDecimal | Amount.<br>● A negative number indicates the unsubscription amount.<br>● A positive number indicates the handling fee for unsubscription. |
| measure_id | String | Fee unit.<br>● 1: 1 Yuan/Dollar |
| customer_i d | String | Customer account ID. |
| resource_ty pe_code | String | Resource type code. For example, the VM resource type code of ECS is **hws.resource.type.vm**. |
| service_typ e_code | String | Cloud service type code. For example, the cloud service type code of OBS is **hws.service.type.obs**. |
| resource_ty pe_name | String | Resource type. For example, the resource type of ECS is **Cloud Host**. |
| service_typ e_name | String | Cloud service type. For example, the cloud service type of ECS is **Elastic Cloud Server**. |
| region_cod e | String | Cloud service region code, for example, ap-southeast-1. Obtain the value from the **Region** column in **Regions and Endpoints**. |
| 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": "ap-southeast-1",
            "base_order_id": "CS2006******1F8CI"
        }
    ]
}
```

## Status Code

> 📖 **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.99005026 | The order is not a degrade or unsubscription order. |
| 403 | CBC.0151 | Access denied. |
| 500 | CBC.0999 | Other errors. |

# 8.4 Managing Yearly/Monthly Resources

## 8.4.1 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 **8.4.2 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 a parameter is set to **null**, is set to an empty JSON array, or is set to **""**, the specified number of resources of the current account will be returned. The number of resources is specified by the **limit** parameter, and the default value is **10**.

### Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

POST /v2/orders/suscriptions/resources/query

## Request

**Request Parameters**

**Table 8-28** Request parameters

| Para meter | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| resou rce_id s | No | list<Stri ng> | [0-50] | Resource IDs.<br>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.<br>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.<br>**NOTE**<br>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 maxim um of 64 charact ers | Order ID. This parameter can be used for querying the resources in a specified order.<br>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.<br>**NOTE**<br>When special characters are used for query, perform the URL code conversion. For example, **%** should be converted to **%25**. |

| Para meter | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| only_ main _reso urce | 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.<br><br>● **0**: Queries both the primary resources and attached resources.<br><br>● **1**: Queries only the primary resources.<br><br>The default value is **0**.<br><br>If this parameter is not included in the request parameters or is set to **null**, the default value **0** is used.<br><br>NOTE<br>A primary resource takes the primary position in the associated resources.<br><br>● For ECS, ECS is the primary resource, and EVS is the attached resource.<br><br>● 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. |
| statu s_list | No | list<Int eger> | [0-10] | Resource status.<br><br>Queries resources in a specified status. If there are multiple statuses, separate them using commas (,).<br><br>● **2**: Provisioned<br><br>● **3**: Closed<br><br>● **4**: Frozen<br><br>● **5**: Expired<br><br>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. |

| Para meter | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| offset | No | Integer | 0 to 2147483646 | Offset, starting from **0**. The default value is **0**.<br>**NOTE**<br>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.<br>For example, if there are 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned.<br>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_begin | 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.<br>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.<br>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. |

| Para meter | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| servic e_typ e_cod e | 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 or is set to **null**, it will not be used as a filter criterion. This parameter cannot be set to an empty string. There will be parameter verification. |

**Example Request**

```
POST https://bss-intl.myhuaweicloud.com/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**

| Para meter | Type | Description |
|---|---|---|
| error_ code | String | Error code. For details, see **Returned Values**. |
| error_ msg | String | Error description. |
| data | List<OrderInstan ceV2> | Resource list. For details, see **Table 8-29**. |
| total_c ount | Integer | Total number of records |

**Table 8-29** 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**. |
| resou rce_id | String | Resource ID. |
| resou rce_n ame | String | Resource instance name. |
| regio n_cod e | String | Cloud service region code, for example, ap-southeast-1. Obtain the value from the **Region** column in **Regions and Endpoints**. |
| servic e_typ e_cod e | String | Cloud service type code. For example, the cloud service type code of OBS is **hws.service.type.obs**. |
| resou rce_ty pe_co de | String | Resource type code. For example, the VM resource type code of ECS is **hws.resource.type.vm**. |
| resou rce_s pec_c ode | 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_typ e_na me | String | Cloud service type. For example, the cloud service type of ECS is **Elastic Cloud Server**. |
| resou rce_ty pe_na me | 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. |
| paren t_reso urce_i d | String | Parent resource ID |

| Para meter | Type | Description |
|---|---|---|
| is_ma in_res ource | Integer | Primary resource or not.<br>● **0**: Attached resource<br>● **1**: Primary resource |
| status | Integer | Resource status.<br>● **2**: Provisioned<br>● **3**: Closed (not visible to customers)<br>● **4**: Frozen<br>● **5**: Expired |
| effect ive_ti me | String | Effective time of a resource.<br>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.<br>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.<br>● **0**: Entering the grace period upon expiration<br>● **1**: Yearly/monthly to pay-per-use<br>● **2**: Automatically deleted upon expiration (directly deleted from resources that take effect)<br>● **3**: Automatically renewed upon expiration<br>● **4**: Automatically frozen upon expiration<br>● **5**: Automatically deleted upon expiration (deleted from resources in the retention period)<br>**NOTE**<br>Only **3** indicates that the resource is automatically renewed. In other cases, the expiration policy for non-automatic renewal is used. |
| produ ct_sp ec_de sc | String | A maximum of 512 characters allowed.<br>Product specification description. |
| spec_ size | BigDecimal | Product size, which is available only for linear products.<br>**NOTE**<br>Linear products are those whose size must be specified during a subscription. For example, you can select 10 GB or 20 GB during a disk subscription. |

| Para mete r | Type | Description |
|---|---|---|
| spec_ size_ meas ure_i d | Integer | Product size unit, which is available only for linear products. Call the API in **4.1.5 Querying Measurement Units** to obtain the value. |
| updat e_tim e | String | Time when the resource was updated. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z** **NOTE** In transaction scenarios, for example, provisioning, unsubscription, and change, resources are updated, and the update time changes. In other non-transaction scenarios, such as starting and stopping a machine, the update time does not change. |
| enter prise_ projec t | EnterpriseProject | Enterprise project details of a customer resource. For details, see **Table 8-30**. |

**Table 8-30** EnterpriseProject

| Parameter | Type | Maximu m Length | Description |
|---|---|---|---|
| id | String | A maximu m of 256 character s | Enterprise project ID. |
| name | String | A maximu m of 256 character s | Enterprise project name. |

**Example Response**

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
  "data": [
    {
      "id": "01154-674800049-0",
```

```
                "resource_id": "fb8bb160-a8eb-46a7-9a01-82479c4342a8",
                "resource_name": "bandwidth-48d0",
                "region_code": "ap-southeast-1",
                "service_type_code": "hws.service.type.vpc",
                "resource_type_code": "hws.resource.type.bandwidth",
                "resource_type_name": "fixed bandwidth",
                "service_type_name": "VPC",
                "resource_spec_code": "19_share",
                "project_id": "0bce3f009100d2852fd6c009e942d2ef",
                "product_id": "OFFI771277187766575104",
                "parent_resource_id": "fb8bb160-a8eb-46a7-9a01-82479c4342a8",
                "is_main_resource": 1,
                "status": 3,
                "effective_time": "2024-10-10T07:45:56Z",
                "expire_time": "2024-11-22T09:01:54Z",
                "expire_policy": 0,
                "product_spec_desc": " shared bandwidth | 5.0 Mbps",
                "spec_size": 5.0,
                "spec_size_measure_id": 15,
                "update_time": "2024-11-22T09:01:55Z",
                "enterprise_project": {
                    "id": "0",
                    "name": "default"
                }
            }
        ],
        "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. |
| 403 | CBC.0151 | Access denied. |
| 500 | CBC.0999 | Other errors. |

# 8.4.2 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 **8.4.1 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 **8.4.1 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 **13.7 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.

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## 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 **8.4.1 Querying Customer's Yearly/Monthly Resources**. |
| period_type | Yes | Integer | 2, 3 | Period type. The value can be:<br>● 2: month<br>● 3: year |

| Para meter | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| perio d_nu m | Yes | Integer | 1 to 11 | Number of periods.<br>● Month: 1 to 11<br>● 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.<br>● 0: Entering a grace or retention period<br>● 1: Yearly/monthly to pay-per-use<br>● 2: Automatic unsubscription<br>● 3: Automatic renewal |
| is_aut o_pay | No | Integer | 0, 1 | Whether enable automatic payment.<br>● 0: No<br>● 1: Yes<br>If this parameter is not included or is set to **null**, the default value **0** is used, indicating not to enable the automatic payment. |

**Example Request**

```
POST https://bss-intl.myhuaweicloud.com/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 8-31** Response body parameters

| Parameter | Type | Description |
|---|---|---|
| order_ids | List<String> | List of order IDs generated when resource subscription is renewed. |

| Parameter | Type | Description |
|-----------|------|-------------|
| fail_resource _infos | List<FailResou rceInfo> | 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 8-32**. This parameter is reserved. |

**Table 8-32** FailResourceInfo

| Parameter | Type | Description |
|-----------|------|-------------|
| error_code | String | Error code. For details, see **Error Codes**. 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 8-33** 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. |
| expiredReso urceIds | 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

- **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.0100 | Parameter error. |
| 400 | CBC.300100 36 | Renewal is only supported for primary resources. |
| 400 | CBC.300100 69 | The renewal period does not exist. |
| 400 | CBC.300500 06 | Automatic order payment failed. |
| 400 | CBC.990000 92 | Incorrect subscription period. |
| 400 | CBC.990031 00 | 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.990030 16 | The resources have expired and been deleted or do not exist. |
| 400 | CBC.990031 44 | You have orders in progress and cannot perform the current operation. |
| 400 | CBC.990031 54 | The sum of the existing and renewal durations has exceeded the maximum allowed. Select another renewal duration. |
| 400 | CBC.990036 34 | 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. |

# 8.4.3 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 **8.4.1 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 **8.4.1 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 **8.3.5 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.

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

POST /v2/orders/subscriptions/resources/unsubscribe

## Request

Request Parameters

| Param eter | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| resour ce_ids | Yes | List<Str ing> | A maxi mum 10 IDs | Resource IDs.<br><br>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.<br><br>Determine whether a resource is a primary resource based on **is_main_resource** in the response of the API described in **8.4.1 Querying Customer's Yearly/Monthly Resources**. |
| unsub scribe_ type | Yes | Integer | 1, 2 | Unsubscription type. The value can be:<br>● 1: Unsubscribe from the resource and its renewal periods.<br>● 2: Unsubscribe from only the resource renewal periods. |
| unsub scribe_ reason _type | No | Integer | 1 to 5 | Unsubscription cause. The value can be:<br>● 1: The product is of poor usability.<br>● 2: The product functions cannot meet the requirements.<br>● 3: Customers do not know how to use the product, or the product operations are complex.<br>● 4: Customers are not satisfied with the service.<br>● 5: Others |
| unsub scribe_ reason | No | String | A maxi mum of 512 charac ters | Unsubscription reason, which is generally specified by the customer. |

**Example Request**

```
POST https://bss-intl.myhuaweicloud.com/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.<br>For details, see **Returned Values**. |
| error_ msg | String | Error description. |
| order_i ds | List<String> | Unsubscription order IDs. |
| fail_re source _infos | 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 **#api_order_00019/ table173001375312**.<br>This parameter is reserved. |

Table FailResourceInfo

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

| HTTP Value | Error Code | Description |
|---|---|---|
| 400 | CBC.0100 | Parameter error. |
| 400 | CBC.30000053 | Unsubscription not supported. The billing mode of the resource is Savings Plans. |
| 400 | CBC.30000067 | Unsubscription not supported. This resource has been deleted or the subscription to this resource has not been synchronized to CBC. |
| 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.99003650 | Unsubscription not supported for this cloud service in KooGallery. |
| 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. |

| HTTP Value | Error Code | Description |
|---|---|---|
| 400 | CBC.9900606 66 | An error occurred during the query of the fee information. |
| 403 | CBC.0151 | Access denied. |
| 400 | CBC.9900036 51 | Unsubscription not supported. An operation associated with this instance is in progress. |
| 500 | CBC.0999 | Other errors. |

# 8.4.4 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 **8.4.1 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.

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

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

The following table describes the parameters.

**Table 8-34** Path parameters

| Param eter | Manda tory | Value Range | Description |
|---|---|---|---|
| resourc e_id | Yes | A maxim um of 64 charact ers | Resource ID. You can obtain the resource ID by invoking the API described in **8.4.1 Querying Customer's Yearly/Monthly Resources**. The attached resource IDs will be configured together when you configure primary resource IDs. <ul><li>For example, ECS is the primary resource, and EVS is the attached resource.</li><li>If the shared bandwidth is used, the bandwidth is the primary resource, and EIPs are the attached resource.</li><li>If the exclusive bandwidth is used, EIPs are the primary resources, and the bandwidth is the attached resource.</li></ul> 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-intl.myhuaweicloud.com/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

| Param eter | Type | Description |
|---|---|---|
| error_c ode | String | Status code. For details, see **Returned Values**. |

| Param eter | Type | Description |
|---|---|---|
| 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. |

# 8.4.5 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 **8.4.4 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 **8.4.2 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 **8.4.1 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.

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

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

The following table describes the parameters.

**Table 8-35** Path parameters

| Parameter | Mandatory | Value Range | Description |
|---|---|---|---|
| resource_id | Yes | A maximum of 64 characters | Resource ID.<br>You can obtain the resource ID by invoking the API described in **8.4.1 Querying Customer's Yearly/Monthly Resources**.<br>The attached resource IDs will be configured together when you configure primary resource IDs.<br>- For example, ECS is the primary resource, and EVS is the attached resource.<br>- If the shared bandwidth is used, the bandwidth is the primary resource, and EIPs are the attached resource.<br>- 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-intl.myhuaweicloud.com/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.<br>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.99003605 | 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. |

# 8.4.6 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 **8.4.1 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 **8.4.6 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 **8.4.2 Renewing Subscription to Yearly/Monthly Resources**.

## REST API

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

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

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

The following table describes the parameters.

## Request

Request Parameters

| Paramete r | Mand atory | Type | Value Range | Description |
|---|---|---|---|---|
| operation | Yes | String | A maxim um of 64 charact ers | Used to enable or cancel the change from yearly/monthly to pay-per-use.<br>● **SET_UP**: Enable<br>● **CANCEL**: Cancel |
| resource_i ds | Yes | list<strin g> | [1-100] | Resource ID.<br>You can obtain the resource ID by invoking the API described in **8.4.1 Querying Customer's Yearly/ Monthly Resources**.<br>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.<br>You can refer to parameter **is_main_resource** in the response of the API described in **8.4.1 Querying Customer's Yearly/Monthly Resources** to check whether the resource is primary. |

**Example Request**

```
POST https://bss-intl.myhuaweicloud.com/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 maximum of 20 characters | Error code. For details, see **Returned Values**. |
| error_msg | String | A maximum of 1,000 characters | Error description. |
| error_details | List<ErrorDetail> | 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 8-36**. |

**Table 8-36** 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 1,000 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**

- **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.0100 | Parameter error. |
| 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. |

# 8.5 Managing Resource Packages

# 8.5.1 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.

---

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

POST /v3/payments/free-resources/query

**Table 8-37** Header parameter

| Parameter | Mandatory | Value Range | Description |
|---|---|---|---|
| X-Language | No | A maximum of 8 characters | Language.<br>● **zh_CN**: Chinese<br>● **en_US**: English<br>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, for example, **ap-southeast-1**. Obtain the value from the **Region** column in **Regions and Endpoints**.<br><br>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.<br><br>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.<br><br>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.<br><br>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.<br><br>This parameter is mandatory if you want to query the resources of an enterprise project.<br><br>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. |

| Paramete r | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| status | No | Integer | (0, 4) | Status:<br>• **0**: Not effective<br>• **1**: In effect<br>• **2**: Used up<br>• **3**: Expired<br>• **4**: Unsubscribed<br>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**.<br>**NOTE**<br>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.<br>For example, if there are 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned.<br>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_ty pe_code_li st | No | List<Stri ng> | [0-10] | The ID of the cloud service type. The value is case-insensitive.<br>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.<br>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-intl.myhuaweicloud.com/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 8-38**. |
| total_count | Integer | - | Total number of records |

**Table 8-38** FreeResourcePackage

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| order_instance_id | String | A maximum of 64 characters | Identifier of a subscribed resource package. |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| 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 maximum of 64 characters | Resource package ID. |
| 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:<br>● **0**: All enterprise projects<br>● **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. |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| status | Integer | (0, 4) | Status:<br>● **0**: Not effective<br>● **1**: In effect<br>● **2**: Used up<br>● **3**: Expired<br>● **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**. |
| region_code | String | A maximum of 64 characters | Cloud service region code, for example, **ap-southeast-1**. Obtain the value from the **Region** column in **Regions and Endpoints**. |
| source_type | Integer | (0, 1) | Source of a resource package. The options are as follows:<br>● **0**: Order<br>● **1**: Gifted by DevCloud |
| bundle_type | String | [ATOMIC_PKG\|BUNDLE_PKG] | Bundle binding type. The options are as follows:<br>● **ATOMIC_PKG**: Atomic package<br>● **BUNDLE_PKG**: Combined package |

| Parameter | Type | Value Range | Description |
|-----------|------|-------------|-------------|
| quota_reuse_mode | Integer | (1,2) | Use model. The options are as follows:<br>● **1**: Resettable<br>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.<br>● **2**: Not resettable<br>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 8-39**. |

**Table 8-39** FreeResource

| Parameter | Type | Value Range | Description |
|-----------|------|-------------|-------------|
| free_resource_id | String | A maximum of 64 characters | Resource ID. A resource package contains multiple resources, and each resource has a usage type. |
| usage_type_name | String | A maximum of 1,024 characters | Usage type name. |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| amount | String | A maximum of 32 characters | 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 | String | A maximum of 32 characters | 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. |

# 8.5.2 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.

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

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

**Table 8-40** Header parameter

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

## Request

**Request Parameters**

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| free_resource_ids | Yes | List<string> | A maximum of 100 records | List of resource item IDs. Each ID contains a maximum of 64 bytes.<br><br>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 **8.5.1 Querying Resource Packages**. |

**Example Request**

```
POST https://bss-intl.myhuaweicloud.com/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 | Maximum Length of Characters | Description |
|-----------|------|------------------------------|-------------|
| error_code | String | 20 | Error code.<br>For details, see **Returned Values**. This parameter is returned only when the query failed. |
| error_msg | String | 1000 | Error description.<br>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 8-41**. |

**Table 8-41** 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).<br>● 1: Hour<br>● 2: Day<br>● 3: Week<br>● 4: Month<br>● 5: Year |

| Parameter | Type | Maximum Length of Characters | Description |
|---|---|---|---|
| quota_reuse _cycle_type | Integer | - | Reset period type. This field is valid only when **quota_reuse_mode** is set to **1** (Resettable).<br><br>● 1: Reset by calendar period<br>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.<br><br>● 2: Reset by order period<br>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.<br><br>● If **quota_reuse_mode** is set to **1**, the value is the start time of the reset period for the current time.<br><br>● 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.<br><br>● If **quota_reuse_mode** is set to **1**, the value is the end time of the reset period for the current time.<br><br>● 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. |

| Parameter | Type | Maximum Length of Characters | Description |
|---|---|---|---|
| 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 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. |

| HTTP Status Code | Error Code | Description |
|---|---|---|
| 403 | CBC.0151 | Access denied. |
| 500 | CBC.0999 | Other errors. |

# 8.5.3 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.

## Debugging

You can debug this API in **API Explorer**. Automatic authentication is supported. API Explorer can automatically generate and debug example SDK code.

## URI

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

**Table 8-42** 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 **8.5.1 Querying Resource Packages**. If this parameter is not included or is left empty, it will not 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 or is left empty, it cannot be used as a filter criterion. |

| Paramete r | Mand atory | Type | Value Range | Description |
|---|---|---|---|---|
| resource_t ype_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**.<br><br>If this parameter is not included or is left empty, it will not be used as a filter criterion. |
| deduct_ti me_begin | Yes | String | A maximum of 10 characters | Start time of resources deduction, which is in *YYYY-MM-DD* format (GMT+08:00). |
| deduct_ti me_end | Yes | String | A maximum of 10 characters | End time of resource deduction, which is in *YYYY-MM-DD* format (GMT+08:00).<br>**NOTE**<br>The gap between the start time and end time must be less than or equal to 90 days. |
| offset | No | Integer | 0 to a maximum integer | Offset, starting from **0**. The default value is **0**.<br>**NOTE**<br>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.<br><br>For example, if there are 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned.<br><br>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-intl.myhuaweicloud.com/v2/bills/customer-bills/free-resources-usage-records?
free_resource_id=free_resource_id&product_id=product_id&resource_type_code=resource_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.<br>For details, see **Returned Values**. This parameter is returned only when the query failed. |
| error_msg | String | 1000 | Error description.<br>This parameter is returned only when the query failed. |
| free_resourc e_records | List<FreeR esourceRe cord> | Maxim um number : 1000 | Resource package usage details. For details, see **Table 8-43**. |
| total_count | Integer | - | Total number of records that meet the conditions. |

**Table 8-43** FreeResourceRecord

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| deduct_time | String | A maxim um of 20 charact ers | Time when a resource is deducted.<br>UTC time. The format is *yyyy-MM-dd***T'***HH:mm:ss***Z'**, for example, 2021-10-13T10:01:49Z. |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| free_resourc e_id | String | A maxim um of 64 charact ers | Resource ID. A resource package contains multiple resources, and a resource has a usage type. |
| resource_id | String | A maxim um of 64 charact ers | Resource ID. |
| resource_typ e_code | String | A maxim um of 64 charact ers | Resource type code. For example, the resource type code of VM is **hws.resource.type.vm**. |
| resource_typ e_name | String | A maxim um of 200 charact ers | Resource type. For example, the resource type of ECS is **Cloud Host**. |
| resource_tag | String | A maxim um of 10,240 charact ers | Resource tag. |
| product_id | String | A maxim um of 64 charact ers | Product ID, that is, resource package ID. |
| product_na me | String | A maxim um of 256 charact ers | Product name, that is, resource package name. |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| 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 maximum of 20 characters | End time of resource usage (UTC time). |

**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. |

# 8.6 Managing Pay-Per-Use Resources

## 8.6.1 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.

## Debugging

You can debug the API in **API Explorer** which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

## URI

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

**Table 8-44** Header parameter

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

## Request

Request Parameters

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| customer_id | Yes | String | A maximum of 64 characters | Customer account ID.<br>To obtain the customer ID, call the API in **5.3.1 Querying Customers**. |
| region_code | No | String | A maximum of 64 characters | Cloud service region code, for example, **ap-southeast-1**. Obtain the value from the **Region** column in **Regions and Endpoints**.<br>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. |

| Param eter | Man dato ry | Type | Value Range | Description |
|---|---|---|---|---|
| service_ type_co de | No | String | A maximu m of 64 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**. 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. |
| resourc e_ids | No | List<Stir ng> | A maximu m 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. |
| effectiv e_time_ begin | No | String | A maximu m of 20 character s | 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. |
| effectiv e_time_ end | No | String | A maximu m of 20 character s | 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. |

| Param eter | Man dato ry | Type | Value Range | Description |
|---|---|---|---|---|
| offset | No | Integer | 0 to maximu m integer | Offset, which starts from 0. The default value is **0**.<br>**NOTE**<br>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.<br>For example, if there are 10 records that meet query conditions, when you set limit to **10** and **offset** to **1**, the second to the tenth records are returned.<br>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**. |
| status | No | Integer | 1 to 6 | Resource status.<br>● 1: Normal (provisioned)<br>● 2: Grace period<br>● 3. Freezing<br>● 4: Changing<br>● 5: Canceling<br>If this parameter is not included in the request parameters or is set to **null**, it cannot be used as a filter criterion. |
| indirect _partne r_id | No | String | A maximu m of 64 character s | Reseller ID. For details about how to obtain such IDs, see **Query 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-intl.myhuaweicloud.com/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

| Param eter | Type | Description |
|---|---|---|
| error_c ode | String | Status code. For details, see **Returned Values**. |
| error_ msg | String | Error description. |
| resourc es | List<CustomerRe sourceV2> | Customer resources. For details, see **Table 8-45**. |
| total_c ount | Integer | Total number of query records. |

**Table 8-45** CustomerResourceV2

| Param eter | Type | Description |
|---|---|---|
| custom er_id | String | Customer account ID. |
| region_ code | String | Cloud service region code, for example, **ap-southeast-1**. Obtain the value from the **Region** column in **Regions and Endpoints**. |
| availabi lity_zon e_code | String | AZ code. |
| service _type_c ode | String | Cloud service type code. For example, the cloud service type code of OBS is **hws.service.type.obs**. |

| Param eter | Type | Description |
|---|---|---|
| resourc e_type_ code | String | Resource type code. For example, the VM resource type code of ECS is **hws.resource.type.vm**. |
| service _type_n ame | String | Cloud service type. For example, the cloud service type of ECS is **Elastic Cloud Server**. |
| resourc e_type_ name | String | Resource type. For example, the resource type of ECS is **Cloud Host**. |
| resourc e_id | String | Resource ID. |
| resourc e_nam e | String | Resource instance name. |
| effectiv e_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.<br><br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z**.<br><br>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.<br><br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as **2019-05-06T08:05:01Z**.<br><br>The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59. |
| status | Integer | Resource status.<br><br>● 1: Normal (provisioned)<br>● 2: Grace period<br>● 3. Freezing<br>● 4: Changing<br>● 5: Canceling<br>● 6: Canceled |
| resourc e_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). |

| Param eter | Type | Description |
|---|---|---|
| resourc e_info | String | Capacity of pay-per-use resources.<br>The value is in "resourceInfo": "{\"specSize\":40.0}" format. |
| product _spec_d esc | String | Product specification description. Example:<br>● ECS: General computing-plus \| c6.2xlarge.4 \| 8 vCPUs \| 32 GB \| Linux<br>● 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.9900000 0 | You do not have the operation permission to the customer. |

| HTTP Value | Error Code | Description |
|---|---|---|
| 400 | CBC.99000037 | You do not have the permission to operate this reseller. |
| 403 | CBC.0151 | Access denied. |
| 500 | CBC.0999 | Other errors. |

# 9 Bill Management

## 9.1 Managing Customer Consumptions

### 9.1.1 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 **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.com/customerUsage/*filename*

**Table 9-1** 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**.<br>**NOTE**<br>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. Obtain this value from **Regions and Endpoints**. |
| customerUsage | Name of the folder for storing the customer resource usage details uploaded by the system. |
| filename | File name.<br>The file name format is **customerUsageV2_***YYYYMM_YYYYMMDD***.tar.gz**.<br>● The file is a compressed package.<br>● *YYYYMM* indicates the month of the data to be exported. For example, if the data for February 2019 is exported, *YYYYMM* should be **201902**.<br>● *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.<br>Files in the package are in the format of **customerUsageV2_***YYYYMM_YYYYMMDD_XXXXXXX***.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_XXXXXXX*.csv**

| Paramete r | 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 |
| Transactio n Time | String | 256 | Transaction time in the format of UTC<br>**NOTE**<br>When the exported file is in Chinese language, the time in the file is GMT+08:00 time. |
| Billing Mode | String | 8 | Billing mode. The options are as follows:<br>● 1: Yearly/monthly<br>● 3: Pay-per-use<br>● 10: Reserved instances<br>● **11**: Savings plan |

| Parameter | Type | Maximum Length of Characters | Description |
|---|---|---|---|
| Bill Type | String | 8 | Bill type:<br><br>● 1: Expenditure - purchase<br><br>● 2: Expenditure - renewal<br><br>● 3: Expenditure - change<br><br>● 4: Refund - unsubscription<br><br>● 5: Expenditure - use<br><br>● 8: Expenditure - auto-renewal<br><br>● 9: Adjustment - compensation<br><br>● 12: Expenditure - hourly billing<br><br>● 13: Expenditure - unsubscription handling fee<br><br>● 14: Expenditure - month-end deduction for support plan<br><br>● 15: Expenditure - tax<br><br>● 16: Adjustment - deduction<br><br>● 17: Expenditure - difference amount (min. guaranteed-actual)<br><br>**NOTE**<br>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.<br><br>● 20: Refund - change<br><br>● **23**: Expenditure-savings plans<br><br>● **24**: Refund-changing to Pay-Per-Use<br><br>● 100: Refund - unsubscription tax<br><br>● 101: Adjustment - tax compensation<br><br>● 102: Adjustment - tax deduction |
| Resource ID | String | 256 | Resource instance ID If the resource is a reserved instance, the value is the reserved instance ID. |

| Parameter | Type | Maximum Length of Characters | Description |
|---|---|---|---|
| Resource Name | String | 256 | Resource name entered when a customer creates a resource instance.<br>**NOTE**<br>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.<br>If a customer purchases a resource package product that is not specific to a certain resource, this field is left empty.<br>**NOTE**<br>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.<br>Example: General Computing\|s2.small.1\|1vCPUs\|1GB\|linux |
| Region Code | String | 64 | Cloud service region code, for example, ap-southeast-1. Obtain the value from the **Region** column in **Regions and Endpoints**. |
| Project ID | String | 256 | ID of the project to which a resource belongs. You can select a project when purchasing a resource. |

| Parameter | Type | Maximum Length of Characters | Description |
|---|---|---|---|
| Order ID/ Transaction ID | 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 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:<br>● 1: New purchase<br>● 2: Renewal<br>● 3: Change<br>● 4: Unsubscription<br>● 10: Yearly/monthly to pay-per-use<br>● 11: Pay-per-use to yearly/monthly<br>● 13: Trial<br>● 14: Commercial use<br>● 15: Price adjustment |
| Period Number | String | 256 | Duration of a yearly/monthly subscription.<br>**NOTE**<br>● This parameter is available only for yearly/monthly products. In other cases, this parameter is left empty.<br>● 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.<br>● 0: Daily<br>● 2: Monthly<br>● 3: Yearly<br>● 4: Hourly<br>● 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 |

| Parameter | Type | Maximum Length of Characters | Description |
|---|---|---|---|
| Usage Unit | String | 256 | Usage unit<br>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 Usage) | String | 256 | Unit of the usage in the package<br>To obtain the unit, call the API in **4.1.5 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<br>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<br>Unit: USD<br>**NOTE**<br>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. |

| Paramete r | Type | Maximum Length of Characters | Description |
|---|---|---|---|
| Unit | String | 256 | Unit of the product.<br><br>● The unit of linear products is USD/ {*linear unit*}/month or USD/{*linear unit*}/hour.<br><br>● The unit of non-linear products is USD/month or USD/hour.<br><br>**NOTE**<br>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.<br><br>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.<br><br>This parameter is reserved. |
| Product Type Name | String | 200 | Product type name |
| Resource Type Name | String | 200 | Resource type name |
| Expenditur e Time | String | 256 | Expenditure time in the format of UTC<br><br>**NOTE**<br>When the exported file is in Chinese language, the time in the file is GMT+08:00 time. |

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, Expenditure Time

    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, 2024-05-15 20:06:36 GMT+08:00

# 9.2 Managing Partner Bill

## 9.2.1 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.

### Debugging

You can debug the API in **API Explorer** which supports automatic authentication.API Explorer can automatically generate and debug example SDK code.

### URI

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

The following table describes the parameters.

**Table 9-2** 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-intl.myhuaweicloud.com/v2/bills/partner-bills/postpaid-bill-summary?bill_cycle=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 |

# 9.2.2 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 **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.com/customerBill/_filename_

**Table 9-3** Parameter descriptions

| Parameter | Description |
|---|---|
| bucketna me | 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**.<br>**NOTE**<br>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. Obtain this value from **Regions and Endpoints**. |
| customerB ill | Name of the folder for storing the partner bill details file uploaded by the system. |
| filename | File name.<br>● The name of a bill details file is in **customerBill_***YYYYMM***.tar.gz** format.<br>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**. |

| Parameter | Type | Value Limit | Description |
|-----------|------|-------------|-------------|
| 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**. |
| Cloud service region code | String | 64 | Cloud service region code, for example, ap-southeast-1. Obtain the value from the **Region** column in **Regions and Endpoints**. |
| Billing mode | String | 2 | **0**: Yearly/monthly<br>**1**: Pay-per-use<br>**2**: Reserved instance–upfront payment<br>**3**: Reserved instance–hourly billing<br>**4**: Savings plan-subscription<br>**5**: Savings plan-hourly billing<br>**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 |

| Parameter | Type | Value Limit | Description |
|---|---|---|---|
| Stored-value card amount | BigDecimal | - | Stored-value card amount |
| Settlement product type | Integer | - | **0**: Common product<br>**1**: Promotional product<br>**2**: Hybrid hosting products<br>**5**: Stored-value card<br>**6**: Marketplace products<br>**7**: Spot ECSs<br>**8**: FCS (reserved)<br>**11**: Special price request<br>**60**: KooGallery product discounts in resales |
| 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. Obtain the value from the Region column in **Regions and Endpoints**. |
| Package Usage | BigDecimal | - | Used amount of the package. The used resources are not calculated using the pay-per-use price. |

| Parameter | Type | Value Limit | Description |
|---|---|---|---|
| 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.<br>● 0: Expenditure<br>● 1: Unsubscription<br>● 2: Huawei write-off |
| BizID | String | 64 | Business ID. |
| BizItemID | String | 64 | Business item ID. |
| 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**.<br>General Computing\|s2.small.1\|1vCPUs\|1GB\|linux |

| Parameter | Type | Value Limit | Description |
|---|---|---|---|
| Billing item | String | 256 | Billing item To obtain a specific billing item, call the API in **4.1.4 Querying Usage Types**.<br><br>The value is the same as the usage type in SDRs. The mappings between cloud services and usage types are as follows:<br>● ECS: **Duration**<br>● EVS: **Duration**<br>● EIP: **Duration**<br>● Bandwidth: **Duration** (by bandwidth) or **upflow** (by traffic)<br>● Marketplace image: **Duration** |
| Unit Price | BigDecimal | - | Unit price.<br>● 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.<br>● Unit price of a yearly/monthly product is returned only in the following scenarios:<br>  – Yearly/monthly subscription, renewal, specification downsizing, specification upgrade, and capacity expansion<br>  – Simple pricing<br>● Unit price of a reserved instance is returned only in the following scenarios:<br>  – Subscription, renewal, specification downsizing, specification upgrade, capacity expansion, and pay-per-use<br>  – Simple pricing |
| Unit | String | 256 | Price unit<br>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).<br>• 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.<br>Unit: USD ($)<br>This parameter is returned only when a partner uses coupons. |
| Partner cash coupon amount | BigDecimal | - | Amount of the cash coupon that is deducted after a discount is used. Unit: USD ($) |
| Whether to Refund Coupons | String | - | Whether to refund partner's cash coupon generated during the refund. Unit: USD ($)<br>• **Y**: yes<br>• **N**: no<br>This parameter is returned only when a coupon quota has been converted for partner use only. |
| Cash Payment | BigDecimal | - | Amount that needs to pay after partner's cash coupons are deducted. Unit: USD ($)<br>This parameter is returned only when a partner uses coupons.<br>**NOTE**<br>• If **Scene** is set to **Y**, this parameter value is calculated as follows: Partner amount without tax = Settlement amount – Partner coupon<br>• 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 ($)<br>This parameter is returned only when a coupon quota has been converted for partner use only. |

| Parameter | Type | Value Limit | Description |
|---|---|---|---|
| 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:<br>● **0**: Discount<br>● **1**: Fixed unit price |
| 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. |

☐ **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, 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.

# 10 Invoice Management

## 10.1 Invoice Management

### 10.1.1 Querying the Invoice List

#### Function

Partners can query the invoice list.

Log in to Partner Center, and choose **Financial Information** > **Invoices** in the left navigation pane. The invoice list is displayed.

#### Constraints

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

#### Debugging

You can debug the API in **API Explorer**. Automatic authentication is supported. API Explorer can automatically generate and debug example SDK code.

#### URI

GET /v1.0/{domain_id}/payments/intl-invoices

| Parameter | Mandatory | Value Range | Description |
|-----------|-----------|-------------|-------------|
| domain_id | Yes | A maximum of 64 characters | Partner ID. For details, see How Do I Check the Partner ID? |

**Table 10-1** Request parameters

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| start_time | Yes | String | A maximum of 64 characters | Invoice application start time<br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, **2019-05-06T08:05:01Z**. |
| end_time | Yes | String | A maximum of 64 characters | Invoice application end time<br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, **2019-05-06T08:05:01Z**. |
| offset | Yes | Integer | [1-99999] | Page number. |
| limit | Yes | Integer | [1-100] | Number of records displayed per page. |

## Request Message

Request parameters

None

### Example Request

```
GET https://bss-intl.myhuaweicloud.com/v1.0/{domain_id}/payments/intl-invoices?
start_time=2019-01-28T11:48:41Z&end_time=2019-12-28T11:48:41Z&offset=1&limit=10
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
```

## Response Message

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. |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| error_msg | String | A maximum of 1000 characters | Error description. This parameter is returned only when the query failed. |
| count | Integer | - | Number of records. This parameter is returned only when the query is successful. |
| invoices | List<IntlInvoiceRequestInfo> | - | Invoice list. For details, see **Table 10-2**. |

**Table 10-2** IntlInvoiceRequestInfo

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| requestId | String | A maximum of 64 characters | Request ID |
| cancelReason | String | A maximum of 256 characters | Rejection reason |
| titleType | Integer | [0-1] | Title type<br>● **0**: Individual customer<br>● **1**: Corporate customer |
| channelType | Integer | - | Channel type<br>**0**: HUAWEI CLOUD |
| invoiceType | Integer | [0-1] | Invoice type<br>● **0**: Special VAT invoice<br>● **1**: General VAT invoice |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| invoiceTitle | String | A maximum of 1024 characters | Invoice title |
| invoiceAmount | Number | - | Invoiced amount (USD) |
| invoiceMethod | Integer | [0-2] | Invoicing method<br>● **0**: Invoicing by bill<br>● **1**: Invoicing by payment<br>● **2**: Invoicing by order |
| invoiceClass | Integer | [0-1] | Invoice type<br>● **0**: Tax invoice<br>● **1**: Business invoice |
| invoiceState | Integer | - | Invoicing state<br>● **0**: Draft<br>● **1**: Waiting for the first trial<br>● **4**: Waiting for the export invoice file<br>● **5**: Waiting for the invoice file backfile<br>● **6**: Waiting for the mail confirmation<br>● **7**: Waiting for receipt confirmation<br>● **8**: Complete<br>● **9**: Refunded<br>● **11**: Waiting for rebut audit<br>● **13**: Invoice return audit<br>● **14**: Waiting return cis notify<br>● **15**: Invoice return failed |
| applyOpera | String | A maximum of 32 characters | Invoice applicant |
| addressInfo | PostAddressInfoIntl | - | Address information. For details, see **Table 10-3**. |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| applyTime | String | A maximum of 64 characters | Application time (UTC time) |
| invoiceMode | String | 0 | Invoice type<br>**0**: Paper invoice |
| email | String | A maximum of 400 characters | Email receiving the electronic invoice |
| requestMode | String | [0-2] | Application type<br>● **0**: Invoice creation application<br>● **1**: Invoice return application<br>● **2**: Invoice change application |
| srcRequestId | String | A maximum of 64 characters | Original application ID when the invoice is returned |
| salesId | String | A maximum of 64 characters | Signing entity ID |
| invoiceNo | String | A maximum of 32 characters | Invoice number |

| Parameter | Type | Value Range | Description |
|-----------|------|-------------|-------------|
| tradeType | Integer | - | Transaction type<br>● **3**: Settlement by credit card<br>● **4**: Settlement by billing<br>● **5**: Invoicing by payment<br>● **6**: BP settle by billing<br>● **7**: Invoicing by recharge<br>● **8**: Order payment online<br>● **10**: Invoicing by refund |
| billCycle | String | A maximum of 64 characters | Billing cycle |
| taxList | List<TaxInfo> | - | Tax information list. For details, see **Table 10-4**. |

**Table 10-3** PostAddressInfoIntl

| Parameter | Type | Value Range | Description |
|-----------|------|-------------|-------------|
| address | String | A maximum of 1024 characters | Recipient address |
| recipients | String | A maximum of 1024 characters | Recipient |
| zipCode | String | A maximum of 256 characters | Post code of the recipient address |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| mobilePhone | String | A maximum of 256 characters | Recipient mobile number |

**Table 10-4** TaxInfo

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| taxClass | String | A maximum of 64 characters | Tax type<br>• VAT<br>• ISS<br>• WHT<br>• GST |
| taxRate | String | A maximum of 64 characters | Tax rate |
| subTaxClass | String | A maximum of 64 characters | Tax subtype<br>• PIS<br>• COFINS<br>• CGST<br>• SGST<br>• IGST<br>• ISS<br>• WHT<br>• VAT |
| taxAmount | Number | - | Tax amount<br>Unit: USD ($) |

**Example Response**

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

```
        "count": 2,
        "invoices": [
          {
            "requestId": "IV19122807N6S5",
            "cancelReason": null,
            "titleType": 1,
            "channelType": 0,
            "invoiceType": 1,
            "invoiceTitle": "Dream666",
            "invoiceAmount": 102.0,
            "invoiceMethod": 1,
            "invoiceClass": 1,
            "invoiceState": 8,
            "applyOpera": "*******",
            "addressInfo": {
              "address": "********",
              "recipients": "Wang**",
              "zipCode": "10****",
              "mobilePhone": "188****8888"
            },
            "applyTime": "2019-12-28T07:02:03Z",
            "invoiceMode": "1",
            "email": "***@163.com",
            "requestMode": "0",
            "srcRequestId": null,
            "salesId": "1351",
            "invoiceNo": "CSER191001322",
            "tradeType": 5,
            "billCycle": "201912",
            "taxList": [
              {
                "taxClass": "WHT",
                "taxRate": "0.01",
                "subTaxClass": "WHT",
                "taxAmount": 1.0
              },
              {
                "taxClass": "VAT",
                "taxRate": "0.01",
                "subTaxClass": "VAT",
                "taxAmount": 1.0
              }
            ]
          },
          {
            "requestId": "IV19122806VJF8",
            "cancelReason": null,
            "titleType": 1,
            "channelType": 0,
            "invoiceType": 1,
            "invoiceTitle": "Dream666",
            "invoiceAmount": 384.4,
            "invoiceMethod": 1,
            "invoiceClass": 1,
            "invoiceState": 8,
            "applyOpera": "*******",
            "addressInfo": {
              "address": "********",
              "recipients": "Wang**",
              "zipCode": "10****",
              "mobilePhone": "188****8888"
            },
            "applyTime": "2019-12-28T06:20:41Z",
            "invoiceMode": "1",
            "email": "***@163.com",
            "requestMode": "0",
            "srcRequestId": null,
            "salesId": "1351",
            "invoiceNo": "CSER191001321",
```

```
            "tradeType": 7,
            "billCycle": "201912",
            "taxList": [
                {
                    "taxClass": "WHT",
                    "taxRate": "0.15",
                    "subTaxClass": "WHT",
                    "taxAmount": 54.4
                },
                {
                    "taxClass": "VAT",
                    "taxRate": "0.06",
                    "subTaxClass": "VAT",
                    "taxAmount": 21.76
                }
            ]
        }
    ]
}
```

## Returned Values

> **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.0100 | Parameter error. |
| 403 | CBC.0151 | Access denied. |
| 500 | CBC.0999 | Other errors. |

# 11 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 | **https://support.huaweicloud.com/intl/en-us/api-ticket/ticket_api_10001.html** |
| Querying templates | **https://support.huaweicloud.com/intl/en-us/api-ticket/ticket_api_10011.html** |
| Querying service ticket list | **https://support.huaweicloud.com/intl/en-us/api-ticket/ticket_api_10002.html** |
| Querying service ticket details | **https://support.huaweicloud.com/intl/en-us/api-ticket/ticket_api_10003.html** |
| Performing operations on a service ticket | **https://support.huaweicloud.com/intl/en-us/api-ticket/ticket_api_10009.html** |
| Adding messages | **https://support.huaweicloud.com/intl/en-us/api-ticket/ticket_api_10007.html** |

For details, see **Service Ticket Open APIs**.

# 12 API to Be Brought Offline

## 12.1 Product Management

### 12.1.1 Querying Product Information

#### 12.1.1.1 Querying Cloud Service Types (Old)

**Function**

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

📖 **NOTE**

This API will be brought offline soon. For details about the new API for querying cloud service types, see **Querying Cloud Service Types**.

**Constraints**

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

KooGallery services are not included.

**URI**

GET /v2/bases/service-types

**Table 12-1** Header parameter

| Parameter | Mandatory | Maximum Length of Characters | Description |
|---|---|---|---|
| X-Language | No | A maximum of 8 characters | Language.<br>● **zh_CN**: Chinese<br>● **en_US**: English<br>Default value: **zh_CN** |

**Table 12-2** Request parameters

| Parameter | Mandatory | Type | Maximum Length of Characters | Description |
|---|---|---|---|---|
| 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**.<br>If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. If this parameter is set to **""** or **null**, it can be used as a filter criterion. |

## Request

### Request Parameters

None

### Example Request

```
GET https://bss-intl.myhuaweicloud.com/v2/bases/service-types?
service_type_code=hws.service.type.workplace HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
X-Language: zh_CN
```

## Response

### Response Parameters

| Parameter | Type | Maximum Length of Characters | Description |
|---|---|---|---|
| error_code | String | A maximum of 20 characters | Error code. For details, see **Status Codes**. 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. |
| service_types | List<ServiceType> | - | Returned cloud service type. For details, see **Table 12-3**. |

**Table 12-3** ServiceType

| Parameter | Type | Maximum Length of Characters | 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
{
   "service_types": [
   {
        "service_type_name": "HUAWEI CLOUD WeLink",
        "service_type_code": "hws.service.type.workplace",
        "abbreviation": "WeLink"
    }
  ]
}
```

## Status Codes

> **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 Status Code | Error Code | Description |
|---|---|---|
| 400 | CBC.0100 | Invalid parameter. |
| 403 | CBC.0151 | Access denied. |
| 500 | CBC.0999 | Other errors. |

# 12.1.1.2 Querying Resource Types (Old)

## Function

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

> **NOTE**
> This API will be brought offline soon. For details about the new API for querying resource types, see **Querying Resource Types**.

## Constraints

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

## URI

GET /v2/bases/resource-types

**Table 12-4** Header parameter

| Parameter | Mandatory | Maximum Length of Characters | Description |
|---|---|---|---|
| X-Language | No | A maximum of 8 characters | Language.<br><br>● **zh_CN**: Chinese<br><br>● **en_US**: English<br><br>Default value: **zh_CN** |

**Table 12-5** Request parameters

| Parameter | Mandatory | Type | Maximum Length of Characters | Description |
|---|---|---|---|---|
| resource_type_code | No | String | A maximum of 64 characters | Resource type code. For example, the resource type code of ECS is **hws.resource.type.vm**.<br><br>If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. If this parameter is set to **""** or **null**, it can be used as a filter criterion. |

## Request

### Request Parameters

None

### Example Request

```
GET https://bss-intl.myhuaweicloud.com/v2/bases/resource-types?
resource_type_code=hws.resource.type.workplace.basic HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
X-Language: zh_CN
```

## Response

### Response Parameters

| Parameter | Type | Maximum Length of Characters | Description |
|---|---|---|---|
| error_code | String | A maximum of 20 characters | Error code. For details, see **Status Codes**. 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. |
| resource_types | List<ResourceType> | - | Resource type information. For details, see **Table 12-6**. |

**Table 12-6** ResourceType

| Parameter | Type | Maximum Length of Characters | 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. |

**Example Response**

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
    "resource_types": [
        {
            "resource_type_code": "hws.resource.type.workplace.basic",
            "resource_type_name": "Basic package",
            "resource_type_desc": "Basic package"
        }
    ]
}
```

## Status Codes

📖 **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 Status Code | Error Code | Description |
|---|---|---|
| 400 | CBC.0100 | Invalid parameter. |
| 403 | CBC.0151 | Access denied. |
| 500 | CBC.0999 | Other errors. |

# 12.2 Managing Customers

## 12.2.1 Real-Name Authentication

### 12.2.1.1 Querying the Real-Name Authentication Review Result (Old)

#### Function

If the response to a real-name authentication application or real-name authentication change application indicates that manual review is required, this API can be used to query the review result.

Note:

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

> 📖 **NOTE**
>
> This API will be brought offline. For details about the new API for querying the real-name authentication review result, see **5.2.4 Querying the Real-Name Authentication Review Result**.

## URI

GET /v1.0/{partner_id}/partner/customer-mgr/realname-auth/result

The following table describes the parameters.

**Table 12-7** Path parameters

| Parameter | Mandatory | Value Range | Description |
|---|---|---|---|
| partner_id | Yes | A maximum of 64 characters | Partner ID (assigned by Huawei). For details about how to obtain the partner ID, see How Do I Check the Partner ID? |

**Table 12-8** Query parameters

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| customerId | Yes | String | A maximum of 64 characters | Customer account ID. For details, see How Do I Obtain Customer's customer_id and domain_id Values? |

## Request

Request Parameters

None

### Example Request

```
GET   https://bss-intl.myhuaweicloud.com/v1.0/{partner_id}/partner/customer-mgr/realname-auth/result?
customerId=45******122 HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
```

## Response

Response Parameters

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| error_code | No | String | A maximum of 16 characters | Error code. For details, see **Returned Values**. This parameter is returned only when a failure occurs. |
| error_msg | No | String | A maximum of 1024 characters | Error description. This parameter is returned only when a failure occurs. |
| reviewResult | No | Integer | [0-2] | Real-name authentication review result. This parameter is returned only when the status code is 200 and the real-name authentication application has been submitted.<br>● 0: Under review<br>● 1: Failed<br>● 2: Approved |
| opinion | No | String | A maximum of 256 characters | Review comment. This parameter is returned only when the status code is 200 and the review is not approved. |

**Example Response**

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

{
    "reviewResult": 2,
    "opinion": 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 Status Code | Error Code | Description |
|---|---|---|
| 200 | CBC.0000 | Succeeded. |
| 400 | CBC.0100 | Invalid input parameter. |
| 403 | CBC.0151 | Access denied. |
| 500 | CBC.5002 | The customer does not exist. |
| 500 | CBC.0999 | Unknown error occurred. |

# 12.2.2 Customer Management

## 12.2.2.1 Querying Customers (Old)

### Function

This API is used to query your customers.

📖 NOTE

This API will be brought offline soon. For details about the new API for querying the customer list, see **5.3.1 Querying Customers**.

### Web UI

You can log in to the Partner Center to query your customers.

**Step 1** In the top navigation, choose **Sales** > **Customers** > **Customer Management**. Select the **Customers** tab on the displayed page.

**Step 2** Set search criteria to search for customers.

You can search for customers by the association type, association time, customer name, salesperson name, expenditure this month, resource expiration date, mobile number, or customer tag.

**----End**

### REST API

This API is used to query your customers on the partner sales platform.

 NOTE

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

If a customer queried does not exist, the HTTP code **200** is returned by the API and an empty list is returned in the response.

1. URI

   POST /v1.0/{partner_id}/partner/customer-mgr/query

   The following table describes the parameters.

   | Parameter | Mandatory | Value Range | Description |
   |---|---|---|---|
   | partner_id | Yes | A maximum of 64 characters | Partner ID (assigned by Huawei). For details about how to obtain the partner ID, see How Do I Check the Partner ID? The system does not verify this parameter. |

2. Request

   Request parameters

   | Parameter | Mandatory | Type | Value Range | Description |
   |---|---|---|---|---|
   | domainName | No | String | A maximum of 128 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 **""**, or is set to **null**, it cannot be used as a filter criterion. |

| Paramet er | Mand atory | Type | Value Range | Description |
|---|---|---|---|---|
| name | No | String | A maximum of 128 characters | Real-name authentication name.<br><br>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.<br><br>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 | [1- 200000] | Page to be queried.<br><br>By default, the first page is queried. |
| limit | No | Integer | [1-100] | Number of records on each page.<br><br>The default value is 10, and the maximum value is 100. |
| label | No | String | A maximum of 64 characters | Tag. Fuzzy search is supported.<br><br>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. 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. |

| Paramet er | Mand atory | Type | Value Range | Description |
|---|---|---|---|---|
| cooperati onType | No | String | A maximum of 1 character | Association type.<br><br>● 1: Referral<br><br>● 2: Authorized Distributor<br><br>● 3: indicates Reseller.<br><br>Note:<br><br>Currently, only Referral and Reseller are supported.<br><br>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. |
| cooperati onTimeSt art | No | String | A maximum of 20 characters | Start time of the association time range (UTC time).<br><br>The value is in "yyyy-MM-dd 'T' HH:mm:ss 'Z'" format, such as **2019-05-06T08:05:01Z**.<br><br>This parameter must be used together with **cooperationTimeEnd**.<br><br>If this parameter is not included in the request parameters or is set to **null**, it cannot be used as a filter criterion. It cannot be set to "". |
| cooperati onTimeE nd | No | String | A maximum of 20 characters | End time of the association time range (UTC time).<br><br>The value is in "yyyy-MM-dd 'T' HH:mm:ss 'Z'" format, such as **2019-05-06T08:05:01Z**.<br><br>This parameter must be used together with **cooperationTimeStart**.<br><br>If this parameter is not included in the request parameters or is set to **null**, it cannot be used as a filter criterion. It cannot be set to "". |

Request Example

```
POST https://bss-intl.myhuaweicloud.com/v1.0/{partner_id}/partner/customer-mgr/query HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
```

3. Response

Response parameters

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| error_code | No | String | A maximum of 16 characters | Error code. For details, see **4**. |
| error_msg | No | String | A maximum of 1024 characters | Error description. |
| customerInfoList | No | List<CustomerInfo> | - | Customer list. For details, see **Table 12-9**. |
| count | No | Integer | - | Total number of records. |

**Table 12-9** CustomerInfo

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| name | No | String | A maximum of 128 characters | Real-name authentication name. |
| domainName | Yes | 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. |
| customerId | Yes | String | A maximum of 64 characters | Customer |

| Paramete r | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| cooperatio nTime | No | 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. |
| cooperatio nType | No | String | A maximum of 1 character | Association type.<br>● 1: Referral<br>● 2: Authorized Distributor<br>● 3: indicates Reseller.<br>Note:<br>Currently, only Referral and Reseller are supported. |
| label | No | String | A maximum of 64 characters | Tag. Fuzzy search is supported. |
| telephone | No | String | A maximum of 20 characters | Customer phone number. |
| verifiedSta tus | No | String | A maximum of 5 characters | Real-name authentication status.<br>● -1: The real name is not authenticated.<br>● 0: Real-name authentication is under review.<br>● 1: The real-name authentication is not passed.<br>● 2: The real name is authenticated. |
| countryCo de | No | String | A maximum of 10 characters | Country code, which is the country code prefix of a phone number.<br>Example: 0086 for China |

| Paramete r | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| customerT ype | No | Integer | [-1,0,1] | Customer type.<br>● -1: None<br>● 0: Individual<br>● 1: Enterprise<br>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. |
| isFrozen | No | Integer | [0,1] | Whether to freeze the account.<br>● 0: No<br>● 1: Yes |

Example response

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

{
  "count": 2,
  "customerInfoList": [{
        "name": "xxx",
        "domainName": "a9ca*****b96",
        "customerId": "05ad******4ea0",
        "cooperationTime": "2019-07-19T06:40:53Z",
        "cooperationType": "3",
        "label": null,
        "telephone": "17729386686",
        "verifiedStatus": "2",
        "countryCode": null,
            "customerType":1
    },
    {
        "name": "xxx",
        "domainName": "a65b******89d",
        "customerId": "059e******c6da0",
        "cooperationTime": "2019-07-13T11:39:27Z",
        "cooperationType": "3",
        "label": null,
        "telephone": null,
        "verifiedStatus": "2",
        "countryCode": null,
            "customerType":1,
            "isFrozen":0
    }
  ]
}
```

4. 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 |
|---|---|---|
| 200 | CBC.0000 | Success. |
| 500 | CBC.0999 | Other errors. |
| 400 | CBC.0100 | Incorrect parameter. |
| 403 | CBC.0151 | Access denied. |

## 12.2.2.2 Querying Customers (Old)

### Function

This API is used to query your customers.

    📖 **NOTE**

This API will be brought offline soon. For details about the new API for querying the customer list, see **5.3.1 Querying Customers**.

### Web UI

You can log in to the Partner Center to query your customers.

**Step 1** In the top navigation, choose **Sales** > **Customers** > **Customer Management**.

**Step 2** Set search criteria to search for customers.

You can search for customers by the association type, association time, customer name, salesperson name, mobile number, or customer tag.

**----End**

### REST API

This API is used to query your customers on the partner sales platform.

 NOTE

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

If a customer queried does not exist, the HTTP code **200** will be returned by the API and nothing is returned in the response.

1. URI

   GET /v1.0/{partner_id}/partner/customer-mgr/detail

   The following table describes the parameters.

   | Parameter | Mandatory | Value Range | Description |
   |---|---|---|---|
   | partner_id | Yes | A maximum of 64 characters | Partner ID (assigned by Huawei). For details about how to obtain the partner ID, see How Do I Check the Partner ID? |

2. Request

   Request parameters

   | Parameter | Mandatory | Type | Value Range | Description |
   |---|---|---|---|---|
   | domain_name | No | String | A maximum of 128 characters | Account. If the customer has created an IAM user, enter the account name. For details about the two concepts, see "Account" and "IAM User" in **Identity Management**. 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 or is left empty, it cannot be used as a filter criterion. If this parameter is set to **""** or **null**, it can be used as a filter criterion. |

| Paramet er | Mand atory | Type | Value Range | Description |
|---|---|---|---|---|
| corp_na me | No | String | A maximum of 128 characters | Enter the enterprise name if it is used for real-name authentication. For an individual who uses real name for authentication, enter the individual name. 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 or is left empty, it cannot be used as a filter criterion. If this parameter is set to **""** or **null**, it can be used as a filter criterion. |
| page_no | No | Integer | - | Page to be queried. By default, the first page is queried. If this parameter is not included in the request, is left empty, or is set to **null**, the value **1** is used. This parameter cannot be set to **""**. |
| page_size | No | Integer | [1-100] | Number of records on each page. The default value is 10, and the maximum value is 100. 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 **""**. |

| Paramet er | Mand atory | Type | Value Range | Description |
|---|---|---|---|---|
| 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.<br><br>If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. If this parameter is set to **""** or **null**, it can be used as a filter criterion. |
| cooperati onType | No | String | [1\|3] | Association type.<br><br>● 1: Referral<br><br>● 2: Authorized Distributor<br><br>● 3: Reseller<br><br>Note:<br><br>Currently, only Referral and Reseller are supported.<br><br>If this field 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**. |
| cooperati onTimeSt art | No | String | A maximum of 20 characters | Start time of the association time range (UTC time).<br><br>The value is in "yyyy-MM-dd 'T' HH:mm:ss 'Z'" format, such as **2019-05-06T08:05:01Z**.<br><br>This parameter must be used together with **cooperationTimeEnd**.<br><br>If this parameter is not included in the request parameters, it cannot be used as a filter criterion. It cannot be left empty or set to **""** or **null**. |

| Paramet er | Mand atory | Type | Value Range | Description |
|---|---|---|---|---|
| cooperati onTimeE nd | No | String | A maximum of 20 characters | End time of the association time range (UTC time)<br><br>The value is in the following format:<br><br>yyyy-MM-dd'T'HH:mm:ss'Z', such as **2019-05-06T08:05:01Z**<br><br>This parameter must be used together with **cooperationTimeStart**.<br><br>If this parameter is not included in the request parameters, it cannot be used as a filter criterion. It cannot be left empty or set to **""** or **null**. |

Request Example

```
GET https://bss-intl.myhuaweicloud.com/v1.0/{partner_id}/partner/customer-mgr/detail HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
```

3.   Response

Response parameters

| Paramete r | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| error_code | Yes | String | A maximum of 16 characters | Error code.<br><br>For details, see **4**. |
| error_msg | Yes | String | A maximum of 1024 characters | Error description. |
| customer_i nfo_list | No | List<Cust omerInfo > | - | Customer list.<br><br>For details, see **Table 12-10**. |
| count | No | Integer | - | Total number of records. |

**Table 12-10** CustomerInfo

| Paramete r | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| corp_nam e | Yes | String | A maximum of 128 characters | Enterprise name. |
| domain_n ame | Yes | String | A maximum of 128 characters | Account. If the customer has created an IAM user, the account name is returned. |
| customer_ id | Yes | String | A maximum of 64 characters | Customer account ID. |
| start_time | No | String | A maximum of 20 characters | Time when an enterprise is registered. The value is UTC time in *yyyy-MM-ddTHH:mm:ssZ* format. The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59. |
| cooperatio n_type | No | String | Length: 1 | Association type. 1: Referral 2: Authorized Distributor 3: Reseller Note: Currently, only Referral and Reseller are supported. |
| label | No | String | A maximum of 64 characters | Tag. Fuzzy search is supported. |
| telephone | No | String | A maximum of 20 characters | Customer phone number |

| Paramete r | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| verifiedSta tus | No | String | A maximum of 5 characters | Real-name authentication status.<br><br>● -1: The real name is not authenticated.<br><br>● 0: Real-name authentication is under review.<br><br>● 1: The real-name authentication is not passed.<br><br>● 2: The real name is authenticated. |
| countryCo de | No | String | A maximum of 10 characters | Country code, which is the country code prefix of a phone number.<br>Example: 0086 for China |

Example response

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

{
 "count": 2,
 "error_code": "CBC.0000",
 "error_msg": "success",
 "customer_info_list": [
     {
         "customer_id": "7ff331de7af7457d8331de0bfe7a42b7",
         "corp_name": null,
         "domain_name": "mingcheng",
         "start_time": "2018-10-11T02:28:34Z",
         "cooperation_type": "1",
         "label": "xxx",
         "telephone": "139xxxxxxxx",
         "verifiedStatus": "-1",
         "countryCode": "xxxx"
     },
     {
         "customer_id": "67b5223d4f6e4cc18d8dfd2da9d01db8",
         "corp_name": null,
         "domain_name": "ambrosiaxu",
         "start_time": "2018-06-25T11:15:20Z",
         "cooperation_type": "1",
         "label": "xxx",
         "telephone": "139xxxxxxxx",
         "verifiedStatus": "-1",
         "countryCode": "xxxx"
     }
 ]
}
```

4. 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 |
|---|---|---|
| 200 | CBC.0000 | Success. |
| 500 | CBC.0999 | Other errors. |
| 400 | CBC.0100 | Incorrect parameter. |
| 403 | CBC.0151 | Access denied. |

## 12.2.2.3 Freezing a Customer Account (Old)

### Function

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

📖 NOTE

This API will be unavailable soon. For details about the new API for freezing a customer account, see **5.3.2 Freezing a Customer Account**.

### Web UI

When a customer is associated with a partner by reseller model, the customer account is frozen by default. When the account is frozen, the customer cannot purchase, renew the subscription to, change, or properly use the resources. The partner can select **Unfreeze Account** when setting the budget for the customer to unfreeze the account.

Alternatively, partners can switch to the **My Customers** page to unfreeze accounts of reseller customers.

**Step 1** Use your account to log in to **HUAWEI CLOUD**.

**Step 2** In the drop-down list of your account name, click **Partner Center** to go to the Partner Center.

**Step 3** In the navigation tree, choose **Customer Business** > **My Customers**.

**Step 4** Click **Freeze Account** in the **Operation** column in the row of the target customer.



**Step 5** Enter the reason.

**Step 6** Click **Get Code** and enter the obtained verification code.

**Step 7** Click **OK**.

A message is displayed indicating that the account is frozen.

⬛ **NOTE**

To unfreeze the customer's account, click **Unfreeze Account** in the **Operation** column.

**----End**

## REST API

Partners can freeze accounts of customers associated with the partners in reseller model on the partner sales platform. When the accounts are frozen, the customers cannot purchase, renew the subscription to, change, or properly use the resources.

⬛ **NOTE**

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

1. URI

POST /v1.0/{partner_id}/partner/customer-mgr/frozens

The following table describes the parameters.

| Parameter | Mandatory | Value Range | Description |
|---|---|---|---|
| partner_id | Yes | A maximum of 64 characters | Partner ID (assigned by Huawei). For details about how to obtain the partner ID, see How Do I Check the Partner ID? The system does not verify this parameter. |

2. Request

Request Parameters

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| customerIds | Yes | List<String> | A maximum of 10 IDs | IDs of customers whose accounts are to be frozen Customer account ID. For details, see How Do I Obtain Customer's customer_id and domain_id Values? |
| reason | Yes | String | A maximum of 256 characters | Account freezing reason. |

Example Request

```
POST https://bss-intl.myhuaweicloud.com/v1.0/{partner_id}/partner/customer-mgr/frozens HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ

{
    "customerIds": [
        "06502440a080d5e90f44c01cbccfa280",
        "065faa30c880d5ce0fddc007a6cb6f40"
    ],
    "reason": "Arrears"
}
```

3. Response

Response Parameters

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| error_code | No | String | A maximum of 16 characters | Error code. This field is not returned when the operation is successful or partially failed. For details, see **4**. |
| error_msg | No | String | A maximum of 1024 characters | Error description. This field is not returned when the operation is successful or partially failed. |
| failDetail | No | list<ErrorDetail> | - | Error cause description. This field is returned only when the operation is partially failed. For details, see **Table 12-11**. |
| failNum | No | Integer | - | Number of failures. This field is returned only when the operation is successful or partially failed. |
| successNum | No | Integer | - | Number of successful operations. This field is returned only when the operation is successful or partially failed. |

**Table 12-11** ErrorDetail

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| error_code | Yes | String | A maximum of 16 characters | Error code. For details, see **Table 12-12**. |
| error_msg | Yes | String | A maximum of 1024 characters | Error message. |
| id | Yes | String | A maximum of 256 characters | ID. The value corresponds to **customerId**. |

**Table 12-12** Error codes (partial)

| Error Code | Description |
|---|---|
| CBC.0999 | Other errors. |
| CBC.5004 | You do not have the operation permission to the customer. |
| CBC.5024 | This API cannot be invoked because the association type of the customer is incorrect. |

Example response

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

{
   "failNum": 0,
   "successNum": 2,
   "failDetail": []
}
```

4. 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 |
|---|---|---|
| 500 | CBC.0999 | Other errors. |
| 400 | CBC.0100 | Invalid input parameter. |
| 403 | CBC.0150 | Invalid operation. |
| 400 | CBC.5004 | You do not have the operation permission to the customer. |

## 12.2.2.4 Unfreezing a Customer Account (Old)

## Function

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

> **NOTE**
>
> This API will be brought offline. For details about the new API for unfreezing a customer Account, see **5.3.3 Unfreezing a Customer Account**.

## Web UI

Alternatively, partners can switch to the **My Customers** page to unfreeze accounts of reseller customers.

**Step 1**  Use your account to log in to **Huawei Cloud**.

**Step 2**  In the drop-down list of your account name, click **Partner Center** to go to the Partner Center.

**Step 3**  In the navigation, click **Sales** > **Customer Business** > **My Customers**.

**Step 4**  Click **Unfreeze Account** in the **Operation** column in the row of the target customer.



**Step 5**  Enter the reason.

**Step 6**  Click **Get Code** and enter the obtained verification code.

**Step 7**  Click **OK**.

A message is displayed indicating that the account is unfrozen.

**----End**

## REST API

Partners can unfreeze accounts of customers associated with the partners in reseller model on the partner sales platform. After the accounts are unfrozen, fees generated when the customers purchase, renew the subscription to, and change resources are paid by the partners.

📖 **NOTE**

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

1. URI

   POST /v1.0/{partner_id}/partner/customer-mgr/unfrozens

   The following table describes the parameters.

   | Parameter | Mandatory | Value Range | Description |
   |---|---|---|---|
   | partner_id | Yes | A maximum of 64 characters | Partner ID (assigned by Huawei). For details about how to obtain the partner ID, see How Do I Check the Partner ID? The system does not verify this parameter. |

2. Request

   Request Parameters

   | Parameter | Mandatory | Type | Value Range | Description |
   |---|---|---|---|---|
   | customerIds | Yes | List<String> | A maximum of 10 IDs | IDs of customers whose accounts are to be unfrozen Customer account ID. For details, see How Do I Obtain Customer's customer_id and domain_id Values? |
   | reason | Yes | String | A maximum of 256 characters | Account unfreezing reason. |

   Request Example

   ```
   POST https://bss-intl.myhuaweicloud.com/v1.0/{partner_id}/partner/customer-mgr/unfrozens HTTP/1.1
   Content-Type: application/json
   X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ

   {
     "customerIds": [
       "06502440a080d5e90f44c01cbccfa280",
       "065faa30c880d5ce0fddc007a6cb6f40"
     ],
   ```

```
    "reason": "The customer has topped up its account."
}
```

3. Response

Response Parameters

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| error_code | No | String | A maximum of 16 characters | Error code. This field is not returned when the operation is successful or partially failed.<br><br>For details, see **4**. |
| error_msg | No | String | A maximum of 1024 characters | Error description. This field is not returned when the operation is successful or partially failed. |
| failDetail | No | list<ErrorDetail> | - | Error cause description. This field is returned only when the operation is partially failed.<br><br>For details, see **Table 12-13**. |
| failNum | No | Integer | - | Number of failures. This field is returned only when the operation is successful or partially failed. |
| successNum | No | Integer | - | Number of successful operations. This field is returned only when the operation is successful or partially failed. |

**Table 12-13** ErrorDetail

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| error_code | Yes | String | A maximum of 16 characters | Error code. For details, see **Table 12-14**. |
| error_msg | Yes | String | A maximum of 1024 characters | Error message. |

| Paramete r | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| id | Yes | String | A maximum of 256 characters | ID. The value corresponds to **customerId**. |

**Table 12-14** Error codes (partial)

| Error Code | Description |
|---|---|
| CBC.0999 | Other errors. |
| CBC.5004 | You do not have the operation permission to the customer. |
| CBC.5024 | This API cannot be invoked because the association type of the customer is incorrect. |

Example response

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

{
    "failNum": 0,
    "successNum": 2,
    "failDetail": []
}
```

4. 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 | Parameter error. |
| 403 | CBC.0150 | Invalid operation. |
| 403 | CBC.0151 | Access denied. |
| 500 | CBC.0999 | Other errors. |

# 12.3 Transaction Management

## 12.3.1 Managing Customer' Budgets

### 12.3.1.1 Querying Customers' Budgets (Old)

**Function**

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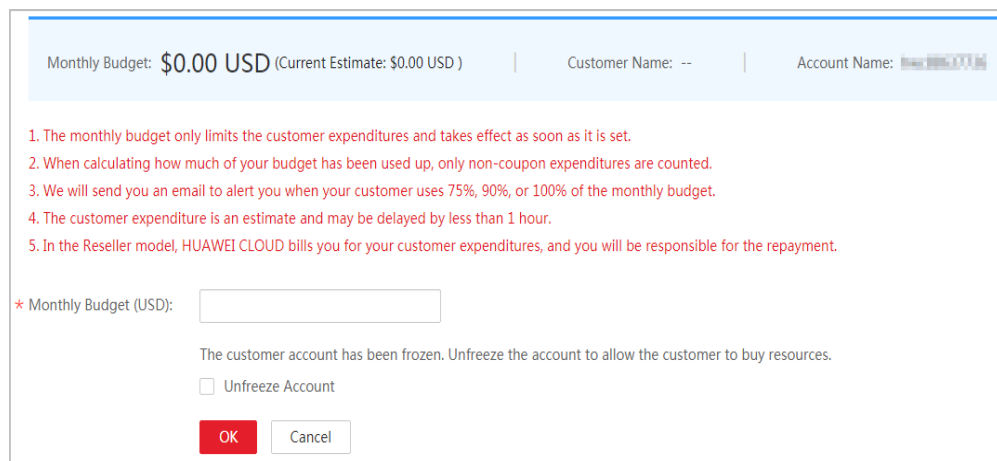
📖 **NOTE**

This API will be brought offline. For details about the new API for querying customers' budgets, see **8.1.1 Querying Customer Budgets**.

**Web UI**

You can log in to the Partner Center to query the budgets of your customers.

**Step 1** Use your partner account to log in to **Huawei Cloud**.

**Step 2** In the upper right corner, choose **Partner Center** from the drop-down list of your account name to go to the Partner Center.

**Step 3** In the top navigation, select **Sales** > **Customers** > **Customer Management**.

**Step 4** On the displayed page, select the target customer, and click **Set Monthly Budget** in the **Operation** column.



**----End**

**REST API**

You can use REST APIs to query customers' budgets on your sales platform.

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

1. URI

   GET /v1.0/{partner_id}/partner/account-mgr/credit

   The following table describes the parameters.

**Table 12-15** Path parameters

| Parameter | Mandatory | Value Range | Description |
|-----------|-----------|-------------|-------------|
| partner_id | Yes | A maximum of 64 characters | Partner ID (assigned by Huawei). For details about how to obtain the partner ID, see How Do I Check the Partner ID? |

**Table 12-16** Query parameters

| Parameter | Mandatory | Type | Value Range | Description |
|-----------|-----------|------|-------------|-------------|
| customer_id | Yes | String | A maximum 64 characters | Customer account ID. For details, see How Do I Obtain Customer's customer_id and domain_id Values? |

2. Request

   Request Parameters

   None

   Example Request

   ```
   GET https://bss-intl.myhuaweicloud.com/v1.0/{partner_id}/partner/account-mgr/credit?
   customer_id=c8c346e9d924403c9e87c1cfe9b0b13f HTTP/1.1
   Content-Type: application/json
   X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
   ```

3. Response

   Response Parameters

| Parameter | Mandatory | Type | Value Range | Description |
|-----------|-----------|------|-------------|-------------|
| error_code | No | String | A maximum of 16 characters | Error code. For details, see 4. This parameter is returned only when the query fails. |

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| error_msg | No | String | A maximum of 1024 characters | Error description. This parameter is returned only when a failure occurs. |
| creditAmount | No | Double | - | Budget. |
| usedAmount | No | Double | - | Used budget. The data displayed on the system may have certain deviation and latency. |
| measureId | No | Integer | - | Unit:<br>1: dollar |
| currency | No | String | A maximum of 8 characters | Currency:<br>USD |

**Example Response**

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

{
    "creditAmount": 1000,
    "usedAmount": 526,
    "measureId": 1,
    "currency": "USD"
}
```

4. 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 | Parameter error. |
| 403 | CBC.0150 | Access denied. |

| HTTP Status Code | Error Code | Description |
|---|---|---|
| 403 | CBC.0151 | Other errors. |
| 500 | CBC.0999 | This API cannot be invoked because the association type of the customer is incorrect. |
| 500 | CBC.5024 | Invalid operation. |

## 12.3.1.2 Setting Customers' Budgets (Old)

### Function

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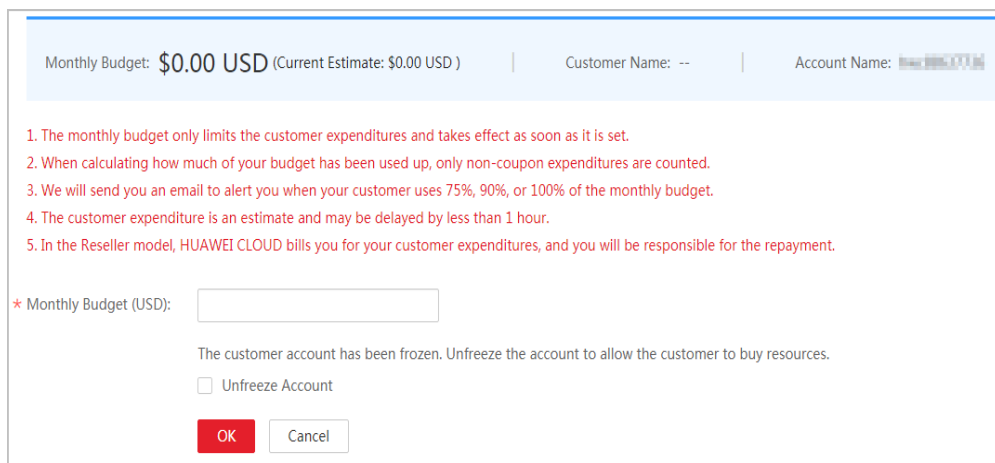
**NOTE**

This API will be brought offline. For details about the new API for setting customers' budgets, see **8.1.3 Setting Customer Budgets**.

### Web UI

You can log in to the Partner Center to set the budgets your customers.

**Step 1** Use your partner account to log in to **Huawei Cloud**.

**Step 2** In the upper right corner, choose **Partner Center** from the drop-down list of your account name to go to the Partner Center.

**Step 3** In the top navigation, select **Sales** > **Customers** > **Customer Management**.

**Step 4** On the displayed page, select the target customer, and click **Set Monthly Budget** in the **Operation** column.



**Step 5** Enter a value and click **OK**.

A message indicating that the monthly budget has been set successfully is displayed.

## ☐ NOTE

If partners have enabled the verification code function, a verification code is required.

**Step 6** Click **OK**.

**----End**

## REST API

You can use REST APIs to set customers' budgets on your sales platform.

## ☐ NOTE

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

1. URI

   POST /v1.0/{partner_id}/partner/account-mgr/credit

   The following table describes the parameters.

   | Parameter | Mandatory | Value Range | Description |
   |---|---|---|---|
   | partner_id | Yes | A maximum of 64 characters | Partner ID (assigned by Huawei). For details about how to obtain the partner ID, see How Do I Check the Partner ID? |

2. Request

   Request Parameters

   | Parameter | Mandatory | Type | Value Range | Description |
   |---|---|---|---|---|
   | customerId | Yes | String | A maximum of 64 characters | Customer account ID. For details, see How Do I Obtain Customer's customer_id and domain_id Values? |
   | adjustmentAmount | Yes | Double | - | New budget, which can be accurate to two decimal places. |
   | measureId | Yes | Integer | - | Unit: 1: dollar |

| Parameter | Mand atory | Type | Value Range | Description |
|---|---|---|---|---|
| cancelPartne rFrozen | No | String | 1 | 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. |

Example Request

```
POST https://bss-intl.myhuaweicloud.com/v1.0/{partner_id}/partner/account-mgr/credit HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ

{
    "customerId": "c8c346e9d924403c9e87c1cfe9b0b13f",
    "adjustmentAmount": 2000,
    "measureId": 1
}
```

3. Response

   Response Parameters

| Parameter | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| error_code | No | String | A maximu m of 16 character s | Error code. For details, see **4**. This parameter is returned only when a failure occurs. |
| error_msg | No | String | A maximu m of 1024 character s | 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
```

4. 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 | Parameter error. |
| 403 | CBC.0151 | Access denied. |
| 403 | CBC.0150 | Invalid operation. |
| 500 | CBC.0999 | Other errors. |
| 500 | CBC.5024 | This API cannot be invoked because the association type of the customer is incorrect. |

# 12.3.2 Yearly/monthly Order Management

## 12.3.2.1 Querying Orders (Old)

### 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.

📖 **NOTE**

This API will be brought offline soon. For details about the new API for querying orders, see **8.3.1 Querying Orders**.

### Web UI

Log in to the Billing Center and switch to the **Orders** page. On the displayed page, click the **All** tab to view the orders in different statuses, such as pending approval, processing, canceled, completed, and pending payment.

## REST API

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

📖 **NOTE**

- This API can be invoked using the AK/SK or token of the partner or of the partner's customer. If the partner AK/SK or token is used, orders of only the customers associated in the Reseller model can be queried.

- 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 **12.3.3.1 Querying Customer's Yearly/Monthly Resources (Old)**. Enter the order ID in the request to query the resource information.

1. URI

   GET /v1.0/{domain_id}/common/order-mgr/orders/detail

   The following table describes the parameters.

**Table 12-17** URI parameters

| Parameter | Mandatory | Maximum Length of Characters | Description |
|---|---|---|---|
| domain_id | Yes | A maximum of 64 characters | - A partner id should be entered if the partner's AK/SK or token is used. For details about how to obtain the partner ID, see How Do I Check the Partner ID?<br>- A customer account ID should be entered if the customer AK/SK or token is used. For details, see How Do I Obtain Customer's customer_id and domain_id Values? |

**Table 12-18** Request parameters

| Parameter | Mandatory | Type | Maximum Length of Characters/ Value Range | Description |
|---|---|---|---|---|
| order_id | No | String | A maximum of 64 characters | Order ID.<br><br>If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. If this parameter is set to **""** or **null**, it can be used as a filter criterion. |
| customer_id | No | String | A maximum of 64 characters | Customer account ID. For details, see How Do I Obtain Customer's customer_id and domain_id Values?<br><br>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**. |
| create_time_begin | No | String | A maximum of 64 characters | Start time of order creation.<br><br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, **2019-05-06T08:05:01Z**.<br><br>The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59.<br><br>The range queried cannot exceed one year.<br><br>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**. |

| Parameter | Mandatory | Type | Maximum Length of Characters/ Value Range | Description |
|---|---|---|---|---|
| create_time_end | No | String | A maximum of 64 characters | End time of order creation. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, **2019-05-06T08:05:01Z**. The range of *HH* is 0 - 23, and the range of *mm* and *ss* is 0 - 59. The range queried cannot exceed one year. 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**. |
| service_type | 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**. To obtain a specific service type, call the API in **4.1.1 Querying Cloud Service Types**. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. If this parameter is set to **""** or **null**, it can be used as a filter criterion. |
| status | No | String | A maximum of 64 characters | Order status. The value can be: <br>● 1: Pending approval <br>● 3: Processing <br>● 4: Canceled <br>● 5: Completed <br>● 6: Pending payment <br>● 9: To be confirmed <br>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 **""**. |

| Parameter | Mandatory | Type | Maximum Length of Characters/ Value Range | Description |
|---|---|---|---|---|
| order_type | No | String | A maximum of 64 characters | Order type. The value can be: <br> • 1: New purchase <br> • 2: Renewal <br> • 3: Change <br> • 4: Unsubscription <br> • 10: Yearly/monthly to pay-per-use <br> • 11: Pay-per-use to yearly/monthly <br> • 13: Trial <br> • 14: Commercial use <br> • 15: Price adjustment <br> 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 **""**. |
| page_size | Yes | Integer | [1-100] | Number of rows on a page. |
| page_index | Yes | Integer | [1-Maximum integer] | Current page number. If the value of this parameter exceeds **1000000**, the default value **1** is used. |

| Parameter | Mandatory | Type | Maximum Length of Characters/ Value Range | Description |
|---|---|---|---|---|
| sort | No | String | A maximum of 36 characters | Sorting order of the orders. 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. It cannot be set to **""** or **null**. |
| payment_time_begin | No | String | A maximum of 64 characters | Start time of order payment. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, **2019-05-06T08:05:01Z**. The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59. The interval between the order creation time and termination cannot exceed one year. 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**. |

| Parameter | Mandatory | Type | Maximum Length of Characters/ Value Range | Description |
|---|---|---|---|---|
| payment_time_end | No | String | A maximum of 64 characters | End time of order payment.<br><br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, **2019-05-06T08:05:01Z**.<br><br>The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59.<br><br>The interval between the order creation time and termination cannot exceed one year.<br><br>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**. |
| method | No | String | 64 | Query method.<br><br>● **oneself**: Query your own orders.<br>● **sub_customer**: Query customer orders that are paid for by you.<br><br>If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, the default value **oneself** is used. |

2. Request

Request Parameters

None

Example Request

```
GET https://bss-intl.myhuaweicloud.com/v1.0/{domain_id}/common/order-mgr/orders/detail?
page_size=5&page_index=1 HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
```

3. Response

Response Parameters

| Parameter | Type | Description |
|---|---|---|
| error_code | String | Error code.<br><br>For details, see **4**. |

| Parameter | Type | Description |
|---|---|---|
| error_msg | String | Error description. |
| data | Result | Order list<br>For details, see **Table 12-19**. |

**Table 12-19** Result

| Parameter | Type | Description |
|---|---|---|
| pageSize | Integer | Number of rows on a page. |
| pageIndex | Integer | Current page number. |
| totalSize | Integer | Number of records that match the query conditions. |
| orderInfos | List<CustomerOrder> | Order details.<br>For details, see **Table 12-20**. |

**Table 12-20** CustomerOrder

| Parameter | Type | Description |
|---|---|---|
| orderId | String | Order ID. |
| baseOrderId | String | Parent order ID (order ID before splitting).<br>When a cloud service is renewed or changed or a cloud service is unsubscribed, a new order ID (**orderId** value) is generated. In this case, **baseOrderId** indicates the original ID before the renewal, change, or unsubscription.<br>This field has been discarded. |
| beId | String | Partner business entity ID. |
| customerId | String | Customer ID. |
| sourceType | Integer | Customer order source type. The value can be:<br>● 1. Customer<br>● 2. Agent<br>● 3: Contract<br>● 4: Distributor |

| Parameter | Type | Description |
|-----------|------|-------------|
| status | Integer | Order status. The value can be:<br>• 1: Pending approval<br>• 3: Processing<br>• 4: Canceled<br>• 5: Completed<br>• 6: Pending payment<br>• 9: To be confirmed |
| orderType | Integer | Order Type:<br>• 1: New purchase<br>• 2: Renewal<br>• 3: Change<br>• 4: Unsubscription<br>• 10: Yearly/monthly to pay-per-use<br>• 11: Pay-per-use to yearly/monthly<br>• 13: Trial<br>• 14: Commercial use<br>• 15: Price adjustment |
| currency | Double | Order amount (original price).<br>In the unsubscription order, the amount is equal to the value of **currencyAfterDiscount**. |
| currencyAfterDiscount | Double | Order amount after a discount (excluding the vouchers or cards) |
| measureId | Integer | Order amount unit.<br>• **1**: Dollar<br>• **2**: Dime<br>• **3**: Cent |
| measureName | String | Amount unit name. |
| createTime | String | Creation time.<br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, **2019-05-06T08:05:01Z**.<br>The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59. |
| paymentTime | String | Payment time.<br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, **2019-05-06T08:05:01Z**.<br>The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59. |

| Parameter | Type | Description |
|---|---|---|
| lastUpdateTime | String | Latest status update time.<br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, **2019-05-06T08:05:01Z**.<br>The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59. |
| needAudit | Boolean | Whether the approval is required. |
| currencyType | String | Currency code. |
| contractId | String | Contract ID. |
| currencyOfficial | Double | Order amount (list price).<br>In the unsubscription order, the amount is equal to the value of **currencyAfterDiscount**. |
| amountInfo | AmountInfo | Order deduction details.<br>For details, see **Table 12-21**. |
| serviceType | String | 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**. |

**Table 12-21** AmountInfo

| Parameter | Type | Description |
|---|---|---|
| discountList | List<DiscountItem> | Fee item.<br>For details, see **Table 12-22**. |
| cashcouponAmount | Double | Flexi-purchase coupon amount (reserved). |
| couponAmount | Double | Cash coupon amount. |
| cardAmount | Double | Stored-value card amount (reserved). |
| commissionAmount | Double | Handling fee (only for unsubscription orders). |
| consumedAmount | Double | Consumption amount (only for unsubscription orders). |

**Table 12-22** DiscountItem

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

**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",
    "data": {
        "pageSize": 10,
        "pageIndex": 1,
        "totalSize": 1,
```

```
    "orderInfos": [{
        "orderId": "9Lw9b*****mqK5k",
        "baseOrderId": null,
        "beId": "0",
        "customerId": "L3BnG*****jBdD",
        "sourceType": 1,
        "status": 4,
        "orderType": 1,
        "currency": 30,
        "currencyAfterDiscount": 30,
        "measureId": 1,
        "measureName": null,
        "createTime": "2019-04-01T11:28:20Z",
        "paymentTime": null,
        "lastUpdateTime": "2019-04-02T11:29:42Z",
        "needAudit": false,
        "currencyType": "USD",
        "contractId": null,
        "currencyOfficial": 30,
        "amountInfo": {
            "discountList": [{
                "discountType": "901",
                "discountAmount": 100
            }],
            "cashcouponAmount": 1,
            "couponAmount": null,
            "cardAmount": null,
            "commissionAmount": 4,
            "consumedAmount": 5
        },
        "serviceType": "hws.service.type.ebs"
    }]
  }
}
```

4. Status Code

📖 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 |
|---|---|---|
| 200 | CBC.0000 | Succeeded. |
| 400 | CBC.0100 | Incorrect parameter. |
| 400 | CBC.0101 | Invalid parameter. |
| 403 | CBC.0151 | Access denied. |

| HTTP Status Code | Error Code | Description |
|---|---|---|
| 403 | CBC.0 155 | 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.0 999 | Other errors. |

## 12.3.2.2 Querying Order Details (Old)

### Function

A customer can invoke this API to query order bills.

> **NOTE**
>
> This API will be brought offline soon. For details about the new API for querying order details, see **8.3.2 Querying Order Details**.

### Web UI

A customer can switch to the **Orders** page in the Billing Center to query order details.

**Step 1** Go to the **My Orders** page.

**Step 2** To view a cloud service order, click the **Cloud Services** tab.

**Step 3** You can filter orders by creation time, order number, or product name.
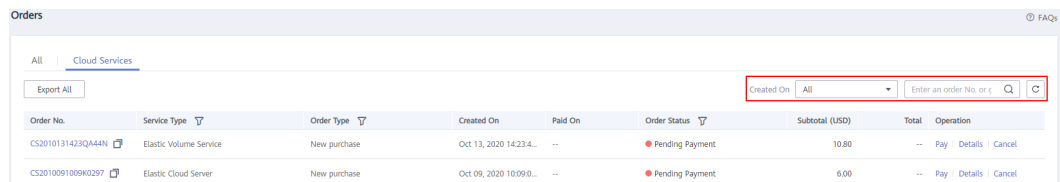


**Step 4** Click **Details** for the target order.
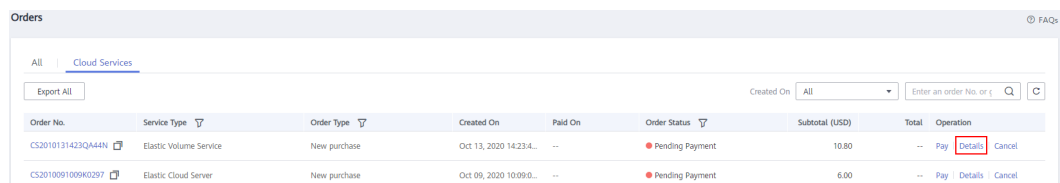
**NOTE**

If the order status is **Processing**, ⑦ indicates that resources are being created and ⚡ indicates that the order contains a resource that failed to be created.

● If the cloud service order status is **Pending Payment**, you can pay or cancel the order on the order details page.
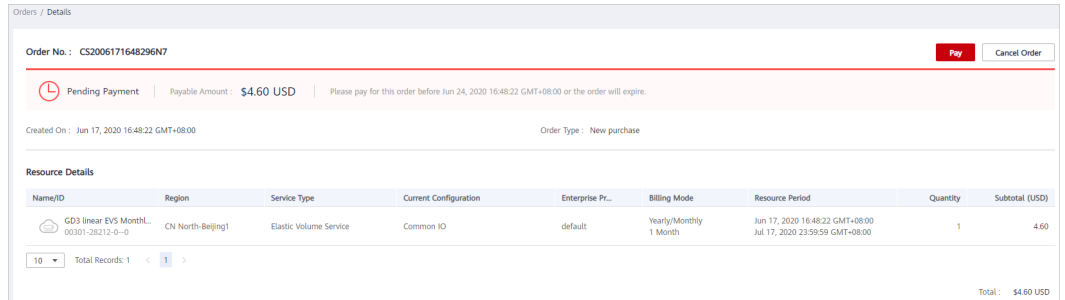


● If your cloud service order has any resources that fail to be provisioned, you will be automatically unsubscribed from the resources.

**NOTE**

When an account manager places an order on behalf of the customer in accordance with the contract, the contract information will be displayed on the order details page. The account manager can then click the contract name to go to the contract details page.

**----End**

## REST API

A customer can query order details on the partner sales platform.

**NOTE**

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

● If you want to query the resource information of a specified order, invoke the API described in **12.3.3.1 Querying Customer's Yearly/Monthly Resources (Old)** and enter the order ID in the request to query the resource information.

1. URI

   GET /v1.0/{domain_id}/common/order-mgr/orders/{order_id}

   The following table describes the parameters.

**Table 12-23** URI parameters

| Parameter | Mandatory | Maximum Length of Characters | Description |
|---|---|---|---|
| domain_id | Yes | A maximum of 64 characters | • The value will be **Partner ID** if the partner's AK/SK or token is used. For details about how to obtain the partner ID, see How Do I Check the Partner ID?<br>• A customer account ID should be entered if the customer AK/SK or token is used. For details, see How Do I Obtain Customer's customer_id and domain_id Values? |
| order_id | Yes | A maximum of 64 characters | Order ID.<br>The system will return the orders if the orders are queried. |

**Table 12-24** Request parameters

| Parameter | Mandatory | Value Range | Description |
|---|---|---|---|
| offset | No | [1-Maximum integer] | Page number. If this parameter is not input, the default value is **1**. If the value of this parameter exceeds **1000000**, the default value **1** is used.<br>If this parameter is not included in the request parameters, the value **1** is used. It cannot be set to **""**. If this parameter is left empty or is set to **null**, the value of **orderInfo** in the response is **null**. |
| limit | No | [1-100] | Number of records displayed on each page. If this parameter is not input, the default value is **10**.<br>If this parameter is not included in the request parameters, is left **empty**, or is set to **null**, the value **10** is used. This parameter cannot be set to **""**. |

2. Request

Request Parameters

None

Example Request

```
GET https://bss-intl.myhuaweicloud.com/v1.0/{domain_id}/common/order-mgr/orders/CS*****O7
HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
```

3. Response

Response Parameters

| Parameter | Type | Description |
|-----------|------|-------------|
| error_code | String | Error code.<br>For details, see **4**. |
| error_msg | String | Error description. |
| orderInfo | Customer OrderEntity | Order details. This parameter is available only when **offset** is set to **1**.<br>For details, see **Table 12-25**. |
| count | Integer | Number of order items |
| orderlineItems | List<Order LineItemE ntity> | Order items in an order<br>For details, see **Table 12-26**. |

**Table 12-25** CustomerOrderEntity

| Parameter | Type | Description |
|-----------|------|-------------|
| orderId | String | Order ID |
| baseOrderId | String | Parent order ID (order ID before splitting). This parameter is returned only for renewal orders. |
| beId | String | Partner business entity ID. |
| customerId | String | Customer ID. |
| sourceType | Integer | Customer order source type. The value can be:<br>● 1. Customer<br>● 2. Agent<br>● 3: Contract<br>● 4: Distributor |

| Parameter | Type | Description |
|---|---|---|
| status | Integer | Order status. The value can be:<br>● 1: Pending approval<br>● 3: Processing<br>● 4: Canceled<br>● 5: Completed<br>● 6: Pending payment<br>● 9: To be confirmed |
| orderType | Integer | Order type. The value can be:<br>● 1: New purchase<br>● 2: Renewal<br>● 3: Change<br>● 4: Unsubscription<br>● 10: Yearly/monthly to pay-per-use<br>● 11: Pay-per-use to yearly/monthly<br>● 13: Trial<br>● 14: Commercial use<br>● 15: Price adjustment |
| currency | Double | Order amount (original price).<br>In the unsubscription order, the amount is equal to the value of **currencyAfterDiscount**. |
| currencyAfterDiscount | Double | Order amount after a discount (excluding the vouchers or cards) |
| measureId | Integer | Order amount unit.<br>● **1**: Dollar<br>● **2**: Dime<br>● **3**: Cent |
| measureName | String | Amount unit name. |
| createTime | String | Creation time.<br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, **2019-05-06T08:05:01Z**.<br>The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59. |
| paymentTime | String | Payment time.<br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, **2019-05-06T08:05:01Z**.<br>The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59. |

| Parameter | Type | Description |
|---|---|---|
| lastUpdateTime | String | Latest status update time.<br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, **2019-05-06T08:05:01Z**.<br>The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59. |
| needAudit | Boolean | Whether the approval is required. |
| currencyOfficial | Double | Order amount (list price).<br>In the unsubscription order, the amount is equal to the value of **currencyAfterDiscount**. |
| amountInfo | AmountInfo | Order deduction details.<br>For details, see **Table 12-27**. |
| currencyType | String | Currency code. |
| contractId | String | Contract ID. |
| serviceType | String | 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**. |

**Table 12-26** OrderLineItemEntity

| Parameter | Type | Description |
|---|---|---|
| orderLineItemId | String | Order item ID. |
| cloudServiceType | String | 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**. |
| productId | String | Product ID. |
| productSpecDesc | String | Product specification description. |

| Parameter | Type | Description |
|---|---|---|
| periodType | Integer | Period type.<br>● **0**: Day<br>● **1**: Week<br>● **2**: Month<br>● **3**: Year<br>● **4**: Hour<br>● **5**: One-off<br>● **6**: Pay-per-use (reserved)<br>● **7**: By usage report (reserved) |
| periodNum | Integer | Number of periods. |
| validTime | String | Effective time.<br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, **2019-05-06T08:05:01Z**.<br>The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59. |
| expireTime | String | Expiration time.<br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, **2019-05-06T08:05:01Z**.<br>The range of *HH* is 0-23, and the range of *mm* and *ss* is 0-59. |
| subscriptionNum | Integer | Number of subscriptions. |
| currency | Double | Order amount (original price).<br>In the unsubscription order, the amount is equal to the value of **currencyAfterDiscount**. |
| currencyAfterDiscount | Double | Order amount after a discount (excluding the vouchers or cards). |
| currencyOfficial | Double | Order amount (list price).<br>In the unsubscription order, the amount is equal to the value of **currencyAfterDiscount**. |
| amountInfo | AmountInfo | Order deduction details.<br>For details, see **Table 12-27**. |
| currencyType | String | Currency code. |
| categoryCode | String | Product catalog code. |

**Table 12-27** AmountInfo

| Parameter | Type | Description |
|---|---|---|
| discountList | List<DiscountItem> | Fee item.<br>For details, see **Table 12-28**. |
| cashcouponAmount | Double | Flexi-purchase coupon amount (reserved). |
| couponAmount | Double | Cash coupon amount. |
| cardAmount | Double | Stored-value card amount (reserved). |
| commissionAmount | Double | Handling fee (only for unsubscription orders). |
| consumedAmount | Double | Consumption amount (only for unsubscription orders). |

**Table 12-28** DiscountItem

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

**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",
  "orderInfo": {
    "orderId": "CS1*****LZ2",
    "baseOrderId": null,
    "beId": "9689",
```

```
            "customerId": "d75*****298",
            "sourceType": 1,
            "status": 5,
            "orderType": 1,
            "currency": 3,
            "currencyAfterDiscount": 0,
            "measureId": 1,
            "measureName": null,
            "createTime": "2019-06-20T16:09:52Z",
            "paymentTime": "2019-06-20T16:10:11Z",
            "lastUpdateTime": "2019-06-20T16:11:07Z",
            "needAudit": false,
            "contractId": null,
            "currencyType": "USD",
            "currencyOfficial": 3,
            "amountInfo": {
                "discountList": [{
                    "discountType": "301",
                    "discountAmount": 3
                }],
                "cashcouponAmount": 0,
                "couponAmount": 3,
                "cardAmount": 0,
                "commissionAmount": null,
                "consumedAmount": null
            },
            "serviceType": "hws.service.type.ebs"
        },
        "count": 1,
        "orderlineItems": [{
            "orderLineItemId": "CS1*****3LZ2-000001",
            "cloudServiceType": "hws.service.type.ebs",
            "productId": "d5d*****3d24",
            "productSpecDesc": "Common I/O",
            "categoryCode": "hws.resource.storage1.evs",
            "periodType": 2,
            "periodNum": 1,
            "validTime": "2019-06-20T16:10:30Z",
            "expireTime": "2019-07-21T15:59:59Z",
            "subscriptionNum": 1,
            "currency": 3,
            "currencyAfterDiscount": 0,
            "currencyOfficial": 3,
            "amountInfo": {
                "discountList": [{
                    "discountType": "301",
                    "discountAmount": 3
                }],
                "cashcouponAmount": 0,
                "couponAmount": 3,
                "cardAmount": 0,
                "commissionAmount": null,
                "consumedAmount": null
            },
            "currencyType": "USD"
        }]
    }
```

4. Status Code

📖 **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 |
|---|---|---|
| 200 | CBC.0 000 | Succeeded. |
| 400 | CBC.0 100 | Incorrect parameter. |
| 400 | CBC.0 101 | Invalid parameter. |
| 403 | CBC.0 151 | Access denied. |
| 403 | CBC.0 155 | 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.0 999 | Other errors. |

## 12.3.2.3 Paying Yearly/Monthly Product Orders (Old)

### Function

◻ NOTE

This API will be brought offline soon. For details about the new API for paying yearly/ monthly product orders, see **8.3.3 Paying Yearly/Monthly Product Orders**.

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 discount and coupon cannot be used at the same time.
>
>   - If the restriction attribute of a coupon contains field **simultaneousUseWithContractDiscount** with a value of **0**, the discount and coupon cannot be used at the same time.
>
>   - 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 /v2/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.<br>The value is the same as the **order_id** value in the response message of invoking the API described in **8.3.1 Querying Orders** or the **order_ids** value in the response message of API described in **8.4.2 Renewing Subscription to Yearly/Monthly Resources**. |

| Paramete r | Mand atory | Type | Maxim um Length of Charac ters | Description |
|---|---|---|---|---|
| coupon_in fos | No | List<Cou ponSimpl eInfoOrd erPay> | [0-3] | This parameter is reserved. For details, see **Table 12-29**. If this parameter is not included in request parameters, is set to **null**, or is set to an empty array, no coupons are used in payment. **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. |
| discount_i nfos | No | List<Disc ountSim pleInfo> | [0-1] | Discount ID list. For details, see **Table 12-30**. If this parameter is not included in request parameters, is set to **null**, or is set to an empty array, no discount is used in payment. |

**Table 12-29** CouponSimpleInfoOrderPay

| Paramet er | Manda tory | Type | Maxim um Length of Charac ters | Description |
|---|---|---|---|---|
| id | Yes | String | A maxim um of 64 charact ers | Coupon ID. |

| Paramet er | Manda tory | Type | Maxim um Length of Charac ters | Description |
|---|---|---|---|---|
| type | Yes | Integer | [300-3 03] | Coupon type.<br>● **300**: Discount coupon (reserved)<br>● **301**: Promotion coupon<br>● **302**: Promotion flexi-purchase coupon (reserved)<br>● **303**: Promotion stored-value card (reserved) |

**Table 12-30** DiscountSimpleInfo

| Paramet er | Manda tory | Type | Maxim um Length of Charac ters | Description |
|---|---|---|---|---|
| id | Yes | String | A maxim um of 64 charact ers | Discount ID. |
| type | Yes | Integer | [0,2,3,6 09] | Discount type.<br>● 0: promotion discount<br>●<br>● 2: commercial discount<br>● 3: discount granted by a partner<br>● 609: discount for adjusting an order price<br>　　**NOTE**<br>　　Once the discount **609** (discount for adjusting an order price) is used during order payment, the discount must be used and the discount type cannot be changed. |

**Example Request**

POST https://bss-intl.myhuaweicloud.com/v2/orders/customer-orders/pay HTTP/1.1
Content-Type: application/json

X-Auth-Token: *MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ*

```
{
    "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 of 10 characters | Error code.<br>For details, see **Status Codes**. |
| error_msg | String | A maximum of 256 characters | Error description. |

| Parameter | Type | Maximum Length of Characters | Description |
|---|---|---|---|
| quota_infos | List<QuotaInfo> | - | List of the resources whose quota or capacity is insufficient.<br><br>For details, see **Table 12-31**.<br><br>This parameter is valid only when **error_code** is set to **CBC.99003141**.<br><br>● 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.<br><br>● If the capacity is insufficient, notify the customer to place an order again.<br><br>● 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.<br><br>For details, see **Table 12-32**.<br><br>This parameter is valid only when **error_code** is set to **CBC.99003155**. |

**Table 12-31** QuotaInfo

| Parameter | Type | Description |
|---|---|---|
| region | String | Cloud service region code, for example, **ap-southeast-1**. Obtain the value from the **Region** column in **Regions and Endpoints**. |
| 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 resource type code of VM is **hws.resource.type.vm**.<br><br>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. |

| Parameter | Type | Description |
|---|---|---|
| resource_sp ec_code | String | Resource specifications of the subscribed cloud service products.<br>For example, the resource specification of a small-scale VM is **s2.small.1.linux**. |
| service_typ e_name | String | Cloud service type. For example, the cloud service type of ECS is **Elastic Cloud Server**. |
| resource_ty pe_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.<br>● 1: The quota is insufficient.<br>● 2: The capacity is insufficient.<br>● 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.<br>● 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.<br>● 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_z one | String | AZ ID.<br>For details, see the AZ names of regions listed on the **Regions and Endpoints**, for example, **cn-north-1a**. |

**Table 12-32** EnterpriseProject

| Parameter | Type | Description |
|---|---|---|
| enterprise_ project_id | String | ID of the enterprise project where an order belongs.<br>● 0: ID of a default project<br>● – 1 or null: Non-project ID |
| enterprise_ project_na me | String | Enterprise project name. |

| Parameter | Type | Description |
|---|---|---|
| auth_status | Integer | Verification result of the enterprise project's fund quota. 10: The fund quota is insufficient or 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
```

## 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.99000046 | Insufficient budget. |
| 400 | 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. |

| HTTP Status Code | Error Code | Description |
|---|---|---|
| 400 | CBC.99003117 | The selected discount is less than the minimum discount rate configured for the selected coupon.<br><br>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.99003151 | This discount cannot be used together with other discounts. |
| 400 | CBC.99003155 | Insufficient enterprise project fund quota, or invalid project. |
| 400 | CBC.99003156 | Coupons applicable to KooGallery products cannot be used together with dedicated coupons. |
| 400 | CBC.99003162 | The validity period set for the bandwidth add-on package cannot be earlier than the system 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.99005036 | Payment via API not allowed for this customer. (Payment by balance and monthly-settled payment are not allowed.) |
| 400 | CBC.99008040 | Too many attempts. |
| 400 | CBC.7281 | Renewal, unsubscription, or payment not supported. Your account has been frozen. |
| 500 | CBC.0999 | Other errors. |
| 400 | CBC.99000089 | Operation failed. Sub orders of a combine order cannot be processed independently. |
| 400 | CBC.99008056 | The maximum number of transactions allowed today has been reached. |

# 12.3.3 Yearly/Monthly Resource Management

## 12.3.3.1 Querying Customer's Yearly/Monthly Resources (Old)

## Function

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

Note:

- This API can be invoked by the customer AK/SK or token.
- This API can only be used to query resources successfully provisioned.

## URI

GET /v1.0/{domain_id}/common/order-mgr/resources/detail

The following table describes the parameters.

**Table 12-33** URI parameters

| Parameter | Mandatory | Maximum Length of Characters | Description |
|---|---|---|---|
| domain_id | Yes | A maximum of 64 characters | Customer account ID. For details, see How Do I Obtain Customer's customer_id and domain_id Values? |

**Table 12-34** Request parameters

| Parameter | Mandatory | Type | Maximum Length of Characters/ Value Range | Description |
|---|---|---|---|---|
| resource _ids | No | String | A maximum of 4096 characters | 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 queried at the same time. Use commas (,) to separate multiple IDs. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. If this parameter is set to **""** or **null**, it can be used as a filter criterion.<br>**NOTE**<br>    A resource ID is allocated by a cloud service after the resource is provisioned, such as **server_id** in ECS. |
| order_id | No | String | A maximum of 64 characters | Order ID. This parameter can be used for querying the resources in a specified order. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. If this parameter is set to **""** or **null**, it can be used as a filter criterion. |

| Parameter | Mandatory | Type | Maximum Length of Characters/ Value Range | Description |
|---|---|---|---|---|
| only_main_resource | 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.<br>● **0**: Queries both the primary resources and attached resources.<br>● **1**: Queries only the primary resources.<br>The default value is **0**.<br>If this parameter is not included in the request parameters, is left empty, or is set to **null**, the default value **0** is used. This parameter cannot be set to **""**.<br>**NOTE**<br>A primary resource takes the primary position in the associated resources.<br>● For the ECS service, ECSs are the primary resources, and EVS disks are attached resource.<br>● 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 | String | - | Resource status.<br>Queries resources in a specified status. If there are multiple statuses, separate them using commas (,).<br>● **2**: Provisioned<br>● **4**: Frozen<br>● **5**: Expired<br>If this parameter is not included in the request parameters or is left empty, resources in all statuses will be returned. This parameter cannot be set to **""** or **null**. |

| Parameter | Mandatory | Type | Maximum Length of Characters/ Value Range | Description |
|---|---|---|---|---|
| page_no | No | Integer | An integer greater than or equal to 1 | Page number. The default value is **1**. If this parameter is not included in the request parameters, is left empty, or is set to **null**, the default value **1** is used. This parameter cannot be set to **""**. |
| page_size | No | Integer | [1-500] | Number of records on each page. The default value is **10**. The maximum value is **500**. If this parameter is not included in the request parameters, is left empty, or is set to **null**, the default value **10** is used. This parameter cannot be set to **""**. |

## Request

### Request Parameters

None

### Example Request

GET https://bss-intl.myhuaweicloud.com/v1.0/*{domain_id}*/common/order-mgr/resources/detail?
resource_ids=*b38*****62e,249*****c07*&only_main_resource=*1*&page_no=*1*&page_size=*100* HTTP/1.1
Content-Type: application/json
X-Auth-Token: *MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ*

## Response

### Response Parameters

| Parameter | Type | Description |
|---|---|---|
| error_code | String | Error code. For details, see **Status Code**. |
| error_msg | String | Error description. |

| Parameter | Type | Description |
|---|---|---|
| data | List<ResourceInstance> | Resource list.<br>For details, see **Table 12-35**. |
| total_count | Integer | Total number of records.<br>The default value is **0**. |

**Table 12-35** ResourceInstance

| Parameter | Type | Description |
|---|---|---|
| id | String | Internal ID of the resource to be provisioned. The ID generated after the resource is provisioned is **resourceID**. |
| resource_id | String | Resource ID. |
| resource_name e | String | Resource instance name. |
| region_code | String | Region code. |
| cloud_service_type_code | String | 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 | 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**. |
| 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). |
| project_code | String | Resource project ID. |
| product_id | String | Product ID. |
| main_resource_id | String | Primary resource ID. |
| is_main_resource rce | Integer | Primary resource or not.<br>● **0**: No<br>● **1**: Yes |

| Parameter | Type | Description |
|---|---|---|
| status | Integer | Resource status.<br>● **2**: Provisioned<br>● **3**: Closed (not visible to customers)<br>● **4**: Frozen<br>● **5**: Expired |
| valid_time | String | Effective time of a resource.<br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, **2019-05-06T08:05:01Z**. |
| expire_time | String | Expiration time of a resource.<br>UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, **2019-05-06T08:05:01Z**. |
| next_operation_policy | Integer | Next billing policy.<br>● **0**: Entering the grace period upon expiration<br>● **1**: Yearly/monthly to pay-per-use<br>● **2**: Automatically deleted upon expiration (directly deleted from resources that take effect)<br>● **3**: Automatically renewed upon expiration<br>● **4**: Automatically frozen upon expiration<br>● **5**: Automatically deleted upon expiration (deleted from resources in the retention period)<br>**NOTE**<br>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": "01154-21800069-0",
    "status": 2,
    "resource_id": "249*****c07",
    "resource_name": "114.115.169.185",
    "region_code": "cn-north-1",
    "cloud_service_type_code": "hws.service.type.vpc",
    "resource_type_code": "hws.resource.type.ip",
    "resource_spec_code": "5_sbgp",
    "project_code": "3f*****400",
    "product_id": "c1*****55",
```

```
      "main_resource_id": "249*****c07",
      "is_main_resource": 1,
      "valid_time": "2018-04-26T18:03:03Z",
      "expire_time": "2018-06-27T15:59:59Z",
      "next_operation_policy": 3
    },
    {
      "id": "01154-21800073-0",
      "status": 2,
      "resource_id": "b3*****62e",
      "resource_name": "ecs-9f88-0001",
      "region_code": "cn-north-1",
      "cloud_service_type_code": "hws.service.type.ec2",
      "resource_type_code": "hws.resource.type.vm",
      "resource_spec_code": "s3.medium.2.linux",
      "project_code": "3f*****400",
      "product_id": "00301-62057-0--0",
      "main_resource_id": "b38*****62e",
      "is_main_resource": 1,
      "valid_time": "2018-04-26T18:02:33Z",
      "expire_time": "2018-06-27T15:59:59Z",
      "next_operation_policy": 3
    }
  ],
  "error_code": "CBC.0000",
  "error_msg": "success",
  "total_count": 2
}
```

## Status Code

📖 **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 |
|---|---|---|
| 200 | CBC.0000 | Succeeded. |
| 400 | CBC.0100 | Incorrect parameter. |
| 403 | CBC.0151 | Access denied. |
| 500 | CBC.0999 | Other errors. |

## 12.3.3.2 Renewing Subscription to Yearly/Monthly Resources (Old)

## Function

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

## Web UI

Customers can manually renew subscription to yearly/monthly resources when the subscription is about to expire in the Billing Center.

**Step 1** Go to the **Renewals** page.

**Step 2** Set the search criteria.
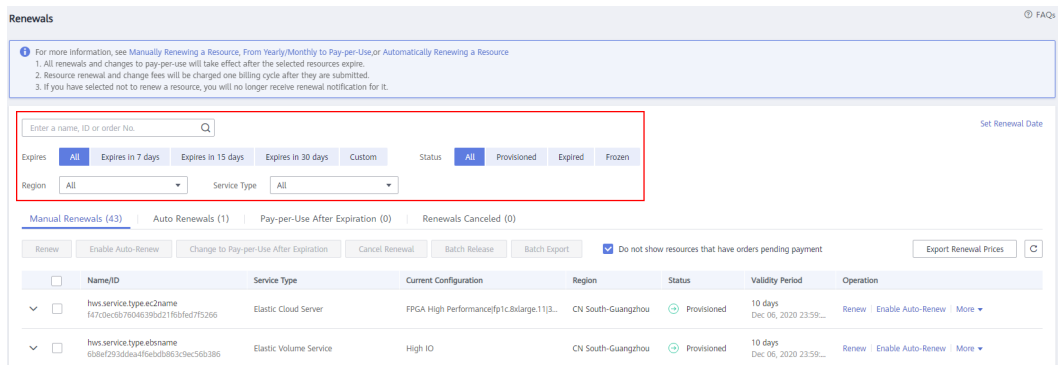


📖 **NOTE**

- Customers who have enabled enterprise project management can set the search criteria to filter an enterprise project and query its resources that are to be renewed.
    - You can click **Set Renewal Date** to set the expiration date of resources. For details, see **Setting a Renewal Date**.
- Under the **Manual Renewals**, **Auto Renewals**, **Pay-per-Use After Expiration**, and **Renewals Canceled** tabs, you can query all resources to be renewed.
- You can manually renew resources under the **Manual Renewals**, **Auto Renewals**, **Pay-per-Use After Expiration**, and **Renewals Canceled** tabs.

**Step 3** All resources that need to be manually renewed can be moved to the **Manual Renewals** tab. For details, see **Restoring to Manual Renewal**.

**Step 4** Renew resources separately or in batches.

- Separate renewal: Click **Renew** in the **Operation** column for the desired resource.
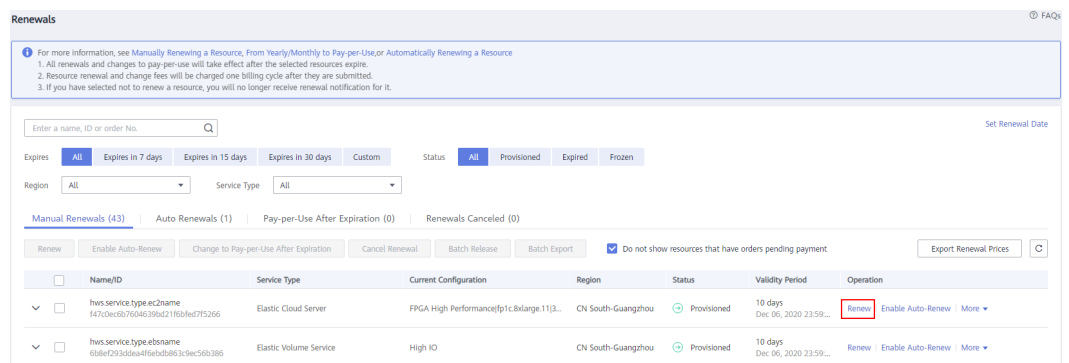
● Batch renewal: Select the check boxes for the desired resources, and click **Renew** in the upper left corner.
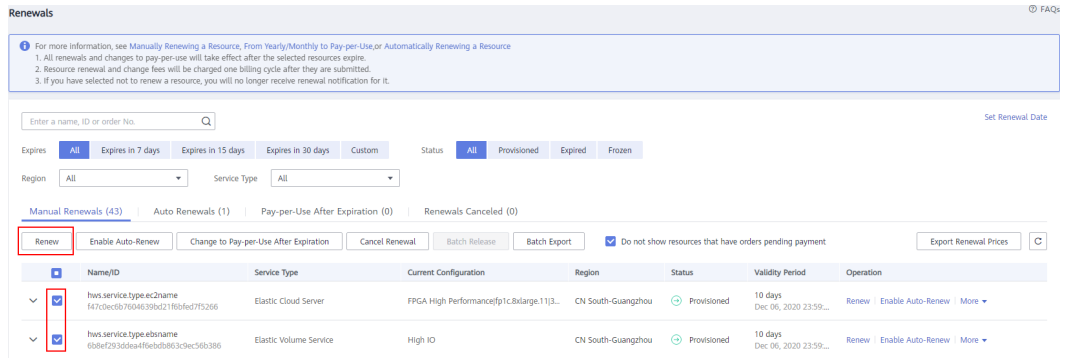


📖 NOTE

● On the **Renewals** page, resources that have orders pending payment are hidden by default. You can unselect **Do not show resources that have orders pending payment** to show them.

● When you renew a resource that has an order pending payment, the following message will be displayed: "The resource has an order pending payment. You can renew it only after you pay or cancel the order." You can click the order number in the dialog box to go to the order details page. After you pay or cancel the order, the resource becomes renewable.

**Step 5** Select a renewal duration and click **Pay**.
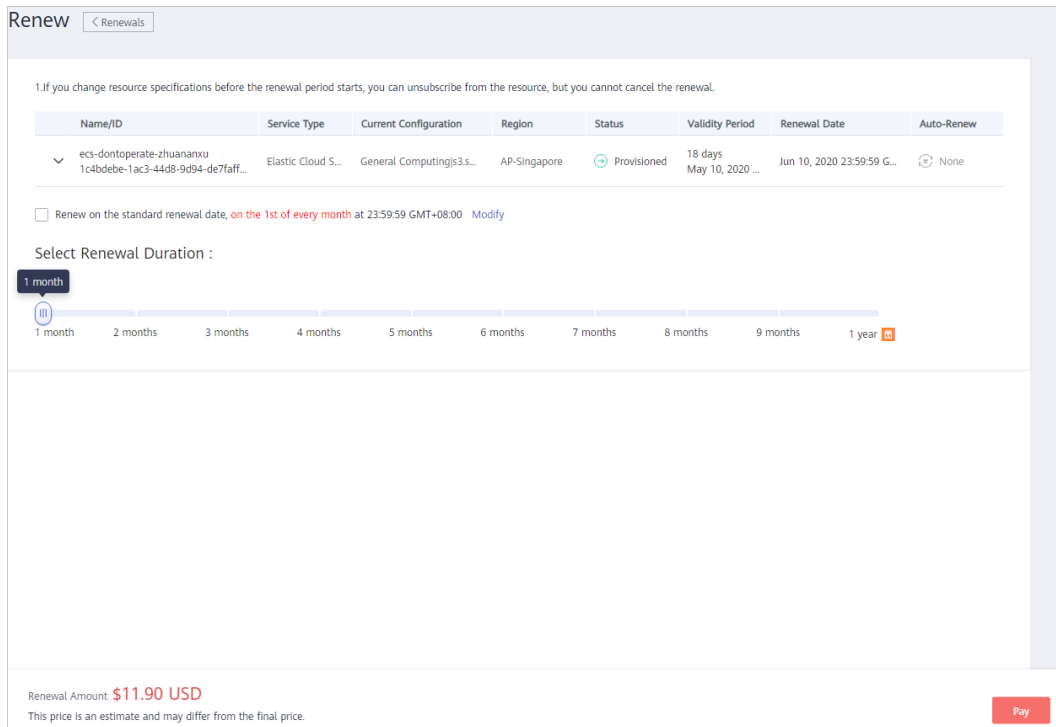


**Step 6** Select discounts and a payment option, and click **Pay**.

**----End**

## REST API

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

📖 NOTE

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

- After you invoke this API, if a primary resource ID has an attached resource ID, the system will renew the subscription to both the primary resource and attached resource.

  - 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.

- This API supports automatic payment. Discounts and coupons can be used for automatic payment. For details about how to use discounts or coupons during payment, see **13.7 Support for Discounts or Coupons**.

1. URI

   POST /v1.0/{domain_id}/common/order-mgr/resources/renew

   The following table describes the parameters.

   **Table 12-36** URI parameter description

   | Parameter | Mandatory | Value Range | Description |
   | --- | --- | --- | --- |
   | domain_id | Yes | A maximum of 64 characters | Customer account ID. For details, see How Do I Obtain Customer's customer_id and domain_id Values? |

2. 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 **12.3.3.1 Querying Customer's Yearly/Monthly Resources (Old)**. |

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| period_type | Yes | Integer | [2\|3] | Period type. The value can be:<br>● **2**: Month<br>● **3**: Year |
| period_num | Yes | Integer | [1-11] | Number of periods.<br>● Month: 1 to 11<br>● Year: 1 to 3 |
| expire_mode | No | Integer | [0-3] | Expiration policy (This field has been discarded. Do not use it.)<br>● **0**: Enter the grace period.<br>● **1**: Change billing mode to pay-per-use.<br>● **2**: Automatic unsubscription<br>● **3**: Automatic renewal |
| isAutoPay | No | Integer | [0-1] | Whether enable automatic payment.<br>● 0: No<br>● 1: Yes<br>If this parameter is left empty, default value 0 is used (automatic payment disabled).<br>If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, the value **0** is used. This parameter cannot be left empty. |

Example Request

```
POST https://bss-intl.myhuaweicloud.com/v1.0/{domain_id}/common/order-mgr/resources/renew HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ

{
  "resource_ids": ["53fe*****068b"],
  "period_type":2,
  "period_num":2,
  "expire_mode":0
}
```

3. Response

Response Parameters

| Parameter | Type | Description |
|---|---|---|
| error_code | String | Status code.<br>For details, see **4**. |
| error_msg | String | Error description. |
| order_ids | List<String> | List of order IDs generated when resource subscription is renewed. |
| expiredResourceIds | List<string> | List of resources that cannot be renewed due to expiration.<br>This parameter has a value only when the error code is 3016. |

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",
    "order_ids": ["xxxxxxxxx"],
    "expiredResouceIds":[]
}
```

4. 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 |
|---|---|---|
| 200 | CBC.0000 | Success. |
| 200/400 | CBC.0100 | Invalid input parameter. |
| 500 | CBC.0999 | Other errors. |
| 403 | CBC.0151 | Access denied. |
| 200 | CBC.7281 | You cannot renew or cancel subscription because your account has been frozen. |

| HTTP Status Code | Error Code | Description |
|---|---|---|
| 200 | CBC.3016 | Expired resources exist. |
| 200 | CBC.99003144 | You have orders in progress and cannot perform the current operation. |
| 400 | CBC.99003154 | Subscription plus renewal too long. Select shorter renewal. |
| 200 | CBC.3144 | You have orders in progress and cannot perform the current operation. |
| 200 | CBC.99003631 | Resources that are being unsubscribed, deleted, or released cannot be renewed. |
| 200 | CBC.30010036 | Renewal is only supported for primary resources. |
| 200 | CBC.30010069 | The renewal period does not exist. |
| 200 | CBC.30050006 | Automatic order payment failed. |

## 12.3.3.3 Unsubscribing from Yearly/Monthly Resources (Old)

### 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.

◫ NOTE

This API will be brought offline. For details about the new API for unsubscribing from yearly/monthly resources, see **8.4.3 Unsubscribing from Yearly/Monthly Resources**.

### Web UI

If a customer has subscribed to a yearly/monthly resource, the customer can use this API to unsubscribe from the resource in the Billing Center.

**Step 1** Go to the **Unsubscriptions** page.

**Step 2** Click the **Succeeded Resources** tab.

**Step 3** Unsubscribe from resources separately or in batches.

- Unsubscribe from a single resource: Click **Unsubscribe** for a resource from which you want to unsubscribe.
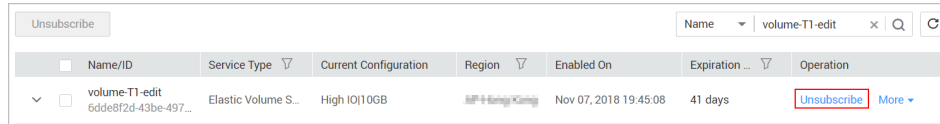
- Batch unsubscribe from resources: Select the target resources from the resource list and click **Unsubscribe** in the upper left corner of the resource list.
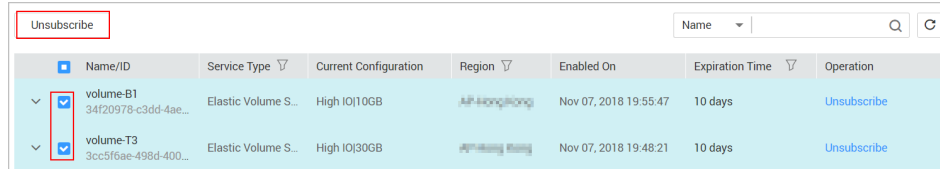


**Step 4** View the unsubscription information, select **I have confirmed that a handling fee will be charged for this unsubscription**, and click **Unsubscribe**.



**----End**
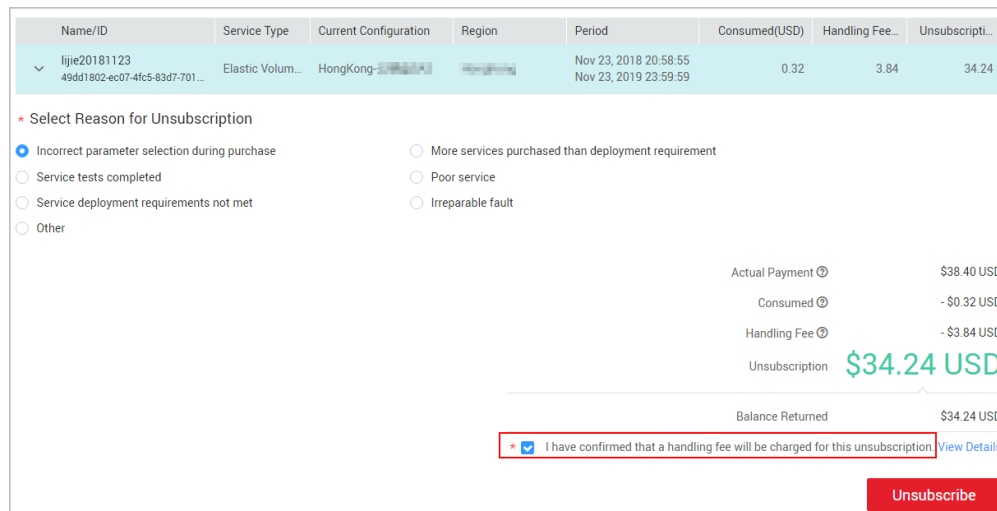
## REST API

A customer can unsubscribe from its yearly/monthly resources on the partner sales platform.

A yearly/monthly resource can be unsubscribed from only after it has been successfully paid and provisioned.

 NOTE

- This API can be invoked only by the customer AK/SK or token. This is because that partners cannot buy products by themselves.
- After you invoke this API, if a primary resource ID has an attached resource ID, the system will unsubscribe from both the primary resource and attached resource.
  - 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.
- After invoking this API, you can also invoke the API described in Querying the Amount of Unsubscription Orders to query the orders corresponding to the unsubscription order amounts.

1. URI

   POST /v1.0/{domain_id}/common/order-mgr/resources/delete

   The following table describes the parameters.

   **Table 12-37** URI parameter description

   | Parameter | Mandatory | Value Range | Description |
   |---|---|---|---|
   | domain_id | Yes | A maximum 64 characters | Customer account ID. For details, see How Do I Obtain Customer's customer_id and domain_id Values? |

2. Request

   Request Parameters

   | Parameter | Mandatory | Type | Value Range | Description |
   |---|---|---|---|---|
   | resourceIds | Yes | List<String> | [1-10] | Resource IDs. A maximum of 10 resource IDs can be entered at a time. Only the primary resource IDs can be entered. Determine whether a resource is a primary resource based on **is_main_resource** in the response of the API described in **12.3.3.1 Querying Customer's Yearly/Monthly Resources (Old)**. |

| Paramete r | Mandat ory | Type | Value Range | Description |
|---|---|---|---|---|
| unSubTyp e | Yes | Integer | [1-2] | Unsubscription type. The value can be:<br><br>● 1: Unsubscribe from the resource and its renewal periods.<br><br>● 2: Unsubscribe from only the resource renewal periods. |
| unsubscri beReason Type | No | Integer | [1-5] | Unsubscription cause. The value can be:<br><br>● 1: The product is of poor usability.<br><br>● 2: The product functions cannot meet the requirements.<br><br>● 3: Customers do not know how to use the product, or the product operations are complex.<br><br>● 4: Customers are not satisfied with the service.<br><br>● 5: Others<br><br>If this parameter is not included in the request parameters, is set to "", or is set to null, no value is returned. |
| unsubscri beReason | No | String | A maxim um of 512 charact ers | Unsubscription reason, which is generally specified by the customer.<br><br>If this parameter is not included in the request parameters, is set to "", or is set to null, no value is returned. |

### Example Request

POST https://bss-intl.myhuaweicloud.com/v1.0/*{domain_id}*/common/order-mgr/resources/delete HTTP/1.1
Content-Type: application/json
X-Auth-Token: *MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ*

{
 "resourceIds": ["53fa7828774df68b","72a256456xdf45g"],
 "unSubType":2,
 "unsubscribeReasonType":2,

```
    "unsubscribeReason":"xxxxxx"
}
```

3. Response

    Response Parameters

| Parameter | Type | Description |
|---|---|---|
| error_code | String | Status code.<br>For details, see **4**. |
| error_msg | String | Error description. |
| orderIds | List<String> | Unsubscription order IDs. |

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": "unsubscribe success",
    "orderIds": ["xxxxxxxxxx"]
}
```

4. 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 |
|---|---|---|
| 200 | CBC.0000 | Success. |
| 400 | CBC.0100 | Invalid input parameter. |
| 403 | CBC.0151 | Access denied. |
| 500 | CBC.0999 | Other errors. |
| 200 | CBC.3185 | The cloud service can only be unsubscribed from as a whole. |
| 200 | CBC.30000053 | Unsubscription not supported. The billing mode of the resource is Savings Plans. |

| HTTP Status Code | Error Code | Description |
|---|---|---|
| 200 | CBC.30000067 | Unsubscription not supported. This resource has been deleted or the subscription to this resource has not been synchronized to CBC. |
| 200 | CBC.7281 | You cannot renew or cancel subscription because your account has been frozen. |
| 200 | CBC.99003012 | Resource ID not found. |
| 200 | CBC.99003100 | This operation is not allowed because some resources are included in your orders to be paid. |
| 200 | CBC.99003128 | The resource does not have renewed periods or its renewed periods have taken effect, and the renewal periods cannot be unsubscribed from. |
| 200 | CBC.99006066 | An error occurred during fee inquiry. |
| 200 | CBC.99003645 | Unsubscription not supported for this cloud service type. |
| 400 | CBC.99003650 | Unsubscription not allowed for this cloud service in the Marketplace. |
| 200 | CBC.99003656 | Operation not allowed. Your resource has been frozen. |

# 12.3.4 Managing Resource Packages

## 12.3.4.1 Querying Resource Packages (Old)

### Function

This API is used to query resource packages.

⬚ NOTE

This API will be taken offline. For details about the new API for querying resource packages, see **8.5.1 Querying 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 /v2/payments/free-resources/query

**Table 12-38** Header parameter

| Parameter | Mandatory | Value Range | Description |
|---|---|---|---|
| X-Language | No | A maximum of 10 characters | Language.<br><br>● **zh_CN**: Chinese<br><br>● **en_US**: English<br><br>Default value: **zh_CN**<br><br>If this parameter is not included in the request parameters or is left empty, the value **zh_CN** is used. This parameter cannot be set to **""** or **null**. |

## Request

**Request Parameters**

| Parameter | Mandatory | Type | Value Range | Description |
|---|---|---|---|---|
| region_code | No | String | A maximum of 64 characters | Cloud service region code, for example, **ap-southeast-1**. Obtain the value from the **Region** column in **Regions and Endpoints**.<br><br>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.<br><br>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. |

| Paramete r | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| product_id | No | String | A maximu m of 64 characte rs | Resource package ID.<br><br>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_n ame | No | String | A maximu m of 256 characte rs | Resource package name.<br><br>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 maximu m of 64 characte rs | Enterprise project ID.<br><br>This parameter is mandatory if you want to query the resources of an enterprise project.<br><br>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:<br>● **0**: Not effective<br>● **1**: In effect<br>● **2**: Used up<br>● **3**: Expired<br>● **4**: Unsubscribed<br>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, 9999] | Page number. Enter *N* if you want to query the *N* page, for example, enter **1** to query the first page.<br><br>If you enter **0**, the first page is queried by default.<br><br>If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, the first page is queried by default. This parameter cannot be left empty. |

| Paramete r | Manda tory | Type | Value Range | Description |
|---|---|---|---|---|
| limit | No | Integer | [1, 1000] | Number of records queried each time. The default value is **10**.<br><br>If this parameter is not included in the request parameters, is set to **""**, or is set to **null**, the value **10** is used. This parameter cannot be left empty. |

**Example Request**

```
POST https://bss-intl.myhuaweicloud.com/v2/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
}
```

## Response

**Response Parameters**

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| error_code | String | 20 | Error code.<br><br>For details, see **Status Codes**. 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_resourc e_packages | List<FreeR esourcePac kage> | - | Resource package list. For details, see **Table 12-39**. |
| total_count | Integer | - | Total number of records. |

**Table 12-39** 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 maximum of 64 characters | Resource package ID. |
| 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:<br>● **0**: All enterprise projects<br>● **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. |

| Parameter | Type | Value Range | Description |
|-----------|------|-------------|-------------|
| 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:<br>● **0**: Not effective<br>● **1**: In effect<br>● **2**: Used up<br>● **3**: Expired<br>● **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**. To obtain a specific service type, call the API in **4.1.1 Querying Cloud Service Types**. |
| service_type_name | String | A maximum of 200 characters | Cloud service type. For example, the cloud service type of ECS is **Elastic Cloud Server**. |
| region_code | String | A maximum of 64 characters | Cloud service region code, for example, **ap-southeast-1**. Obtain the value from the **Region** column in **Regions and Endpoints**. |
| source_type | Integer | [0, 1] | Source of a resource package. The options are as follows:<br>● **0**: Order<br>● **1**: Gifted by DevCloud |
| bundle_type | String | [ATOMIC_PKG\|BUNDLE_PKG] | Bundle binding type. The options are as follows:<br>● **ATOMIC_PKG**: Atomic package<br>● **BUNDLE_PKG**: Combined package |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| quota_reuse _mode | Integer | [1, 2] | Use model. The options are as follows:<br>● **1**: Resettable<br>Indicates that the purchased 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.<br>● **2**: Not resettable<br>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_resourc es | List<FreeR esource> | - | For details about resource items (ID-specific) in a resource package, see **Table 12-40**. |

**Table 12-40** Free resources

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| free_resourc e_id | String | A maximu m of 64 charact ers | Resource ID. A resource package contains multiple resources, and each resource has a usage type. |
| usage_type_ name | String | A maximu m of 1024 charact ers | Usage type name. |
| amount | BigDecima l | A maximu m of 64 charact ers | Remaining resource quota of a package whose **quota_reuse_mode** is **Resettable**, that is, the remaining resource quota in the current reset period. |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| original_amount | BigDecimal | A maximum of 64 characters | 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
                }
            ]
        }
    ]
}
```

## 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 | Parameter error. |
| 403 | CBC.0151 | Access denied. |
| 500 | CBC.0999 | Other errors. |

# 12.4 Bill Management

## 12.4.1 Querying Customer Resource Usage

### Function

This API is used to query customer resource usage.

> **NOTE**
>
> This API will be taken offline. For details about the new API for querying customer resource usage, see **9.1.1 Querying 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 partner's resource utilization.

> **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, it is recommended that the partner sales platform obtains the customer resource usage file at 24:00 every day.

1.  Link to obtain the file

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

**Table 12-41** 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 an OBS bucket, see **Creating a Bucket**.<br>**NOTE**<br>　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. Obtain this value from **Regions and Endpoints**. |
| customerUsage | Name of the folder for storing the customer resource usage details uploaded by the system. |
| filename | Specifies the file name.<br>The file is named in the **customerUsage_**_YYYYMM_**_**_YYYYMMDD_**.tar.gz** format.<br>The file is a compressed package.<br>_YYYYMM_ indicates the month of the data to be exported. For example, if the data for February 2019 is exported, _YYYYMM_ should be **201902**.<br>_YYYYMMDD_ specifies the date when the customer resource usage data is exported. For example, if the file name is **customerUsage_201902_20190301.tar.gz**, the data generated from February 1, 2019 to February 28, 2019 is exported on March 1, 2019.<br>The files in the compressed package are named in the format of **customerUsage_MonthlyYearly_YYYYMM_YYYYMMDD_XXXXXXXX.csv**, **customerUsage_PerByUse_YYYYMM_YYYYMMDD_XXXXXXXX.csv**, or **customerUsage_RI_YYYYMM_YYYYMMDD_XXXXXXXX.csv**. |

2. Generation time of the resource usage details

   The resource usage data is summarized by month. The monthly usage details contain incremental data starting from the first day of each month. The data of usage detail may change after being generated. Use 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.

&ndash; 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

&ndash; Yearly/monthly resources (usage of reseller customers only)

customerUsage_MonthlyYearly_YYYYMM_YYYYMMDD_XXXXXXXX.csv

| Parameter | Type | Value Limit | Description |
|---|---|---|---|
| Customer | String | 256 | Domain ID of a customer. |
| Expenditure or Unsubscription Time | String | 256 | UTC. |
| Resource ID | String | 256 | Resource instance ID. |
| Resource Name | String | 256 | Name entered when a customer creates a resource instance.<br>**NOTE**<br>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. |
| 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**. |
| Product ID | String | 256 | Product ID. |
| Product Name | String | 256 | Product name. |
| Product Specifications | String | 256 | Product specifications, such as<br>General Computing\|s2.small.1\|1 vCPU\|1 GB\|Linux |

| Paramet er | Type | Value Limit | Description |
|---|---|---|---|
| Region | String | 64 | Cloud service region code, for example, ap-southeast-1. Obtain the value from the **Region** column in **Regions and Endpoints**. |
| Order No. | String | 256 | Order ID generated when a customer places the order. |
| Order Type | String | 256 | Order Type:<br>● 1: New purchase<br>● 2: Renewal<br>● 3: Change<br>● 4: Unsubscription<br>● 10: Yearly/monthly to pay-per-use<br>● 11: Pay-per-use to yearly/monthly<br>● 13: Trial<br>● 14: Commercial use<br>● 15: Price adjustment |
| Duration | String | 256 | Duration of a yearly/monthly subscription. |
| Period Type | String | 256 | Duration type of a yearly/monthly subscription.<br>**0**: Daily<br>**1**: Weekly<br>**2**: Monthly<br>**3**: Yearly<br>**4**: Hourly<br>**5**: One-off |
| Amount( USD) | String | 256 | Transaction price listed on the HUAWEI CLOUD official website, excluding the commercial discount provided by HUAWEI CLOUD for partners. The unit is US Dollar. |
| Project ID | String | 256 | ID of the project to which a resource belongs. You can select a project when purchasing a resource. |

| Paramet er | Type | Value Limit | Description |
|---|---|---|---|
| Resource Tag | String | 11,000 | Resource tag. Customers can set tags when managing resources. If a yearly/monthly subscription is not intended for a specific resource, leave this field empty.<br>**NOTE**<br>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. |
| Combine d 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.<br>This parameter is reserved. |
| Product Type Name | String | 200 | Product type name |
| Resource Type Name | String | 200 | Resource type name. |

– Pay-per-use resources (usage of reseller customers only)

customerUsage_PerByUse_YYYYMM_YYYYMMDD_XXXXXXXX.csv

| Paramet er | Type | Value Range | Description |
|---|---|---|---|
| Customer | String | 256 | Domain ID of a customer. |
| Expenditu re Time | String | 256 | Transaction time in the format of UTC. |
| Billing Cycle | String | 256 | Billing cycle of the consumption record. |
| Resource ID | String | 256 | Resource instance ID. |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| Resource Name | String | 256 | Name entered when a customer creates a resource instance.<br>**NOTE**<br>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. |
| 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**. |
| Product ID | String | 256 | Product ID. |
| Product Name | String | 256 | Product Name. |
| Product Specifications | String | 256 | Product specifications, such as<br>General Computing\|s2.small.1\|1 vCPU\|1 GB\|Linux |
| Region | String | 64 | Cloud service region code, for example, ap-southeast-1. Obtain the value from the **Region** column in **Regions and Endpoints**. |
| Billing Item | String | 256 | Usage factor. (Usage type)<br>The value is the same as the usage factor in SDRs. The mappings between cloud services and usage factors are as follows:<br>● ECS: **Duration**<br>● EVS: **Duration**<br>● EIP: **Duration**<br>● Bandwidth: **Duration** (by bandwidth) or **upflow** (by traffic)<br>● Marketplace image: **Duration** |

| Paramet er | Type | Value Range | Description |
|---|---|---|---|
| Usage | String | 256 | Total resource usage. |
| Package Usage | String | 256 | Used amount of the package. The used resources are not calculated using the pay-per-use price. |
| Reserved Instance Usage | String | A maximum of 256 characters | Used reserved instance. The used resources are not calculated using the pay-per-use price. |

| Paramet er | Type | Value Range | Description |
|---|---|---|---|
| Unit | String | 256 | Usage unit. The optional values are as follows: <br>● **0**: DAY (duration) <br>● **1**: YUAN (currency) <br>● **2**: JIAO (currency) <br>● **3**: FEN (currency) <br>● **4**: Hour (duration) <br>● **5**: MINUTE (duration) <br>● **6**: SECOND (duration) <br>● **7**: EB (traffic) <br>● **8**: PB (traffic) <br>● **9**: TB (traffic) <br>● **10**: GB (traffic) <br>● **11**: MB (traffic) <br>● **12**: KB (traffic) <br>● **13**: Byte (traffic) <br>● **14**: amount (quantity) <br>● **15**: Mbps (traffic) <br>● **16**: Byte (capacity) <br>● **17**: GB (traffic) <br>● **18**: KLOC (number of lines) <br>● **19**: YEAR (period) <br>● **20**: MONTH (period) <br>● **21**: MB (traffic) <br>● **22**: GHz (frequency) <br>● **23**: CORE (quantity) <br>● **24**: DAY (period) <br>● **25**: HOUR (period) <br>● **30**: number (quantity) <br>● **31**: Thousand times (quantity) <br>● **32**: Million times (quantity) <br>● **33**: Billion times (quantity) <br>● **34**: bps (bandwidth) <br>● **35**: kbps (bandwidth) <br>● **36**: Mbps (bandwidth) <br>● **37**: Gbps (bandwidth) <br>● **38**: Tbps (bandwidth) |

| Paramet er | Type | Value Range | Description |
|---|---|---|---|
| | | | ● **39**: GB-seconds (capacity-duration)<br><br>● **40**: times (quantity)<br><br>● **41**: PCS (quantity)<br><br>● **42**: Thousand PCS (quantity)<br><br>● **43**: PCS (quantity)<br><br>● **44**: Thousand PCS (quantity)<br><br>● **45**: Query Per Second (query rate)<br><br>● **46**: Man/Day (quantity)<br><br>● **47**: TB (capacity)<br><br>● **48**: PB (capacity) |
| Amount( USD) | String | A maximum of 256 characters | Transaction price listed on the HUAWEI CLOUD official website, excluding the commercial discount provided by HUAWEI CLOUD for partners. The unit is US Dollar.<br><br>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. |
| Project ID | String | 256 | ID of the project to which a resource belongs. You can select a project when purchasing a resource. |
| Resource Tag | String | 11,000 | Resource tag. Customers can set tags when managing resources.<br>**NOTE**<br>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. |
| 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. |

| Paramet er | Type | Value Range | Description |
|---|---|---|---|
| Unit(Unit Price) | String | 256 | Unit(Unit Price)<br>For example, the price is $0.6 USD/10,000 times. The unit price is 0.6, the price unit is US Dollar, and the step is 10,000 times. The unit price is 0.6 and the price unit is US Dollar/10,000 times. |
| Product Type Name | String | 200 | Product type name |
| Resource Type Name | String | 200 | Resource type name. |

–  Reserved instances (usage of reseller customers only)

customerUsage_RI_YYYYMM_YYYYMMDD_XXXXXXXX.csv

| Paramete r | Type | Value Range | Description |
|---|---|---|---|
| Customer | String | A maximum of 256 characters | Domain ID of a customer. |
| Expenditu re or Unsubscri ption Time | String | 256 | UTC. |
| Expenditu re Type | String | 256 | **1**: Subscription<br>**2**: Renewal<br>**3**: Change<br>**4**: Unsubscription<br>**8**: Automatic renewal<br>**12**: Recurring fee for reserved instances |
| Reserved Instance ID | String | 256 | ID of a purchased reserved instance. |

| Parameter | Type | Value Range | Description |
|---|---|---|---|
| Reserved Instance Name | String | 256 | Name of a reserved instance.<br>**NOTE**<br>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. |
| 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**. |
| Region | String | 64 | Cloud service region code, for example, ap-southeast-1. Obtain the value from the **Region** column in **Regions and Endpoints**. |
| Product | String | 256 | Product ID. |
| Order No. | String | 256 | Order ID of a reserved instance order. |
| Amount(USD) | String | 256 | Transaction price listed on the HUAWEI CLOUD official website, excluding the commercial discount provided by HUAWEI CLOUD for partners. The unit is US Dollar. |
| Project ID | String | A maximum of 256 characters | ID of the project to which a resource belongs. You can select a project when purchasing a resource. |
| Resource Tag | String | 11,000 | Resource tag. Customers can set tags when managing resources.<br>Currently, the reserved instance does not belong to a specific resource. This field is left blank (reserved).<br>**NOTE**<br>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. |
| Product Type Name | String | 200 | Product type name |

4. File example

a. **File of yearly/monthly resources**

▪ **Field:**

customerUsage_MonthlyYearly_201905_20190521_232738ebd8d044a
c8006571d694ff05d.csv

▪ **Content:**

Customer,Expenditure or Unsubscription Time,Resource ID,Resource
Name,Product Type Code,Resource Type Code,Product ID,Product
Name,Product Specifications,Region,Order No.,Order
Type,Duration,Period Type,Amount(USD),Project ID,Resource
Tag,Product Type Name,Resource Type Name

37be0256053e467ba425d6dd61135370,2019-05-06 14:30:25 GMT
+00:00,57f5faa7-0aa5-4f13-91e7-
b838a6b69178,volume-220f,hws.service.type.ebs,hws.resource.type.vo
lume,00301-03439-0--0,GD3 linear EVS_Monthly,Common IO|10.0|
17,cn-
north-7,CS1905061430U2BKA,4,,2,0.00,6a4cffd705254584a4386d30b
3e15df9,resourcetag008,lastic Cloud Server,Cloud Host

b. **File of pay-per-use resources**

▪ **Field:**

customerUsage_PerByUse_201905_20190521_c40692bef76442e688e0
44530d62eb03.csv

▪ **Content:**

Customer,Expenditure Time,Billing Cycle,Resource ID,Resource
Name,Product Type Code,Resource Type Code,Product ID,Product
Name,Product Specifications,Region,Billing Item,Usage,Package
Usage,Reserved Instance Usage,Unit,Amount(USD),Project
ID,Resource Tag,Unit,Unit Price,Product Type Name,Resource Type
Name

b9965f7fa88a49d3aa571d6ab25543fb,2019-05-01 10:00:00 GMT
+00:00 - 2019-05-01 23:59:59 GMT
+00:00,20190501,bf930731-996d-422e-a2ec-f556d88bc784,ecs-a5d9-
volume-0001,hws.service.type.ebs,hws.resource.type.volume,00301-18
779-0--0,GD3 linear EVS_On demand,Common IO|duration,cn-
north-7,duration,"22,545.00",,0.00,6,0.02,6a4cffd705254584a4386d30
b3e15df9,resourcetag001,0,1,lastic Cloud Server,Cloud Host

c. **File of reserved instances**

▪ **Field:**

customerUsage_RI_201905_20190521_f5ee75c834494106b39f4511d2
0cb416.csv

▪ **Content:**

Customer,Expenditure or Unsubscription Time,Expenditure
Type,Reserved Instance ID,Reserved Instance Name,Product Type
Code,Region,Product,Order No.,Amount(USD),Project ID,Resource
Tag,Product Type Name

37be0256053e467ba425d6dd61135370,2019-05-07 15:01:17 GMT
+00:00,Subscribed Order,01154-3100049-0,,hws.service.type.ec2,cn-
north-7,General Computing Enhaced_C3_2U4G_linux
reserve,CS19050715008ZEL8,516.84,6a4cffd705254584a4386d30b3e1
5df9,resourcetag002,lastic Cloud Server
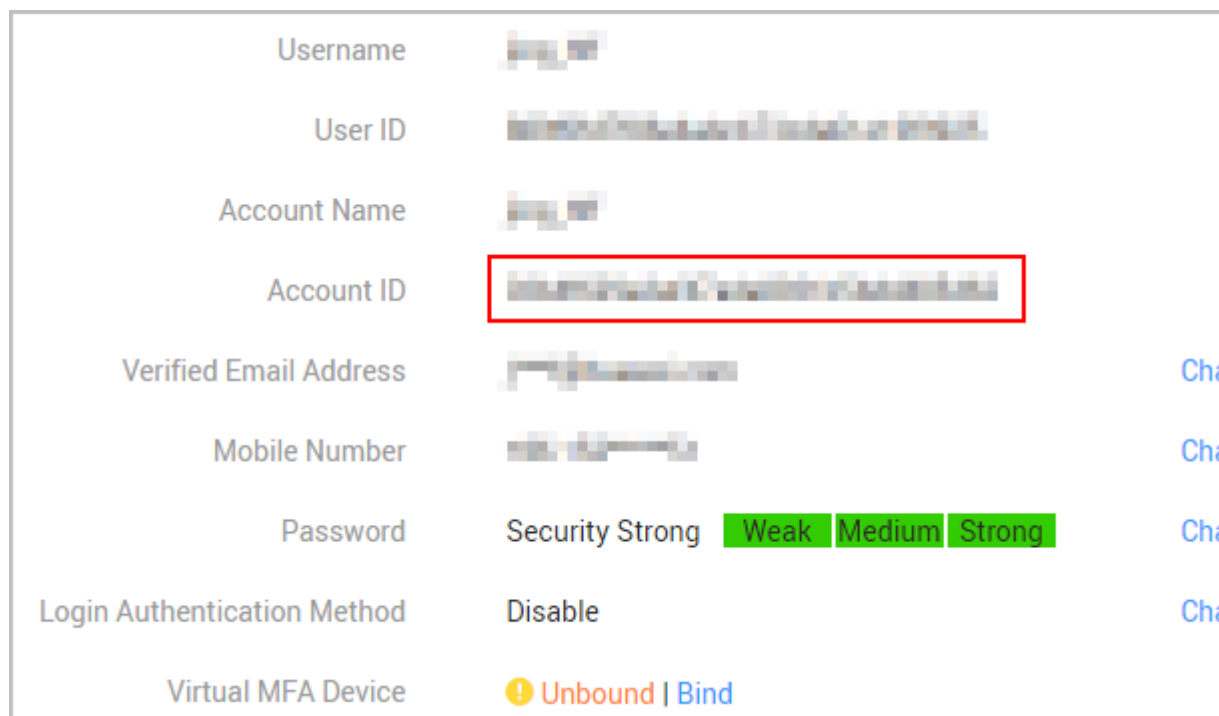
# 13 Appendix

## 13.1 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-intl.huaweicloud.com/iam/#/myCredential.

# 13.2 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 13-1** shows the procedure for binding a HUAWEI CLOUD account with a customer account on the partner sales platform and notifying the binding result.

**Figure 13-1** Binding a HUAWEI CLOUD account
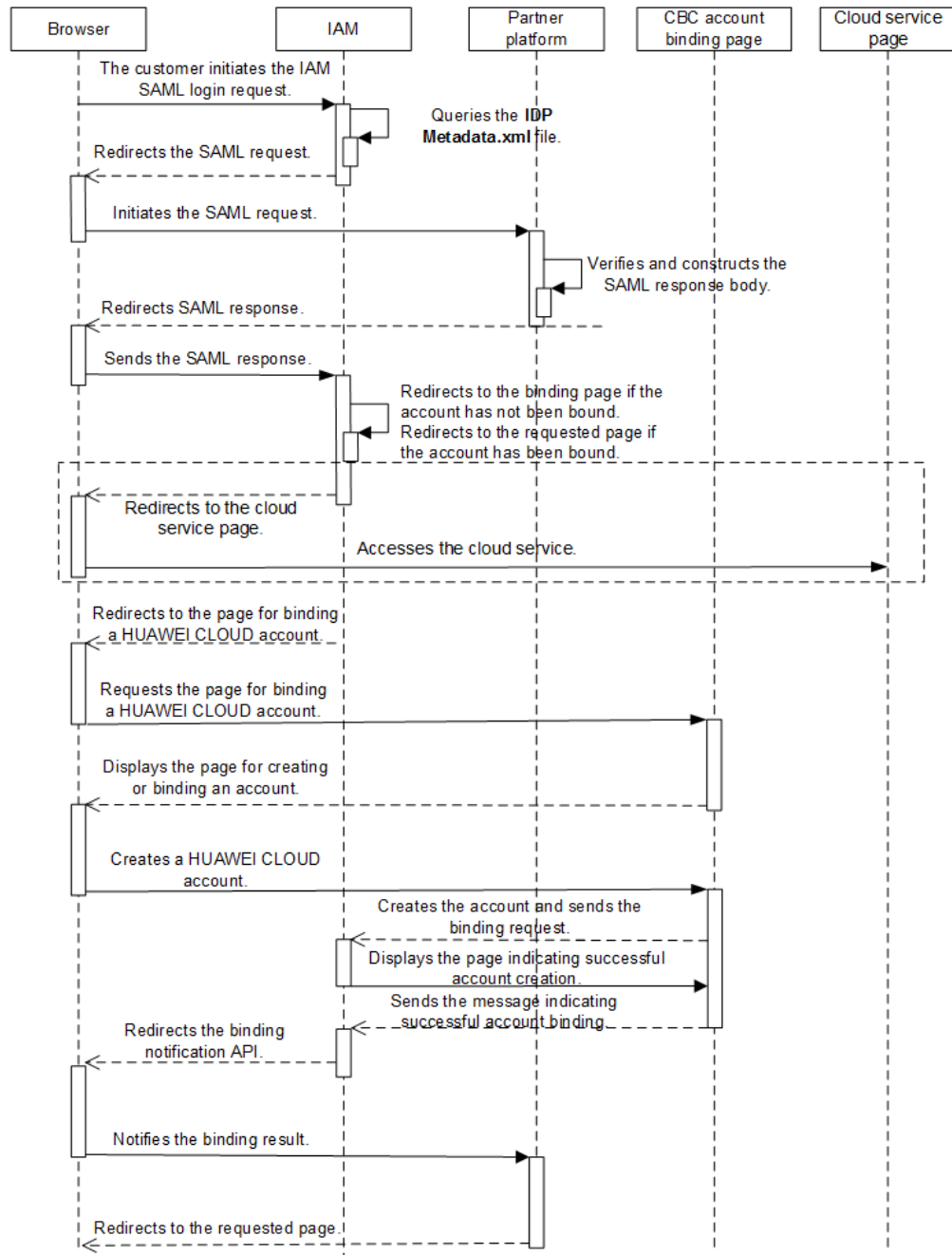


1. A partner's customer uses a browser to call the HUAWEI CLOUD login link. IAM sends the SAML request.

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

   https://auth-intl.huaweicloud.com/authui/saml/login? **xAccountType**=*ZX7*&**isFirstLogin**=*true*&**service**=https%3a%2f %2fconsole-intl.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**. | true |
| service | No | Indicates the redirection address after login. The encodeURIComponent function is used for coding. | https%3a%2f%2fconsole-intl.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.

| 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-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 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 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/SAMLAssertionConsumer"
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:StatusMessage>
  </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:DigestValue>
        </ds:Reference>
      </ds:SignedInfo>
      <!-- Partner signature value. For details about how to obtain the value, see the
following description. -->
```

```
    <ds:SignatureValue>

YqTWQngAPfGqQmWa610PM7LeefqWdKuveUVINrqL67NoHJIDa2WxLwdVzoJIUh64QiNPr6+ndm
L DCMgIC5F/9ijuzhIICZcc6lHNIjy6EsPkKRjfo9oeoVAqLgG/kmVQYeHLBID0y11RNXXpAVY4nhJ
26KilVGt7ywyKAmhichE+eW/UYAGiOI5vkfgD2gZUGV+yPkv64k7xK4yAH3mL2NaCPuw/90e4enm
iUx0YuazDwM5FiRUSMpcJs0rcNmS6clWAUcCzbOx+y2vJGtTjHb7k3UsmpnTop5eYNp94+sDPEat
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
+Wc62bkRkc nUxfhiZwCwJdQCykzuLOAoATnfoEamV5W25xtSS5kFs+4OC0mYVpKcI3SWoydX
+UE5Qik5UfJ8Dt G1AvSEKhSluyO9axrV5Uv089jMxBnlm/R+xND73WcZM11yIbKJEZSTCEDfh
+KnFbMw108umFMden RZCrNWUJoSp/90XeG0V2Nmj7Fkq72skSifwIASLRq9KqLbmh1QwUX
+AoWpHK/jRUBustMBmG1n1i
        AqpD4EBjjBOB27k1wXZ30+IoJt8IZmfSZRFoNn5VFWXNeEmZ1aQvGSvd3Tyyw2/Wr+w/
8Mags69C 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:unspecified</
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 13-1** 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. |

| Parameter | Description |
|---|---|
| bpId | Indicates the partner ID.<br><br>For details, see How Do I Check the Partner ID? |
| email | Indicates the email address.<br><br>This parameter is optional.<br><br>The parameter must meet the following requirements:<br><br>● Must be unique for each customer.<br><br>● A maximum of 64 characters<br><br>● 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.<br><br>This parameter is optional.<br><br>The parameter must meet the following requirements:<br><br>● Must be 5 to 32 characters long.<br><br>● Can contain only letters, digits, hyphens (-), and underscores (_), and cannot start with a digit. Can contain spaces in the middle.<br><br>● Passes the verification using the following regular expression: **^([a-zA-Z\\_\\- ][0-9a-zA-Z\\_\\- ]*)+$** |

> 📖 **NOTE**
>
> **Table 13-1** 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 **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%2BHEXEPzRNnd9

wX6LQaqPQ%2F%2Bc4IJufmvz7Rue%2FAA%3D%3D&RelayState=_lidh2rjxc81dnuc72qmpbslf4bml6r9fgt

n8rNI5twTosXm0NhZDj%2BGnfVBfG9T4X5nisoK843vRqzY1JCPmb0swQWb%2FFHryetP9deoceEBkTgf81xM1

HCPUJ%2BNSZc5aUinPUDIn9gxGsEMosv8f%2FcYPe1GL%2F9iMS1ChGElk18Rmj6Y5F3SVrFEsVVYMckzPPAzh

L2Ts%2B4BW8YbdqeUyfIKJwruVfX8KoHdC8xCl8bRN5mOHqAjCMYTQAJrCm%2BBGJVxUXit0gYeqkYH6dYkVfh

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: PD94bWwgdmVyc2lvbj0iMS4wIiBlbmNvZGluZz0iVVRGLTgiPz4KPHNhbWxwcDpSZXNwb25

MDAzYmYwYjkxN2NmMCIgSW5zZXNwb25zZVRvPSJfZGNrNG1tMDhxbWRoYzhrNG51aXIwN2hnaGV0ZHFxZzh1bk

1lczp0YzpTQU1MOjIuMDpwcm90b2NvbCI+PHNhbWxwOklzc3VlciBGb3JtYXQ9InVybjpvYXNpczpuYW1lczp0

Pmh0dHBzOi8vaWRwLm1lzZXNvbC5jb20vaWRwL3NoaWJib2xldGg8L3NhbWxwOklzc3Vlcj48c2FtbDpO 1N0Y>

RhdHVzTWVzc2FnZT51cm46b2FzaXM6bmFtZXM6dGM6U0FNTDoyLjA6c3RhdHVzOlN1Y2Nlc3M8L3NhbWxwyDpT

IElzc3VlSW5zdGFudD0iMjAxOC0xMC0zMFQwODoyMTo0MS43NDBaIiBWZXJzaW9uPSIyLjAiIHhtbG5zOnNhbb

| 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.

   – **Figure 13-2** 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.

**Figure 13-2** Page for creating a HUAWEI CLOUD account
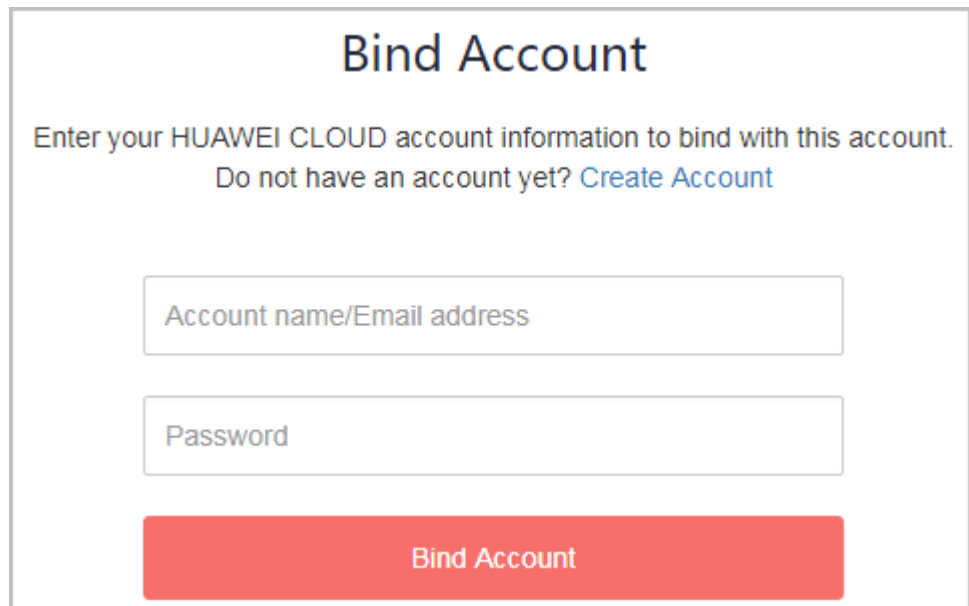


– If the partner's customer already has a HUAWEI CLOUD account, click **Bind Account** on the page shown in **Figure 13-3**. On the displayed page, configure the required parameters as prompt and click **Bind Account** to bind the HUAWEI CLOUD account with the customer account on the partner sales platform.

⬜ **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 consumption records or resource provisioned
- Containing valid reserved instances

**Figure 13-3** Page for binding a HUAWEI CLOUD account



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.

# 13.3 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 **Configuring the Access Parameters**.

---

After you configure the access parameters, you can obtain the **xaccountType** value (**Partner Platform ID** value) on the **Configure** page.
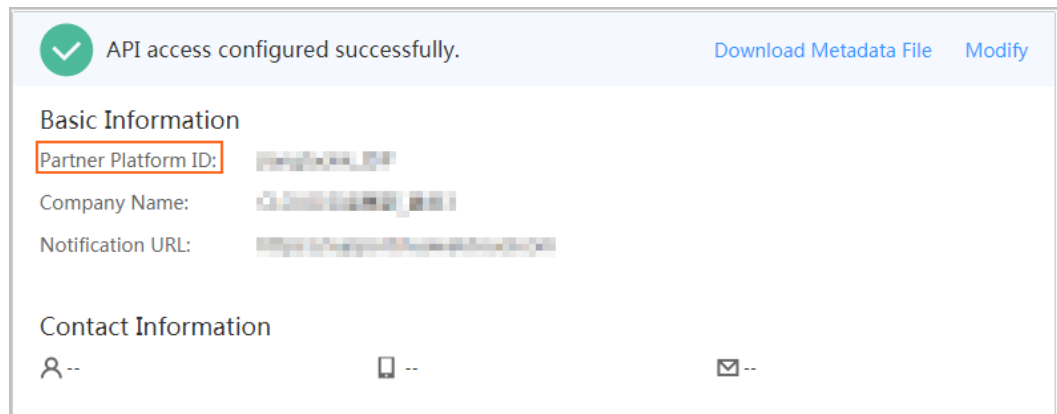


# 13.4 How Can I Replace a Partner Token with a Customer Token

## Operations

1.  Invoke the IAM API to obtain your Huawei Cloud account token. For details, see **Obtaining a User Token Through Password Authentication**.

    📖 **NOTE**

    For details about the IAM API endpoints, see **Regions and Endpoints**. 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 13-4**, 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 13-4** Obtaining partner's HUAWEI CLOUD account token
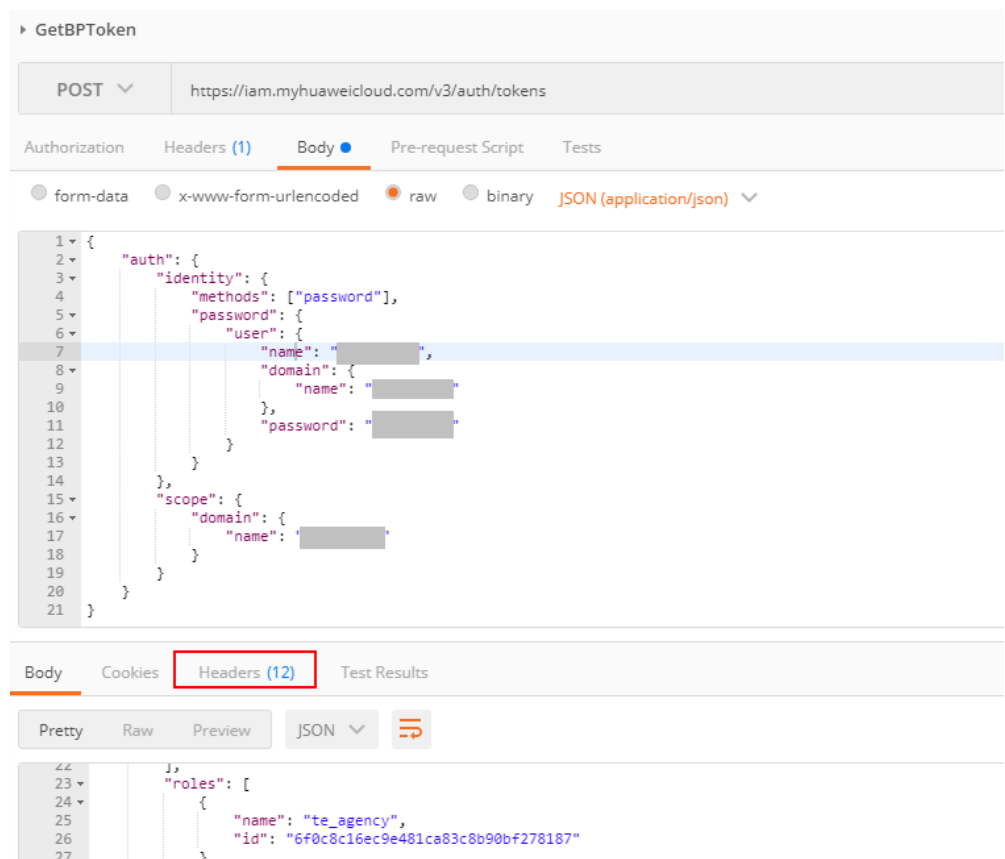


2. Invoke the IAM API to obtain the customer account token. For details, see **Obtaining an Agency Token**.

   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 13-5**, 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 13-5** Obtaining customer's HUAWEI CLOUD account token
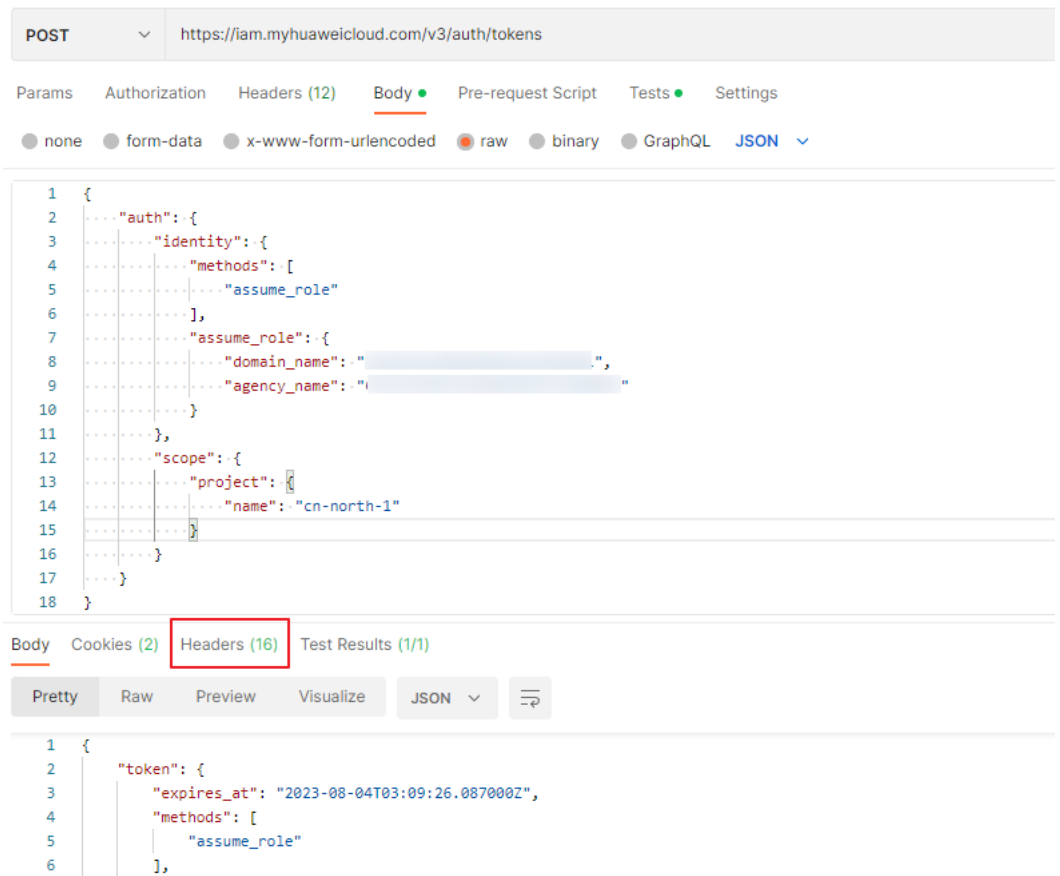


Response body descriptions

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

**Figure 13-6** Permissions descriptions



- Information marked in the red box in **Figure 13-7** is the project ID.

**Figure 13-7** Project ID



# 13.5 File Subscription

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

📖 **NOTE**

- A reseller partner can subscribe to the files that contain customer resource usage details and the files that contain customer resource usage details and partner bill.

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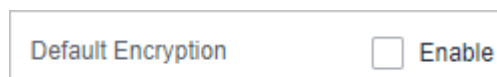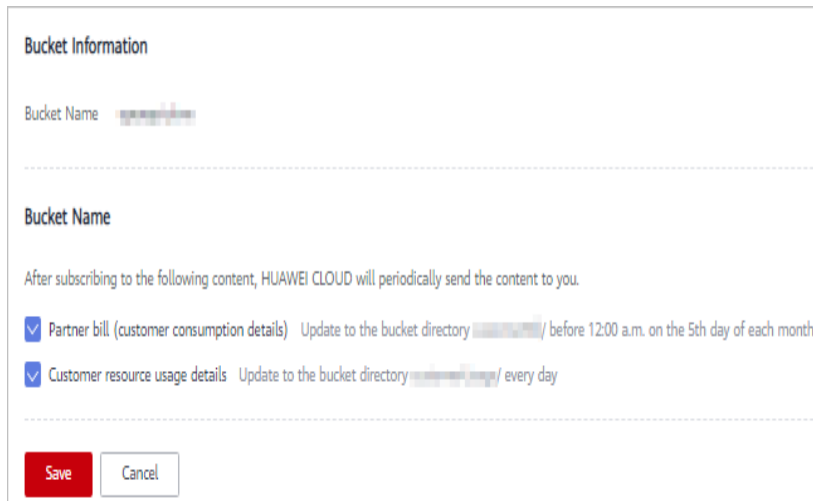
## Procedure

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

**Step 2** Click **File Subscription**.
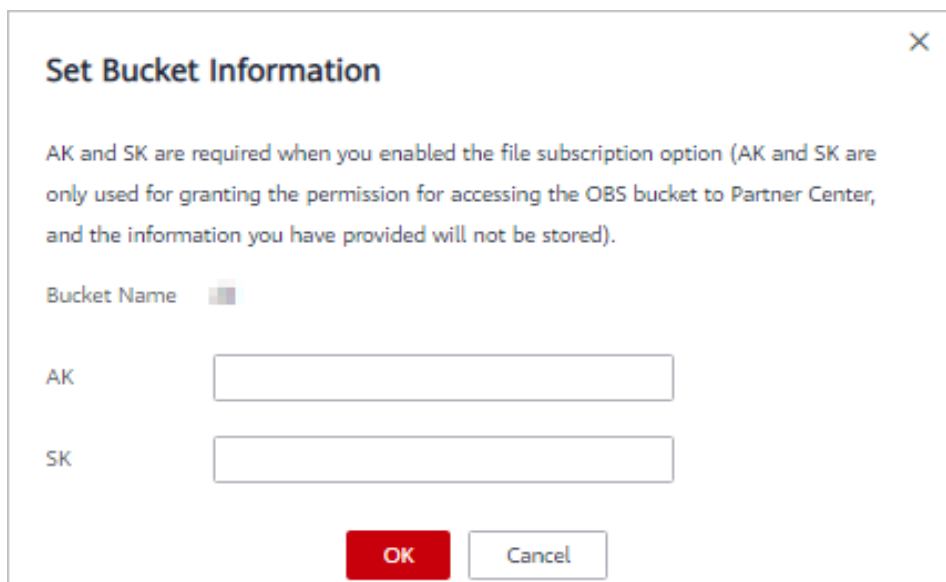
**Step 3** If the partner has enabled real-name authentication, the bucket information is displayed on the **File Subscription** page.

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**

# 13.6 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**.
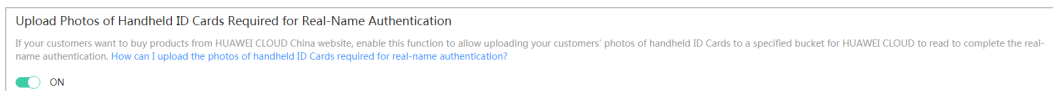


☐ NOTE

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 Hong Kong region can be used.

**Step 4** Upload the attachment for real-name authentication to the OBS bucket created by the partner. For details, see **Object Upload Overview**.

**----End**

# 13.7 Support for Discounts or Coupons

When a partner invokes the interface described in **8.4.2 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 **Auto-Renewal Rules**.

# 13.8 Status Code

Table 13-2 lists the HTTP response status code.

**Table 13-2** 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. |
| 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. |

| Status Code | Coding | Description |
|---|---|---|
| 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. 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. |

| Status Code | Coding | Description |
|---|---|---|
| 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. |
| 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. |

| Status Code | Coding | Description |
|---|---|---|
| 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.<br><br>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. |

# 13.9 Error Codes

## Function Description

This section describes the error code and message for the operational APIs provided by Huawei Cloud for partners.

> **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 13-3** Error codes

| Status Code | Error Code | Error Message | Description |
|---|---|---|---|
| 200 | CBC.0000 | Success. | Succeeded. |
| 403 | CBC.0156 | 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. |

| Status Code | Error Code | Error Message | Description |
|---|---|---|---|
| 200 | CBC.300500 10 | This operation is not allowed because some resources are included in the unpaid orders. | Some resources are included in your orders to be paid. The operation is not supported. |
| 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. |

| Status Code | Error Code | Error Message | Description |
|---|---|---|---|
| 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 unsubscribed from as a whole. | The cloud service can only be 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. |
| 400 | CBC.500000 30 | Setting budgets not supported. This reseller's budget quota is insufficient. | Setting budgets not supported. This reseller's budget quota is insufficient. |
| 400 | CBC.500000 33 | Budget setting permissions have been revoked. This reseller cannot set budgets. | Budget setting permissions have been revoked. This reseller cannot set budgets. |
| 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. |

| Status Code | Error Code | Error Message | Description |
|---|---|---|---|
| 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 or empty. | The resource ID or reserved instance ID is 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. |

| Status Code | Error Code | Error Message | Description |
|---|---|---|---|
| 400 | CBC.18000053 | Insufficient permissions. Contact your enterprise master. | Insufficient permissions. Contact your enterprise master. |
| 400 | 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.30000067 | Unsubscription not supported. This resource has been deleted or the subscription to this resource has not been synchronized to CBC. | Unsubscription not supported. This resource has been deleted or the subscription to this resource has not been synchronized to CBC. |
| 400 | CBC.30000052 | The resource or account has been already frozen. | Operation not allowed. Your resource has been frozen. |
| 400 | CBC.30000053 | Unsubscription not supported. The billing mode of the resource is Savings Plans. | Unsubscription not supported. The billing mode of the resource is Savings Plans. |
| 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. |

| Status Code | Error Code | Error Message | Description |
|---|---|---|---|
| 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. |
| 200 | CBC.500000 53 | Unfreezing customer account failed. Selected object and the frozen object do not match. | Unfreeze customer account failed. Selected object and the frozen object do not match. |
| 400 | CBC.500100 59 | Customer association not supported for distributors. | Customer association not supported for distributors. |
| 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.500101 20 | Customer development not supported. There are no credits granted for the partner. | Customer development not supported. There are no credits granted for the partner. |
| 200 | CBC.703000 07 | Account frozen. To change the frozen scope, unfreeze the account first. | Changing freezing objects failed. Unfreeze this account first. |

| Status Code | Error Code | Error Message | Description |
|---|---|---|---|
| 400 | CBC.7060000 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 card is invalid or blurred. | The picture of the ID card is invalid 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. |

| Status Code | Error Code | Error Message | Description |
|---|---|---|---|
| 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.9900000 00 | You do not have the operation permission to the customer. | You do not have the operation permission to the customer. |
| 400 | CBC.9900000 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.9900000 26 | Incorrect verification code. | Incorrect verification code. |
| 400 | CBC.9900000 27 | Expired verification code. | Expired verification code. |
| 400 | CBC.9900000 28 | The email address already exists. | Invalid email address. Email already in-use. |

| Status Code | Error Code | Error Message | Description |
|---|---|---|---|
| 400 | CBC.990000031 | Invalid DomainName. | Invalid DomainName. |
| 400 | CBC.990000032 | Invalid email address. | Invalid email address. |
| 400 | CBC.990000034 | 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.990000035 | This customer has not been associated with you. | You are not a customer of a partner yet. |
| 400 | CBC.990000036 | Invalid password. | Invalid password. |
| 400 | CBC.990000037 | 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.990000038 | The account name already exists. | The account name already exists. |
| 400 | CBC.990000039 | xAccountId exists. | Duplicate xAccountId. |
| 400 | CBC.990000046 | Insufficient budget. | Insufficient budget. |
| 400 | CBC.990000049 | BindType can not be resale. | The customer associated in Reseller model has no account balance. |
| 400 | CBC.990000051 | 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.990000055 | Referral model not supported. | Referral model not supported. |

| Status Code | Error Code | Error Message | Description |
|---|---|---|---|
| 400 | CBC.990000 82 | You have exceeded the maximum verification code requests allowed. | Maximum verification code requests reached. |
| 400 | CBC.990000 88 | We have received your payment and it is currently being processed. Please do not attempt to make the payment again. | Your payment is being processed. |
| 400 | CBC.990000 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.990000 92 | Incorrect subscription period. | Incorrect subscription period. |
| 400 | CBC.990000 99 | The certificate attachment the customer submitted for real-name authentication exceeded the maximum size allowed. | The certificate attachment the customer submitted for real-name authentication exceeded the maximum size allowed. |
| 400 | CBC.990001 00 | Incorrect format of the certificate attachment the customer submitted for real-name authentication. | Incorrect format of the certificate attachment the customer submitted for real-name authentication. |
| 400 | CBC.990030 04 | The resource has dependencies. | The resource has dependencies. |
| 400 | CBC.990030 12 | The resource ID does not exist. | The resource ID does not exist. |
| 400 | CBC.990030 16 | The resources have expired and been deleted or do not exist. | The resources have expired and been deleted or do not exist. |

| Status Code | Error Code | Error Message | Description |
|---|---|---|---|
| 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 discount at the same time. | 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 |
|---|---|---|---|
| 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. |

| Status Code | Error Code | Error Message | Description |
|---|---|---|---|
| 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 durations has exceeded the maximun. Select another renewal duration. | Subscription plus renewal too long. Select shorter renewal. |
| 400 | CBC.990031 55 | Insufficient enterprise project fund quota, or invalid project. | Insufficient enterprise project fund quota, or invalid project. |
| 400 | CBC.990031 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.990031 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.990031 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.990031 98 | Insufficient organization budget. | Insufficient budget of the organization. |
| 400 | CBC.990036 02 | Automatic renewal is not supported for expired or frozen resources. | Automatic renewal is not supported for expired or frozen resources. |
| 400 | CBC.990036 05 | Theautomatic renewal has been canceled. The current operation cannot be performed. | Automatic renewal has been canceled and you cannot perform the current operation. |

| Status Code | Error Code | Error Message | Description |
|---|---|---|---|
| 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 grace or retention period cannot be converted into pay-per-use. |
| 400 | CBC.9900036 11 | The billing mode of pay-per-usage packages cannot be converted into pay-per-use. | The billing mode of pay-per-usage packages cannot be converted into pay-per-use. |
| 400 | CBC.9900036 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.9900036 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.9900036 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.9900036 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.9900036 31 | Unsubscribed,dele ted, and released resources cannot be renewed. | Resources that are being unsubscribed, deleted, or released cannot be renewed. |

| Status Code | Error Code | Error Message | Description |
|---|---|---|---|
| 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 | Unsubscriptions 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 resource. | Unsubscription not supported for this cloud service type. |
| 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 in 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. |

| Status Code | Error Code | Error Message | Description |
|---|---|---|---|
| 400 | CBC.9900365 4 | This renewal period cannot be canceled because it includes an add-on bandwidthpackag e. | If there is a bandwidth add-on package, you cannot unsubscribe from the renewal period. |
| 400 | CBC.9900365 6 | Operation not allowed. Your account has been frozen. | Operation not allowed. Your resource has been frozen. |
| 400 | CBC.9900400 01 | The template does not exist. | The template does not exist. |
| 400 | CBC.9900400 02 | Failed to generate the verification code. | Failed to generate the verification code. |
| 400 | CBC.9900400 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.9900400 04 | Empty email address./Invalid format. | Empty email address./Invalid format. |
| 400 | CBC.9900400 05 | Empty mobile number./Invalid format. | Empty mobile number./Invalid format. |
| 400 | CBC.9900400 07 | Failed to verify the email address. | Failed to verify the email address. |
| 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. |

| Status Code | Error Code | Error Message | Description |
|---|---|---|---|
| 400 | CBC.9900040 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.9900050 03 | Your balance is insufficient. | Insufficient balance. |
| 400 | CBC.9900050 10 | Orders in this state cannot be canceled. | Orders in this state cannot be canceled. |
| 400 | CBC.9900050 36 | The customer does not support payment via interface. | The customer does not support payment via interface. |
| 400 | CBC.9900050 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.9900050 26 | The order is not a degrade or unsubscription order. | The order is not a degrade or unsubscription order. |
| 400 | CBC.9900050 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.9900050 35 | This API cannot be used by a sandbox account. | This API cannot be used by a sandbox account. |
| 400 | CBC.9900050 42 | The resource cannot be found or unsubscribed from. | The resource cannot be found or unsubscribed from. |
| 400 | CBC.9900060 06 | Product not found. | Product not found. |

| Status Code | Error Code | Error Message | Description |
|---|---|---|---|
| 400 | CBC.990060 16 | Failed to query coupon information. | Failed to query coupon information. |
| 400 | CBC.990060 17 | Failed to query customer details. | Failed to query customer information. |
| 400 | CBC.990060 24 | Failed to query product information. | Failed to query product information. |
| 400 | CBC.990060 50 | Incorrect usage measurement unit. | Incorrect usage unit |
| 400 | CBC.990060 55 | The queried amount exceeds the upper limit. | The queried amount exceeds the upper limit. |
| 400 | CBC.990060 66 | An error occurred during the query of the fee information. | An error occurred during the query of the fee information. |
| 400 | CBC.990060 73 | Project not found. | Project not found. |
| 400 | CBC.990060 74 | The billing item does not exist. | The billing item does not exist. |
| 400 | CBC.990060 93 | Failed to obtain tax rate information. | Failed to obtain the tax rate. |
| 400 | CBC.990071 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.990071 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.990071 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. |

| Status Code | Error Code | Error Message | Description |
|---|---|---|---|
| 400 | CBC.990071 93 | 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. |
| 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. |
| 400 | CBC.990080 56 | The maximum number of transactions allowed today has been reached. | The maximum number of transactions allowed today has been reached. |
| 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. |

| Status Code | Error Code | Error Message | Description |
|---|---|---|---|
| 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. |
| 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. |

| Status Code | Error Code | Error Message | Description |
|---|---|---|---|
| 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.500000 36 | Credit limit adjustment for customers is not allowed because the partner is now in the credit control state. | Setting budgets for customers is not allowed because the partner is now in the credit control state. |
| 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**. |
| 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. |

| Status Code | Error Code | Error Message | Description |
|---|---|---|---|
| 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. |

# 13.10 SDK Overview

This document provides the SDKs of different programming languages for partners and the addresses for obtaining the latest SDK versions.

## Generating SDK Code Online

Use **API Explorer** to dynamically generate SDK code.

## SDKs

**Table 1** lists the SDK versions supported by partners. You can view SDK updates, obtain installation packages, and view user guides in GitHub.

**Table 13-4** SDKs

| Programming Languages | GitHub Address | Documentation |
|---|---|---|
| Java | **huaweicloud-sdk-java-v3** | **Java SDK Usage Guide** |
| Python | **huaweicloud-sdk-python-v3** | **Python SDK Usage Guide** |
| Go | **huaweicloud-sdk-go-v3** | **Go SDK User Guide** |
| NodeJs | **huaweicloud-sdk-nodejs-v3** | **Node.js SDK User Guide** |
| .NET | **huaweicloud-sdk-net-v3** | **.Net SDK Usage Guide** |
| PHP | **huaweicloud-sdk-php-v3** | **PHP SDK User Guide**' |
| C++ | **huaweicloud-sdk-cpp-v3** | **C++ SDK User Guide** |

# 13.11 SDK-related FAQ

## How Do I Update the SDK Version?

The SDK version will be updated in parallel after a product is updated. If the current version is not the latest, you are advised to update the SDK version.

After logging in to the **SDK Center**, you can access and use SDK V3.

You can select an SDK by service and language in SDK Center. The code repository, Nuget repository, and related APIs are included.
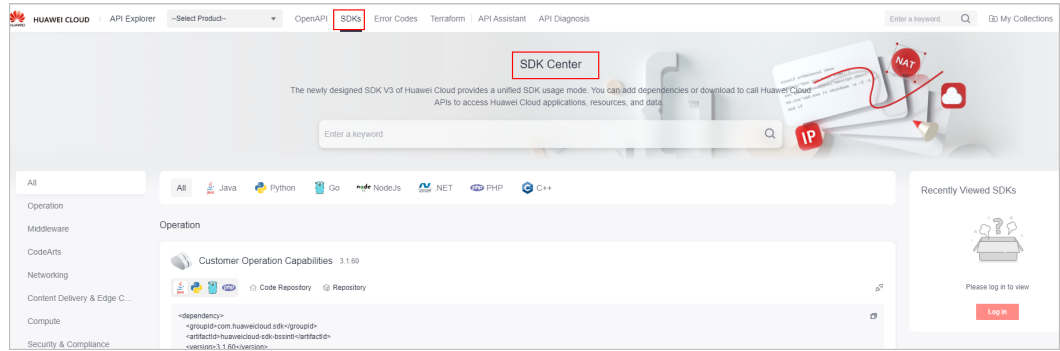
## Can I Modify the Region of an SDK?

The region of an SDK is a global domain name and cannot be modified. If you modify the region, APIs cannot be debugged. The following figure shows an example in Java.
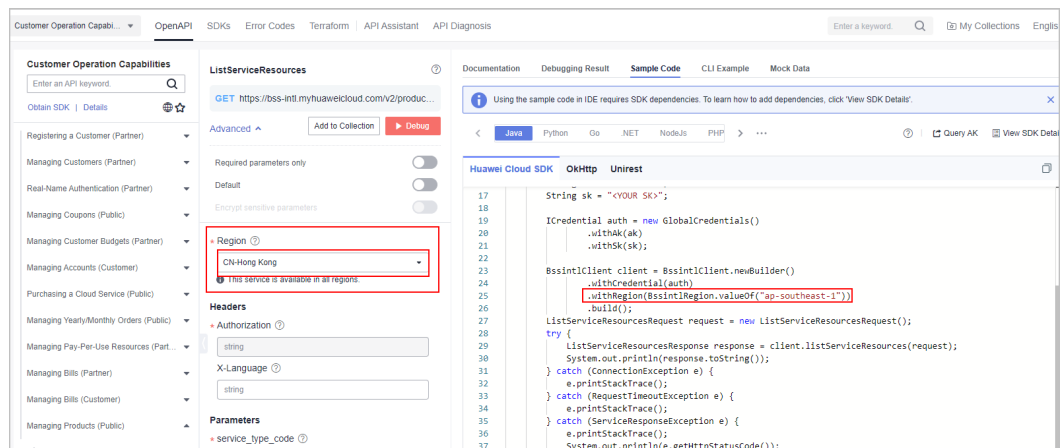


# 13.12 Cipher Suites Allowed in TLS1.2 and TLS1.3

The Internet Assigned Numbers Authority (IANA) is responsible for assigning numbers to all TLS cipher suites. The following table lists all secure IANA cipher suites that comply with Huawei's specifications. (The cipher suites recommended by IANA are not universally accepted by all standard organizations. Therefore, Huawei has conducted a screening process to select suites that meet the requirements of various organizations.) Cipher suites are classified into two security levels: high and medium. A cipher suite is considered high-level if it supports Perfect Forward Secrecy and AES symmetric encryption algorithms (GCM/CCM/CHACHA20-POLY1305). However, this criterion may change in the future based on the security level of TLS industry practices. Cipher suites that meet Huawei specifications but do not meet the high-level criteria are considered medium-level cipher suites.

## Cipher Suites Allowed in TLS1.2

| IANA Code | IANA Cipher Suite | Security Level |
|---|---|---|
| 0x00,0x9E | TLS_DHE_RSA_WITH_AES_128_GCM _SHA256 | HIGH |
| 0x00,0x9F | TLS_DHE_RSA_WITH_AES_256_GCM _SHA384 | HIGH |
| 0x00,0xA2 | TLS_DHE_DSS_WITH_AES_128_GCM_ SHA256 | HIGH |
| 0x00,0xA3 | TLS_DHE_DSS_WITH_AES_256_GCM_ SHA384 | HIGH |
| 0x00,0xA9 | TLS_PSK_WITH_AES_256_GCM_SHA3 84 | MEDIUM |
| 0x00,0xAA | TLS_DHE_PSK_WITH_AES_128_GCM_ SHA256 | HIGH |
| 0x00,0xAB | TLS_DHE_PSK_WITH_AES_256_GCM_ SHA384 | HIGH |
| 0xCC,0xAD | TLS_DHE_PSK_WITH_CHACHA20_PO LY1305_SHA256 | HIGH |
| 0xC0,0x2B | TLS_ECDHE_ECDSA_WITH_AES_128_ GCM_SHA256 | HIGH |
| 0xC0,0x2C | TLS_ECDHE_ECDSA_WITH_AES_256_ GCM_SHA384 | HIGH |
| 0xC0,0x2F | TLS_ECDHE_RSA_WITH_AES_128_GC M_SHA256 | HIGH |
| 0xC0,0x30 | TLS_ECDHE_RSA_WITH_AES_256_GC M_SHA384 | HIGH |
| 0xCC,0xA8 | TLS_ECDHE_RSA_WITH_CHACHA20_ POLY1305_SHA256 | HIGH |
| 0xCC,0xAC | TLS_ECDHE_PSK_WITH_CHACHA20_ POLY1305_SHA256 | HIGH |
| 0xD0,0x01 | TLS_ECDHE_PSK_WITH_AES_128_GC M_SHA256 | HIGH |
| 0xD0,0x02 | TLS_ECDHE_PSK_WITH_AES_256_GC M_SHA384 | HIGH |
| 0xD0,0x05 | TLS_ECDHE_PSK_WITH_AES_128_CC M_SHA256 | HIGH |
| 0xC0,0x9E | TLS_DHE_RSA_WITH_AES_128_CCM | HIGH |
| 0xC0,0x9F | TLS_DHE_RSA_WITH_AES_256_CCM | HIGH |

| IANA Code | IANA Cipher Suite | Security Level |
|-----------|-------------------|----------------|
| 0xCC,0xAA | TLS_DHE_RSA_WITH_CHACHA20_POLY1305_SHA256 | HIGH |
| 0xC0,0xA5 | TLS_PSK_WITH_AES_256_CCM | MEDIUM |
| 0xC0,0xA6 | TLS_DHE_PSK_WITH_AES_128_CCM | HIGH |
| 0xC0,0xA7 | TLS_DHE_PSK_WITH_AES_256_CCM | HIGH |
| 0xC0,0xAC | TLS_ECDHE_ECDSA_WITH_AES_128_CCM | HIGH |
| 0xC0,0xAD | TLS_ECDHE_ECDSA_WITH_AES_256_CCM | HIGH |
| 0xCC,0xA9 | TLS_ECDHE_ECDSA_WITH_CHACHA20_POLY1305_SHA256 | HIGH |

**Cipher Suites Allowed in TLS1.3**

| IANA Code | IANA Cipher Suite | Security Level |
|-----------|-------------------|----------------|
| 0x13,0x01 | TLS_AES_128_GCM_SHA256 | HIGH |
| 0x13,0x02 | TLS_AES_256_GCM_SHA384 | HIGH |
| 0x13,0x03 | TLS_CHACHA20_POLY1305_SHA256 | HIGH |
| 0x13,0x04 | TLS_AES_128_CCM_SHA256 | HIGH |

According to RFC 8998, the SM series cryptographic algorithm suite is added to TLS1.3. The following two algorithm suites cannot be used in other TLS versions.

| IANA Code | IANA Cipher Suite |
|-----------|-------------------|
| 0x00,0xC6 | TLS_SM4_GCM_SM3 |
| 0x00,0xC7 | TLS_SM4_CCM_SM3 |

# 13.13 Price Inquiry API Guide

# 13.13.1 Price Inquiry Example of Yearly/Monthly Products (Using the Price Calculator)

The request parameters for querying the price of a yearly/monthly product using an API can be obtained through the **price calculator**.

ECS is used as an example:

**Region**: **CN North-Beijing4**

**AZ**: **General AZ**

**Billing Mode**: **Yearly/Monthly**

**CPU Architecture**: **x86**

**Type**: **General computing-plus C6 | 2 vCPUs | 4 GB**

**System Disk**: **General Purpose SSD 40 G**

**Required Duration**: **1 Month**

**Quantity**: **1**

**Step 1** Go to the **Price Calculator** page and press F12 to open the console. Set the parameters based on the example.



**Step 2** Click **Network** > **resource** > **Payload** to view request parameters.
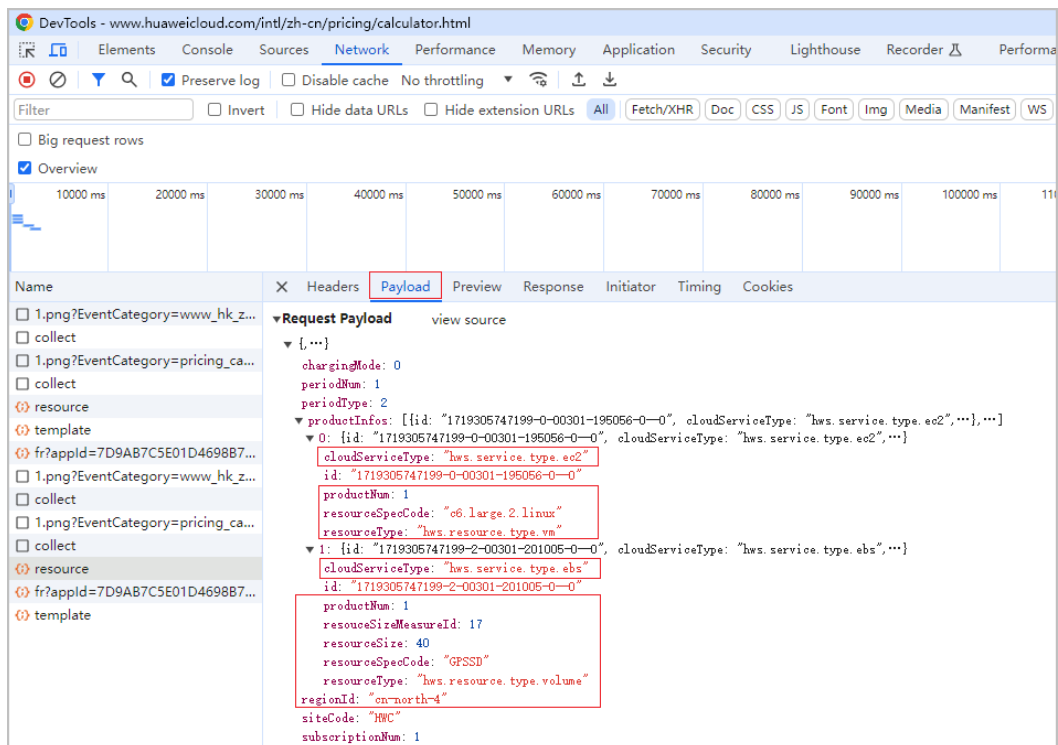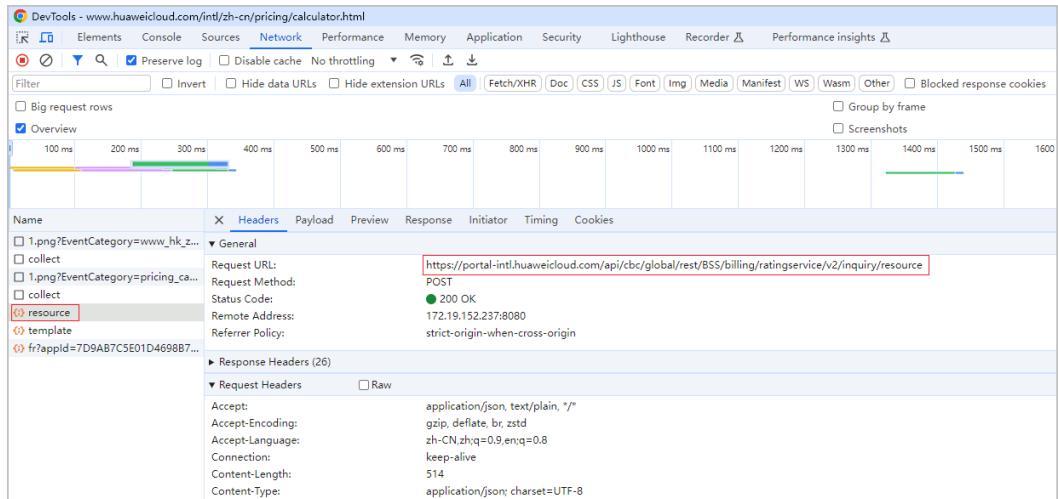
**Step 3** Add the parameters obtained in **Step 2** to the request.

As there are two products, an ECS and a disk, involved, two **product_infos** structures are required. The following shows an example of a **product_infos** structure.

```
{
    "project_id": "84c5********fb2420",
    "product_infos": [
        {
            "id": "1",
            "cloud_service_type": "hws.service.type.ec2",
            "resource_type": "hws.resource.type.vm",
            "resource_spec": "c6.large.2.linux",
            "region": "cn-north-4",
            "period_type": 2,
            "period_num": 1,
            "subscription_num": 1
        },
```

```
    {
        "id": "2",
        "cloud_service_type": "hws.service.type.ebs",
        "resource_type": "hws.resource.type.volume",
        "resource_spec": "GPSSD",
        "region": "cn-north-4",
        "resource_size": 40,
        "size_measure_id": 17,
        "period_type": 2,
        "period_num": 1,
        "subscription_num": 1
    }
  ]
}
```

**Step 4**  (Optional) Go to **API Explorer** and add **product_infos** to the request body. The same results will return as that obtained using the price calculator.
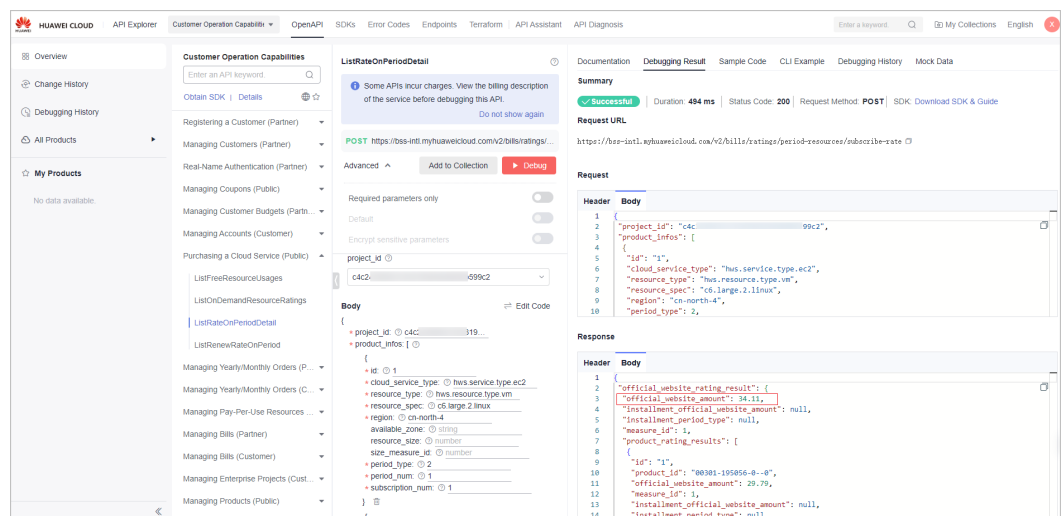


**----End**

# 13.13.2 Price Inquiry Example of Pay-Per-Use Products (Using the Price Calculator)

The request parameters for querying the price of a pay-per-use product using an API can be obtained through the **price calculator**.

ECS is used as an example:

**Region**: **CN North-Beijing4**

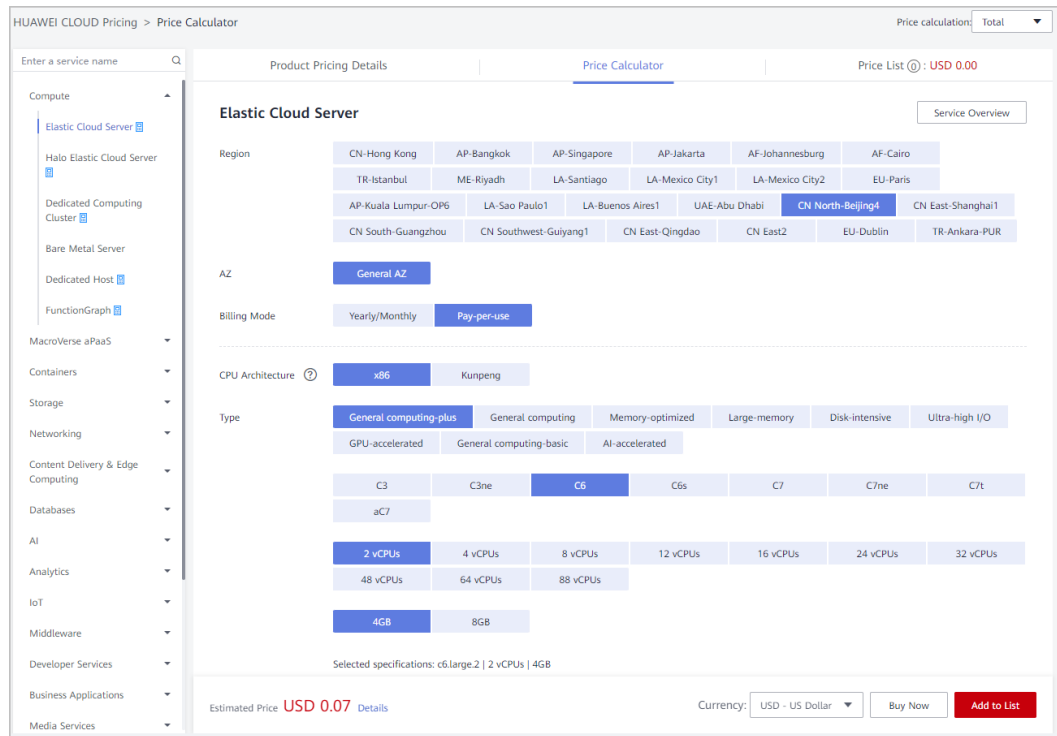**AZ**: **General AZ**

**Billing Mode**: **Pay-per-use**

**CPU Architecture**: **x86**

**Type**: **General computing-plus C6 | 2 vCPUs | 4 GB**

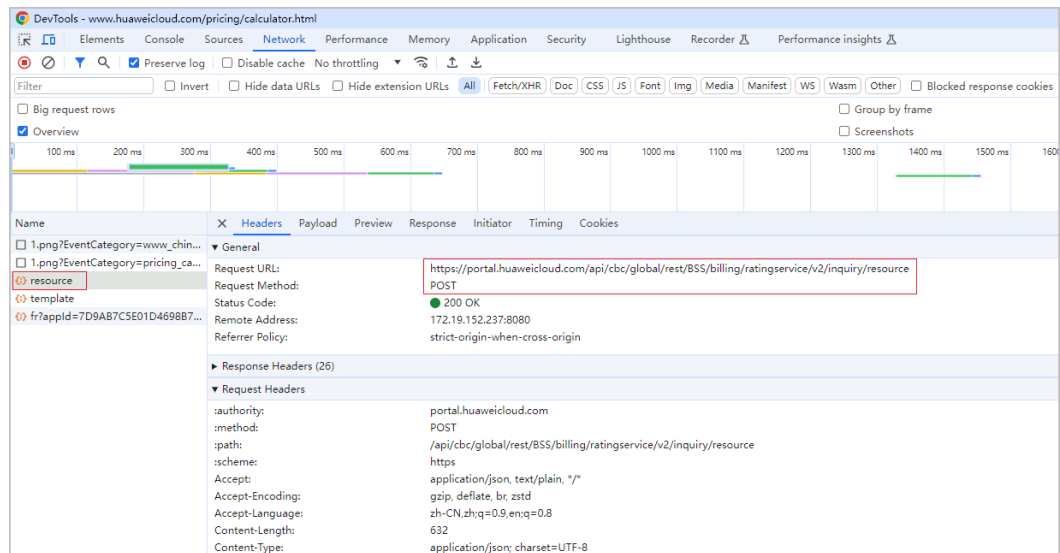**System Disk**: **General Purpose SSD 40 GB**
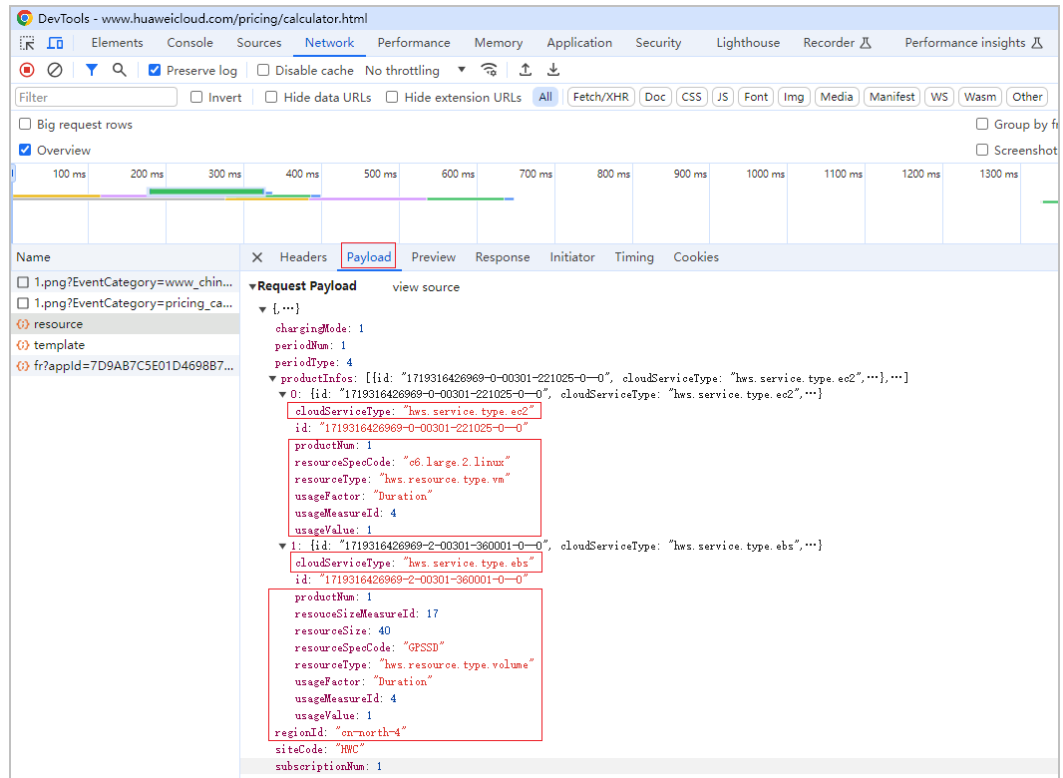
**Required Duration**: **1 Month**

**Quantity**: **1**

**Step 1** Go to the **Price Calculator** page and press F12 to open the console. Set the parameters based on the example.



**Step 2** Click **Network** > **resource** > **Payload** to view request parameters.

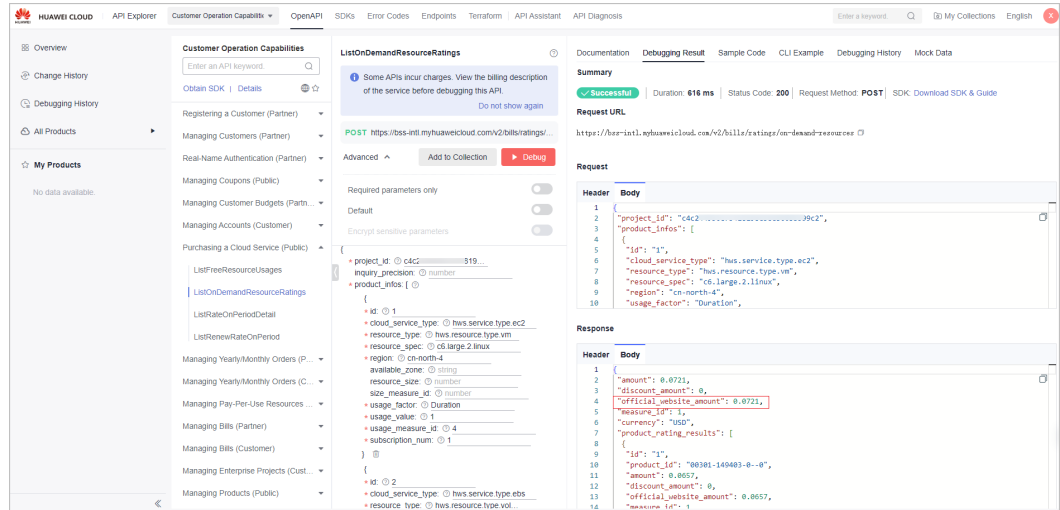**Step 3** Add the parameters obtained in **Step 2** to the request.

As there are two products, an ECS and a disk, involved, two **product_infos** structures are required. The following shows an example of a **product_infos** structure.

```
{
    "project_id": "c4c24********599c2",
    "product_infos": [
        {
            "id": "1",
            "cloud_service_type": "hws.service.type.ec2",
            "resource_type": "hws.resource.type.vm",
            "resource_spec": "c6.large.2.linux",
            "region": "cn-north-4",
            "usage_factor": "Duration",
            "usage_value": 1,
            "usage_measure_id": 4,
            "subscription_num": 1
        },
        {
            "id": "2",
            "cloud_service_type": "hws.service.type.ebs",
            "resource_type": "hws.resource.type.volume",
            "resource_spec": "GPSSD",
            "region": "cn-north-4",
            "resource_size": 40,
            "size_measure_id": 17,
            "usage_factor": "Duration",
            "usage_value": 1,
            "usage_measure_id": 4,
            "subscription_num": 1
        }
    ]
}
```

**Step 4** (Optional) Go to **API Explorer** and add **product_infos** to the request body. The same results will return as that obtained using the price calculator.



**----End**