

API Reference

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1 Change History

What's New	Released On
This issue is the 151st official release. This release incorporates the following changes: - Added the <code>period_num</code> field which indicates the number of periods to the responses of the V2 APIs for viewing resource usage details and viewing resource expenditures. - Added error code <code>CBC.99003139</code> to the V3 API for paying yearly/monthly product orders. <code>CBC.99003139</code>: The specifications of an expired or frozen resource cannot be changed. Renew the resource and try again.	2025-11-27
This issue is the 150th official release. This release incorporates the following change: Added the <code>account_name</code> field to the responses of the V2 APIs for querying bill summary, and viewing resource usage details, and viewing resource expenditures. The <code>account_name</code> field indicates the login name of a customer.	2025-10-27
This issue is the 149th official release. This release incorporates the following change: Added the <code>agent_pay_info</code> field to the response of the API for querying order list. The <code>agent_pay_info</code> field indicates the agent payment information of customer orders.	2025-09-22
This issue is the 148th official release. This release incorporates the following change: Added the V2 API for querying expenditure quota. Customers can use this API to query their expenditure quotas.	2025-08-28

What's New	Released On
This issue is the 147th official release. This release incorporates the following changes: • Changed the traffic quota of the V2 API for querying the price of a pay-per-use product from 10/1(s) to 20/1(s). • Added the auto_renew_times request parameter to the V2 API for enabling auto renewal for yearly/monthly resources. auto_renew_times indicates the number of auto renewals. Auto renewal will end after the specified number of auto renewals is reached. • Added the enumerated values 5 (Deleted resources), 6 (Supplement), 7 (Compensation), and 8 (Auto-created) to the response parameter source_type of the V2 APIs for querying orders and querying order details. • Added the enumerated value 18 (expenditure - monthly payment) to the query parameter bill_type of the V2 APIs for viewing resource expenditures and viewing resource usage details. • For the V2 APIs for querying bill summary and viewing resource expenditures, when a customer is a monthly-paid subscriber, the response parameter debt_amount indicates monthly settlement. When a customer is not a monthly-paid subscriber, the response parameter debt_amount indicates the outstanding amount.	2025-07-28
This issue is the 146th official release. This release incorporates the following changes: • The number of decimal places in the unit_price parameter in the response of the V2 API for viewing resource expenditures is changed from 8 to 10, which is consistent with the actual product unit price. • The error code CBC.99003143: The product in this order is no longer available. is added to the V3 API for paying for yearly/monthly orders. • Brought the old V2 API for querying the resource package list offline. • The traffic quota is changed to 20/1(s) for the V2 APIs for querying the enterprise member account list and account balance.	2025-06-26

What's New	Released On
This issue is the sixty-fifth official release. This release incorporates the following changes: - Added the V2 API for setting a deduction date for auto-renewal of yearly/monthly resources and a same expiration date for renewed resources. - Added the V2 API for querying summary bills. The V1 API for querying summary bills is moved to the APIs to be brought offline.	2025-05-30
This issue is the sixty-fourth official release. This release incorporates the following changes: - Deleted the request parameter expire_policy (expiration policy) from the V2 API for renewing subscriptions to yearly/monthly resources. - Deleted the request parameter expire_mode (expiration policy) from the old API for renewing subscriptions to yearly/monthly resources.	2025-04-28
This issue is the sixty-third official release. This release incorporates the following change: The traffic quota of the V2 API for renewing yearly/monthly resources is changed from 10/1(s) to 20/1(s).	2025-03-24
This issue is the sixty-second official release. This release incorporates the following changes: - Added the response field extend_params (resource relationship information) to the V2 API for viewing resource usage details. This parameter is reserved. - Added the API for querying enterprise member accounts. The enterprise master account can use this API to query the enterprise member accounts on the self-built platform.	2025-02-24

What's New	Released On
This issue is the sixty-first official release. This release incorporates the following changes: - Added the relative_order_id field to responses of the V2 API for querying resource expenditure. The field indicates the ID of the customer order. - Added the be_id field to responses of the V2 API for viewing resource usage details. The field indicates the Huawei Cloud business entity ID. - Changed the permission for querying yearly/monthly resources to bss:renewal:view bss:order:view (to be brought offline) and that for unsubscribing from yearly/monthly resources to bss:unsubscribe:update bss:order:update (to be brought offline). The permission for querying resource package usage details is changed to bss:bill:view bss:billDetail:view (to be brought offline). The permission for querying resource expenditures is changed to bss:bill:view bss:billDetail:view (to be brought offline). For details about more permissions, see Actions Supported by Policy-based Authorization. - Added the sub_order_infos field to the order_infos field in the response of the V2 API for querying the order list. - 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.	2025-01-20
This issue is the sixtieth official release. This release incorporates the following changes: - 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. - Added response field consume_time (expenditure time) to the V2 API for viewing resource expenditures. - Added response field consume_time (expenditure time) to the V2 API for viewing resource usage details.	2024-12-23

What's New	Released On
This issue is the fifty-ninth official release. This release incorporates the following changes: - 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. - 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
This issue is the fifty-eighth official release. This release incorporates the following changes: - In section Querying Coupons: - Deleted the enumerated value Not activated from the status request parameter of the API. - Deleted the description For used, expired, and reclaimed coupons, data within 12 months after expiration can be queried. - Added the enterprise_projects field to the response of the API for querying orders. - Changed the maximum length of resourceTag in the responses of the APIs in Viewing Resource Expenditures (Old) and Viewing Resource Usage Details (Old) to 8,192. - Changed the maximum length of resourceTag in the responses of the APIs in Viewing Resource Expenditures and Viewing Resource Usage Details to 8,192. - Changed the traffic quota for querying resource details from 10/1(s) to 30/1(s).	2024-10-29
This issue is the fifty-seventh official release. This release incorporates the following changes: Added an enumerated value (3: By details) to the statistic_type request parameter of the V2 API for querying resource details. Added the response parameters: effective_time and expire_time. Changed the description of query_type: The information type, DAILY, is returned only when the statistic_type is set to 2 or 3.	2024-9-26

What's New	Released On
This issue is the fifty-sixth official release. This release incorporates the following change: 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. For more details, see How Does Huawei Cloud Calculate the Billing Cycle?	2024-8-29
This issue is the fifty-fifth official release. This release incorporates the following changes: • The description "The return value of this parameter is manually entered by the user when placing a resource order. Internationalization is not supported" was added for the resource_name and sub_resource_name parameters for the Viewing Resource Expenditures API. And the description "The return value of this parameter is manually entered by users. Internationalization is not supported" was added for the enterprise_project_name parameter. • The parameter payer_account_id (the account ID of the payer) was added to the V2 API for Viewing Resource Usage Details.	2024-8-29

What's New	Released On
This issue is the fifty-fourth official release. This release incorporates the following changes: • Added error code CBC.18000053, "Insufficient permissions. Contact your enterprise master", to the V4 API for querying costs. • 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. • 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. • Added the following description, "You can use the price calculator to determine product prices", to the V2 API for querying prices of yearly/monthly products. 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. • Added an enumeration (5: withdrawn) to the request parameter, status in the V2 API for querying coupons. • Added an enumeration (3: closed) to the request parameter, status_list in the V2 API for querying customers' yearly/monthly resources.	2024-6-28

What's New	Released On
This issue is the fifty-third official release. This release incorporates the following changes: - 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. - Added the request parameters, service_type_code (the ID of the cloud service type), to the V2 API for listing yearly/monthly resources. - 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. - 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. - 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. - Added parameters and descriptions to the V2 API for viewing expenditure records: bill_date_begin&bill_date_end: This field does not take effect when statistics are collected by billing cycle type. id: This value of the unique ID will not be returned when statistics are collected by billing cycle type. usage: If the resource type is yearly/monthly resources, resource usage is not returned. usage_measure_id: If the resource type is yearly/monthly resources, the resource usage measurement unit is not returned. unit: When statistic_type is set to 1, the unit of yearly/monthly product price will not be returned. formula: When statistic_type is set to 1 (by billing cycle type), the formula for calculating the actual payment amount will not be returned.	2024-5-28

What's New	Released On
Added the header parameter, X-Language (language) to the V2 API for querying resource usage details.	
This issue is the fifty-second official release. This release incorporates the following changes: - Deleted the error code, CBC.99003645 (Unsubscription not supported for this cloud service type), from the V2 API for Unsubscribing from Yearly/Monthly Resources. " - Deleted the error code, CBC.99003631 (The unsubscribed, deleted, or released resource cannot be renewed), from the V2 API for Renewing Subscription to Yearly/Monthly Resources. - Deleted error code, 400 CBC.99006073 (Project does not exist), from the V2 API for Querying the Price of a Pay-Per-Use Product. " - Released the V2 API for Enabling the Enterprise Project Management. - Modified the limit of the range (for order creation and payment time) queried to one year for the Querying Orders and Querying Orders (Old) APIs. - Added the error code, CBC.18000048 (Too many independent accounting members. Specify a member account for query), to the V4 API for Querying Cost Data.	2024-4-28
This issue is the fifty-first official release. This release incorporates the following change: Added the SPLIT_ITEM_NAME parameter to the V4 API for querying costs. When the cost type is ORIGINAL_COST, split items cannot be used to query costs.	2024-3-29
This issue is the fiftieth official release. This release incorporates the following change: Added the error code, CBC.99003647 (Unsubscription not supported for this pay-per-use package.), to the V2 API for renewing yearly/monthly subscriptions. "	2024-2-23
This issue is the forty-ninth official release. This release incorporates the following changes: - Added the error code, CBC.99000092 (Incorrect subscription period.), to the V2 API for renewing yearly/monthly subscriptions. - The V1 API for canceling unpaid orders was taken offline.	2024-01-25

What's New	Released On
This issue is the forty-eighth official release. The V1 API for paying yearly/monthly bills was taken offline.	2023-12-26
This issue is the forty-seventh official release. This release incorporates the following change: Removed the API (V1) for querying prices by product specification.	2023-10-25
This issue is the forty-sixth official release. This release incorporates the following changes: - Added the error code, CBC.99000088: Your payment is being processed, to the API, Paying a yearly/monthly order. - Added the enumeration, 11: Savings plan, to the parameter, charge_mode and added the enumeration, 23: Expenditure-savings plans to the parameter, bill_type for APIs, Viewing Resource Expenditures and Viewing Resource Usage Details. - Added the enumerated value 611: Savings plan to the parameter promotion_type of the API for querying bill summary. - Added the enumeration, 11: Savings plan to the parameter, cycleType for the API, Querying Coupons.	2023-06-29
This issue is the forty-fifth official release. This release incorporates the following changes: - Added response parameters, pre_order_id, az_code_infos, and az_code to the API of Viewing Resource Usage Details for querying the original order ID, AZ information list, and AZ codes. - Added the section "API Access Permission (Customer)". A customer needs to obtain permissions before accessing APIs. Customers' API access permissions can be granted in IAM. - Added the error code "CBC.30050013: Renewal not supported to Querying the Renewal Price of a Yearly/Monthly Resource.	2023-4-18
This issue is the forty-fourth official release. This release incorporates the following change: 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

What's New	Released On
This issue is the forty-third official release. This release incorporates the following change: Added the response parameter fail_resource_infos (for querying the resources that fail to be subscribed to or unsubscribed from) to the APIs for renewing subscriptions to yearly/monthly resources and unsubscribing from yearly/monthly resources.	2023-2-9
This issue is the forty-second official release. This release incorporates the following changes: - Added the API for querying resource package usage details. - Added the following response parameters to the APIs for viewing resource usage details and viewing resource expenditures: "sub_service_type_code", "sub_service_type_name", "sub_resource_type_code", "sub_resource_type_name", "sub_resource_id", and "sub_resource_name"	2022-12-27
This issue is the forty-first official release. This release incorporates the following change: - Changed the value range of the parameter groupby of the API for querying cost data to "A maximum of 2 values". - Added the response parameter formula to the API for viewing resource expenditures.	2022-11-29
This issue is the fortieth official release. This release incorporates the following changes: - Brought the V1 API for enabling automatic subscription renewal for yearly/monthly resources offline. - Brought the V1 API for disabling automatic subscription renewal for yearly/monthly resources offline.	2022-11-17
This issue is the thirty-ninth official release. This release incorporates the following change: Added the V3 API for paying yearly/monthly product orders, and moved the V2 API for paying yearly/monthly product orders to APIs to Be Taken Offline.	2022-09-27

What's New	Released On
This issue is the thirty-eighth official release. This release incorporates the following change: Added response parameters root_resource_id, parent_resource_id, trade_id, and product_spec_desc to the API for querying resource usage details.	2022-09-13
This issue is the thirty-seventh official release, This release incorporates the following change: A value of the response parameter feeSourceOperation of the API for viewing resource expenditures has been changed to 20: Refund - change (entire server), and the value 21: Refund - change (specification downgrade) is added.	2022-08-30
This issue is the thirty-sixth official release. This release incorporates the following change: Add the API for querying cost data. Customers can query the cost data on their self-built platform through this API.	2022-08-16
This issue is the thirty-fifth official release. This release incorporates the following change: Changed Marketplace to KooGallery.	2022-08-10
This issue is the thirty-fourth official release. This release incorporates the following changes: Added the error code CBC.30010035 to the API for unsubscribing from yearly/monthly resources.	2022-07-19
This issue is the thirty-third official release. This release incorporates the following changes: Added the following description for the API in 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 want to continue using these resources, unsubscribe from the subscription term renewed but not used yet.	2022-07-05

What's New	Released On
This issue is the thirty-second official release. This release incorporates the following changes: • Added period_type to the response parameters of the API in Viewing Resource Usage Details. • Added the API for querying cloud service types, and moved the old API for querying cloud service types to APIs to Be Taken Offline. • Added the API for querying resource types, and moved the old API for querying resource types to APIs to Be Taken Offline. • 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 bill summary. • Added cloud_service_type_name, indicating the cloud service type, and resource_type_name, indicating the resource type, to the response parameters of the APIs for viewing resource usage details and viewing resource expenditures. • 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 thirty-first official release. This release incorporates the following changes: • The transaction model name in Chinese for Referral has been changed, but the English name remains unchanged. • Added the enumerated value 7: Deposit for the account_type parameter in the response of the V2 API for querying the account balance.	2022-03-25
This issue is the thirtieth official release. This release incorporates the following change: Added error code CBC.99003605 in the response of the V2 API for canceling automatic renewal for yearly/monthly resources.	2022-03-15

What's New	Released On
This issue is the twenty-ninth official release. This release incorporates the following change: Added the enumerated value 20: refund-change for the bill_type parameter of the API for querying resource usage details.	2022-02-15
This issue is the twenty-eighth official release. This release incorporates the following changes: - Added error code CBC.30010036 in the response of the API for renewing subscription to yearly/monthly resources. - Added error code CBC.99003602 in the response of the API for enabling automatic subscription renewal for yearly/monthly resources. - Added enumerated values 19: Change - specifications upgrade and 20: Change - specifications downgrade for the response parameter feeSourceOperation of the old API for querying resource expenditures.	2022-01-25
This issue is the twenty-seventh official release. This release incorporates the following changes: - Added error code CBC.0250 to the response of the API for querying the price of a yearly/monthly product. - Added error code CBC.30050006 in the response of the API for renewing subscription to yearly/monthly resources. - Added error code CBC.99003115 to the response of the V2 API for paying yearly/monthly product orders. - Added error code CBC.99003156 to the response of the V2 API for paying yearly/monthly product orders. - 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 twenty-sixth official release. This release incorporates the following changes: - Added the request parameter statistic_type and the response parameter bill_date for the API in Viewing Resource Usage Details to support querying resource usage details by day. - Deleted error code CBC.99003001 from the API in Renewing Subscription to Yearly/Monthly Resources.	2021-11-30

What's New	Released On
This issue is the twenty-fifth official release. This release incorporates the following change: Change the description of the error message for CBC.99003016 to "The resources have expired and been deleted or do not exist." in Renewing Subscription to Yearly/Monthly Resources.	2021-11-02
This issue is the twenty-fourth official release. This release incorporates the following changes: - Added the V3 API for querying resource packages and moved the V2 API for querying resource packages to APIs to Be Taken Offline. - 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 twenty-third official release. This release incorporates the following changes: - Added error code CBC.30000010 to the API for paying yearly/monthly product orders. - Added a description for the Unit parameter in Viewing Resource Expenditures to differentiate the unit of the linear products from that of non-linear products.	2021-08-31
This issue is the twenty-second official release. This release incorporates the following change: Moved Querying the Package Usage (Old) to APIs to Be Taken Offline.	2021-08-10
This issue is the twenty-first official release. This release incorporates the following change: Added user_name in the response parameters of the API in Querying Order Details to specify the order creator returned by the API for querying order details.	2021-07-13
This issue is the twentieth official release. This release incorporates the following changes: - Added the 20.1.5.7.1 Querying the resource package List (Old) API. This API can be invoked to query the resource package list of a customer. - Added the API for querying the resource package usage in Viewing Resource Package Usage.	2021-06-15

What's New	Released On
This issue is the nineteenth official release. This release incorporates the following change: 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 eighteenth official release. This release incorporates the following changes: • Modified Viewing Resource Usage Details. Specifically, added parameters sku_code and region_name, which are used to return the SKU attribute and cloud service region, respectively, in the response message during an API call. • Modified Viewing Resource Expenditures. Request parameters bill_date_begin and bill_date_end are added to customize the dates for querying consumption records in a billing cycle and response parameter region_name is added to return the cloud service region during an API call.	2021-01-13
This issue is the seventeenth official release. This release incorporates the following changes: • Added Querying Measurement Units and Querying the Measurement Unit Number System. • Modified the V2 interface in Viewing Resource Expenditures. Specifically, parameter charge_mode is changed from mandatory to optional. The enumerated value 17: expenditure-difference amount (min. guaranteed-actual) is added for parameter bill_type.	2020-12-25
This issue is the sixteenth official release. This release incorporates the following change: 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

What's New	Released On
This issue is the fifteenth official release. This release incorporates the following changes: - Added Querying Usage Types for querying usage types. - Added Enabling/Canceling the Change from Yearly/Monthly to Pay-per-Use upon Expiration for querying resource types. - Added the enumerated value "610: Discount amount" for parameter discount_type in Querying Orders, Querying Order Details, and Querying Bill Summary (Old), as well as Querying Orders (Old) and Querying Order Details (Old) to be brought offline.	2020-11-18
This issue is the fourteenth official release. This release incorporates the following changes: Added Querying Cloud Service Types (Old) for querying cloud service types. Added Querying Resource Types (Old) for querying resource types. Added Querying Resource Type by Cloud Service Type for querying resource list by cloud service type.	2020-11-04
This issue is the thirteenth official release. This release incorporates the following changes: Added parameter trade_id in Viewing Resource Expenditures to identify transaction or order ID.	2020-10-21
This issue is the twelfth official release. This release incorporates the following changes: - Added query parameters method and sub_customer_id in Viewing Resource Expenditures. - Added query parameters method and sub_customer_id and response parameter customer_id in Viewing Resource Usage Details. Supported the function of querying bill data of only a sub customer of an enterprise or a customer itself.	2020-09-28

What's New	Released On
This issue is the eleventh official release. This release incorporates the following changes: • Added response parameters product_owner_service and commercial_resource in Querying Order Details. • 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. – Querying Orders – Querying Order Details – Querying the Amount of Unsubscription Orders – Viewing Resource Usage Details – Viewing Resource Expenditures – Querying the Account Balance	2020-09-16
This issue is the tenth official release. This release incorporates the following changes: • Modified Viewing Resource Expenditures and added parameters enterprise_project_name and product_spec_desc in Table 7-10. • Added error codes CBC.99006006, CBC.99006055, and CBC.99006074 in Querying the Price of a Pay-Per-Use Product and Querying the Price of a Yearly/Monthly Product	2020-09-02
This issue is the ninth official release. This release incorporates the following change: Added a V2 API in Querying the Account Balance.	2020-08-12

What's New	Released On
This issue is the eighth official release. This release incorporates the following changes: - Added the V2 interface in Querying the Amount of Unsubscription Orders. - Added the V2 interface in Querying Customer's Yearly/Monthly Resources and moved the V1 interface in Querying Customer's Yearly/Monthly Resources (Old) to APIs to Be Taken Offline. - Added the V2 API in Enabling Automatic Subscription Renewal for Yearly/Monthly Resources and moved the V1 API (discarded) for enabling automatic renewal for yearly/monthly resources to APIs to Be Taken Offline. - Added the V2 API in Disabling Automatic Subscription Renewal for Yearly/Monthly Resources and moved the V1 API (discarded) for disabling automatic renewal for yearly/monthly resources to APIs to Be Taken Offline.	2020-06-30
This issue is the seventh official release. This release incorporates the following changes: - Added the V2 interface in Querying Orders and moved the V1 interface in Querying Orders (Old) to APIs to Be Taken Offline. - Added the V2 interface in Querying Order Details and moved the V1 interface in Querying Order Details (Old) to APIs to Be Taken Offline. - Added the V2 API for paying yearly/monthly product orders, and moved the V1 API (old) for paying yearly/monthly product orders to APIs to Be Taken Offline. - Added the V2 API in Canceling Orders in the Pending Payment Status and moved the V1 API for canceling orders to be paid to APIs to Be Taken Offline. - Added the V2 interface in Renewing Subscription to Yearly/Monthly Resources and moved the V1 interface in Renewing Subscription to Yearly/Monthly Resources (Old) to APIs to Be Taken Offline. - Added the V2 interface in Unsubscribing from Yearly/Monthly Resources and moved the V1 interface in Unsubscribing from Yearly/Monthly Resources (Old) to APIs to Be Taken Offline.	2020-06-17

What's New	Released On
This issue is the sixth official release. This release incorporates the following changes: • Brought the V2 API in Viewing Resource Expenditures online and the API in Viewing Resource Expenditures (Old) offline. • Brought the V2 API in Viewing Resource Usage Details online and the API in Viewing Resource Usage Details (Old) offline.	2020-04-22
This issue is the fifth official release. This release incorporates the following changes: Added Querying the Price of a Pay-Per-Use Product and Querying the Price of a Yearly/Monthly Product.	2020-03-25
This issue is the fourth official release. This release incorporates the following change: Added Querying Package Usage.	2020-01-17
This issue is the third official release. This release incorporates the following change: Added Querying the Invoice List.	2020-01-15
This issue is the second official release. This release incorporates the following change: Added the following response parameters in Querying Bill Summary (Old): total_amount, debt_amount, coupon_amount, cashcoupon_amount, storedcard_amount, debit_amount, credit_amount, and measure_id.	2019-12-25
This issue is the first official release.	2019-09-17

2 Customer Operations Capability API

Huawei Cloud provides the operation capabilities for customers to manage products, accounts, transactions, bills, and invoices on the customer platform.

Table 2-1 APIs and descriptions

Scenario	Sub-Scenario	API Name	Description
Managing products	Querying product information	Querying Cloud Service Types	This API is used to query cloud service types on the customer self-built platform.
		Querying Resource Types	This API is used to query the resource types on the customer self-built 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 self-built 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 customer self-built 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 self-built platform.
		Querying the Measurement Unit Number System	This API is used to query the measurement unit number system on the self-built platform.

Scenario	Sub-Scenario	API Name	Description
	Querying the price of a product	Querying the price of a pay-per-use product	Customers can query the price of a pay-per-use product by criteria on the self-built platform.
		Querying the price of a yearly/monthly product	Customers can use this API to query prices of yearly/monthly products for new subscriptions on their platforms.
		Querying the Renewal Price of a Yearly/Monthly Resource	Customers can query the renewal price of a yearly/monthly resource by criteria on a self-built platform.
Managing accounts	-	Querying the Account Balance	This API can be used to query the account balance for a customer.
		Querying Expenditure Quota	A customer can query their expenditure quota.
Managing transactions	Managing coupons	Querying Coupons	Customers can query information about their coupons.
	Managing yearly/monthly orders	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 self-built platform.
		Querying Available Discounts of an Order	A customer can query available discounts when paying an order on the self-built platform.
		Paying Yearly-Monthly Product Orders	A customer can invoke this API to pay yearly-monthly product orders in the pending payment status.

Scenario	Sub-Scenario	API Name	Description
		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 customer sales platform.
	Managing yearly/monthly resources	Querying Customer's Yearly/Monthly Resources	A customer can query one or all yearly/monthly resources on the self-built platform.
		Renewing subscription to yearly/monthly resources	A customer can renew subscription to yearly/monthly resources on the self-built platform.
		Unsubscribing from yearly/monthly resources	If a customer has subscribed to a yearly/monthly resource, the customer can use this API to unsubscribe from the resource, including the renewed part and currently used part. The customer cannot use the resources after unsubscription.
		Enabling Automatic Subscription Renewal for Yearly/Monthly Resources	A customer can use this API to enable automatic subscription renewal for its long-term yearly/monthly resources to prevent the resources from being deleted when they are expired.
		Disabling Automatic Subscription Renewal for Yearly/Monthly Resources	A customer can disable automatic subscription renewal when needed. After disabling this function, the customer needs to manually renew the subscription to the resources before they expire.

Scenario	Sub-Scenario	API Name	Description
		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.
		Setting a deduction date for auto-renewal of yearly/monthly resources and a same expiration date for renewed resources	This API can be used to set a deduction date for auto-renewal of yearly/monthly resources and a same expiration date for renewed resources.
	Resource package management	Querying resource packages	A customer can query resource packages on the self-built platform.
		Querying the Resource Package Usage	Customers can query the resource package usage on the self-built platform by resource.
		Querying Resource Package Usage Details	Customers can query the resource usage details on their self-built platform.
Managing bills	Managing bills	Querying Bill Summary	This API can be used by customers to query their expenditure summaries on the self-built platform. The expenditure data is summarized by month.
		Viewing Resource Usage Details	This API can be used to query usage details of each resource for a customer on the self-built platform.
		Viewing Resource Expenditures	This API can be used to query expenditures of each resource for a customer on the self-built platform.

Scenario	Sub-Scenario	API Name	Description
Managing costs	Managing costs	Querying Cost Data	This API is used to query the cost data on the self-built platform.
Managing the enterprise	Managing enterprise projects	Enabling the Enterprise Project Management	This API is used to enable the enterprise project management on your own platform.
	Managing enterprise accounts	Querying Enterprise Member Accounts	This API can be used by an enterprise master account to query member accounts on the self-built platform.
Managing invoices	Managing invoices	Querying the Invoice List	Customers can query the invoice list.

3 API Invoking Methods

3.1 RESTful API

The customer platform can invoke RESTful APIs provided by HUAWEI CLOUD. Alternatively, customers can switch from the customer 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. The operations API endpoint for customer is bss-intl.myhuaweicloud.com. NOTE - This endpoint is a global endpoint and can be used for all regions in Huawei Cloud (International Website). - TLS 1.2 supported.
resource-path	Resource path, that is, the API access path. Obtain the path from the URI of the API. For example, the resource-path of the API for creating a customer is /v2/partners/sub-customers.
query-string	Query parameter, which is optional. Ensure that a question mark (?) is included before each query parameter that is in the format of "<i>Parameter name=Parameter value</i>". For example, ?limit=10 indicates that a maximum of 10 data records will be displayed.

For example, to obtain 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`



NOTE

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

Request Method

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

Table 3-2 HTTP methods

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

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

```
POST https://bss-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 This field is mandatory only when AK/SK is used for authentication.	bss-intl.myhuaweicloud.com or 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. For details about how to obtain a token, see Token Authentication .	No This field is mandatory only when the token is used for authentication.	The following is part of an example token: MIIPAgYJKoZIhvcNAQc- ColIO8zCCDu8CAQExDTA 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": "35reyxxx",
  "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.

Infrastructure Security for Customer Operations Capabilities

Customer operations capabilities are protected by Huawei Cloud's global network security.

For more information about Huawei Cloud security services and how Huawei Cloud protects the infrastructure, see the [Huawei Cloud Security White Paper](#).

To use the best practices of infrastructure security to design your Huawei Cloud environment, please refer to the "Infrastructure Security" section in [Security Pillar of Well-Architected Framework](#).

You can call the APIs released by Huawei Cloud to access customer operation capabilities through a network. The client must meet the following requirements:

- The Transport Layer Security (TLS) protocol should be used. TLS 1.2 is required, and TLS 1.3 is recommended.
- Encryption suites with perfect forward secrecy (PFS), like Diffie-Hellman Ephemeral (DHE) or Elliptic Curve Diffie-Hellman Ephemeral (ECDHE), should be used.

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.

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 [Constructing Requests](#), the process of calling the [API for obtaining a user token](#) is described as an example. After obtaining the 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 customer token, see [Obtaining a User Token](#).

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

Temporary Headers (8) ⓘ	
Body	Cookies
Headers (12)	Test Results
Status: 200 OK Time: 1994ms Size: 476 B Save Response ▼	
KEY	VALUE
X-Frame-Options ⓘ	SAMEORIGIN
Server ⓘ	SecAs
Cache-Control ⓘ	no-cache, no-store, must-revalidate
X-Content-Type-Options ⓘ	nosniff
wise_spanid ⓘ	1-1
wise_traceid ⓘ	1017999-1591056752028-914815
Expires ⓘ	Thu, 01 Jan 1970 00:00:00 GMT
Pragma ⓘ	no-cache
X-XSS-Protection ⓘ	1; mode=block
Date ⓘ	Mon, 08 Jun 2020 01:44:16 GMT
Content-Type ⓘ	application/json; charset=utf-8
content-length ⓘ	71

(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 Permissions and Supported Actions

3.2.1 Introduction

You can use Identity and Access Management (IAM) for fine-grained permissions management of your BSS resources. If your HUAWEI IDaccount does not need individual IAM users, you can skip this section.

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

The following table lists the differences between these two types of authorization.

Table 3-4 Differences between the two types of authorization

Autho rization Type	Authoriz ation Using	Permissio ns	Authorization Method	Description
Role/ Policy- based author ization	User, permissi ons, and authoriz ation scope	• Syste m- define d roles • Syste m- define d policie s • Custom policie s	Attaching roles or policies to principals	To authorize a user, you need to add it to a user group first and then assign permissions to the user group so that the added user can inherit permissions from the user group. In this way, you need to maintain numerous user groups and use relatively fewer condition keys. It is difficult to implement fine-grained permissions through user groups. The policies/roles model is more suitable for small- and medium-sized enterprises.

Authorization Type	Authorization Using	Permissions	Authorization Method	Description
Identity policy-based authorization	Users and policies	- System-defined policies - Custom identity policies	- Granting principles identity policies - Attaching identity policies to principals	You can authorize a user by directly attaching an identity policy to them. You can customize policies and attach them to specified users. Identity policies allow you to perform refined access control more efficiently and flexibly. However, this model is more complex and requires higher personnel expertise. It is more suitable for medium- and large-sized enterprises.

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

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

Assume that an IAM user wants to call an API to query the price of a pay-per-use product. With policy-based authorization, the IAM user must be granted the permissions allowing for action **bss:discount:view**. With identity policy-based authorization, the IAM user must be granted the permissions allowing for action **billing:contract:viewDiscount**.

3.2.2 Actions Supported by Policy-based Authorization

This section describes the actions supported by policy-based authorization through BSS.

Supported Actions

xx (cloud service name) provides system-defined policies that can be directly used in IAM. You can also create custom policies to supplement system-defined policies for more refined access control. Operations supported by policies are specific to APIs. The following are common concepts related to policies:

- Permissions: Statements in a policy that allow or deny certain operations.
- APIs: APIs that can be called in a custom policy.
- Actions: specific operations that are allowed or denied in a custom policy.
- Dependencies: actions which a specific action depends on. When allowing an action for a user, you also need to allow any existing action dependencies for that user.

- IAM projects/Enterprise projects: the authorization scope of a custom policy. A custom policy can be applied to IAM projects or enterprise projects or both. Policies that contain actions for both IAM and enterprise projects can be used and applied for both IAM and Enterprise Management. Policies that contain actions only for IAM projects can be used and applied to IAM only. Administrators can check whether an action supports IAM projects or enterprise projects in the action list. For details about the differences between IAM and enterprise management, see [Differences Between IAM and Enterprise Management](#).

BSS supports the following actions in custom policies:

 NOTE

- For APIs not listed in the table, fine-grained permission verification is not required and all customer accounts can access them.
- The **bss:discount:view** action only affects the discount information returned in the response. If this permission is not assigned, the API can still be called, but the response does not contain discount information.
- Authentication of system-defined roles is not supported, but policy authentication is. For details about the configuration guide, see [Creating a User Group and Assigning Permissions](#).

Scenario	Sub-scenario	API	API URL	Action	Action Name	IAM Project	Enterprise Project
Managing Products	Querying product price	Querying pay-per-use product price	POST /v2/bills/ratings/on-demand-resources	bss:discount:view	View discount and price information.	√	×
		Querying yearly/monthly product price	POST /v2/bills/ratings/period-resources/subscribe-rate	bss:discount:view	View discount and price information.	√	×
		Querying the renewal price of yearly/monthly resources	POST /v2/bills/ratings/period-resources/renew-rate	bss:discount:view	View discount and price information.	√	×

Scenario	Sub-scenario	API	API URL	Action	Action Name	IAM Project	Enterprise Project
Managing Accounts	Managing accounts	Querying account balance	GET /v2/accounts/customer-accounts/balances	bss:balance:view	View account information.	√	×
		Querying consumption quota	GET /v2/accounts/customer-accounts/expenditure-quota	bss:balance:view	View account information.	√	×
Managing Transactions	Managing coupons	Listing coupons	GET /v2/promotions/benefits/coupons	bss:coupon:view	View discount, cash, and flexible purchase coupons.	√	×
	Managing yearly/monthly orders	Listing orders	GET /v2/orders/customer-orders	bss:order:view	View order information.	√	×
		Querying order details	GET /v2/orders/customer-orders/details/{order_id}	bss:order:view	View order information.	√	×
		Cancelling orders in the pending payment status	PUT /v2/orders/customer-orders/cancel	bss:order:update	Place orders, cancel orders, and modify delivery addresses.	√	×

Scenario	Sub-scenario	API	API URL	Action	Action Name	IAM Project	Enterprise Project
		Querying available discounts	GET /v2/orders/customer-orders/order-discounts	bss:discount:view	Viewing discount and price information	√	×
		Paying yearly/monthly orders	POST /v3/orders/customer-orders/pay	bss:order:pay	Pay for orders.	√	×
		Querying order refund amount	GET /v2/orders/customer-orders/refund-orders	bss:order:view	View order information.	√	×
	Managing Yearly/Monthly Resources	Listing yearly/monthly resources	POST /v2/orders/subscriptions/resources/query	- bss:renewal:view - bss:order:view (to be brought offline)	View order information.	√	×

Scenario	Sub-scenario	API	API URL	Action	Action Name	IAM Project	Enterprise Project
		Renewing subscriptions to yearly/monthly resources	POST /v2/orders/subscriptions/resources/renew	bss:renewal:update	Renew resources, enable auto-renewal, set expiration policies, change the billing mode from pay-per-use to yearly/monthly, and release resources.	√	×
		Unsubscribing from yearly/monthly resources	POST /v2/orders/subscriptions/resources/unsubscribe	- bss:unsubscribe:update - bss:order:update (to be brought offline)	View resources that can be or has been unsubscribed from, cancel delivery, and return or replace hardware.	√	×

Scenario	Sub-scenario	API	API URL	Action	Action Name	IAM Project	Enterprise Project
		Enabling automatic renewal for yearly/monthly resources	POST /v2/orders/subscriptions/resources/autorenew/{resource_id}	bss:renewal:update	Renew resources, enable auto-renewal, set expiration policies, change the billing mode from pay-per-use to yearly/monthly, and release resources.	√	×

Scenario	Sub-scenario	API	API URL	Action	Action Name	IAM Project	Enterprise Project
		Disabling automatic renewal for yearly/monthly resources	DELETE /v2/orders/subscriptions/resources/{resource_id}	bss:renewal:update	Renew resources, enable auto-renewal, set expiration policies, change the billing mode from pay-per-use to yearly/monthly, and release resources.	√	×

Scenario	Sub-scenario	API	API URL	Action	Action Name	IAM Project	Enterprise Project
		Enabling/ Canceling the change from yearly/monthly to pay-per-use upon expiration	POST /v2/orders/subscriptions/resources/to-on-demand	bss:renewal:update	Renew resources, enable auto-renewal, set expiration policies, change the billing mode from pay-per-use to yearly/monthly, and release resources.	√	×

Scenario	Sub-scenario	API	API URL	Action	Action Name	IAM Project	Enterprise Project
		Setting a deduction date for auto-renewal of yearly/monthly resources and a same expiration date for renewed resources	POST /v2/orders/subscriptions/resources/renew/config	bss:renewal:update	Renew resources, enable auto-renewal, set expiration policies, change the billing mode from pay-per-use to yearly/monthly, and release resources.	√	×
	Managing Resource Packages	Listing resource packages	POST /v3/payments/free-resources/query	bss:bill:view	View bills, monthly costs, usage details, cost management, expenditures and revenues, and cost trends.	√	×

Scenario	Sub-scenario	API	API URL	Action	Action Name	IAM Project	Enterprise Project
		Querying resource package usage details	GET /v2/bills/customer-bills/free-resources-usage-records	- bss:bill:view - bss:billDetail:view (to be brought offline)	View expenditure details, resource expenditures, bill analysis, and historical payments.	√	×
		Querying resource package usage	POST /v2/payments/free-resources/usages/details/query	bss:bill:view	View bills, monthly costs, usage details, cost management, expenditures and revenues, and cost trends.	√	×

Scenario	Sub-scenario	API	API URL	Action	Action Name	IAM Project	Enterprise Project
Managing Bills	Managing bills	Viewing bill details	POST /v2/bills/customer-bills/res-records/query	bss:billDetail:view	View expenditure details, resource expenditures, bill analysis, and historical payments.	√	×
		Querying bill summary	GET /v2/bills/customer-bills/monthly-summary	bss:bill:view	View bills, monthly costs, usage details, cost management, expenditures and revenues, and cost trends.	√	×

Scenario	Sub-scenario	API	API URL	Action	Action Name	IAM Project	Enterprise Project
		Querying expenditure records	GET /v2/bills/customer-bills/res-fee-records	- bss:billDetail:view - bss:bill:view (to be brought offline)	View bills, monthly costs, usage details, cost management, expenditures and revenues, and cost trends.	√	×
Managing Costs	Managing costs	Querying cost data	POST /v4/costs/cost-analysed-bills/query	bss:costanalysis:view	View cost analysis.	√	×
Managing an Enterprise	Managing enterprise projects	Enabling the enterprise project management service	POST /v2/enterprises/enterprise-projects/authority	bss:enterpriseProjectFunction:update	Enable the enterprise project management service.	√	×
	Managing enterprise accounts	Querying enterprise member accounts	GET /v2/enterprises/multi-accounts/sub-customers	bss:enterpriseOrganization:view	View organizations and accounts in the Enterprise Center.	√	×

Scenario	Sub-scenario	API	API URL	Action	Action Name	IAM Project	Enterprise Project
Managing Invoices	Managing invoices	Listing invoices	GET /v1.0/{domain_id}/payments/intl-invoices	bss:invoice:update	Request invoices and view invoice information.	√	×

3.2.3 Actions Supported by Identity Policy-based Authorization (BSS)

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

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

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

To learn more about how IAM policies are different from Organizations SCPs, see [What Are the Differences Between IAM Policies and Organizations SCPs?](#)

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

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

Actions

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

- The **Access Level** column describes how the action is classified (**list**, **read**, or **write**). This classification helps you understand the level of access that an action grants when you use it in an identity policy.

- The **Resource Type** column indicates whether the action supports resource-level permissions.
 - You can use a wildcard (*) to indicate all resource types. If this column is empty (-), the action does not support resource-level permissions and you must specify all resources ("*") in your policy statements.
 - If this column includes a resource type, you must specify the URN in the Resource element of your policy statements.
 - Required resources are marked with asterisks (*) in the table. If you specify a resource in a statement using this action, then it must be of this type.

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

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

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

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

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

 NOTE

The **billing:contract:viewDiscount** permission code only affects the discount information returned in the response, but it does not affect the API call. When there is no permission, the API can still be accessed normally, but it will not return the discount information.

Table 3-5 Actions supported by BSS

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:contract:viewDiscount	Grants the permission to view discounts	read	-	-	-
billing:balance:view	Grants the permission to view income and expense details, historical payment records, consumption quotas, adjustment records, and arrears.	list	-	-	-

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:coupon:view	Grants the permission to view coupons, stored value cards, and cash coupons.	read	-	-	-
billing:order:view	Grants the permission to view order information and pay-per-use packages.	list	-	-	-
billing:order:pay	Grants the permission to pay orders.	write	-	-	-
billing:subscription:view	Grants the permission to view renewals and query resources that can be changed from pay-per-use to yearly/monthly.	read	-	-	-
billing:subscription:renew	Grants the permission to renew subscriptions, enable auto-renewal, set expiration policies, and change pay-per-use subscriptions to yearly/monthly.	write	-	-	-
billing:subscription:unsubscribe	Grants the permission to view unsubscribed resources, unsubscribe from resources, cancel delivery, and return or replace hardware.	write	-	-	-
billing:resourcePackages:view	Grants the permission to view resource packages and remaining amount and query or export usage details.	list	-	-	-
billing:billDetail:view	Grants the permission to view order details.	read	-	-	-

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:bill:view	Grants the permission to view bills, expenditures of the current month, paid resources in the last seven days, and expenditure trends.	list	-	-	-
costCenter:costAnalysis:listCosts	Grants the permission to view cost analysis.	read	-	-	-
Billing::activeEP Finance	Grants the permission to enable the enterprise project function.	write	-	-	-
businessUnitCenter:businessUnit:view	Grants the permission to view organizations and accounts.	read	-	-	-
billing:invoice:manage	Grants the permission to manage invoices, request invoices, and manage invoice titles and addresses.	write	-	-	-

Each API usually supports one or more actions. [Table 3-6](#) lists the supported actions and dependencies.

NOTE

If fine-grained authentication fails, the value of **encoded_authorization_message** in the response can be viewed only after being decrypted by calling the API provided by STS. APIE address of the decryption API: [Decoding the Authentication Failure Cause](#).

Note: The caller must have the **sts::decodeAuthorizationMessage** permission to call the decryption API on APIE. Otherwise, the error message "STS5.1001" is displayed.

Table 3-6 Actions and dependencies supported by BSS APIs

Scenario	Sub-Scenario	API	API URL	Action	Action	Dependency
Managing products	Querying product price	Querying pay-per-use product price	POST /v2/bills/ratings/on-demand-resources	billing:contract:viewDiscount	Viewing discount and price information	-
		Querying yearly/monthly product price	POST /v2/bills/ratings/period-resources/subscribe-rate	billing:contract:viewDiscount	View discount and price information.	-
		Querying the renewal amount of yearly/monthly resources	POST /v2/bills/ratings/period-resources/renew-rate	billing:contract:viewDiscount	Viewing discount and price information	-
Managing accounts	Managing accounts	Querying account balance	GET /v2/accounts/customer-accounts/balances	billing:balance:view	View account information.	-

Scenario	Sub-Scenario	API	API URL	Action	Action	Dependency
		Querying consumption quota	GET /v2/accounts/customer-accounts/expenditure-quota	billing:balance:view	Grants the permission to view income and expense details, historical payment records, consumption quotas, adjustment records, and arrears.	-
Managing transactions	Managing coupons	Listing coupons	GET /v2/promotions/benefits/coupons	billing:coupon:view	View discount, cash, and flexi-purchase coupons.	-
	Managing yearly/monthly orders	Listing orders	GET /v2/orders/customer-orders	billing:order:view	View order information.	-
		Querying order details	GET /v2/orders/customer-orders/details/{order_id}	billing:order:view	View order information.	-
		Querying available discounts	GET /v2/orders/customer-orders/order-discounts	billing:contract:viewDiscount	Viewing discount and price information	-
		Paying yearly/monthly orders	POST /v3/orders/customer-orders/pay	billing:order:pay	Pay orders.	-

Scenario	Sub-Scenario	API	API URL	Action	Action	Dependency
		Querying refund order amount	GET /v2/orders/customer-orders/refund-orders	billing:order:view	View order information.	-
	Managing yearly/monthly resources	Listing yearly/monthly resources	POST /v2/orders/subscriptions/resources/query	• billing:subscription:view • billing:order:view (to be brought offline)	View order information.	-
		Renewing subscriptions to yearly/monthly resources	POST /v2/orders/subscriptions/resources/renew	billing:subscription:renew	Place orders, cancel orders, and modify recipient information.	-
		Unsubscribing from yearly/monthly resources	POST /v2/orders/subscriptions/resources/unsubscribe	billing:subscription:unsubscribe	Place orders, cancel orders, and modify recipient information. For details, see FAQs About Cloud Service Unsubscription Authentication .	-

Scenario	Sub-Scenario	API	API URL	Action	Action	Dependency
		Enabling automatic renewal for yearly/monthly resources	POST /v2/orders/subscriptions/resources/autorenew/**	billing:subscription:renew	Place orders, cancel orders, and modify recipient information.	-
		Disabling automatic renewal for yearly/monthly resources	DELETE /v2/orders/subscriptions/resources/autorenew/{resource_id}	billing:subscription:renew	Place orders, cancel orders, and modify recipient information.	-
		Enabling/Canceling the change from yearly/monthly to pay-per-use upon expiration	POST /v2/orders/subscriptions/resources/to-on-demand	billing:subscription:renew	Place orders, cancel orders, and modify recipient information.	-

Scenario	Sub-Scenario	API	API URL	Action	Action	Dependency
		Setting a deduction date for auto-renewal of yearly/monthly resources and a same expiration date for renewed resources	POST /v2/orders/subscriptions/resources/renew/config	billing:subscription:renew	Place orders, cancel orders, and modify recipient information.	-
	Managing resource packages	Listing resource packages	POST /v3/payments/free-resources/query	billing:resourcePackages:view	View bills, monthly costs, usage details, cost management, expenditures and revenues, and cost trends.	-

Scenario	Sub-Scenario	API	API URL	Action	Action	Dependency
		Querying resource package usage details	GET /v2/bills/customer-bills/free-resources-usage-records	• billing:resourcePackages:view • billing:billDetail:view (to be brought offline)	View expenditure details, resource expenditures, bill analysis, and historical payments.	-
		Querying resource package usage	POST /v2/payments/free-resources/usages/details/query	billing:resourcePackages:view	View bills, monthly costs, usage details, cost management, expenditures and revenues, and cost trends.	-
Managing bills	Managing bills	Viewing bill details	POST /v2/bills/customer-bills/res-records/query	billing:billDetail:view	View expenditure details, resource expenditures, bill analysis, and historical payments.	-

Scenario	Sub-Scenario	API	API URL	Action	Action	Dependency
		Querying bill summary	GET /v2/bills/customer-bills/monthly-sum	billing:bill:view	View bills, monthly costs, usage details, cost management, expenditures and revenues, and cost trends.	-
		Querying expenditure records	GET /v2/bills/customer-bills/res-fee-records	• billing:billDetail:view • billing:bill:view (to be brought offline)	View bills, monthly costs, usage details, cost management, expenditures and revenues, and cost trends.	-
Managing costs	Managing costs	Querying cost data	POST /v4/costs/cost-analysed-bills/query	costCenter:costAnalysis:listCosts	View cost analysis.	-
Managing enterprise	Managing enterprise projects	Enabling the enterprise project management service	POST /v2/enterprises/enterprise-projects/authority	Billing::activateEPFinance	Enable the enterprise project management service.	

Scenario	Sub-Scenario	API	API URL	Action	Action	Dependency
	Managing enterprise member accounts	Querying enterprise member accounts	GET /v2/enterprises/multi-accounts/sub-customers	businessUnitCenter:businessUnit:view	View organizations and accounts in the Enterprise Center.	-
Managing invoices	Managing invoices	Listing invoices	GET /v1.0/{domain_id}/payments/intl-invoices	billing:invoice:manage	Request invoices and view invoice information.	-

Resources

BSS does not support resource-specific permission control in identity policies. If you want to allow access to BSS, use the wildcard (*) for the Resource element to apply policies to all resources.

Conditions

A Condition element lets you specify conditions for when an identity policy is in effect. It contains **condition keys** and **operators**.

- The condition key that you specify can be a global condition key or a service-specific condition key.
 - Global condition keys (with the **g:** prefix) apply to all actions. Cloud services do not need to provide user identity information. Instead, the system automatically obtains such information and authenticates users. For details, see **Global Condition Keys**.
 - Service-specific condition keys (with the abbreviation of a service name plus a colon as the prefix, for example, **BSS:**) only apply to operations of the BSS service. For details, see **Table 3-7**.
 - The number of values associated with a condition key in the request context of an API call makes the condition key single-valued or

multivalued. Single-valued condition keys have at most one value in the request context of an API call. Multivalued condition keys can have multiple values in the request context of an API call. For example, a request can originate from at most one VPC endpoint, so `g:SourceVpce` is a single-valued condition key. You can tag resources and include multiple tag key-value pairs in a request, so `g:TagKeys` is a multivalued condition key.

- A condition operator, condition key, and a condition value together constitute a complete condition statement. An identity policy can be applied only when its request conditions are met. For supported condition operators, see .

The following table lists the condition keys that you can define in identity policies for BSS. You can include these condition keys to specify conditions for when your identity policy is in effect.

Table 3-7 Service-specific condition keys supported by BSS

Service-specific Condition Key	Type	Single-valued/ Multivalued	Description
billing:cloudServiceType	string	Multi-value	Filter access based on the cloud service type specified in the request parameter. FAQs

Condition Key Examples

- `billing:cloudServiceType`
Example: Only orders of cloud service resources whose service type is **hws.service.type.ebs** can be unsubscribed from.

```
{
  "Version": "5.0",
  "Statement": [{
    "Effect": "Allow",
    "Action": [
      "billing:subscription:unsubscribe"
    ],
    "Condition": {
      "ForAnyValue:StringEquals": {
        "billing:cloudServiceType": [
          "hws.service.type.ebs"
        ]
      }
    }
  ]
}
```

3.3 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 Customer Operations Capability APIs

 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.

Scenario	Sub-Scenario	API	URL	Traffic Quota	Quota Dimension
Managing Products	Querying product information	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
		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

Scenario	Sub-Scenario	API	URL	Traffic Quota	Quota Dimension
		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	20/1(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
		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
Managing Accounts	-	Querying the Account Balance	GET /v2/accounts/customer-accounts/balances	20/1(s)	API request throttling dimensions: Source IP address, API, and ParentUid

Scenario	Sub-Scenario	API	URL	Traffic Quota	Quota Dimension
		Querying Expenditure Quota	GET /v2/accounts/customer-accounts/expenditure-quota	10/1(s)	API request throttling dimensions: Source IP address, API, and ParentUid
Managing Transactions	Managing coupons	Querying Coupons	GET /v2/accounts/partner-accounts/account-change-records	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
		Querying Available Discounts of an Order	GET /v2/orders/customer-orders/order-discounts	10/1(s)	API request throttling dimensions: Source IP address, API, and ParentUid
		Paying Yearly/Monthly Product Orders	POST /v3/orders/customer-orders/pay	10/1(s)	API request throttling dimensions: Source IP address, API, and ParentUid

Scenario	Sub-Scenario	API	URL	Traffic Quota	Quota Dimension
		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 Unsubscription Orders	GET /v2/orders/customer-orders/refund-orders	10/1(s)	API request throttling dimensions: Source IP address, API, and ParentUid
	Managing yearly/monthly resources	Querying Customer's Yearly/Monthly Resources	POST /v2/orders/subscriptions/resources/query	10/1(s)	API request throttling dimensions: Source IP address, API, and ParentUid
		Renewing subscription to yearly/monthly resources	POST /v2/orders/subscriptions/resources/renew	20/1(s)	API request throttling dimensions: Source IP address, API, and ParentUid
		Unsubscribing from yearly/monthly resources	POST /v2/orders/subscriptions/resources/unsubscribe	10/1(s)	API request throttling dimensions: Source IP address, API, and ParentUid
		Enabling Automatic Subscription 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

Scenario	Sub-Scenario	API	URL	Traffic Quota	Quota Dimension
		Disabling Automatic Subscription 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
		Setting a deduction date for auto-renewal of yearly/monthly resources and a same expiration date for renewed resources	POST /v2/orders/subscriptions/resources/renew/config	10/1(s)	API request throttling dimensions: Source IP address, API, and ParentUid
	Managing resource packages	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

Scenario	Sub-Scenario	API	URL	Traffic Quota	Quota Dimension
		Querying Resource Package Usage Details	GET /v2/bills/customer-bills/free-resources-usage-records	10/1(s)	API request throttling dimensions: Source IP address, API, and ParentUid
Managing Bills	Managing bills	Querying Summary Bills	GET /v2/bills/customer-bills/monthly-sum	10/1(s)	API request throttling dimensions: Source IP address, API, and ParentUid
		Viewing Resource Usage Details	POST /v2/bills/customer-bills/res-records/query	30/1(s)	API request throttling dimensions: Source IP address, API, and ParentUid
		Viewing Resource Expenditures	GET /v2/bills/customer-bills/res-fee-records	30/1(s)	API request throttling dimensions: Source IP address, API, and ParentUid
Managing Costs	Managing costs	Querying Cost Data	POST /v4/costs/cost-analysed-bills/query	10/1(s)	API request throttling dimensions: Source IP address, API, and ParentUid
Managing Enterprise	Managing enterprise projects	Enabling the Enterprise Project Management	POST /v2/enterprises/enterprise-projects/authority	10/1(s)	API request throttling dimensions: Source IP address, API, and ParentUid

Scenario	Sub-Scenario	API	URL	Traffic Quota	Quota Dimension
	Managing enterprise accounts	Querying Enterprise Member Accounts	GET /v2/enterprises/multi-accounts/sub-customers	20/1(s)	API request throttling dimensions: Source IP address, API, and ParentUid
Managing Invoices	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 customer operations capability APIs. Users can increase the quota based on their service requirements. Users 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. The user 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 Managing Products

4.1 Querying Product Information

4.1.1 Querying Cloud Service Types

Function

This API is used to query cloud service types on the customer self-built platform.

Constraints

This API can be invoked using the customer 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.

Authorization

This API does not require authorization.

URI

GET /v2/products/service-types

Table 4-1 Header parameter

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

Table 4-2 Request parameters

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

Request

Request Parameters

None

Example Request

```
GET https://bss-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.

Parameter	Type	Value Range	Description
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

- **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.

4.1.2 Querying Resource Types

Function

This API is used to query the resource types on the customer self-built platform.

Constraints

This API can be invoked using 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.

Authorization

This API does not require authorization.

URI

GET /v2/products/resource-types

Table 4-4 Header parameter

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

Table 4-5 Request parameters

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

Request

Request Parameters

None

Example Request

```
GET https://bss-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 .
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

- **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.

4.1.3 Querying Resource Type by Cloud Service Type

Function

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

Constraints

This API can be invoked using the customer 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.

Authorization

This API does not require authorization.

URI

GET /v2/products/service-resources

Table 4-7 Header parameter

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

Table 4-8 Request parameters

Parameter	Mandatory	Type	Value Range	Description
service_type_code	Yes	String	A maximum of 64 characters	Cloud service type code. For example, the cloud service type code of OBS is hws.service.type.obs . To obtain a specific service type, call the API in Querying Cloud Service Types .

Parameter	Mandatory	Type	Value Range	Description
offset	No	Integer	0 to 1000000	Offset, which starts from 0. The default value is 0. If this parameter is not included in the request, is left empty, or is set to null, the value 0 is used. This parameter cannot be set to "". NOTE This parameter is used for pagination. Retain its default value 0 if pagination is not required. offset indicates the offset relative to the first data record among all that meets the conditions configured. If you set offset to 1, the second and subsequent data records are returned. For example, if there 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. If there are 20 records that meet query conditions, when you set offset to 0 and limit to 10 for the first page and set offset to 10 and limit to 10 for the second page, then each page will respectively have 10 records.
limit	No	Integer	[1-100]	Number of records queried each time. The default value is 10. If this parameter is not included in the request, the value 10 is used. This parameter cannot be set to "" or null and cannot be left empty.

Request

Request Parameters

None

Example Request

```
GET https://bss-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...ggg1BBIINPXsidG9rZ
X-Language: zh_CN
```

Response

Response Parameters

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

Table 4-9 ServiceResourceInfo

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

Table 4-10 ResourceBasicInfo

Parameter	Type	Value Range	Description
resource_type_code	String	A maximum of 64 characters	Resource type code. Example: hws.resource.type.general .
product_owner_service	String	A maximum of 64 characters	Code of the service where a resource belongs. Example: hws.service.type.offline .

Parameter	Type	Value Range	Description
name	String	A maximum of 1024 characters	Resource type. Example: general specifications.
description	String	A maximum of 1024 characters	Resource type description.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
  "total_count": 5,
  "infos": [
    {
      "basic_info": {
        "resource_type_code": "hws.resource.type.general",
        "product_owner_service": "hws.service.type.offline",
        "name": "general specifications",
        "description": "general specifications"
      }
    },
    {
      "basic_info": {
        "resource_type_code": "hws.resource.type.bandwidth",
        "product_owner_service": "hws.service.type.vpc",
        "name": "fixed bandwidth",
        "description": "fixed bandwidth"
      }
    },
    {
      "basic_info": {
        "resource_type_code": "hws.resource.type.ip",
        "product_owner_service": "hws.service.type.vpc",
        "name": "EIP",
        "description": "EIP"
      }
    },
    {
      "basic_info": {
        "resource_type_code": "hws.resource.type.vm.image",
        "product_owner_service": "hws.service.type.ec2",
        "name": "ECS image",
        "description": "ECS image"
      }
    },
    {
      "basic_info": {
        "resource_type_code": "hws.resource.type.vm",
        "product_owner_service": "hws.service.type.ec2",

```

```
{
  "name": "ECS",
  "description": "ECS"
}
```

Returned Values

NOTE

- **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	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 customer self-built platform.

Constraints

This API can be invoked using 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.

Authorization

This API does not require authorization.

URI

GET /v2/products/usage-types

Table 4-11 Header parameter

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

Table 4-12 Request parameters

Parameter	Mandatory	Type	Value Range	Description
resource_type_code	No	String	A maximum of 64 characters	Resource type code. For example, the VM resource type code of ECS is hws.resource.type.vm . To obtain a specific resource type, call the API in Querying Resource Types . 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 100000000	Offset, which starts from 0. The default value is 0 . If this parameter is not included in the request, is left empty, or is set to null , the value 0 is used. This parameter cannot be set to "". NOTE This parameter is used for pagination. Retain its default value 0 if pagination is not required. offset indicates the offset relative to the first data record among all that meets the conditions configured. If you set offset to 1 , the second and subsequent data records are returned. For example, if there 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. If there are 20 records that meet query conditions, when you set offset to 0 and limit to 10 for the first page and set offset to 10 and limit to 10 for the second page, then each page will respectively have 10 records.

Parameter	Mandatory	Type	Value Range	Description
limit	No	Integer	1 to 100	Number of records queried each time. The default value is 10 . 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 maximum of 20 characters	Error code. For details, see Returned Values . This parameter is returned only when the query failed.
error_msg	String	A maximum of 1000 characters	Error description. This parameter is returned only when the query failed.
total_count	Integer	-	Total number.
usage_types	List<UsageType>	-	Usage type list. For details, see Table 4-13 .

Table 4-13 UsageType

Parameter	Type	Value Range	Description
code	String	A maximum of 64 characters	Usage type code, for example, reqNumber .
name	String	A maximum of 1024 characters	Usage type name, for example, the number of invoking times.
resource_type_code	String	A maximum of 64 characters	Resource type code. For example, the resource type code of VM is hws.resource.type.vm .
service_type_code	String	A maximum of 64 characters	Cloud service type code. For example, the cloud service type code of OBS is hws.service.type.obs .
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": "Cloud Certificate & Manager"
},
{
  "code": "dailyalarmnum",
  "name": "Alarms",
  "resource_type_code": "hws.resource.type.aicms.cdfi",
  "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

- **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
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 self-built platform.

Constraints

This API can be invoked using 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.

Authorization

This API does not require authorization.

URI

GET /v2/bases/measurements

Table 4-14 Header parameter

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

Request

Request Parameters

None

Example Request

```
GET https://bss-intl.myhuaweicloud.com/v2/bases/measurements HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIIPAgYJKoZlHvcNAQcCo...ggg1BBIIlNPXsidG9rZ
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.

Parameter	Type	Value Range	Description
measure_units	List<MeasureUnitRest>	-	Measurement unit information. For details, see Table 4-15 .

Table 4-15 MeasureUnitRest

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

Parameter	Type	Value Range	Description
measure_type	Integer	-	Measurement type. • 1: Currency • 2: Duration • 3: Traffic • 4: Quantity • 5: Weight • 6: Length • 7: Capacity • 8: Volume • 9: Number of lines • 10: Period • 11: Frequency • 12: Count • 13: Inventory • 14: Traffic x Duration • 15: Capacity x Duration • 16: Bandwidth • 17: Capacity-duration • 18: Query rate • 19: Bandwidth (1000) • 20: Performance test usage • 21: Area • 22: Video • 23: Throughput • 26: Deduction unit for a general resource package • 27: Number of cores x Duration • 28: Memory x Duration • 29: IOPS x Duration • 30: Throughput x Duration • 31: Number/Duration • 40: Traffic (1000) • 41: 1K tokens • 103: Hong Kong dollar • 104: tokens • 108: Quantity × Duration

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

- **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
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 self-built platform.

NOTE

If the response is empty, no number system information is available for the measurement unit.

Constraints

This API can be invoked using 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.

Authorization

This API does not require authorization.

URI

GET /v2/bases/conversions

Table 4-16 Request parameters

Parameter	Mandatory	Type	Value Range	Description
measure_type	No	Integer	1–2147483647	Measurement type. • 1: Currency • 2: Duration • 3: Traffic • 4: Quantity • 5: Weight • 6: Length • 7: Capacity • 8: Volume • 9: Number of lines • 10: Period • 11: Frequency • 12: Count • 13: Inventory • 14: Traffic x Duration • 15: Capacity x Duration • 16: Bandwidth • 17: Capacity-duration • 18: Query rate • 19: Bandwidth (1000) • 20: Performance test usage • 21: Area • 22: Video • 23: Throughput • 26: Deduction unit for a general resource package • 27: Number of cores x Duration • 28: Memory x Duration • 29: IOPS x Duration • 30: Throughput x Duration • 31: Number/Duration • 40: Traffic (1000) • 41: 1K tokens • 103: Hong Kong dollar • 104: tokens • 108: Quantity × Duration If this parameter is not included in the request parameters, is left

Parameter	Mandatory	Type	Value Range	Description
				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: MIIPAgYJKoZlhcNAQcCo...ggg1BBIIlNPXsidG9rZ
```

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<Conversions>	-	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.

Parameter	Type	Value Range	Description
ref_measurement_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. • 1: Currency • 2: Duration • 3: Traffic • 4: Quantity • 5: Weight • 6: Length • 7: Capacity • 8: Volume • 9: Number of lines • 10: Period • 11: Frequency • 12: Count • 13: Inventory • 14: Traffic x Duration • 15: Capacity x Duration • 16: Bandwidth • 17: Capacity-duration • 18: Query rate • 19: Bandwidth (1000) • 20: Performance test usage • 21: Area • 22: Video • 23: Throughput • 26: Deduction unit for a general resource package • 27: Number of cores x Duration • 28: Memory x Duration • 29: IOPS x Duration • 30: Throughput x Duration • 31: Number/Duration • 40: Traffic (1000) • 41: 1K tokens • 103: Hong Kong dollar • 104: tokens • 108: Quantity × Duration

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

- **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
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

Customers can query the price of a pay-per-use product by criteria on the self-built 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 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.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:contract:viewDiscount	Grants the permission to view discounts	read	-	-	-

URI

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

Request

Request Parameters

Parameter	Mandatory	Type	Value Range	Description
project_id	Yes	String	A maximum of 64 characters	Project ID. NOTE - Access the My Credentials page. On the Projects tab, view the project IDs of different regions. - 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_info	Yes	List<DemandProductInfo>	A maximum of 100 values	Indicates the product information list. For details, see Table 4-18 .
inquiry_precision	No	Integer	-	Precision of the price query result. The default value of this parameter is 0 (default precision of the price query result). 0: The default precision of the query result. The result contains a maximum of six decimal places with the unit of USD, such as USD 0.000001. 1: The result contains a maximum of 10 decimal places with the unit of USD, such as USD 1.0000000001. NOTE Value 0 and value 1 make differences only when the query result contains at least six decimal places.

Table 4-18 DemandProductInfo

Parameter	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.

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

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: • Cloud server: Duration • Cloud disk: Duration • EIP: Duration • Bandwidth: Duration or upflow • KooGallery image: Duration You can call the API in Querying Usage Types to obtain the value of parameter code in Table 4-13 . The value indicates the billing factor of each cloud service.
usage_value	Yes	BigDecimal	-	Usage value. For example, if you want to inquire a product price by hour, set usageValue to 1 and usageMeasureID to 4 (hour).
usage_measure_id	Yes	Integer	A maximum of 4 characters	Usage unit. You can call the API in Querying Measurement Units to obtain the value. For example, if you want to inquire a product price by hour, set usageValue to 1 and usageMeasureID to 4 (hour).
subscription_num	Yes	Integer	[1-10000]	Number of subscriptions.

Parameter	Mandatory	Type	Value Range	Description
available_zone	No	String	A maximum of 64 characters	Available zone ID. Available zone IDs are case-insensitive. If this parameter is not included in the request parameters, is set to "", or is set to null , it cannot be used as a filter criterion.
resource_size	No	Integer	[1-214783647]	Resource capacity. It can be the subscribed volume size or bandwidth size. This parameter is mandatory for a linear product. Linear products are those whose size must be specified during a subscription, such as hard disks and bandwidth. For example, you can select 10 GB or 20 GB during a disk subscription. For non-linear products, if this parameter is not included in the request parameters or is set to null , it cannot be used as a filter criterion.
size_measure_id	No	Integer	A maximum of 4 characters	Resource capacity measurement ID. The options are: ● 15: Mbit/s (used when the bandwidth is subscribed) ● 17: GB (used when an EVS disk is subscribed to) ● 14: amount (times) This field should be filled together with resource_size or left blank. Linear products are those whose size must be specified during a subscription, such as hard disks and bandwidth. For example, you can select 10 GB or 20 GB during a disk subscription. For non-linear products, if this parameter is not included in the request parameters or is set to null , it cannot be used as a filter criterion.

Example Request

```
POST https://bss-intl.myhuaweicloud.com/v2/bills/ratings/on-demand-resources HTTP/1.1
Content-Type: application/json
```

```
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
{
  "project_id": "06488a*****832f55c016b0e337d7",
  "product_infos": [
    {
      "id": "1",
      "cloud_service_type": "hws.service.type.ec2",
      "resource_type": "hws.resource.type.vm",
      "resource_spec": "c3.3xlarge.2.linux",
      "region": "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. 1: USD
currency	String	A maximum of 20 characters	Currency. USD If the parameter is left blank, USD is used.
product_rating_results	List<DemandProductRatingResult>	-	Product price query result. For details, see Table 4-19 .

Table 4-19 DemandProductRatingResult

Parameter	Type	Value Range	Description
id	String	A maximum of 64 characters	The ID is used to identify the mapping between the inquiry result and the request and must be unique in an inquiry.

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. 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 . NOTE If the user does not have the corresponding permission, this field is not returned. For details, see Permissions and Supported Actions .

Table 4-20 DemandDiscountRatingResult

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

Parameter	Type	Value Range	Description
discount_type	Integer	A maximum of 4 characters	Discount type. - Commercial Discounts: 605: Contract commercial discount for transaction with Huawei Cloud. - Partner Discounts: 606: Contract commercial discount for transaction with distributors. - Discounts Set by Partner 607: Discounts set by partners
amount	BigDecimal	-	Discounted amount.
measure_id	Integer	A maximum of 4 characters	Measurement unit ID. 1: USD
discount_name	String	A maximum of 256 characters	Discount name.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
  "amount": 8.128,
  "discount_amount": 0.0,
  "official_website_amount": 8.128,
  "measure_id": 1,
  "currency": "USD",
  "product_rating_results": [
    {
      "id": "1",
      "product_id": "00301-243025-0--0_merge",
      "amount": 5.48,
      "discount_amount": 0.0,
      "official_website_amount": 5.48,
      "measure_id": 1,
      "discount_rating_results": []
    },
    {
      "id": "2",
      "product_id": "00301-290407774-0--1",
      "amount": 0.028,
      "discount_amount": 0.0,
      "official_website_amount": 0.028,
      "measure_id": 1,
      "discount_rating_results": []
    }
  ]
}
```

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

Returned Values

NOTE

- **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.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

Customers can use this API to query prices of yearly/monthly products for new subscriptions on their 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 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 SDK code samples.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:contract:viewDiscount	Grants the permission to view discounts	read	-	-	-

URI

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

Request

Request Parameters

Parameter	Mandatory	Type	Value Range	Description
project_id	Yes	String	A maximum of 64 characters	Project ID. NOTE - Access the My Credentials page. On the Projects tab, view the project IDs of different regions. - 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_info	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 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 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. The following provides examples of services and resource specifications: • ECS Add .win or .linux to the end of the ECS flavor ID based on the OS type, for example, s2.small.1.linux. Call the API for querying details about flavors and extended flavor information to obtain the flavor IDs. • Bandwidth – 12_bgp: dynamic BGP bandwidth billed by traffic – 12_sbgp: static BGP bandwidth billed by traffic – 19_bgp: dynamic BGP bandwidth billed by bandwidth – 19_sbgp: Static BGP bandwidth billed by bandwidth – 19_share: Shared bandwidth billed by bandwidth • IP address: – 5_bgp: dynamic BGP public IP address – 5_sbgp: static BGP public IP address • RDS: You can call the API for querying database specifications to obtain the RDS specifications. • DCS: You can call the API for querying service specifications to obtain the DCS specifications. • EVS: – SATA: Common I/O – SAS: High I/O

Parameter	Mandatory	Type	Value Range	Description
				- GPSSD: General-purpose SSD - SSD: Ultra-high I/O - ESSD: Extreme SSD - GPSSD2.storage: General-purpose SSD V2 storage (the disk type is GPSSD2)
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 .
period_type	Yes	Integer	[0-4]	Period type of a yearly/monthly product order. 0: Day 2: Month 3: Year 4: Hour
period_num	Yes	Integer	[1-214783647]	Number of periods of a yearly/monthly product order.
subscription_num	Yes	Integer	[1-10000]	Number of subscriptions of a yearly/monthly product order.
available_zone	No	String	A maximum of 64 characters	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 . 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
resource_size	No	Integer	[1-214783647]	Resource capacity. It can be the subscribed volume size or bandwidth size. This parameter is mandatory for a linear product. Linear products are those whose size must be specified during a subscription, such as hard disks and bandwidth. For example, you can select 10 GB or 20 GB during a disk subscription. For non-linear products, if this parameter is not included in the request parameters or is set to null, it cannot be used as a filter criterion.
size_measure_id	No	Integer	-	Resource capacity measurement ID. The options are as follows: ● 15: Mbit/s (used when the bandwidth is subscribed) ● 17: GB (used when a cloud disk is subscribed) ● 14: amount This parameter is mandatory for a linear product. Linear products are those whose size must be specified during a subscription, such as hard disks and bandwidth. For example, you can select 10 GB or 20 GB during a disk subscription. For non-linear products, if this parameter is not included in the request parameters or is set to null, it cannot be used as a filter criterion.

Example Request

POST https://bss-intl.myhuaweicloud.com/v2/bills/ratings/period-resources/subscribe-rate HTTP/1.1

Content-Type: application/json

X-Auth-Token: MIIPAgYJKoZlHvcNAQcCo...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	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 . NOTE If the user does not have the corresponding permission, this field is not returned. For details, see Permissions and Supported Actions .
currency	String	A maximum of 20 characters	Currency. USD If the parameter is left blank, USD is used.

Table 4-22 OfficialWebsiteRatingResult

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

Table 4-23 Price query result.

Parameter	Type	Value Range	Description
id	String	A maximum 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. • 1: USD

Table 4-24 OptionalDiscountRatingResult

Parameter	Type	Value Range	Description
discount_id	String	A maximum of 64 characters	Discount ID.
amount	BigDecimal	-	Final price after the discount. Amount= official_website_amount - discountAmount
official_website_amount	BigDecimal	-	Price of a yearly/monthly product on the official website.
discount_amount	BigDecimal	-	Amount of an available discount, such as commercial discounts, partner discounts, promotion discounts, and coupons.

Parameter	Type	Value Range	Description
measure_id	Integer	A maximum of 4 characters	Measurement unit ID. 1: USD
discount_type	Integer	A maximum of 32 characters	Discount type. - Commercial Discounts: 605: Contract commercial discount for transaction with Huawei Cloud. - Partner Discounts: 606: Contract commercial discount for transaction with distributors. - Discounts Set by Partner 607: Discounts set by partners
discount_name	String	A maximum of 256 characters	Discount name.
best_offer	Integer	-	Optimal discount. 0: No (default value) 1: Yes Optimal discount: The system selects a discount from the commercial discount and partner discount. The discount with the maximum discount amount is the optimal discount. If the discount amounts are the same, the system uses the commercial discount first. The promotional discount and coupon are not in the calculation of the optimal discount.
product_rating_results	List<PeriodProductRatingResult>	-	Product price query result. For details, see Table 4-25 .

Table 4-25 PeriodProductRatingResult

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

- **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.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 a self-built 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 [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 [Querying Customer's Yearly/Monthly Resources](#).

Constraints

Only customer AK/SK or Token can be used to call the API.

Debugging

You can debug the API in [API Explorer](#) which supports automatic authentication. API Explorer can automatically generate and debug SDK code samples.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:contract:viewDiscount	Grants the permission to view discounts	read	-	-	-

URI

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

Request

Request parameters

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

Request Sample

```
POST https://bss-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 maximum of 20 characters	Status code For details, see Status Codes .
error_msg	String	A maximum of 1,000 characters	Error description
currency	String	A maximum of 20 characters	Currency USD If the parameter is left blank, USD is used.
renew_inquiry_results	List<RenewInquiryResultInfo>	--	Renew price inquiry result of the primary resources and their attached resources For details, see Table 4-26 .
official_website_rating_result	OfficialWebsiteRatingResult Object	--	For list price of a primary resource and its attached resources, see Table 4-27 .
optional_discount_rating_results	List<OptionalDiscountRatingResult>	--	Price inquiry result with an optional discount applied. If there are multiple optional discounts, different price inquiry results can be returned with a different discount applied each time. For details, see Table 3 OptionalDiscountRating-Result . NOTE If the user does not have the corresponding permission, this field is not returned. For details, see Permissions and Supported Actions .
fail_resource_infos	List<FailResourceInfo>	--	Resource information for a failed query. For details, see resource information for a failed query .

Table 4-26 RenewalInquiryResultInfo

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

Table 4-27 OfficialWebsiteRatingResult

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

Table 4-28 OptionalDiscountRatingResult

Parameter	Parameter Type	Value Range	Description
discount_id	String	A maximum of 64 characters	Discount ID.
amount	String	A maximum of 64 characters	Final price after the discount Unit: USD Amount= official_website_amount - discount_amount
official_website_amount	String	A maximum of 64 characters	List price Unit: USD

Parameter	Parameter Type	Value Range	Description
discount_amount	String	A maximum of 64 characters	Amount of an available discount, such as commercial discounts, partner discounts, promotion discounts, and coupons Unit: USD
discount_type	Integer	A maximum of 32 characters	Discount type - Commercial Discounts: 605: Contract commercial discount for transaction with Huawei Cloud. - Partner Discounts: 606: Contract commercial discount for transaction with distributors. - Discounts Set by Partner 607: Discounts set by partners
discount_name	String	A maximum of 256 characters	Discount name
best_offer	Integer	-	Optimal discount or not 0: No (default value) 1: Yes Optimal discount is a discount selected from the commercial discount and partner discount. The discount with the maximum discount amount is the optimal discount. If the discount amounts are the same, the system uses the commercial discount first. The promotional discount and coupon are not in the calculation of the optimal discount.

Resource information for a failed query

Parameter	Parameter Type	Description
error_code	String	Status code For details, see 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": "USD",
  "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**

- **4xx:** 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.
- **5xx:** indicates an error to the Huawei Cloud system, which prevented the system from fulfilling the request from client. You can contact Huawei Cloud customer service to handle the issue.

HTTP Status Code	Error Code	Description
200	CBC.30050007	Renewal price inquiry is not applicable to non-primary resources.
200	CBC.30050008	The period type or number of periods for the resource does not exist.
200	CBC.30050009	The resources have expired and been deleted or do not exist.
200	CBC.30050010	This operation is not allowed because some resources included in your orders are to be paid.
200	CBC.30050011	Resources are being unsubscribed from or changed.
200	CBC.30050013	Renewal not supported.
400	CBC.0100	Incorrect parameter
400	CBC.99006006	The required product cannot be found.

HTTP Status Code	Error Code	Description
400	CBC.99006024	Failed to query product information.
400	CBC.99006016	Failed to query coupon information.
400	CBC.99006017	Failed to query customer information.
400	CBC.99006050	Incorrect usage unit
400	CBC.99006055	The queried amount exceeds the upper limit.
400	CBC.99006066	Billing query failed
400	CBC.99006073	Project not found.
400	CBC.30050012	There are duplicate resource IDs.
403	CBC.0151	Access denied
403	CBC.0154	Invalid or expired token
500	CBC.0999	Other errors

5 Managing Accounts

5.1 Querying the Account Balance

Function

This API can be used to query the account balance for a customer.

Customers log in to the Billing Center, switch to the [Overview](#) page, and query the account balance on the page.

Constraints

- When a customer queries its account balance, only the AK/SK or token of the customer can be used.
- This API is not applicable to reseller customers.

Debugging

You can debug the API in [API Explorer](#) which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:balance:view	Grants the permission to view income and expense details, historical payment records, consumption quotas, adjustment records, and arrears.	list	-	-	-

URI

GET /v2/accounts/customer-accounts/balances

Request Message

Request parameters

None

Example Request

GET https://bss-intl.myhuaweicloud.com/v2/accounts/customer-accounts/balances 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 20 characters	Error code. For details, see Returned Values . This parameter is returned only when a failure occurs.
error_msg	String	A maximum of 2,000 characters	Error description. This parameter is returned only when a failure occurs.

Parameter	Type	Value Range	Description
account_balances	List<AccountBalanceV2>	-	Account balances. For details, see Table 5-1 .
debt_amount	BigDecimal	-	Total amount due.
measure_id	Integer	-	Fee unit. • 1: Dollar
currency	String	A maximum of 4 characters	Currency. USD: US dollar

Table 5-1 AccountBalanceV2

Parameter	Type	Value Range	Description
account_id	String	A maximum of 64 characters	Account ID.
account_type	Integer	-	Account type. • 1: Balance • 2: Credit • 5: Bonus • 7: Deposit
amount	BigDecimal	-	Account balance. When account_type is set to 2, the total credit limit is returned instead of the remaining credit.
currency	String	-	Currency. The options are as follows: USD: US dollar
designated_amount	BigDecimal	-	Balance of earmarked funds.
credit_amount	BigDecimal	-	Total credit limit. This field is available only for credit accounts.
measure_id	Integer	-	Measurement unit. • 1: Dollar

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
  "account_balances": [
    {
      "account_id": "AT001017264D6E9FF7",
      "account_type": 1,
      "amount": 0,
      "currency": "USD",
      "designated_amount": 0,
      "credit_amount": 0,
      "measure_id": 1
    },
    {
      "account_id": "AT001017264D6EA084",
      "account_type": 5,
      "amount": 0,
      "currency": "USD",
      "designated_amount": 0,
      "credit_amount": 0,
      "measure_id": 1
    }
  ],
  "debt_amount": 120.0,
  "measure_id": 1,
  "currency": "USD"
}
```

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.99000049	BindType cannot be resale.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

5.2 Querying Expenditure Quota

Function

An expenditure quota is the maximum expenditure amount that a customer using monthly settlement can spend on Huawei Cloud. It is not a payment method. You cannot use this quota for payment or as a basis for reconciliation or payment.

A customer can query their expenditure quota.

Expenditure quota is not available for customers associated with a partner in the reseller model. No results will be returned.

Constraints

When a customer queries their expenditure quota, only the AK/SK or token of the customer can be used.

Debugging

You can debug this API in [API Explorer](#). Automatic authentication is supported. API Explorer can automatically generate and debug SDK sample code.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:balance:view	Grants the permission to view income and expense details, historical payment records, consumption quotas, adjustment records, and arrears.	list	-	-	-

URI

GET /v2/accounts/customer-accounts/expenditure-quota

Request

None

Example Request

```
GET https://bss-intl.myhuaweicloud.com/v2/accounts/customer-accounts/expenditure-quota 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	Error code. For details, see Returned Values . This parameter is returned only when a failure occurs.

Parameter	Type	Maximum Length/ Value Range	Description
error_msg	String	A maximum of 2,000 characters	Error description. This parameter is returned only when a failure occurs.
granting_amount	BigDecimal	-	Expenditure quota granted.
granting_amount_used	BigDecimal		Used expenditure quota.
percentage_granting_amount_used	BigDecimal		Percentage of the used expenditure quota. Percentage = Used expenditure quota/Expenditure quota. The value is accurate to two decimal places. If the expenditure quota is 0, the percentage of the used expenditure quota is 0.
measure_id	Integer	-	Unit. 1: Dollar
currency	String	A maximum of 4 characters	Currency. The options are as follows: USD

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
  "granting_amount": 200.0,
  "granting_amount_used": 122.0,
  "percentage_granting_amount_used": 0.61,
  "measure_id": 1,
  "currency": "USD"
}
```

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

6 Transaction Management

6.1 Managing Coupons

6.1.1 Querying Coupons

Function

Customers 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

This API can be invoked using 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

GET /v2/promotions/benefits/coupons

The following table describes the parameters.

Table 6-1 Request parameters

Parameter	Mandatory	Type	Value Range	Description
coupon_id	No	String	A maximum of 64 characters	Coupon ID. 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. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion.
promotion_plan_id	No	String	A maximum of 64 characters	Promotion plan ID. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion.
coupon_type	No	Integer	[1-4]	Coupon type. 1: Cash coupon 2: Discount coupon (reserved) 4: Flexi-purchase coupon (reserved) 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. 2: To be used 3: Used 4: Expired 5: Withdrawn If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion.

Parameter	Mandatory	Type	Value Range	Description
active_start_time	No	String	A maximum of 64 characters	Activation start time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as 2019-05-06T08:05:01Z . The range of <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> is 0-59. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. It cannot be set to "" or null .
active_end_time	No	String	A maximum of 64 characters	Activation end time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as 2019-05-06T08:05:01Z . The range of <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> is 0-59. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. It cannot be set to "" or null .
offset	No	Integer	0 to maximum integer	Offset, which starts from 0. The default value is 0 . NOTE This parameter is used for pagination. Retain its default value 0 if pagination is not required. offset indicates the offset relative to the first data record among all that meets the conditions configured. If you set offset to 1 , the second and subsequent data records are returned. For example, if there 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. 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 .

Parameter	Mandatory	Type	Value Range	Description
source_id	No	String	A maximum of 255 characters	Coupon source. If the coupon is sent by a partner, the parameter value is the partner ID. To query coupons issued by a partner, enter the partner ID. If this parameter is not included, is left empty, or is set to null , it cannot be used as a filter criterion. If it is set to "", it can be used as a filter criterion.

Request Message

Request Parameters

No.

Example Request

```
GET https://bss-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<QueryUserCouponsResult>	-	Coupon records. For details, see Table 6-2 .

Table 6-2 IQueryUserCouponsResult

Parameter	Type	Description
coupon_id	String	Coupon ID.
coupon_code	String	Coupon code.
status	Integer	Coupon status • 2: To be used • 3: Used • 4: Expired • 5: Withdrawn
customer_id	String	Customer account ID.
coupon_type	Integer	Coupon type. • 1: Cash coupon • 2: Discount coupon (reserved) • 4: Flexi-purchase coupon (reserved)
measure_id	Integer	Measurement unit. 1: Dollar
face_value	Double	Coupon amount.
valid_time	String	Effective time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as 2019-05-06T08:05:01Z
expire_time	String	Expiration time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as 2019-05-06T08:05:01Z
order_id	String	Order ID. NOTE If a coupon is used for multiple times, order IDs involved are separated by semicolons (;). If a coupon is used in a combined payment, order IDs involved are separated by commas (,). Example: CS1904011928GIBHC1,CS1904011928GIBHC2,CS1904011928GIBHC3;CS1904011928GIBHCB. Not all returned orders used the coupon.
promotion_plan_id	String	Promotion plan ID.
plan_name	String	Promotion plan name.
plan_desc	String	Promotion plan description.
media_type	Integer	Medium type. • 1: E-coupon • 2: Paper coupon

Parameter	Type	Description
fetch_method	Integer	Obtaining method. • 1: Claimed online • 2: Redeemed online • 3: Issued online • 4: Obtained offline • 5: Rewarded based on events
use_limits	List<ICouponUseLimitInfoV2>	Coupon usage limits. For details, see Table 6-3 .
active_time	String	Activation time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as 2019-05-06T08:05:01Z
reserve_time	String	Usage time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as 2019-05-06T08:05:01Z
promotion_id	String	Promotion ID.
create_time	String	Creation time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as 2019-05-06T08:05:01Z
coupon_version	Integer	Coupon version. • 2: Coupons can be used repeatedly.
balance	Double	Coupon balance. Unit: USD
lock_order_id	String	ID of the order for the coupon.
coupon_usage	String	Coupon usage.
is_frozen	String	Whether a coupon is frozen. • 0: No • 1: Yes
currency	String	Currency. The options are as follows: USD
extend_param1	String	Extended field.

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

Table 6-3 ICouponUseLimitInfoV2

Parameter	Type	Description
use_limit_info_id	String	Usage limit ID.
limit_key	String	Usage limit. For details about the value, see Table 6-4 .
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 6-4 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.

Key	Meaning	Description	Remarks
serviceType	Cloud service type.	Only value1 is valid. To obtain a specific cloud service type, call the API in Querying Cloud Service Types .	Cash coupons, flexi-purchase coupons, and discount coupons are supported.
regionCode	Region code.	value1 specifies the region code, and value2 specifies the region name.	Cash coupons, flexi-purchase coupons, and discount coupons are supported.
productId	Product ID	You can configure multiple product IDs. Separate them using commas (,).	Cash coupons, flexi-purchase coupons, and discount coupons are supported.
subscribeType	Order type.	Only value1 is valid. The value can be: • new: Order placement • renew: Order renewal • change: Order change	Cash coupons, flexi-purchase coupons, and discount coupons are supported.
firstOrderInService	Restriction for the first-time purchase.	Only value1 is valid.	Cash coupons, flexi-purchase coupons, and discount coupons are supported.
cycleNum	Number of periods.	Only value1 is valid.	Cash coupons, flexi-purchase coupons, and discount coupons are supported.

Key	Meaning	Description	Remarks
cycleType	Trial use period type.	The options are: • 0: Yearly/monthly (unlimited) • 1: Yearly/monthly (yearly) • 2: Yearly/monthly (monthly) • 3: Yearly/monthly (daily) • 4: Yearly/monthly (hourly) • 5: Pay-per-use • 6: General purpose • 7: One-off payment • 8: Reserved instance • 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). • 0: No • 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: • 0: Used for unlimited times • 1: Used for only once • N: Used for <i>N</i> times. (For cash coupons of the old version, <i>N</i> is fixed at 1.)	• When CouponType is set to 2 (discount coupons), this parameter can only be set to 1, and if this parameter is not specified or is set to a non-1 value, the parameter value is 1. • When CouponType is set to 1 (cash coupons) or 4 (flexi-purchase coupons), if this parameter is not specified or is set to a value other than 0 or 1, the parameter value is 0.
isOnlyForStrictSelected	Whether the coupons can only be used for Featured Products on KooGallery.	The value is specified in value1 . The value can be: • 0: No • 1: Yes If there is no such restriction, the value is 0 . This restriction applies only to flexi-purchase coupons.	Flex-purchase coupons are supported.

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: • 0: No • 1: Yes 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: • 0: No • 1: Yes	Cash coupons and discount coupons are supported.
simultaneousUseWithPromotionalProduct	Whether cash coupons can be used together with promotional products.	The value is specified in value1 . The value can be: • 0: No • 1: Yes	Cash coupons and discount coupons are supported.
simultaneousUseWithPromotionDiscount	Whether cash coupons can be used together with promotion discounts.	The value is specified in value1 . The value can be: • 0: No • 1: Yes	Cash coupons are supported.

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: • 0: No • 1: Yes	Cash coupons are supported.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
  "count": "1",
  "user_coupons": [
    {
      "coupon_id": "CP19092406014086E3",
      "coupon_code": "CP19092406014086E3",
      "status": "2",
      "customer_id": "c9e731c4663646988ef4cdb3122837b6",
      "coupon_type": "1",
      "measure_id": "1",
      "face_value": "100",
      "valid_time": "2019-09-16T16:00:00Z",
      "expire_time": "2019-09-16T16:00:00Z",
      "order_id": "CS1904011928GIBHC",
      "promotion_plan_id": "promotionPlanId5322584",
      "plan_name": "USD532 Coupon name",
      "plan_desc": "USD532 Coupon desc",
      "media_type": "1",
      "fetch_method": "1",
      "use_limits": [
        {
          "use_limit_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": "17071919060338056FEH60VIRWEP",
      "is_frozen": "0",
      "currency": "USD",
      "extend_param1": "2019091702368200",
      "source_id": "c9e731c4663646988ef4cdb3122837b6"
    }
  ]
}
```

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

6.2 Managing Yearly/Monthly Orders

6.2.1 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 customer can log in to Billing Center and go to [My Orders](#) and select **All** for **Created On** to view all orders in pending approval, processing, canceled, completed, and pending payment statuses.

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 [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 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.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:order:view	Grants the permission to view order information and pay-per-usage packages.	list	-	-	-

URI

GET /v2/orders/customer-orders

Table 6-5 Request parameters

Parameter	Mandatory	Type	Maximum Length/Value Range	Description
order_id	No	String	A maximum of 64 characters	Order ID. Order IDs are case insensitive. If this parameter is not included 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 "". NOTE When special characters are used for query, perform the URL code conversion. For example, % should be converted to %25.

Parameter	Mandatory	Type	Maximum Length/Value Range	Description
create_time_begin	No	String	A maximum of 20 characters	Start time of order creation. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as 2019-05-06T08:05:01Z The range of <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> is 0-59. The span between the order creation 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.
create_time_end	No	String	A maximum of 20 characters	End time of order creation. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as 2019-05-06T08:05:01Z The range of <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> is 0-59. The span between the order creation time and the 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.
service_type_code	No	String	A maximum of 64 characters	The code of the cloud service type. For example, the cloud service type code of OBS is hws.service.type.obs. The code is case insensitive. You can call Querying Cloud Service Types to obtain a specific service type. 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.

Parameter	Mandatory	Type	Maximum Length/Value Range	Description
status	No	Integer	-	Order status. The value can be: • 1: Pending approval • 3: Processing • 4: Canceled • 5: Completed • 6: Pending payment • 9: To be confirmed 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 "".
order_type	No	String	A maximum of 64 characters	Order type. The value can be: • 1: New purchase • 2: Renewal • 3: Change • 4: Unsubscription • 10: Yearly/monthly to pay-per-use • 11: Pay-per-use to yearly/monthly • 13: Trial • 14: Commercial use • 15: Price adjustment If this parameter is not included 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 . 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 "".

Parameter	Mandatory	Type	Maximum Length/Value Range	Description
offset	No	Integer	0 to a maximum integer	Offset, which starts from 0. The default value is 0. 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 "". NOTE This parameter is used for pagination. Retain its default value 0 if pagination is not required. offset indicates the offset relative to the first data record among all that meets the conditions configured. If you set offset to 1, the second and subsequent data records are returned. For example, if there 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. 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.
order_by	No	String	A maximum of 36 characters	Sorting order of the orders. This parameter is case insensitive. You can sort the orders by creation time. If you set the value to createTime, the system sorts orders by creation time in ascending order. If you set the value to -createTime, the system sorts orders by creation time in descending order. If this parameter is not included, is left empty, or is set to "" or null, orders will be sorted by creation time in descending orders.

Parameter	Mandatory	Type	Maximum Length/Value Range	Description
payment_time_begin	No	String	A maximum of 20 characters	Start time of order payment. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as 2019-05-06T08:05:01Z The range of <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> 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 .
payment_time_end	No	String	A maximum of 20 characters	End time of order payment. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as 2019-05-06T08:05:01Z The range of <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> 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 .

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=2020-05-06T08:05:01Z&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&payin_g_agent_id=646988ef4cdb3122834feswrygfd HTTP/1.1 Content-Type: application/json X-Auth-Token: MIIPAgYJKoZlIhvcNAQcCo...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 6-6 .

Table 6-6 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 6,400 characters	Cloud service type code. For example, the cloud service type code of OBS is hws.service.type.obs . NOTE When a combined order is queried, the value of this field is the combination of the cloud service type codes of sub-orders. The codes are separated by commas (,).

Parameter	Type	Maximum Length	Description
service_type_name	String	A maximum of 200,000 characters	Cloud service type. For example, the cloud service type of ECS is Elastic Cloud Server . NOTE When a combined order is queried, the value of this field is the combination of the cloud service type names of sub-orders. The names are separated by commas (,).
source_type	Integer	-	Customer order source type. The value can be: • 1. Customer • 2. Agent • 3: Contract • 4: Distributor • 5: Deleted resources • 6: Supplement • 7: Compensation • 8: Auto-created NOTE Orders generated in the following scenarios are automatically created by the system: • Unsubscription orders created in the cases of subscription failed and auto unsubscription • Auto unsubscription triggered for failed hardware orders or failed subscription of combined cloud services (including hardware) • Return orders automatically created for hardware replacement • Renewal orders created during auto-renewal

Parameter	Type	Maximum Length	Description
status	Integer	-	Order status. The value can be: • 1: Pending approval • 2: Pending refund • 3: Processing • 4: Canceled • 5: Completed • 6: Pending payment • 9: To be confirmed • 10: To be shipped • 11: To be received • 12: Pending pick-up • 13: Exchange in progress
order_type	Integer	-	Order type. The value can be: • 1: New purchase • 2: Renewal • 3: Change • 4: Unsubscription • 10: Yearly/monthly to pay-per-use • 11: Pay-per-use to yearly/monthly • 13: Trial • 14: Commercial use • 15: Price adjustment
official_amount	Double	-	Order amount (list price). In the unsubscription order, this amount equals the value of amount_after_discount .
amount_after_discount	Double	-	Order amount after a discount (excluding the vouchers or cards).
measure_id	Integer	-	Order amount unit. • 1: 1 Yuan/Dollar
create_time	String	A maximum of 20 characters	Creation time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as 2019-05-06T08:05:01Z The range of <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> is 0-59.

Parameter	Type	Maximum Length	Description
payment_time	String	A maximum of 20 characters	Payment time (available only after an order is successfully paid). UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as 2019-05-06T08:05:01Z . The range of <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> 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	-	Fee deduction details. For details, see Table 6-7 .
enterprise_projects	List<EnterpriseProject>	-	Enterprise project details of a customer order. For details, see Table 6-9 . 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 6-10 . 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.
agent_pay_info	AgentPayInfoV2 Object	-	Customer order agent payment information. For details, see Table 6-11 .

Table 6-7 AmountInfoV2

Parameter	Type	Maximum Length	Description
discounts	List<DiscountItemV2>	-	Item For details, see Table 6-8 .
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 6-8 DiscountItemV2

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

Table 6-9 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 6-10 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	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: • 1. Customer • 2. Agent • 3: Contract • 4: Distributor • 5: Deleted resources • 6: Supplement • 7: Compensation • 8: Auto-created NOTE Orders generated in the following scenarios are automatically created by the system: • Unsubscription orders created in the cases of subscription failed and auto unsubscription • Auto unsubscription triggered for failed hardware orders or failed subscription of combined cloud services (including hardware) • Return orders automatically created for hardware replacement • Renewal orders created during auto-renewal

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

Parameter	Type	Maximum Length	Description
official_amount	Double	-	Order amount (list price). In the unsubscription order, this amount equals the value of amount_after_discount .
amount_after_discount	Double	-	Order amount after a discount (excluding the vouchers or cards).
measure_id	Integer	-	Order amount unit. 1: 1 Yuan/ Dollar
create_time	String	A maximum of 20 characters	Creation time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as 2019-05-06T08:05:01Z The range of <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> is 0-59.
payment_time	String	A maximum of 20 characters	Payment time (available only after an order is successfully paid). UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as 2019-05-06T08:05:01Z The range of <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> is 0-59.

Parameter	Type	Maximum Length	Description
currency	String	A maximum of 4 characters	Currency code.
contract_id	String	A maximum of 64 characters	Contract ID.
amount_info	AmountInfoV2 Object	-	Fee deduction details. For details, see Table 6-7 .
enterprise_projects	List<EnterpriseProject>	-	Enterprise project details of a customer order. For details, see Table 6-9 . NOTE You can query enterprise project information for each order in batch unsubscription and renewal scenarios by order ID.

Table 6-11 AgentPayInfoV2

Parameter	Type	Maximum Length	Description
paying_agent_id	String	A maximum of 64 characters	Customer account ID of the agent payer.
is_agent_pay	Boolean	--	Whether agent payment is used. true: Yes If the value is not true , the order is not an agent payment order.

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": [], "agent_pay_info":
{ "paying_agent_id": "0a08c7277280d5ff0ff6c00643c406c0", "is_agent_pay":
true } } ] }
```

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.0101	Invalid parameter.
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.

6.2.2 Querying Order Details

Function

Customers can view order details on the self-built 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 [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 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.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:order:view	Grants the permission to view order information and pay-per-usage packages.	list	-	-	-

URI

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

The following table describes the parameters.

Table 6-12 Path parameters

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

Table 6-13 Request parameters

Parameter	Mandatory	Value Range	Description
offset	No	0 to a maximum integer	Offset, which starts from 0. The default value is 0. If this parameter is not included in the request parameters, is set to "", or is set to null, the default value 0 is used. NOTE This parameter is used for pagination. Retain its default value 0 if pagination is not required. offset indicates the offset relative to the first data record among all that meets the conditions configured. If you set offset to 1, the second and subsequent data records are returned. For example, if there 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. If there are 20 records that meet query conditions, when you set offset to 0 and limit to 10 for the first page and set offset to 10 and limit to 10 for the second page, then each page will respectively have 10 records.
limit	No	1 to 100	Number of records displayed per page. The default value is 10. If this parameter is not included in the request parameters, is set to "", or is set to null, the default value 10 is used.

Table 6-14 Message header parameter

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

Request

Request Parameters

None

Example Request

```
GET https://bss-intl.myhuaweicloud.com/v2/orders/customer-orders/details/CS19040119281JMYC?
limit=10&offset=0 HTTP/1.1Content-Type: application/jsonX-Auth-Token:
MIIPAgYJKoZihvcNAQcCo...ggg1BBIINPXsidG9rZ
```

Response

Response Parameters

Parameter	Type	Value Range	Description
error_code	String	A maximum of 20 characters	Status code. For details, see Returned Values .
error_msg	String	A maximum of 2,000 characters	Error description.
order_info	Customer OrderEntityV2 Object	-	Order details. For details, see Table 6-15 .
total_count	Integer	-	Order item ID array.
order_line_items	List<Order LineItemEntityV2>	-	ID of the primary order item mapping the order item. For details, see Table 6-16 .

Table 6-15 CustomerOrderEntityV2

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.

Parameter	Type	Maximum Length	Description
service_type_code	String	A maximum of 6,400 characters	Cloud service type code. For example, the cloud service type code of OBS is hws.service.type.obs . NOTE When a combined order is queried, the value of this field is the combination of the cloud service type codes of sub-orders. The codes are separated by commas (,).
service_type_name	String	A maximum of 200,000 characters	Cloud service type. For example, the cloud service type of ECS is Elastic Cloud Server . NOTE When a combined order is queried, the value of this field is the combination of the cloud service type names of sub-orders. The names are separated by commas (,).
source_type	Integer	-	Customer order source type. The value can be: • 1: Customer • 2: Agent • 3: Contract • 4: Distributor • 5: Deleted resources • 6: Supplement • 7: Compensation • 8: Auto-created NOTE Orders generated in the following scenarios are automatically created by the system: • Unsubscription orders created in the cases of subscription failed and auto unsubscription • Auto unsubscription triggered for failed hardware orders or failed subscription of combined cloud services (including hardware) • Return orders automatically created for hardware replacement • Renewal orders created during auto-renewal

Parameter	Type	Maximum Length	Description
status	Integer	-	Order status. The value can be: • 1: Pending approval • 2: Pending refund • 3: Processing • 4: Canceled • 5: Completed • 6: Pending payment • 9: To be confirmed • 10: To be shipped • 11: To be received • 12: Pending pick-up • 13: Exchange in progress
order_type	Integer	-	Order type. The value can be: • 1: New purchase • 2: Renewal • 3: Change • 4: Unsubscription • 10: Yearly/monthly to pay-per-use • 11: Pay-per-use to yearly/monthly • 13: Trial • 14: Commercial use • 15: Price adjustment
official_amount	Double	-	Order amount (list price). In the unsubscription order, this amount equals the value of amount_after_discount .
amount_after_discount	Double	-	Order amount after a discount (excluding the vouchers or cards). In the unsubscription order, the amount is the refund amount after the handling fee is deducted.
measure_id	Integer	-	Order amount unit. • 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 <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> 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 <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> is 0-59.
amount_info	AmountInfoV2 Object	-	Fee deduction details. For details, see Table 6-18 .
currency	String	A maximum of 4 characters	Currency code.
contract_id	String	A maximum of 64 characters	Contract ID.
user_name	String	A maximum of 64 characters	Order creator name • If the order is placed by the customer, the login name of the operator who places the order is returned. • If the order is placed by the operation personnel at the background, Operation personnel is returned. • If the order is automatically placed by the operation system, Operation system is returned.

Parameter	Type	Maximum Length	Description
pending_payment_end_time	String	A maximum of 20 characters	Payment end time of an unpaid order. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as 2019-05-06T08:05:01Z The range of <i>HH</i> is 0–23, and the range of <i>mm</i> and <i>ss</i> is 0–59. NOTE 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_infos	List<SubCustomerOrderEntityV2>	-	Details of orders in a combined order. For details, see Table 6-20 . 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 6-16 OrderLineItemEntityV2

Parameter	Type	Value Range	Description
order_line_item_id	String	A maximum of 64 characters	Order 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 .
product_id	String	A maximum of 64 characters	Product ID.
product_spec_desc	String	A maximum of 512 characters	Product specification description.

Parameter	Type	Value Range	Description
period_type	Integer	-	Period type. The options are as follows: • 0: Day • 1: Week • 2: Month • 3: Year • 4: Hour • 5: One-off • 6: Pay-per-use (reserved) • 7: By usage report (reserved)
period_num	Integer	-	Number of periods. NOTE The value of this parameter is null for an unsubscription order.
effective_time	String	A maximum of 20 characters	Effective time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as 2019-05-06T08:05:01Z The range of <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> is 0-59.
expire_time	String	A maximum of 20 characters	Expiration time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as 2019-05-06T08:05:01Z The range of <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> is 0-59.
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	-	Fee deduction details. For details, see Table 6-18 .

Parameter	Type	Value Range	Description
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 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 Querying Resource Types .
base_product_info	BaseProductInfo Object	--	Product information in the order line before the change. For details, see Table 6-17 . NOTE A specific value is returned only when the order_type is set to Change . For other order types, the value is null .
order_id	String	A maximum of 64 characters	Order ID.

Table 6-17 BaseProductInfo

Parameter	Type	Maximum Length	Description
product_id	String	A maximum of 64 characters	Product ID.

Parameter	Type	Maximum Length	Description
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 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 Querying Resource Types .

Table 6-18 AmountInfoV2

Parameter	Type	Value Range	Description
discounts	List<DiscountItemV2>	-	Fee item. For details, see Table 6-19 .
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 6-19 DiscountItemV2

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

Table 6-20 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	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: • 1. Customer • 2. Agent • 3: Contract • 4: Distributor • 5: Deleted resources • 6: Supplement • 7: Compensation • 8: Auto-created NOTE Orders generated in the following scenarios are automatically created by the system: • Unsubscription orders created in the cases of subscription failed and auto unsubscription • Auto unsubscription triggered for failed hardware orders or failed subscription of combined cloud services (including hardware) • Return orders automatically created for hardware replacement • Renewal orders created during auto-renewal

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

Parameter	Type	Maximum Length	Description
official_amount	Double	-	Order amount (list price). In the unsubscription order, this amount equals the value of amount_after_discount .
amount_after_discount	Double	-	Order amount after a discount (excluding the vouchers or cards). In the unsubscription order, the amount is the refund amount after the handling fee is deducted.
measure_id	Integer	-	Order amount unit. • 1: 1 Yuan/ Dollar
create_time	String	A maximum of 20 characters	Creation time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as 2019-05-06T08:05:01Z . The range of <i>HH</i> is 0–23, and the range of <i>mm</i> and <i>ss</i> 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 <i>HH</i> is 0–23, and the range of <i>mm</i> and <i>ss</i> is 0–59.
amount_info	AmountInfoV2 Object	-	Fee deduction details. For details, see Table 6-18 .
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 • If the order is placed by the customer, the login name of the operator who places the order is returned. • If the order is placed by the operation personnel at the background, Operation personnel is returned. • If the order is automatically placed by the operation system, Operation system is returned.

Parameter	Type	Maximum Length	Description
pending_payment_end_time	String	A maximum of 20 characters	Payment end time of an unpaid order. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as 2019-05-06T08:05:01Z The range of <i>HH</i> is 0–23, and the range of <i>mm</i> and <i>ss</i> is 0–59. NOTE 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 OKContent-Type: application/json;charset=UTF-8Content-Length: lengthDate: 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 IO|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 | 1 vCPU | 4 GB | 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

- **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	Incorrect parameter.
400	CBC.0101	Invalid parameter.
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.

6.2.3 Querying Available Discounts of an Order

Function

A customer can query available discounts when paying an order on the self-built platform.

NOTE

No discount is available to reseller customers.

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.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:contract:viewDiscount	Grants the permission to view discounts	read	-	-	-

URI

GET /v2/orders/customer-orders/order-discounts

The following table describes the parameters.

Table 6-21 Request parameters

Parameter	Mandatory	Value Range	Description
order_id	Yes	A maximum of 64 characters	Order ID.

Request

Request Parameters

None

Example Request

```
GET https://bss-intl.myhuaweicloud.com/v2/orders/customer-orders/order-discounts?
order_id=CS2011091132EMKL9 HTTP/1.1Content-Type: application/jsonX-Auth-Token:
MIIPAgYJKoZlHvcNAQcCo...ggg1BBIINPXsidG9rZ
```

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 2,000 characters	Error description.
discounts	List<DiscountInfoV3>	-	List of available discounts. For details, see Table 6-22 . NOTE If the user does not have the corresponding permission, this field is not returned. For details, see Permissions and Authorizations .

Table 6-22 DiscountInfoV3

Parameter	Type	Value Range	Description
discount_id	String	A maximum of 64 characters	ID of the available order discount. To use a discount, enter the value of this parameter when paying an order.
discount_value	String	-	Discount percentage or reduction. Leave this parameter empty if the discount model is set to 1.
discount_type	Integer	-	Discount type. The options are as follows: • 0: promotion discount • 1: contract discount • 2: commercial discount • 3: discount granted by a partner • 609: discount for adjusting an order price
orders	List<OrderV3>	-	List of the orders that can use discounts. For details, see Table 6-23 .

Table 6-23 OrderV3

Parameter	Type	Maximum Length	Description
order_id	String	-	ID of the order that can use discounts.
order_line_items	List<OrderLineItemV3>	A maximum of 100 items	List of the order items that can use the same discount. For details, see Table 6-24 .

Table 6-24 OrderLineItemV3

Parameter	Type	Value Range	Description
order_line_item_ids	List<String>	A maximum of 1,000 characters	List of the IDs of the combined order items that can use the same discount. Order items with the same product, same specifications (for linear products), and same final price (for example, price adjustment for a featured product) will be combined.
discount_model	Integer	-	Available discount model of an order. • 0: discount • 1: buy-it-now price • 2: reduction for specific amount
discount_amount	BigDecimal	-	Discount amount of an order, that is, the deducted amount.
discount_ratio	BigDecimal	-	Discount ratio of an order.

Example Response

```
HTTP/1.1 200 OKContent-Type: application/json;charset=UTF-8Content-Length: lengthDate: response time{  "discounts": [    {      "discount_id": "PDP2011260815047721TYT48G0BA02EI",      "discount_value": "0.9",      "discount_type": 0,      "orders": [        {          "order_id": "CS2011091132EMKL9",          "order_line_items": [            {              "order_line_item_ids": [                "CS2011091132EMKL9-000002"              ],              "discount_mode": 0,              "discount_amount": null,              "discount_ratio": 0.9            },            {              "order_line_item_ids": [                "CS2011091132EMKL9-000001"              ],              "discount_mode": 0,              "discount_amount": null,              "discount_ratio": 0.9            }          ]        }      ]    }  ] }
```

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.

6.2.4 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.
- If a unified accounting member calls this API for manual payment, an order will be generated. The enterprise master account can access Billing Center, find this order in **Orders**, and pay for the order.
- If a unified accounting member calls this API for auto payment, the order will be automatically paid by the enterprise master account. If the API fails to be called due to reasons such as insufficient balance in the master account, an order will be generated. The enterprise master account can then access Billing Center, find this order in **Orders**, and pay for the order again.

Constraints

This API can only be invoked using 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.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:order:pay	Grants the permission to pay orders.	write	-	-	-

URI

POST /v3/orders/customer-orders/pay

Request

Request Parameters

Parameter	Mandatory	Type	Maximum Length of Characters	Description
order_id	Yes	String	A maximum of 64 characters	Order ID. The value is the same as the order_ids value in the response message of API described in Renewing Subscription to Yearly/Monthly Resources .
use_coupon	Yes	String	[YES NO]	Whether coupons are used for order payment. If this parameter is set to YES , the coupon_infos field is mandatory. If this parameter is set to NO , the value of coupon_infos is ignored. • YES: indicates that the coupons are used for payment. • NO: indicates that the coupons are not used for payment.

Parameter	Mandatory	Type	Maximum Length of Characters	Description
use_discount	Yes	String	[YES NO]	Whether a discount is used for the order payment. If this parameter is set to YES, the discount_infos field is mandatory. If this parameter is set to NO, the value of discount_infos is ignored. • YES: indicates that the discount is used for payment. • NO: indicates that the discount is not used for payment.
coupon_infos	No	List<CouponSimpleInfo>	A maximum of 3 IDs are supported.	For details, see Table 6-25. 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_infos	No	List<DiscountSimpleInfo>	Only one discount ID is allowed.	For details, see Table 6-26. 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 6-25 CouponSimpleInfo

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

Table 6-26 DiscountSimpleInfo

Parameter	Mandatory	Type	Maximum Length of Characters	Description
id	Yes	String	A maximum of 64 characters	Discount ID.
type	Yes	Integer	[0,2,3]	Discount type. • 0: promotion discount • • 2: commercial discount • 3: discount granted by a partner

Example Request

```
POST https://bss-intl.myhuaweicloud.com/v3/orders/customer-orders/pay HTTP/1.1Content-Type: application/jsonX-Auth-Token: MIIPAgYJKoZlhcNAQcCo...ggg1BBIINPXsidG9rZl "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 of 10 characters	Error code. For details, see Returned Values .
error_msg	String	A maximum of 256 characters	Error description.
quota_infos	List<QuotaInfo>	-	List of the resources whose quota or capacity is insufficient. For details, see Table 6-27 . This parameter is valid only when error_code is set to CBC.99003141 . • If the quota is insufficient, submit a service ticket on the HUAWEI CLOUD official website to increase the quota and then pay the order. • If the capacity is insufficient, place an order again. • If the specifications have changed, place an order again.
enterprise_project_auth_result	List<EnterpriseProject>	-	Information about the enterprise project whose fund is insufficient. For details, see Table 6-28 . This parameter is valid only when error_code is set to CBC.99003155 .

Table 6-27 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 .
auth_result	Integer	Verification result of the change of the cloud service quota, capacity, or specifications. • 1: The quota is insufficient. • 2: The capacity is insufficient. • 3: The resource specifications are incorrect. This value is valid only when the resource specifications change between the time when a customer places an order and the time when the customer pays the order. • 4: The associated resource information is incorrect. This value is valid only when the resource specifications change between the time when a customer places an order and the time when the customer pays the order. • 99: Other errors. This value is valid only when the resource specifications change between the time when a customer places an order and the time when the customer pays the order.
available_zone	String	AZ ID. For details, see the AZ names of regions listed on the Regions and Endpoints , for example, cn-north-1a .

Table 6-28 EnterpriseProject

Parameter	Type	Description
enterprise_project_id	String	ID of the enterprise project where an order belongs. 0: ID of a default project -1 or null: Non-project ID
enterprise_project_name	String	Enterprise project name.
auth_statuses	Integer	Verification result of the enterprise project's fund quota. 10: Insufficient fund quota/Invalid project 11: The organization budget quota is insufficient.

Example Response

HTTP/1.1 204 No ContentContent-Type: application/json;charset=UTF-8Content-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 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.

HTTP Status Code	Error Code	Description
400	CBC.99003116	The restriction to selected coupon regulates that the coupon cannot be used with the discount at the same time.
400	CBC.99003117	The selected discount is less than the minimum discount rate configured for the selected coupon. Note: For example, if the minimum discount rate configured for a coupon is 90% and the selected discount is less than 90% in all order lines, the discount cannot be used.
400	CBC.99003139	The specifications of an expired or frozen resource cannot be changed. Renew the resource and try again.
400	CBC.99003141	The cloud service quota or capacity is insufficient, or the resource specifications have changed.
400	CBC.99003143	The product in this order is no longer available.
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.
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.

HTTP Status Code	Error Code	Description
400	CBC.99008056	The maximum number of transactions allowed today has been reached.

6.2.5 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 [Canceling Orders](#) 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 only be invoked using 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.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, no identity policy-based permissions are required for calling this API.

URI

PUT /v2/orders/customer-orders/cancel

Request

Request Parameters

Parameter	Mandatory	Type	Value Range	Description
order_id	Yes	String	A maximum of 64 characters	Order ID. The value is the same as the value of order_id in the response of the API described in Querying Orders .

Example Request

```
PUT https://bss-intl.myhuaweicloud.com/v2/orders/customer-orders/cancel HTTP/1.1Content-Type: application/jsonX-Auth-Token: MIIPAgYJKoZlIhvcNAQcCo...ggg1BBIINPXsidG9rZl "order_id": "CS170926155954NO7"}
```

Response

Response Parameters

Table 6-29 Response parameters

Parameter	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 ContentContent-Type: application/json;charset=UTF-8Content-Length: lengthDate: 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.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.

6.2.6 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 customer sales platform.

NOTE

- After the API described in [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 [Unsubscribing from Yearly/Monthly Resources](#), you can invoke this API to query the original order ID and original subscription renewal order ID.
- You can query original order IDs for only unsubscription orders generated after May 2018.

Constraints

This API can be invoked using the customer 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.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:order:view	Grants the permission to view order information and pay-per-usage packages.	list	-	-	-

URI

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

Table 6-30 Request parameters

Parameter	Mandatory	Type	Value Range	Description
order_id	Yes	String	A maximum of 64 characters	ID of an unsubsubscription 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/1.1Content-Type: application/jsonX-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.

Parameter	Type	Description
total_count	Integer	Total queries.
refund_infos	List<OrderRefundInfoV2>	Resource list. For details, see Table 6-31 .

Table 6-31 OrderRefundInfoV2

Parameter	Type	Description
id	String	Record ID.
amount	BigDecimal	Amount. - A negative number indicates the unsubscription amount. - A positive number indicates the handling fee for unsubscription.
measure_id	String	Fee unit. 1: 1 Yuan/Dollar
customer_id	String	Customer account ID.
resource_type_code	String	Resource type code. For example, the VM resource type code of ECS is hws.resource.type.vm .
service_type_code	String	Cloud service type code. For example, the cloud service type code of OBS is hws.service.type.obs .
resource_type_name	String	Resource type. For example, the resource type of ECS is Cloud Host .
service_type_name	String	Cloud service type. For example, the cloud service type of ECS is Elastic Cloud Server .
region_code	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 OKContent-Type: application/json;charset=UTF-8Content-Length: lengthDate: 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

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

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

6.3 Managing Yearly/Monthly Resources

6.3.1 Querying Customer's Yearly/Monthly Resources

Function

A customer can query one or all yearly/monthly resources on the self-built 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 [Querying the Price of a Yearly/Monthly Product](#) to query the price for the yearly/monthly resources and then invoke the API described in [Renewing Subscription to Yearly/Monthly Resources](#) to renew the subscription.

Constraints

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

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:subscription:view	Grants the permission to view renewals and query resources that can be changed from pay-per-use to yearly/monthly.	read	-	-	-

URI

POST /v2/orders/subscriptions/resources/query

Request

Request Parameters

Table 6-32 Request parameters

Parameter	Mandatory	Type	Value Range	Description
resource_ids	No	list<String>	[0-50]	Resource IDs. Queries resources with the specified resource IDs. When only_main_resource is 0, the system queries the specified resources and their auxiliary resources. A maximum of 50 IDs can be used at the same time. If this parameter is not included in the request parameters, is left empty, or is set to null, it cannot be used as a filter criterion. Records that meet other search criteria are returned. NOTE A resource ID is allocated by a cloud service after the resource is provisioned, such as server_id for ECS.
order_id	No	String	A 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, is set to "", or is set to null, it cannot be used as a filter criterion. Records that meet other search criteria are returned. NOTE When special characters are used for query, perform the URL code conversion. For example, % should be converted to %25.

Parameter	Mandatory	Type	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. • 0: Queries both the primary resources and attached resources. • 1: Queries only the primary resources. The default value is 0. If this parameter is not included in the request parameters or is set to null, the default value 0 is used. NOTE A primary resource takes the primary position in the associated resources. • For ECS, ECS is the primary resource, and EVS is the attached resource. • For VPC, if the shared bandwidth is used, the bandwidth is the primary resource, and EIPs are the attached resource. If the exclusive bandwidth is used, EIPs are the primary resources, and the bandwidth is the attached resource.
status_list	No	list<Integer>	[0-10]	Resource status. Queries resources in a specified status. If there are multiple statuses, separate them using commas (,). • 2: Provisioned • 3: Closed • 4: Frozen • 5: Expired If this parameter is not included in the request parameters, is left empty, or is set to null, it cannot be used as a filter criterion. Resources in all statuses are returned.

Parameter	Mandatory	Type	Value Range	Description
offset	No	Integer	0 to 2147483646	Offset, starting from 0. The default value is 0. NOTE This parameter is used for pagination. Retain its default value 0 if pagination is not required. offset indicates the offset relative to the first data record among all that meets the conditions configured. If you set offset to 1, the second and subsequent data records are returned. For example, if there 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. 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 <i>yyyy-MM-dd'T'HH:mm:ss'Z'</i>, for example, 2019-05-06T08:05:01Z. The range of <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> is 0-59. If this parameter is not included in the request parameters, is set to "", or is set to null, it cannot be used as a filter criterion. Records that meet other search criteria are returned.
expire_time_end	No	String	20	End time of a period during which there are expired resources. The time is in the UTC format <i>yyyy-MM-dd'T'HH:mm:ss'Z'</i>, for example, 2019-05-06T08:05:01Z. The range of <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> is 0-59. If this parameter is not included in the request parameters, is set to "", or is set to null, it cannot be used as a filter criterion. Records that meet other search criteria are returned.

Parameter	Mandatory	Type	Value Range	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 . You can call the 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/subscriptions/resources/query HTTP/1.1Content-Type: application/jsonX-Auth-Token: MIIPAgYJKoZlhvcNAQcCo...ggg1BBIINPXsidG9rZl "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

Parameter	Type	Description
error_code	String	Error code. For details, see Returned Values .
error_msg	String	Error description.
data	List<OrderInstanceV2>	Resource list. For details, see Table 6-33 .
total_count	Integer	Total number of records

Table 6-33 OrderInstanceV2

Parameter	Type	Description
id	String	Internal ID of the resource to be provisioned. The ID generated after the resource is provisioned is resource_id .

Parameter	Type	Description
resource_id	String	Resource ID.
resource_name	String	Resource instance name.
region_code	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 VM resource type code of ECS is hws.resource.type.vm .
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).
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 .
project_id	String	Resource project ID.
product_id	String	Product ID.
parent_resource_id	String	Parent resource ID
is_main_resource	Integer	Primary resource or not. ● 0: Attached resource ● 1: Primary resource

Parameter	Type	Description
status	Integer	Resource status. • 2: Provisioned • 3: Closed (not visible to customers) • 4: Frozen • 5: Expired
effective_time	String	Effective time of a resource. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as 2019-05-06T08:05:01Z
expire_time	String	Expiration time of a resource. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, such as 2019-05-06T08:05:01Z
expire_policy	Integer	Billing policy after a resource expires. • 0: Entering the grace period upon expiration • 1: Yearly/monthly to pay-per-use upon expiration • 2: Automatically deleted upon expiration (directly deleted from resources that take effect) • 3: Automatically renewed upon expiration • 4: Automatically frozen upon expiration • 5: Automatically deleted upon expiration (deleted from resources in the retention period) NOTE Only 3 indicates that the resource is automatically renewed. In other cases, the expiration policy for non-automatic renewal is used.
product_spec_desc	String	A maximum of 512 characters allowed. Product specification description.
spec_size	BigDecimal	Product size, which is available only for linear products. NOTE 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.
spec_size_measurement_id	Integer	Product size unit, which is available only for linear products. Call the API in Querying Measurement Units to obtain the value.

Parameter	Type	Description
update_time	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.
enterprise_project	EnterpriseProject Object	Enterprise project details of a customer resource. For details, see Table 6-34 .

Table 6-34 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.

Example Response

```
HTTP/1.1 200 OKContent-Type: application/json;charset=UTF-8Content-Length: 1000Date: 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"      }    },    {      "id": "0",      "name": "default"    }  ],  "total_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.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

6.3.2 Renewing Subscription to Yearly/Monthly Resources

Function

A customer can renew subscription to yearly/monthly resources on the self-built 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 [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 [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 [Support for Discounts or Coupons](#).
- You can call the API in [Setting a Deduction Date for Auto-Renewal of Yearly/Monthly Resources and a Same Expiration Date for Renewed Resources](#) to setting deduction date for auto-renewal of yearly/monthly resources and set a renewal date for these resources.

Constraints

This API can only be invoked using 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.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:subscription:renew	Grants the permission to renew subscriptions, enable auto-renewal, set expiration policies, and change from pay-per-use to yearly/monthly.	write	-	-	-

URI

POST /v2/orders/subscriptions/resources/renew

Request

Request Parameters

Parameter	Mandatory	Type	Description
resource_ids	Yes	List<String>	Definition: Resource IDs. Constraints: 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 Querying Customer's Yearly/Monthly Resources . Range: 1 to 10 Default Value: N/A
period_type	Yes	Integer	Definition: Period type. Constraints: N/A Range: • 2: month • 3: year Default Value: N/A
period_num	Yes	Integer	Definition: Number of periods. Constraints: • Month: 1 to 11 • Year: 1 to 3 Range: [1-11] Default Value: N/A

Parameter	Mandatory	Type	Description
is_auto_pay	No	Integer	Definition: Whether enable automatic payment. The rules for auto payment are consistent with those for auto renewal. For details about the rules for auto payment, see Auto-Renewal Rules . Constraints: N/A Range: 0: No 1: Yes Default Value: 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/1.1Content-Type: application/jsonX-Auth-Token: MIIPAgYIKoZlhcNAQcCo...ggg1BBIINPXsidG9rZl "resource_ids": [ "96308d5efd7841b9a4dac673d84d0e14" ], "period_type": 2, "period_num": 1, "is_auto_pay": 0}
```

Response

Response Parameters

Status code: 200

Table 6-35 Response body parameters

Parameter	Type	Description
order_ids	List<String>	Definition: List of order IDs generated when resource subscription is renewed.
fail_resource_infos	List<FailResourceInfo>	Definition: 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 6-36 . This parameter is reserved.

Table 6-36 FailResourceInfo

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

Status code: 400**Table 6-37** Response body parameters

Parameter	Type	Description
error_code	String	Definition: Status code. For details, see Returned Values .
error_msg	String	Definition: Error description.
order_ids	List<String>	Definition: List of order IDs generated when resource subscription is renewed.
expiredResourceIds	List<String>	Definition: 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 OKContent-Type: application/json;charset=UTF-8Content-Length: lengthDate: 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.30010036	Renewal is only supported for primary resources.
400	CBC.30010069	The renewal period does not exist.
400	CBC.30050006	Automatic order payment failed.
400	CBC.99000092	Incorrect subscription period.
400	CBC.99003100	This operation is not allowed because some resources are included in your orders to be paid.
400	CBC.7281	Renewal, payment, or unsubscription not supported. Your account has been frozen.
400	CBC.99003016	The resources have expired and been deleted or do not exist.
400	CBC.99003144	You have orders in progress and cannot perform the current operation.
400	CBC.99003154	The sum of the existing and renewal durations has exceeded the maximum allowed. Select another renewal duration.
400	CBC.99003634	Resources in discount packages must be renewed as a whole and cannot be renewed together with other resources.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

6.3.3 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 [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 [Querying Customer's Yearly/Monthly Resources](#) to obtain the details of the ECS primary resources and its attached ones.
- 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 want to continue using these resources, unsubscribe from the subscription term renewed but not used yet.

Constraints

This API can only be invoked using 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.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:subscription:unsubscribe	Grant the permission to view unsubscribed resources, unsubscribe from resources, cancel delivery, and return or replace hardware.	write	-	-	-

URI

POST /v2/orders/subscriptions/resources/unsubscribe

Request

Request Parameters

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

Parameter	Mandatory	Type	Description
unsubscribe_type	Yes	Integer	Definition: Unsubscription type. Constraints: N/A Range: 1: Unsubscribe from the resource and its renewal periods. 2: Unsubscribe from only the resource renewal periods. Default Value: N/A
unsubscribe_reason_type	No	Integer	Definition: Unsubscription reason category. Constraints: N/A Range: 1: The product is of poor usability. 2: The product functions cannot meet the requirements. 3: Customers do not know how to use the product, or the product operations are complex. 4: Customers are not satisfied with the service. 5: Others Default Value: N/A
unsubscribe_reason	No	String	Definition: Unsubscription reason, which is generally specified by the customer. Constraints: N/A Range: A maximum of 512 characters Default Value: N/A

Example Request

```
POST https://bss-intl.myhuaweicloud.com/v2/orders/subscriptions/resources/unsubscribe HTTP/1.1Content-Type: application/jsonX-Auth-Token: MIIIPAgYJKoZlIhvcNAQcCo...ggg1BBIIINPXsidG9rZl "resource_ids": [ "21e09f37c5c9420c8746ad5c71fb3aab" ], "unsubscribe_type": 1, "unsubscribe_reason_type": 5, "unsubscribe_reason": "test"}
```

Response

Response Parameters

Parameter	Type	Description
error_code	String	Definition: Status code. For details, see Returned Values .
error_msg	String	Definition: Error description.
order_ids	List<String>	Definition: Unsubscription order IDs.
fail_resource_infos	List<FailResourceInfo>	Definition: 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_mMcCpPsS_table173001375312 . This parameter is reserved.

Table FailResourceInfo

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

Example Response

```
HTTP/1.1 200 OKContent-Type: application/json;charset=UTF-8Content-Length: lengthDate: 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.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.

HTTP Value	Error Code	Description
400	CBC.99003656	Operation not allowed. Your resource has been frozen.
400	CBC.99006066	An error occurred during the query of the fee information.
403	CBC.0151	Access denied.
400	CBC.99003651	Unsubscription not supported. An operation associated with this instance is in progress.
500	CBC.0999	Other errors.

6.3.4 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 [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 . If the first attempt to deduct the fee fails due to the , 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.
- For the original billing mode of a resource, the renewal period is minimum subscription term of the product.

Constraints

This API can only be invoked using 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.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:subscription:renew	Grants the permission to renew subscriptions, enable auto-renewal, set expiration policies, and change from pay-per-use to yearly/monthly.	write	-	-	-

URI

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

The following table describes the parameters.

Table 6-38 Path parameters

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

Request

Request Parameters

Parameter	Mandatory	Type	Description
auto_renew_times	No	Integer	Definition: Number of auto renewals. Auto renewal will end after the specified number of auto renewals is reached. Constraints: If auto-renewal is enabled for the first time, and this parameter is not included in the request parameters or is set to null , there is no limit to the number of auto renewals. If auto-renewal has been enabled, this parameter is mandatory when the number of auto renewals is reset. Otherwise, this parameter is not processed or modified. Range: [0-99] NOTE The value 0 indicates that the number of auto renewals is not limited. Default Value: N/A

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...ggg1BBIIINPXsidG9rZl "auto_renew_times": 3}
```

Response

Response Parameters

Parameter	Type	Description
error_code	String	Definition: Status code. For details, see Returned Values .
error_msg	String	Definition: 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

- **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.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.

6.3.5 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 [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 [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 [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 only be invoked using 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.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:subscription:renew	Grants the permission to renew subscriptions, enable auto-renewal, set expiration policies, and change from pay-per-use to yearly/monthly.	write	-	-	-

URI

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

The following table describes the parameters.

Table 6-39 Path parameters

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

Request

Request Parameters

None

Example Request

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

Response

Response Parameters

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

Example Response

HTTP/1.1 204 No ContentContent-Type: application/json;charset=UTF-8Content-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.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.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

6.3.6 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 upon expiration 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 upon expiration.
- Before invoking this API, you can invoke the API described in [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 upon expiration 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 upon expiration, you must enable the change by calling the API described in [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 [Renewing Subscription to Yearly/Monthly Resources](#).

REST API

This API can only be invoked using 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.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:subscription:renew	Grants the permission to renew subscriptions, enable auto-renewal, set expiration policies, and change from pay-per-use to yearly/monthly.	write	-	-	-

URI

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

The following table describes the parameters.

Request

Request Parameters

Parameter	Mandatory	Type	Value Range	Description
operation	Yes	String	A maximum of 64 characters	Used to enable or cancel the change from yearly/monthly to pay-per-use upon expiration. • SET_UP: Enable • CANCEL: Cancel

Parameter	Mandatory	Type	Value Range	Description
resource_ids	Yes	list<string>	[1-100]	Resource ID. You can obtain the resource ID by invoking the API described in Querying Customer's Yearly/Monthly Resources. A maximum of 100 IDs of only primary resources can be set. After this parameter is set, both the primary resource and its attached resources are changed to pay-per-use resources. This field is mandatory. You can refer to parameter is_main_resource in the response of the API described in 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...ggg1BBIIINPXsidG9rZl
{"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.

Parameter	Type	Value Range	Description
error_details	List<Error Detail>	A maximum of 100 records	This parameter is returned when HTTP 200 is displayed. If some operations fail, only failure records are returned. If all the operations succeed, the record is empty. For details, see Table 6-40 .

Table 6-40 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 OKContent-Type: application/json;charset=UTF-8Content-Length: lengthDate: 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.

6.3.7 Setting a Deduction Date for Auto-Renewal of Yearly/Monthly Resources and a Same Expiration Date for Renewed Resources

Function

This API can be used to set a deduction date for auto-renewal of yearly/monthly resources and a same expiration date for renewed resources.

NOTE

- If you set a deduction fee date for auto-renewal, the system will deduct the fee at 03:00 (GMT+08:00). For details, see [Deduction Date for Auto-Renewal](#).
- If you set a renewal date for a yearly/monthly subscription, the subscription will expire on the fixed date of a month. For details, see [Renewal Date](#).

Constraints

This API can only be invoked using 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.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:subscription:renew	Grants the permission to renew subscriptions, enable auto-renewal, set expiration policies, and change from pay-per-use to yearly/monthly.	write	-	-	-

URI

POST /v2/orders/subscriptions/resources/renew/config

Request

Request Parameters

Parameter	Mandatory	Type	Value Range	Description
config_name	Yes	String	-	Attribute of resource renewal setting. • DEDUCTION_DATE: setting a deduction date for auto-renewal • EXPIRE_DATE: setting a renewal date

Parameter	Mandatory	Type	Value Range	Description
config_value	Yes	String	1 to 64	Attribute value of resource renewal setting. • When config_name is set to DEDUCTION_DATE, you can set the system to automatically deduct fees two to seven days before the resource expires. This parameter has the following values: – 2: two days before expiration – 3: three days before expiration – 4: four days before expiration – 5: five days before expiration – 6: six days before expiration – 7: seven days before expiration • If config_name is set to EXPIRE_DATE, the value of config_value can be: – 1: the first day of each month – 2: the second day of each month – 3: the third day of each month – 4: the 4th day of each month – 5: the 5th day of each month – 6: the 6th day of each month – 7: the 7th day of each month – 8: the 8th day of each month

Parameter	Mandatory	Type	Value Range	Description
				- 9: the 9th day of each month - 10: the 10th day of each month - 11: the 11th day of each month - 12: the 12th day of each month - 13: the 13th day of each month - 14: the 14th day of each month - 15: the 15th day of each month - 16: the 16th day of each month - 17: the 17th day of each month - 18: the 18th day of each month - 19: the 19th day of each month - 20: the 20th day of each month - 21: the 21st day of each month - 22: the 22nd day of each month - 23: the 23rd day of each month - 24: the 24th day of each month - 25: the 25th day of each month - 26: the 26th day of each month - 27: the 27th day of each month - 28: the 28th day of each month - -1: the last day of each month

Example Request

```
POST https://bss-intl.myhuaweicloud.com/v2/orders/subscriptions/resources/renew/config HTTP/1.1Content-Type: application/jsonX-Auth-Token: MIIPAgYJKoZlIhvcNAQcCo...ggg1BBIIINPXsidG9rZl    "config_name": "DEDUCTION_DATE",    "config_value": "7"}
```

Response

Response parameters

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

Example Response

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

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

6.4 Managing Resource Packages

6.4.1 Querying Resource Packages

Function

A customer can query resource packages on the self-built platform.

Customers can log in to Billing Center and go to [Resource Packages](#). Click the **Resource Packages** tab to view the list of 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.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:resource Packages:view	Grants the permission to view resource packages and remaining amount and query or export usage details.	list	-	-	-

URI

POST /v3/payments/free-resources/query

Table 6-41 Header parameter

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

Request

Request Parameters

Parameter	Mandatory	Type	Maximum Length/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 . If this parameter is not included in the request parameters, is set to "", or is set to null , it cannot be used as a filter criterion.
order_id	No	String	A maximum of 64 characters	Order ID. If this parameter is not included in the request parameters, is set to "", or is set to null , it cannot be used as a filter criterion.
product_id	No	String	A maximum of 64 characters	Resource package ID. If this parameter is not included in the request parameters, is set to "", or is set to null , it cannot be used as a filter criterion.
product_name	No	String	A maximum of 256 characters	Resource package name. If this parameter is not included in the request parameters, is set to "", or is set to null , it cannot be used as a filter criterion.

Parameter	Mandatory	Type	Maximum Length/Value Range	Description
enterprise_project_id	No	String	A maximum of 64 characters	Enterprise project ID. This parameter is mandatory if you want to query the resources of an enterprise project. If this parameter is not included in the request parameters, is set to "", or is set to null , the resources not included in the enterprise project are queried.
status	No	Integer	(0, 4)	Status: ● 0: Not effective ● 1: In effect ● 2: Used up ● 3: Expired ● 4: Unsubscribed If this parameter is not included in the request parameters, is set to "", or is set to null , it cannot be used as a filter criterion.
offset	No	Integer	(0, 999999)	Offset, starting from 0 . The default value is 0 . NOTE This parameter is used for pagination. Retain its default value 0 if pagination is not required. offset indicates the offset relative to the first data record among all that meets the conditions configured. If you set offset to 1 , the second and subsequent data records are returned. For example, if there 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. 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 .

Parameter	Mandatory	Type	Maximum Length/Value Range	Description
service_type_code_list	No	List<String>	[0-10]	The ID of the cloud service type. The value is case-insensitive. For example, the cloud service type code of OBS is hws.service.type.obs. You can call the Querying Cloud Service Types API to query the type of a cloud service. If this parameter is not included in the request, is left empty, or is set to null, it cannot be used as a filter criterion, and records that meet other search criteria are returned.

Example Request

```
POST https://bss-intl.myhuaweicloud.com/v3/payments/free-resources/query HTTP/1.1Content-Type: application/jsonX-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZl    "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 6-42 .
total_count	Integer	-	Total number of records

Table 6-42 FreeResourcePackage

Parameter	Type	Maximum Length /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. NOTE If there are renewal orders that have not taken effect, the ID of the order that has taken effect is returned.
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: • 0: All enterprise projects • 1: Specific enterprise projects
effective_time	String	A maximum of 20 characters	Time when a resource package is purchased. The value is in UTC format.

Parameter	Type	Maximum Length /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: • 0: Not effective • 1: In effect • 2: Used up • 3: Expired • 4: Unsubscribed
service_type_code	String	A maximum of 64 characters	Cloud service type code. For example, the cloud service type code of OBS is hws.service.type.obs .
service_type_name	String	A maximum of 200 characters	Cloud service type. For example, the cloud service type of ECS is Elastic Cloud Server .
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: • 0: Order • 1: Gifted by DevCloud
bundle_type	String	[ATOMIC_PKG BUNDLE_PKG]	Bundle binding type. The options are as follows: • ATOMIC_PKG: Atomic package • BUNDLE_PKG: Combined package

Parameter	Type	Maximum Length /Value Range	Description
quota_reuse_mode	Integer	(1,2)	Use model. The options are as follows: • 1: Resettable Indicates that the purchased pay-per-use resource package can be reset at a specified period. For example, if you purchase a 1-year 40 GB pay-per-use resource package with quota_reuse_mode set to 1 and quota_reuse_cycle to 4, then the resource package will be reset each month (you will get 40 GB resource each month) within the year. • 2: Not resettable Indicates that the purchased resource package will not be reset. For example, if you purchase a 1-year 40 GB pay-per-use resource package with quota_reuse_mode set to 2, the resource package will not be reset, and you will get 40 GB resource within the year.
free_resources	List<FreeResource>	-	For details about resource items (ID-specific) in a resource package, see Table 6-43 .

Table 6-43 FreeResource

Parameter	Type	Maximum Length /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.

Parameter	Type	Maximum Length/Value Range	Description
usage_type_name	String	A maximum of 1,024 characters	Usage type name.
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 Querying Measurement Units to obtain the value.

Example Response

```
HTTP/1.1 200 OKContent-Type: application/json;charset=UTF-8Content-Length: lengthDate: 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

- **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	Incorrect parameter.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

6.4.2 Viewing Resource Package Usage

Function

Customers can query the resource package usage on the self-built platform by resource.

Customers can log in to Billing Center and go to [Resource Packages](#). Click the **Resource Packages** tab, and then the resource package name to view the resource usage.

Constraints

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



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.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:resource Packages:view	Grants the permission to view resource packages and remaining amount and query or export usage details.	list	-	-	-

URI

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

Table 6-44 Header parameter

Parameter	Mandatory	Description
X-Language	No	Definition: Language. Constraints: N/A Range: • zh_CN: Chinese • en_US: English Default Value: en_US

Request

Request Parameters

Parameter	Mandatory	Type	Description
free_resource_ids	Yes	List<string>	Definition: List of resource item IDs. Each ID contains a maximum of 64 bytes. Resource ID. A resource package contains multiple resources, and a resource has a usage type. The resource ID is obtained from the response of the API in Querying Resource Packages . Constraints: N/A Range: [1-100] Default Value: N/A

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: MIIPAgYJKoZlHvcNAQcCo...ggg1BBIINPXsidG9rZ

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

Response

Response Parameters

Parameter	Type	Description
error_code	String	Definition: Error code. For details, see Returned Values . This parameter is returned only when the query failed.
error_msg	String	Definition: Error description. This parameter is returned only when the query failed.
free_resources	List<FreeResourceDetail>	Definition: Resource information (resource details) in a resource package. For details, see Table 6-45 .

Table 6-45 FreeResourceDetail

Parameter	Type	Description
free_resource_id	String	Definition: Resource ID. A resource package contains multiple resources, and a resource has a usage type. NOTE If there are renewed resources that have not taken effect, the ID of the resource that has taken effect is returned. Range: A maximum of 64 characters
free_resource_type_name	String	Definition: Resource type name.
quota_reuse_cycle	Integer	Definition: Reset period. This parameter is valid only when quota_reuse_mode is set to 1 (Resettable). • 1: Hour • 2: Day • 3: Week • 4: Month • 5: Year
quota_reuse_cycle_type	Integer	Definition: Reset period type. This field is valid only when quota_reuse_mode is set to 1 (Resettable). • 1: Reset by calendar period Indicates that the resource package is reset by calendar month or calendar year. For example, if you set quota_reuse_cycle to 4 (month) and quota_reuse_cycle_type to 1, the resource package is reset on the first day of each month. • 2: Reset by order period Indicates that the resource package is reset by order period. For example, if you set quota_reuse_cycle to 4 (month), quota_reuse_cycle_type to 2, and you purchase this resource package on the 15th day of the month, then the resource package will be reset on the 15th day of each month.
usage_type_name	String	Definition: Usage type name.

Parameter	Type	Description
start_time	String	Definition: Start time. The value is in UTC format. - If quota_reuse_mode is set to 1, the value is the start time of the reset period for the current time. - If quota_reuse_mode is set to 2, the value is the time when the purchased instance takes effect. Range: N/A
end_time	String	Definition: End time. The value is in UTC format. - If quota_reuse_mode is set to 1, the value is the end time of the reset period for the current time. - If quota_reuse_mode is set to 2, the value is the time when the purchased instance becomes invalid.
amount	BigDecimal	Definition: Remaining resource quota of a package whose quota_reuse_mode is Resettable , that is, the remaining resource quota in the current reset period.
original_amount	BigDecimal	Definition: 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	Definition: Measurement unit of the quota of a free resource package. Call the API in 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

- **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	Incorrect parameter.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

6.4.3 Querying Resource Package Usage Details

Function

Customers can query the resource usage details on their self-built platform.

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.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:resource Packages:view	Grants the permission to view resource packages and remaining amount and query or export usage details.	list	-	-	-

URI

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

Table 6-46 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 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.
resource_type_code	No	String	A maximum of 64 characters	Resource type code. For example, the VM resource type code of ECS is hws.resource.type.vm . To obtain a specific resource type, call the API in Querying Resource Types . If this parameter is not included or is left empty, it will not be used as a filter criterion.

Parameter	Mandatory	Type	Value Range	Description
deduct_time_begin	Yes	String	A maximum of 10 characters	Start time of resources deduction, which is in <i>YYYY-MM-DD</i> format (GMT+08:00).
deduct_time_end	Yes	String	A maximum of 10 characters	End time of resource deduction, which is in <i>YYYY-MM-DD</i> format (GMT+08:00). NOTE 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 . NOTE This parameter is used for pagination. Retain its default value 0 if pagination is not required. offset indicates the offset relative to the first data record among all that meets the conditions configured. If you set offset to 1 , the second and subsequent data records are returned. For example, if there 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. 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/1.1Content-Type:
application/jsonX-Auth-Token: MIIPAgYJKoZlhvcNAQcCo...ggg1BBIINPXsidG9rZ

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_records	List<FreeResourceRecord>	Maximum number : 1000	Resource package usage details. For details, see Table 6-47 .
total_count	Integer	-	Total number of records that meet the conditions.

Table 6-47 FreeResourceRecord

Parameter	Type	Value Range	Description
deduct_time	String	A maximum of 20 characters	Time when a resource is deducted. UTC time. The format is <i>yyyy-MM-ddT'HH:mm:ss'Z</i> , for example, 2021-10-13T10:01:49Z.
free_resource_id	String	A maximum of 64 characters	Resource ID. A resource package contains multiple resources, and a resource has a usage type.
resource_id	String	A maximum of 64 characters	Resource ID.

Parameter	Type	Value Range	Description
resource_type_code	String	A maximum of 64 characters	Resource type code. For example, the resource type code of VM is hws.resource.type.vm .
resource_type_name	String	A maximum of 200 characters	Resource type. For example, the resource type of ECS is Cloud Host .
resource_tag	String	A maximum of 10,240 characters	Resource tag.
product_id	String	A maximum of 64 characters	Product ID, that is, resource package ID.
product_name	String	A maximum of 256 characters	Product name, that is, resource package name.
usage_type_code	String	A maximum of 64 characters	Usage type
available_amount	String	A maximum of 64 characters	Available resources before deduction

Parameter	Type	Value Range	Description
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 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 OKContent-Type: application/json;charset=UTF-8Content-Length: lengthDate: 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

- **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	Incorrect parameter.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

7 Managing Bills

7.1 Querying Bill Summary

Function

This API can be used by customers to query their expenditure summaries on the self-built platform. The expenditure data is summarized by month.

For details about how to log in to the Billing Center to query bill summary, see **Viewing Summary Data** in [Bill Summary](#).

NOTE

- The bills displayed for an enterprise master account include the expenditure data of its member accounts.
- You can query data from the past three years.
- An enterprise master account needs required authorization from independent accounting members to view their expenditure information. For details about how to request such authorization, see [Changing Member Account Permissions](#).

Constraints

This API can only be invoked using 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.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:bill:view	Grants the permission to view bills, expenditures of the current month, paid resources in the last seven days, and expenditure trends.	list	-	-	-

URI

GET /v2/bills/customer-bills/monthly-sum

The following table describes the parameters.

Table 7-1 Parameters

Parameter	Mandatory	Type	Maximum Length/ Value Range	Description
bill_cycle	Yes	String	A maximum of 8 characters	Billing cycle of the expenditure summary, which is in <i>YYYY-MM</i> format (GMT+08:00).
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 . To obtain a specific service type, call the API in Querying Cloud Service Types . If this parameter is not included or is left empty, it cannot be used as a filter criterion.

Parameter	Mandatory	Type	Maximum Length/ Value Range	Description
enterprise_project_id	No	String	A maximum of 64 characters	Enterprise project ID. • 0: ID of a default project • -1: The service does not support enterprise project management. • For details about how to obtain an enterprise project ID, see How Do I Obtain an Enterprise Project ID? If this parameter is not included or is left empty, it cannot be used as a filter criterion. If this parameter is set to null, it can be used as a filter criterion. This parameter cannot be set to "".

Parameter	Mandatory	Type	Maximum Length/ Value Range	Description
method	No	String	A maximum of 64 characters	Query method. • oneself: Query the expenditure data of the enterprise master account itself. • sub_customer: Query the expenditure data of enterprise member accounts associated with the enterprise master account. • all: Query the expenditure data of both the enterprise master account and its associated member accounts. If this parameter is not included in the request parameters or is left empty, the default value is all. If this parameter is set to all, and there are no member accounts associated, the expenditure data of the enterprise master account itself is queried. NOTE An enterprise master account needs required authorization from independent accounting members to view their expenditure information. For details about how to request such authorization, see Changing Member Account Permissions.

Parameter	Mandatory	Type	Maximum Length/ Value Range	Description
sub_customer_id	No	String	A maximum of 64 characters	ID of an enterprise member account. NOTE - This parameter is invalid if method is not set to sub_customer. - If method is set to sub_customer, this parameter must be specified.
offset	No	Integer	0 to a maximum integer	Offset, which starts from 0. The default value is 0. NOTE This parameter is used for pagination. Retain its default value 0 if pagination is not required. offset indicates the offset relative to the first data record among all that meets the conditions configured. If you set offset to 1, the second and subsequent data records are returned. For example, if there 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. 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 queried records each time. The default value is 10.

Request Message

Request Parameters

None

Example Request

```
GET https://bss-intl.myhuaweicloud.com/v2/bills/customer-bills/monthly-sum?
bill_cycle=2020-07&method=sub_customer&sub_customer_id=05b5fef62300d2ad0f98c00befba72c0&offset=0
&limit=10 HTTP/1.1 Content-Type: application/json X-Auth-Token:
MIIPAgYJKoZlhvcNAQcCo...ggg1BBIINPXsidG9rZ
```

Response Message

Response parameters

Parameter	Type	Maximum Length/ Value Range	Description
error_code	String	A maximum of 20 characters	Error code. For details, see Status Codes . This parameter is returned only when a failure occurs.
error_msg	String	A maximum of 2,000 characters	Error description. This parameter is returned only when a failure occurs.
total_count	Integer	-	Number of the total records. The value must be greater than or equal to 0.
bill_sums	List<BillSummaryRecordInfo>	-	Bill information. For details, see Table 7-2 .
consume_amount	BigDecimal	-	Total amount (including unsubscriptions).
debt_amount	BigDecimal	-	Monthly-paid user: monthly settlement (For details about monthly settlement, click here .) Non-monthly-paid subscriber: outstanding amount
coupon_amount	BigDecimal	-	Cash coupon amount.
flexipurchase_coupon_amount	BigDecimal	-	Flexi-purchase coupon amount. This parameter is reserved.
stored_value_card_amount	BigDecimal	-	Stored-value card amount. This parameter is reserved.
cash_amount	BigDecimal	-	Balance in the cash account.

Parameter	Type	Maximum Length/ Value Range	Description
credit_amount	Bigdecimal	-	Balance in the credit account.
writedoff_amount	Bigdecimal	-	Write-off amount.
measure_id	Integer	-	Unit. • 1: Yuan/Dollar
currency	String	A maximum of 4 characters	Currency. USD

Table 7-2 BillSumRecordInfo

Parameter	Type	Maximum Length/ Value Range	Description
bill_cycle	String	A maximum of 8 characters	Billing cycle of the expenditure summary, which is in <i>YYYY-MM</i> format (GMT+08:00).
bill_type	Integer	-	Bill type. • 1: expenditure • 2: refund • 3: adjustment

Parameter	Type	Maximum Length/ Value Range	Description
customer_id	String	A maximum of 64 characters	Account ID of a spending customer. • If a common account or enterprise member account is used to query expenditure records, only the expenditure records of the customer itself can be queried, and the ID of the customer itself is displayed here. • If an enterprise master account is used to query expenditure records, the expenditure records of its own and its member accounts can be queried. The ID of a master or member account that has expenditures will be displayed. The ID of the master account will be displayed for the expenditure records of the master account. The ID of a member account will be displayed for the expenditure records of the member account.
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 .
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 .

Parameter	Type	Maximum Length/ Value Range	Description
charging_mode	Integer	-	Billing mode. The options are as follows: • 1: yearly/monthly • 3: pay-per-use • 10: reserved instances • 11: savings plan
official_amount	Bigdecimal	-	List price.
official_discount_amount	Bigdecimal	-	Discounted amount.
truncated_amount	Bigdecimal	-	Truncated amount.
consume_amount	Bigdecimal	-	Amount. Amount = List price – Discounted amount – Truncated amount
coupon_amount	Bigdecimal	-	Cash coupon amount.
flexipurchase_coupon_amount	Bigdecimal	-	Flexi-purchase coupon amount. This parameter is reserved.
stored_value_card_amount	Bigdecimal	-	Stored-value card amount. This parameter is reserved.
debt_amount	Bigdecimal	-	Monthly-paid user: monthly settlement (For details about monthly settlement, click here .) Non-monthly-paid subscriber: outstanding amount
writeoff_amount	Bigdecimal	-	Write-off amount.
cash_amount	Bigdecimal	-	Balance in the cash account.
credit_amount	Bigdecimal	-	Balance in the credit account.
measure_id	Integer	-	Unit. • 1: Yuan/Dollar

Parameter	Type	Maximum Length/ Value Range	Description
account_name	String	A maximum of 128 characters	Login name of a spending customer. • If a common account or enterprise member account is used to query consumption records, only the login name of the customer itself is displayed. • If an enterprise master account is used to query consumption records, the consumption records of its own and its member accounts can be queried. The login name of a master or member account will be displayed. The login name of the master account will be displayed for the expenditure records of the master account. The login name of a member account will be displayed for the expenditure records of the member account.

Example Response

```
HTTP/1.1 200 OKContent-Type: application/json;charset=UTF-8Content-Length: 1000Date: response time
{  "total_count": 2,  "bill_sums": [    {      "bill_cycle": "2020-07",      "bill_type": 1,      "customer_id": "05b5fef62300d2ad0f98c00befba72c0",      "resource_type_code": "hws.resource.type.bandwidth",      "service_type_code": "hws.service.type.vpc",      "charging_mode": 3,      "official_amount": 7.0,      "official_discount_amount": 0.0,      "truncated_amount": 2.363856,      "consume_amount": 7.0,      "coupon_amount": 0.0,      "flexipurchase_coupon_amount": 0.0,      "stored_value_card_amount": 0.0,      "debt_amount": 0.0,      "writeoff_amount": 0.0,      "cash_amount": 0.0,      "credit_amount": 7.0,      "measure_id": 1,      "account_name": "be*****7"    },    {      "bill_cycle": "2020-07",      "bill_type": 1,      "customer_id": "05b5fef62300d2ad0f98c00befba72c0",      "resource_type_code": "hws.resource.type.kms",      "service_type_code": "hws.service.type.kms",      "resource_type_name": "Cloud Host",      "service_type_name": "Elastic Cloud Server",      "charging_mode": 3,      "official_amount": 3524.424,      "official_discount_amount": 0.0,      "truncated_amount": 1244.424,      "consume_amount": 2280.0,      "coupon_amount": 0.0,      "flexipurchase_coupon_amount": 0.0,      "stored_value_card_amount": 0.0,      "debt_amount": 0.0,      "writeoff_amount": 0.0,      "cash_amount": 0.0,      "credit_amount": 2280.0,      "measure_id": 1,      "account_name": "be*****7"    }  ],  "consume_amount": 16964.0,  "debt_amount": 0.0,  "coupon_amount": 464.0,  "flexipurchase_coupon_amount": 0.0,  "stored_value_card_amount": 0.0,  "cash_amount": 1306.0,  "credit_amount": 15194.0,  "writeoff_amount": 0.0,  "measure_id": 1,  "currency": "USD"}
```

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	Incorrect parameter.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

7.2 Viewing Resource Usage Details

Function

This API can be used to query usage details of each resource for a customer on the self-built platform.

Postpaid customers who have enabled the monthly settlement can log in to Billing Center to query their resource usage details by referring to [Resource Bill](#).

NOTE

- An enterprise master account needs required authorization from independent accounting member accounts to view their expenditure information. For details about how to request such authorization, see [Changing Member Account Permissions](#).
- After a customer associates with an enterprise master in the unified accounting model, bill queries will return both bills before and after the association.
- You can query data from the past three years.

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.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:billDetail:view	Grants the permission to view order details.	read	-	-	-

URI

POST /v2/bills/customer-bills/res-records/query

Table 7-3 Header parameters

Parameter	Mandatory	Maximum Length	Description
X-Language	No	10	Language. • zh_CN: Chinese • en_US: English The default value is en_US.

Request Message

Request Parameters

Parameter	Mandatory	Type	Maximum Length	Description
cycle	Yes	String	8	Billing cycle of the queried resource usage details, which is in YYYY-MM format (GMT +08:00). Example: 2019-01

Parameter	Mandatory	Type	Maximum Length	Description
cloud_service_type	No	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 Querying Cloud Service Types. If this parameter is not included in the request parameters, is set to "", or is set to null, it cannot be used as a filter criterion.
resource_type	No	String	64	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 Querying Resource 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.
region	No	String	64	Cloud service region code, for example, ap-southeast-1. Obtain the value from the Region column in Regions and Endpoints. 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.
res_instance_id	No	String	64	Resource instance ID. If this parameter is not included in the request parameters, is set to "", or is set to null, it cannot be used as a filter criterion.

Parameter	Mandatory	Type	Maximum Length	Description
charge_mode	No	Integer	-	Billing mode. The options are as follows: • 1: Yearly/monthly • 3: Pay-per-use • 10: Reserved instances • 11: savings plan If this parameter is not included in the request parameters or is set to null, usage details of resources of all billing modes are returned.

Parameter	Mandatory	Type	Maximum Length	Description
bill_type	No	Integer	-	Bill type: • 1: expenditure-purchase • 2: expenditure-renewal • 3: expenditure-change • 4: refund-unsubscription • 5: expenditure-use • 8: expenditure-auto-renewal • 9: adjustment-compensation • 14: expenditure-month-end deduction for support plan • 15: expenditure-tax • 16: adjustment-deduction • 17: expenditure-difference amount (min. guaranteed-actual) NOTE Expenditure-difference amount (min. guaranteed-actual) determines the fees that a customer needs to pay if the customer does not reach the minimum expenditure limit stipulated in the signed contract. This rule is applicable to direct sales customers and referral customers who use postpaid method. • 18: expenditure - monthly payment • 20: refund-change • 23: savings plans used • 24: refund-changing to Pay-Per-Use • 100: refund-unsubscription tax • 101: adjustment-tax compensation • 102: adjustment-tax deduction If this parameter is not included in the request parameters or is set to null, usage details of resources of all bill types are returned.

Parameter	Mandatory	Type	Maximum Length	Description
enterprise_project_id	No	String	64	Enterprise project ID. • 0: ID of a default project • - 1: The service does not support enterprise project management. 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.
include_zero_record	No	Boolean	-	Whether to return records for which the amount due is 0. • true: Yes • false: No 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.
method	No	String	64	Query method. • oneself: Query the resource usage details of an enterprise itself. • sub_customer: Query the resource usage details of enterprise's sub-customers. • all: Query the resource usage details of an enterprise and its sub-customers. If this parameter is not included in the request parameters, is set to "", or is set to null, the default value is all. If this parameter is set to all and an enterprise has no customers, the enterprise queries its own resource usage details. NOTE An enterprise master account needs required authorization from independent accounting member accounts to view their expenditure information. For details, see Changing Member Account Permissions.

Parameter	Mandatory	Type	Maximum Length	Description
sub_customer_id	No	String	64	Enterprise member account ID. NOTE - This parameter is invalid if method is not set to sub_customer. - If method is set to sub_customer, this parameter must be specified.
offset	No	Integer	0 to a maximum integer	Offset, which starts from 0. The default value is 0 . NOTE This parameter is used for pagination. Retain its default value 0 if pagination is not required. offset indicates the offset relative to the first data record among all that meets the conditions configured. If you set offset to 1, the second and subsequent data records are returned. For example, if there 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. 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	Page limit. The default value is 10 .
statistic_type	No	Integer	1-3	Statistics type. The default value is 1 . 1: By billing cycle 2: By day 3: By details If this parameter is not included in the request parameters or is set to null , the default value 1 is used. It cannot be set to "".

Parameter	Mandatory	Type	Maximum Length	Description
query_type	No	String	0-9	Type of information to be queried. The default value is BILLCYCLE. • BILLCYCLE: By billing cycle. • DAILY: By day The information type, DAILY, is returned only when the statistic_type is set to 2 or 3. If this parameter is not included in the request or is set to null or "", the information type, BILLCYCLE, is returned by default.
bill_cycle_begin	No	String	0-10	The start time of a billing cycle. Format: YYYY-MM-DD. This parameter is mandatory when query_type is set to DAILY. If this parameter is not included in the request or is set to null or "", it cannot be used as a filter criterion. NOTE • This parameter is invalid if query_type is not set to DAILY. • If query_type is set to DAILY, this parameter cannot be left empty and the value must be consistent with the billing cycle.

Parameter	Mandatory	Type	Maximum Length	Description
bill_cycle_end	No	String	0-10	The end time of a billing cycle. Format: YYYY-MM-DD. This parameter is mandatory when query_type is set to DAILY. If this parameter is not included in the request or is set to null or "", it cannot be used as a filter criterion. NOTE • This parameter is invalid if query_type is not set to DAILY. • If query_type is set to DAILY, this parameter cannot be left empty and the value must be consistent with the billing cycle.

Parameter	Mandatory	Type	Maximum Length	Description
payer_account_id	No	String	1-64	The account ID of the payer. If this parameter is not included or is set to null, it will not be used as a filter criterion. It cannot be set to "". NOTE - Independent accounting members of an enterprise and other common customers can only query their own expenditures. - For an enterprise master, if this parameter is not included, expenditures of the master, their unified accounting members, and their independent account members are returned; if this parameter is set to the ID of the master, expenditures of the master and their unified accounting members are returned; and if this parameter is set to the ID of an independent accounting member, expenditures of this member are returned. - For a unified accounting member of an enterprise, if this parameter is set to the ID of the member, expenditures of the member generated before they were associated with their enterprise master are returned; if this parameter is set to their enterprise master, expenditures of the member generated after they were associated with their enterprise master are returned; and if this parameter is not included, all expenditures are returned.

Example Request

```
POST https://bss-intl.myhuaweicloud.com/v2/bills/customer-bills/res-records/query HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZlHvcNAQcCo...ggg1BBIINPXsidG9rZ
X-Language:en_US
{
  "cycle": "2018-12",
  "cloud_service_type": "hws.service.type.ec2",
  "resource_type": "hws.resource.type.vm",
  "region": "ap-southeast-1",
  "res_instance_id": "76****7f",
```

```
{
  "charge_mode": 1,
  "bill_type": 1,
  "enterprise_project_id": "6***f3-3**4-4**2-9a3e-a****c24",
  "include_zero_record": "true",
  "method": "sub_customer",
  "sub_customer_id": "05b5fef62300d2ad0f98c00befba72c0",
  "offset": 1,
  "limit": 10
}
```

Response Message

Response Parameters

Parameter	Type	Maximum Length	Description
error_code	String	16	Status code. For details, see Status Code . This parameter is returned only when a failure occurs.
error_msg	String	1024	Error description. This parameter is returned only when a failure occurs.
monthly_records	List<MonthlyBillRes>	-	Resource records. For details, see Table 7-4 .
total_count	Integer	-	Number of result sets. This parameter is returned only when the query is successful.
currency	String	3	Currency. USD

Table 7-4 MonthlyBillRes

Parameter	Type	Maximum Length	Description
cycle	String	8	Billing cycle of resource data, which is in YYYY-MM format (GMT+08:00). Example: 2020-01
bill_date	String	10	Consumption date, which is in the YYYY-MM-DD format (GMT +08:00) NOTE This parameter has a value only when statistic_type is set to 2. Otherwise, null is returned.

Parameter	Type	Maximum Length	Description
bill_type	Integer	-	Bill type. • 1: expenditure-purchase • 2: expenditure-renewal • 3: expenditure-change • 4: refund-unsubscription • 5: expenditure-use • 8: expenditure-auto-renewal • 9: adjustment-compensation • 14: expenditure-month-end deduction for support plan • 15: expenditure-tax • 16: adjustment-deduction • 17: expenditure-difference amount (min. guaranteed-actual) NOTE Expenditure-difference amount (min. guaranteed-actual) determines the fees that a customer needs to pay if the customer does not reach the minimum expenditure limit stipulated in the signed contract. This rule is applicable to direct sales customers and referral customers who use postpaid method. • 18: expenditure - monthly payment • 20: refund-change • 23: savings plans used • 24: refund-changing to Pay-Per-Use • 100: refund-unsubscription tax • 101: adjustment-tax compensation • 102: adjustment-tax deduction

Parameter	Type	Maximum Length	Description
customer_id	String	64	Account ID of a spending customer. • If a common account or enterprise member account is used to query expenditure records, only the expenditure records of the customer itself can be queried, and the ID of the customer itself is displayed here. • If an enterprise master account is used to query consumption records, the consumption records of its own and its member accounts can be queried. The ID of a master or member account will be displayed.
region	String	64	Cloud service region code, for example, ap-southeast-1. Obtain the value from the Region column in Regions and Endpoints .
region_name	String	64	Region name, for example, CN-Hong Kong. Obtain the value from the Region column in Regions and Endpoints .
cloud_service_type	String	256	Cloud service type code. For example, the cloud service type code of OBS is hws.service.type.obs .
resource_Type_code	String	64	Resource type code. For example, the resource type code of ECS is hws.resource.type.vm .
cloud_service_type_name	String	200	Cloud service type. For example, the cloud service type of ECS is Elastic Cloud Server .
resource_type_name	String	200	Resource type. For example, the resource type of ECS is Cloud Host .
res_instance_id	String	256	Resource instance ID.

Parameter	Type	Maximum Length	Description
resource_name	String	-	Resource name. When creating a resource, a customer can enter the resource name. Some resource names can also be changed during resource management.
root_resource_id	String	-	Root resource ID
parent_resource_id	String	-	Parent resource ID
resource_tag	String	8,192	Resource tag. Customers can set tags when managing resources.
sku_code	String	64	SKU code, which uniquely identifies the resource specification in a bill.
enterprise_project_id	String	-	Enterprise project ID. 0: ID of a default project null: The service does not support enterprise project management.
enterprise_project_name	String	-	Enterprise project name.
charge_mode	Integer	-	Billing mode. The options are as follows: 1: Yearly/monthly 3: Pay-per-use 10: Reserved instances 11: savings plan
consume_amount	BigDecimal	-	Consumption amount of a cloud service, including the amount of cash coupons and that of flexi-purchase coupons, accurate to eight decimal places. NOTE The value of consume_amount is equal to the sum of the values of cash_amount , credit_amount , coupon_amount , flexipurchase_coupon_amount , stored_card_amount , bonus_amount , debt_amount , and adjustment_amount .

Parameter	Type	Maximum Length	Description
cash_amount	BigDecimal	-	Amount paid in cash.
credit_amount	BigDecimal	-	Amount paid using the credit.
coupon_amount	BigDecimal	-	Amount paid using the cash coupon.
flexipurchase_coupon_amount	BigDecimal	-	Amount paid using the flexi-purchase coupon.
stored_card_amount	BigDecimal	-	Amount paid using the values-stored card.
bonus_amount	BigDecimal	-	Bonus payment amount (used for the bonus that is not cleared on the live network).
debt_amount	BigDecimal	-	Monthly-paid user: monthly settlement (For details about monthly settlement, click here .) Non-monthly-paid subscriber: outstanding amount
adjustment_amount	BigDecimal	-	Adjustment amount.
official_amount	BigDecimal	-	Standard price.
discount_amount	BigDecimal	-	Discount amount (based on the standard price).
measure_id	Integer	-	Unit. • 1: USD
period_type	Integer	-	Period type. The value can be: • 19: Year • 20: Month • 24: Day • 25: Hour • 5: One-off

Parameter	Type	Maximum Length	Description
trade_id	String	-	Order ID or transaction ID. • If the value of bill_type is 1, 2, 3, 4, 103, or 8, this field indicates the order ID. • In other scenarios, it indicates the transaction ID (this parameter represents bills when fees are deducted at the end of a month. Otherwise, this parameter represents receivables.)
id	String	256	Unique ID. This parameter is reserved.
product_spec_desc	String	-	Product specification description.
sub_service_type_code	String	64	Service type code of a child service that is attached to an ECS.
sub_service_type_name	String	200	Service type of a child service that is attached to an ECS.
sub_resource_type_code	String	64	Resource type code of a child resource that is attached to an ECS.
sub_resource_type_name	String	200	Resource type name of a child resource that is attached to an ECS.
sub_resource_id	String	64	Resource ID of a child resource that is attached to an ECS. If the resource is a reserved instance, this parameter indicates a reserved instance ID.
sub_resource_name	String	256	Resource name of a child resource that is attached to an ECS. If the resource is a reserved instance, this parameter indicates a reserved instance name.
pre_order_id	String	64	Original order ID
az_code_infos	List<AzCodeInfo>	-	AZ information list For details, see Table 7-5 .

Parameter	Type	Maximum Length	Description
payer_account_id	String	64	The account ID of the payer. NOTE - If the current account is an individual account, an account of an independent accounting member, or an enterprise master account, this parameter needs to be set to the ID of the current account. - For a unified accounting member of an enterprise, this parameter can be set to the ID of the unified accounting member or the ID of their enterprise master.
effective_time	String	32	Start time of using the resource corresponding to the fee. This field is valid when statistic_type is set to 3. This field is reserved when statistic_type is set to 1 or 2.
expire_time	String	32	End time of using the resource corresponding to the fee. This field is valid when statistic_type is set to 3. This field is reserved when statistic_type is set to 1 or 2.
consume_time	String	32	Expenditure time Format: <i>yyyy-MM-ddT'HH:mm:ss'Z'</i> (UTC time is used.) - For yearly/monthly resources, the value of this parameter is same as the bill transaction time. - For pay-per-use resources or resources paid by installment, the value of this parameter is the billing start time and end time. NOTE - The value of this parameter is available only when statistic_type is set to 3.

Parameter	Type	Maximum Length	Description
be_id	String	64	Huawei Cloud business entity ID. NOTE During resource consumption, for a common customer, the value of be_id is 0. For a customer associated with a partner, the value of be_id is not 0. For an enterprise member account that is associated with an enterprise master account for unified accounting, the value of be_id is the same as that of the associated master account.
extend_params	ResRelation Object	-	Resource relationship information. This parameter is reserved. For details, see Table 7-6 .
account_name	String	A maximum of 128 characters	Login name of a spending customer. • If a common account or enterprise member account is used to query consumption records, only the login name of the customer itself is displayed. • If an enterprise master account is used to query consumption records, the consumption records of its own and its member accounts can be queried. The login name of a master or member account will be displayed. The login name of the master account will be displayed for the expenditure records of the master account. The login name of a member account will be displayed for the expenditure records of the member account.
period_num	BigDecimal	-	Number of periods.

Table 7-5 AzCodeInfo

Parameter	Type	Maximum Length	Description
az_code	String	64	AZ code

Table 7-6 ResRelation

Parameter	Type	Maximum Length	Description
self_resource_id	String	64	ID of the resource corresponding to the current fee.
relation_infos	List<RelationInfo>	-	Resource information associated with the resource ID corresponding to the current fee. For details, see Table 7-7 .

Table 7-7 RelationInfo

Parameter	Type	Maximum Length	Description
relative_resource_id	String	A maximum of 128 characters	Associated resource ID.
relative_type	String	-	Associated resource type. ● PARENT: parent resource ● ROOT: root resource

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
  "monthly_records": [{
    "cycle": "2022-05",
    "bill_date": null,
```

```
"bill_type": 4,
"customer_id": "05f2*****00d50d0f2bc002c46e3020",
"region": "ap-southeast-1",
  "region_name": "CN-Hong Kong",
"cloud_service_type": "hws.service.type.ebs",
"resource_type_code": "hws.resource.type.volume",
  "cloud_service_type_name": "Elastic Volume Service",
  "resource_type_name": "Elastic Volume Service",
"res_instance_id": "220523_dbc6ee4a02964e04adaa0e01b7a1e8e4",
"resource_name": "hws.resource.type.volumename",
"resource_tag": null,
"sku_code": "SATA",
"enterprise_project_id": null,
  "enterprise_project_name": "Non-project"
"charge_mode": 1,
"consume_amount": 0.0,
"cash_amount": 0.0,
"credit_amount": 0.0,
"coupon_amount": 0.0,
"flexipurchase_coupon_amount": 0.0,
"stored_card_amount": 0.0,
"bonus_amount": 0.0,
"debt_amount": 0.0,
"adjustment_amount": null,
"official_amount": 0.0,
"discount_amount": 0,
"id": "037e8a2b*****01-5f9eb5153cba_1",
"measure_id": 1,
  "sub_service_type_code": null,
  "sub_service_type_name": null,
  "sub_resource_type_code": null,
  "sub_resource_type_name": null,
  "sub_resource_id": null,
  "sub_resource_name": null,
"period_type": 20,
"root_resource_id": null,
"parent_resource_id": null,
"trade_id": "CSYD*****214V3CC02",
"product_spec_desc": "Common I/O|200GB",
  "pre_order_id": "CS23*****54B1AEW4J",
"az_code_infos": [{
  "az_code": "cn-north-1c"
}],
  "payer_account_id": "ZS78*****56A1BEF4J",
  "effective_time": "2024-07-06T16:00:00Z",
  "expire_time": "2024-08-06T16:00:00Z",
  "consume_time": null,
  "be_id": "15",
  "extend_params": {
    "self_resource_id": "BOBOzhengji012101",
    "relation_infos": [
      {
        "relative_resource_id": "BOBOzhengji012101",
        "relative_type": "ROOT"
      }
    ]
  },
  "account_name": "bei*****7",
  "period_num": 1
}
],
"total_count": 7,
"currency": "USD"
}
```

Status Code

NOTE

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

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

7.3 Viewing Resource Expenditures

Function

This API can be used to query expenditures of each resource for a customer on the self-built platform.

Postpaid customers who have enabled the monthly settlement can log in to Billing Center to query their resource expenditures by referring to [Bill Details](#).

There is an hour-level delay for resource expenditure details.

NOTE

- An enterprise master account needs required authorization from independent accounting member accounts to view their expenditure information. For details about how to request such authorization, see [Changing Member Account Permissions](#).
- You can query data from the past three years.

Constraints

- This API can be invoked using the customer AK/SK or token only.
- This API can be used to query resource expenditure records generated in the same month.
- The data queried for the current month cannot be used for reconciliation. For monthly-settlement customers, the final bill of the current month can be viewed and exported after 10:00 on the fourth day of the following month. Situations, such as, bill delay, refunds, bill adjustment, and outstanding amount write-off, may occur during a month.

Debugging

You can debug the API in [API Explorer](#) which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:billDetail:view (recommended)	Grants the permission to view order details.	read	-	-	-
billing:bill:view (to be brought offline)	Grants the permission to view bills, expenditures of the current month, paid resources in the last seven days, and expenditure trends.	list	-	-	-

URI

GET /v2/bills/customer-bills/res-fee-records

The following table describes the parameters.

Table 7-8 Message header parameter

Parameter	Mandatory	Type	Maximum Length	Description
X-Language	No	String	10	Language. en_US: English zh_CN: Chinese

Table 7-9 Request parameters

Parameter	Mandatory	Type	Maximum Length	Description
cycle	Yes	String	10	Billing cycle of the queried resource consumption records, which is in YYYY-MM format (GMT+08:00).
charge_mode	No	String	4	Billing mode. The options are as follows: • 1: Yearly/monthly • 3: Pay-per-use • 10: Reserved instances • 11: savings plan 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 .
cloud_service_type	No	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 Querying Cloud Service Types . If this parameter is not included in the request parameters, it cannot be used as a filter criterion. If this parameter is left empty or is set to "", it can be used as a filter criterion.

Parameter	Mandatory	Type	Maximum Length	Description
region	No	String	64	Cloud service region code, for example, ap-southeast-1. Obtain the value from the Region column in Regions and Endpoints. If this parameter is not included in the request parameters, it cannot be used as a filter criterion. If this parameter is left empty or is set to "", it can be used as a filter criterion.

Parameter	Mandatory	Type	Maximum Length	Description
bill_type	No	Integer	-	Bill type. • 1: expenditure-purchase • 2: expenditure-renewal • 3: expenditure-change • 4: refund-unsubscription • 5: expenditure-use • 8: expenditure-auto-renewal • 9: adjustment-compensation • 12: expenditure-hourly billing • 13: expenditure--unsubscription service charge • 14: expenditure-month-end deduction for support plan • 15: expenditure-tax • 16: adjustment-deduction • 17: expenditure-difference amount (min. guaranteed-actual) NOTE Expenditure-difference amount (min. guaranteed-actual) determines the fees that a customer needs to pay if the customer does not reach the minimum expenditure limit stipulated in the signed contract. This rule is applicable to direct sales customers and referral customers who use postpaid method. • 18: expenditure - monthly payment • 20: refund-change • 23: savings plans used • 24: refund-changing to Pay-Per-Use • 100: refund-unsubscription tax • 101: adjustment-tax compensation • 102: adjustment-tax deduction

Parameter	Mandatory	Type	Maximum Length	Description
				If this parameter is not included or is left empty, it cannot be used as a filter criterion.
offset	No	Integer	0 to a maximum integer	Offset, which starts from 0. The default value is 0. NOTE This parameter is used for pagination. Retain its default value 0 if pagination is not required. offset indicates the offset relative to the first data record among all that meets the conditions configured. If you set offset to 1, the second and subsequent data records are returned. For example, if there 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. 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 .
resource_id	No	String	64	Resource ID. If this parameter is not included in the request parameters, it cannot be used as a filter criterion. If this parameter is left empty or is set to "", it can be used as a filter criterion.
enterprise_project_id	No	String	64	Enterprise project ID. • 0: ID of a default project • - 1: The service does not support enterprise project management. If this parameter is not included in the request, is left empty, or is set to "" or null, it cannot be used as a filter criterion.

Parameter	Mandatory	Type	Maximum Length	Description
include_zero_record	No	Boolean	-	Whether to return records for which the amount due is 0. • true: Yes • false: No If this parameter is not included or is left empty, it cannot be used as a filter criterion.
method	No	String	64	Method of querying resource consumption records. • oneself: Query the resource consumption records of an enterprise itself. • sub_customer: Query the resource consumption records of enterprise's sub-customers. • all: Query the resource consumption records of an enterprise and its sub-customers. If this parameter is not included in the request parameters or is left empty, the default value is all. If this parameter is set to all and an enterprise has no customers, the enterprise queries its own resource usage details. NOTE An enterprise master account needs required authorization from independent accounting member accounts to view their expenditure information. For details, see Changing Member Account Permissions.

Parameter	Mandatory	Type	Maximum Length	Description
sub_customer_id	No	String	64	Enterprise member account ID. If this parameter is set to "", it cannot be used as a filter criterion. NOTE - This parameter is invalid if method is not set to sub_customer. - If method is set to sub_customer, this parameter must be specified.
trade_id	No	String	64	Order or transaction ID. - If the value of bill_type is 1, 2, 3, 4, 103, or 8, this field indicates the order ID. - For other bill types, this parameter indicates a transaction ID that uniquely identifies a fee deduction dimension. For example, this parameter represents bills when fees are deducted at the end of a month. Otherwise, this parameter represents receivables. If this parameter is not included in the request parameters, it cannot be used as a filter criterion. If this parameter is left empty or is set to "", it can be used as a filter criterion. NOTE This field does not take effect when statistics are collected by billing cycle type.

Parameter	Mandatory	Type	Maximum Length	Description
bill_date_begin	No	String	10	Start date for querying the resource consumption records, which is in YYYY-MM-DD format (GMT+08:00). If this parameter is not included in the request parameters, is left empty, or is set to "", the first day of the billing cycle is used. NOTE • This parameter value must be in the month specified by parameter cycle. • bill_date_begin and bill_date_end must be set at the same time. Otherwise, resources are queried only by cycle. • This field does not take effect when statistics are collected by billing cycle type.
bill_date_end	No	String	10	End date for querying the resource consumption records, which is in YYYY-MM-DD format (GMT+08:00). If this parameter is not included in the request parameters, is left empty, or is set to "", the last day of the billing cycle is used. NOTE • This parameter value must be in the month specified by parameter cycle. • bill_date_begin and bill_date_end must be set at the same time. Otherwise, resources are queried only by cycle. • This field does not take effect when statistics are collected by billing cycle type.

Parameter	Mandatory	Type	Maximum Length	Description
statistic_type	No	Integer	-	Statistics type. The default value is 3 . • 1: By billing cycle • 3: By details If this parameter is not included in the request or is set to null , the default value 3 is used.

Request Message

Request Parameters

None

Example Request

```
GET https://bss-intl.myhuaweicloud.com/v2/bills/customer-bills/res-fee-records?
cycle=2020-09&charge_mode=1&method=sub_customer&sub_customer_id=05b5fef62300d2ad0f98c00befba
72c0&trade_id=
CS1908201442ZLEPW476&bill_date_begin=2020-09-01&bill_date_end=2020-09-30&statistic_type=1
HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
```

Response Message

Response Parameters

Parameter	Type	Maximum Length	Description
error_code	String	16	Status code. For details, see Status code . This parameter is returned only when a failure occurs.
error_msg	String	1024	Error description. This parameter is returned only when a failure occurs.
fee_records	List<ResFeeRecord V2>	-	Resource usage record. For details, see Table 7-10 .
total_count	Integer	-	Number of result sets. This parameter is returned only when the query is successful.
currency	String	3	Currency. USD

Table 7-10 ResFeeRecordV2

Parameter	Type	Maximum Length	Description
bill_date	String	20	Date when a resource consumption is recorded. Format: YYYY-MM-DD. The value is based on the GMT+08:00 time zone.

Parameter	Type	Maximum Length	Description
bill_type	Integer	-	Bill type. • 1: expenditure-purchase • 2: expenditure-renewal • 3: expenditure-change • 4: refund-unsubscription • 5: expenditure-use • 8: expenditure-auto-renewal • 9: adjustment-compensation • 12: expenditure-hourly billing • 13: expenditure--unsubscription service charge • 14: expenditure-month-end deduction for support plan • 15: expenditure-tax • 16: adjustment-deduction • 17: expenditure-difference amount (min. guaranteed-actual) NOTE Expenditure-difference amount (min. guaranteed-actual) determines the fees that a customer needs to pay if the customer does not reach the minimum expenditure limit stipulated in the signed contract. This rule is applicable to direct sales customers and referral customers who use postpaid method. • 18: expenditure - monthly payment • 20: refund-change • 23: savings plans used • 24: refund-changing to Pay-Per-Use • 100: refund-unsubscription tax • 101: adjustment-tax compensation • 102: adjustment-tax deduction

Parameter	Type	Maximum Length	Description
customer_id	String	64	Account ID of a spending customer. • If a common account or enterprise member account is used to query consumption records, only the ID of the customer itself is displayed. • If an enterprise master account is used to query consumption records, the consumption records of its own and its member accounts can be queried. The ID of a master or member account will be displayed.
region	String	64	Cloud service region code, for example, ap-southeast-1. Obtain the value from the Region column in Regions and Endpoints .
region_name	String	64	Region name, for example, CN-Hong Kong. Obtain the value from the Region column in Regions and Endpoints .
cloud_service_type	String	64	Cloud service type code. For example, the cloud service type code of OBS is hws.service.type.obs .
resource_type	String	64	Resource type code. For example, the resource type code of ECS is hws.resource.type.vm .
cloud_service_type_name	String	200	Cloud service type. For example, the cloud service type of ECS is Elastic Cloud Server .
resource_type_name	String	200	Resource type. For example, the resource type of ECS is Cloud Host .

Parameter	Type	Maximum Length	Description
effective_time	String	32	Start time of using the resource corresponding to the fee. This field is reserved for resources billed on a pay-per-use or yearly/monthly basis or resources paid by installment. Format: <i>yyyy-MM-ddT'HH:mm:ss'Z'</i> (UTC time is used.)
expire_time	String	32	End time of using the resource corresponding to the fee. This field is reserved for resources billed on a pay-per-use or yearly/monthly basis or resources paid by installment. Format: <i>yyyy-MM-ddT'HH:mm:ss'Z'</i> (UTC time is used.)
resource_id	String	128	Resource ID.
resource_name	String	256	Resource name. NOTE The return value of this parameter is manually entered by the user when placing a resource order. Internationalization is not supported.
resource_tag	String	8,192	Resource tag.
product_id	String	64	Product ID.
product_name	String	256	Product name.
product_spec_desc	String	512	Product specification description.
sku_code	String	64	SKU code, which uniquely identifies the resource specification in a bill.
spec_size	BigDecimal	-	Product size, which is available only for linear products. NOTE 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.

Parameter	Type	Maximum Length	Description
spec_size_measure_id	Integer	-	Product size unit, which is available only for linear products. To obtain the unit, call the API in Querying Measurement Units .
trade_id	String	64	Order or transaction ID, which is the unique identifier of a fee deduction dimension.
id	String	256	Unique ID This value of the unique ID will not be returned when statistics are collected by billing cycle type.
trade_time	String	32	Transaction time Format: <i>yyyy-MM-ddT'HH:mm:ss'Z'</i> (UTC time is used.)
enterprise_project_id	String	128	Enterprise project ID. 0: ID of a default project null: The service does not support enterprise project management.
enterprise_project_name	String	256	Enterprise project name. NOTE The return value of this parameter is manually entered by users. Internationalization is not supported.
charge_mode	String	32	Billing mode. The options are as follows: 1: Yearly/monthly 3: Pay-per-use 10: Reserved instances 11: savings plan
order_id	String	64	Order ID. NOTE This parameter is available only for yearly/monthly resources.

Parameter	Type	Maximum Length	Description
period_type	String	-	Period type. The value can be: • 19: Year • 20: Month • 24: Day • 25: Hour • 5: One-off
usage_type	String	-	Usage type, which can be obtained by calling the API described in Querying Usage Types .
usage	BigDecimal	-	Resource usage. NOTE If the resource type is yearly/monthly resources, resource usage is not returned.
usage_measure_id	Integer	-	Resource usage measurement unit, which can be obtained by calling the API described in Querying Measurement Units . NOTE If the resource type is yearly/monthly resources, the resource usage measurement unit is not returned.
free_resource_usage	BigDecimal	-	Package usage.
free_resource_measure_id	Integer	-	Usage measurement unit in a package, which can be obtained by calling the API described in Querying Measurement Units .
ri_usage	BigDecimal	-	Reserved instance usage.
ri_usage_measure_id	Integer	-	Unit (reserved instance usage).

Parameter	Type	Maximum Length	Description
unit_price	BigDecimal	-	Unit price. - Unit price of a pay-per-use product is returned only in the simple pricing scenario. - Unit price of a yearly/monthly product is returned only in the following scenarios: - Yearly/monthly subscription, renewal, specification downsizing, specification upgrade, and capacity expansion - Simple pricing - Unit price of a reserved instance is returned only in the following scenarios: - Subscription, renewal, specification downsizing, specification upgrade, capacity expansion, and pay-per-use - Simple pricing
unit	String	64	The unit of unit price. - The unit of linear products is USD/{<i>linear unit</i>}/month or USD/{<i>linear unit</i>}/hour. - The unit of non-linear products is USD/month or USD/hour. NOTE - The linear unit is the unit of linear products (those come in sizes). For example, the linear unit of the hard disk is GB, and that of the bandwidth is Mbit/s.
official_amount	BigDecimal	-	List price, which is the sales price of a product with no commercial discounts and promotion discounts used on the HUAWEI CLOUD official website.
discount_amount	BigDecimal	-	Discount, which is offered to customers when they use cloud services, for example, commercial discounts, partner-granted discounts, and promotional discount.

Parameter	Type	Maximum Length	Description
amount	BigDecimal	-	Amount, which is the money a customer should pay for used cloud services after discounts (including cash coupons) are used. It is accurate to eight decimal places. NOTE The value of amount is equal to the sum of the values of cash_amount , credit_amount , coupon_amount , flexipurchase_coupon_amount , stored_card_amount , bonus_amount , debt_amount , and adjustment_amount .
cash_amount	BigDecimal	-	Amount paid in cash.
credit_amount	BigDecimal	-	Amount paid using the credit.
coupon_amount	BigDecimal	-	Amount paid using the cash coupon.
flexipurchase_coupon_amount	BigDecimal	-	Amount paid using the flexi-purchase coupon.
stored_card_amount	BigDecimal	-	Amount paid using the values-stored card.
bonus_amount	BigDecimal	-	Bonus payment amount (used for the bonus that is not cleared on the live network).
debt_amount	BigDecimal	-	Monthly-paid user: monthly settlement (For details about monthly settlement, click here .) Non-monthly-paid subscriber: outstanding amount
adjustment_amount	BigDecimal	-	Adjustment amount.
measure_id	Integer	-	Unit. • 1: USD

Parameter	Type	Maximum Length	Description
formula	String	2048	Formula for calculating the actual payment amount. Currently, only the following scenarios are involved: • Non-linear pricing for pay-per-use resources $\{\text{Usage}\}[\text{Usage}] / \{\text{Unit conversion rate}\}[\text{Unit conversion}] \times \{\text{Unit price}\}[\text{Unit price}] - \{\text{Discounted amount}\}[\text{Discounted amount}] - \{\text{Truncated amount}\}[\text{Truncated amount}] - \{\text{Cash coupon used}\}[\text{Cash coupon used}]$ • Linear pricing for pay-per-use resources $\{\text{Usage}\}[\text{Usage}] / \{\text{Unit conversion rate}\}[\text{Unit conversion}] \times \{\text{Linear size}\}[\text{Specifications}] \times \{\text{Unit price}\}[\text{Unit price}] - \{\text{Discounted amount}\}[\text{Discounted amount}] - \{\text{Truncated amount}\}[\text{Truncated amount}] - \{\text{Cash coupon used}\}[\text{Cash coupon used}]$ • Non-linear pricing for yearly/monthly subscriptions and renewals $\{\text{Number of periods}\}[\text{Number of periods}] / \{\text{Period conversion rate}\}[\text{Period conversion}] \times \{\text{Unit price}\}[\text{Unit price}] - \{\text{Discounted amount}\}[\text{Discounted amount}] - \{\text{Cash coupon used}\}[\text{Cash coupon used}]$ • Linear pricing for yearly/monthly subscriptions and renewals $\{\text{Number of periods}\}[\text{Number of periods}] / \{\text{Period conversion rate}\}[\text{Period conversion}] \times \{\text{Linear size}\}[\text{Specification}] \times \{\text{Unit price}\}[\text{Unit price}] - \{\text{Discounted amount}\}[\text{Discounted amount}] - \{\text{Cash coupon used}\}[\text{Cash coupon used}]$

Parameter	Type	Maximum Length	Description
			- Non-linear pricing for yearly/monthly subscriptions (one-off) and renewals $\{\text{Unit price}\}[\text{Unit price}] - \{\text{Discounted amount}\}[\text{Discounted amount}] - \{\text{Cash coupon used}\}[\text{Cash coupon used}]$ - Linear pricing for yearly/monthly subscriptions (one-off) and renewals $\{\text{Linear size}\}[\text{Specifications}] \times \{\text{Unit price}\}[\text{Unit price}] - \{\text{Discounted amount}\}[\text{Discounted amount}] - \{\text{Cash coupon used}\}[\text{Cash coupon used}]$ NOTE - The actual payment amount is equal to the difference between amount and coupon_amount. - When statistic_type is set to 1 (by billing cycle type), the formula for calculating the actual payment amount will not be returned.
sub_service_type_code	String	64	Service type code of a child service that is attached to an ECS.
sub_service_type_name	String	200	Service type name of a child service that is attached to an ECS.
sub_resource_type_code	String	64	Resource type code of a child resource that is attached to an ECS.
sub_resource_type_name	String	200	Resource type name of a child resource that is attached to an ECS.
sub_resource_id	String	64	Resource ID of a child resource that is attached to an ECS. If the resource is a reserved instance, this parameter indicates a reserved instance ID.

Parameter	Type	Maximum Length	Description
sub_resource_name	String	256	Resource name of a child resource that is attached to an ECS. If the resource is a reserved instance, this parameter indicates a reserved instance name. NOTE The return value of this parameter is manually entered by the user when placing a resource order. Internationalization is not supported.
consume_time	String	64	Expenditure time Format: <i>yyyy-MM-ddT'HH:mm:ss'Z</i> (UTC time is used.) - For yearly/monthly resources, the value of this parameter is same as the bill transaction time. - For pay-per-use resources or resources paid by installment, the value of this parameter is the billing start time and end time. NOTE - The value of this parameter is available only when statistic_type is set to 3.
relative_order_id	String	64	ID of the order included in a combined order NOTE This parameter has a value only when the order is a combined order and the resources in the order are billed on a yearly/monthly basis. If the order is a common order, this parameter is left blank.

Parameter	Type	Maximum Length	Description
account_name	String	A maximum of 128 characters	Login name of a spending customer. • If a common account or enterprise member account is used to query consumption records, only the login name of the customer itself is displayed. • If an enterprise master account is used to query consumption records, the consumption records of its own and its member accounts can be queried. The login name of a master or member account will be displayed. The login name of the master account will be displayed for the expenditure records of the master account. The login name of a member account will be displayed for the expenditure records of the member account.
period_num	BigDecimal	-	Number of periods.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
  "fee_records": [
    {
      "bill_date": "2020-12-21",
      "bill_type": 3,
      "customer_id": "8caf348df5fa4529aba5aea760608845",
      "region": "ap-southeast-1",
      "region_name": "CN North-Beijing1",
      "cloud_service_type": "hws.service.type.ebs",
      "resource_type": "hws.resource.type.volume",
      "effective_time": "2020-12-21T07:34:32Z",
      "expire_time": "2022-12-21T15:59:59Z",
      "resource_id": null,
      "resource_name": null,
      "resource_tag": null,
      "product_id": "90301-686007-0--0",
      "product_name": "",
      "product_spec_desc": "",
      "sku_code": "SAS",
      "spec_size": 300.0,
      "spec_size_measure_id": 17,
      "trade_id": "CS2012211533IQJR1",
      "id": "037e8a2b-bde9*****eb5153cba_1",
      "trade_time": "2020-06-10T19:03:28Z",
```

```
"enterprise_project_id": "0",
"enterprise_project_name": "default",
"charge_mode": "1",
"order_id": "CS2012211533IQJR1",
"period_type": "19",
"usage_type": null,
"usage": null,
"usage_measure_id": null,
"free_resource_usage": null,
"free_resource_measure_id": null,
"ri_usage": null,
"ri_usage_measure_id": null,
"unit_price": null,
"unit": null,
"official_amount": 2516.0,
"discount_amount": 452.88,
"amount": 2063.12,
"cash_amount": 2063.12,
"credit_amount": 0.0,
"coupon_amount": 0.0,
"flexipurchase_coupon_amount": 0.0,
"stored_card_amount": 0.0,
"bonus_amount": 0.0,
"debt_amount": 0.0,
"adjustment_amount": null,
"measure_id": 1,
"sub_service_type_code": null,
"sub_service_type_name": null,
"sub_resource_type_code": null,
"sub_resource_type_name": null,
"sub_resource_id": null,
"sub_resource_name": null,
"consume_time": null,
"formula": "(1 year)[Number of periods]/(1)[Period conversion] x (100 GB)[Resource
specifications] x (1.08 dollars/GB/year)[Unit price] - 21.60 [Discount] - 0.00[Cash coupon used]"
"relative_order_id": "ECS*****PU70955" ,
"account_name": "bei*****7",
"period_num": 1
},

{
  "bill_date": "2020-12-21",
  "bill_type": 1,
  "customer_id": "8caf348df5fa4529aba5aea760608845",
  "region": "cn-north-1",
  "region_name": "CN North-Beijing1",
  "cloud_service_type": "hws.service.type.ebs",
  "resource_type": "hws.resource.type.volume",
  "effective_time": "2020-12-21T07:28:12Z",
  "expire_time": null,
  "resource_id": null,
  "resource_name": null,
  "resource_tag": null,
  "product_id": "90301-526111-0--0",
  "product_name": "EVS_SATA_5 years",
  "product_spec_desc": "EVS_SATA_LXH01|100.0 GB",
  "sku_code": "SATA_LXH01",
  "spec_size": 100.0,
  "spec_size_measure_id": 17,
  "trade_id": "CS2012211528IP5Q1",
  "id": "037e8a2b-bde9-*****5f9eb5153cba_1",
  "trade_time": "2020-06-10T17:03:28Z",
  "enterprise_project_id": "0",
  "enterprise_project_name": "default",
  "charge_mode": "1",
  "order_id": "CS2012211528IP5Q1",
  "period_type": "19",
  "usage_type": null,
  "usage": null,
```

```
    "usage_measure_id": null,
    "free_resource_usage": null,
    "free_resource_measure_id": null,
    "ri_usage": null,
    "ri_usage_measure_id": null,
    "unit_price": null,
    "unit": null,
    "official_amount": 4.0,
    "discount_amount": 0,
    "amount": 4.0,
    "cash_amount": 4.0,
    "credit_amount": 0.0,
    "coupon_amount": 0.0,
    "flexipurchase_coupon_amount": 0.0,
    "stored_card_amount": 0.0,
    "bonus_amount": 0.0,
    "debt_amount": 0.0,
    "adjustment_amount": null,
    "measure_id": 1,
    "consume_time": null,
    "formula": "(1 year)[Number of periods]/(1)[Period conversion] x (100 GB)[Resource
specifications] x (1.08 dollars/GB/year)[Unit price] - 21.60 [Discount] - 0.00[Cash coupon used]",
    "relative_order_id": "ECS*****PU70955",
    "account_name": "bei*****7",
    "period_num": 1
  }
],
"total_count": 40,
"currency": "USD"
}
```

Status code

NOTE

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

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

8 Cost Management

8.1 Querying Cost Data

Function

This API is used to query the cost data on the self-built platform.

NOTE

- **Original costs:** There is an appropriately one-hour delay before data from Billing Center shows up as original costs for the current month on the platform. To view the exact amounts, see the final bill that will be generated on the 3rd day of the following month. The original costs are available for viewing after 12:00 noon on the 4th day of the following month.
- **Amortized costs:** They are not calculated in real time. Your amortized costs are refreshed once every 24 hours, and it may take longer than 24 to 48 hours for some data to be displayed. The current month costs of monthly-settlement cloud services, such as CDN and VPC, are available for viewing after 12:00 noon on the 4th day of the following month.

Note:

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

The data of the previous month is available after the bill is generated.

Debugging

You can debug the API in [API Explorer](#) which supports automatic authentication. API Explorer can automatically generate and debug example SDK code.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).

- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
costCenter:costAnalysis:listCosts	Grants the permission to view cost analysis.	read	-	-	-

URI

POST /v4/costs/cost-analysed-bills/query

Table 8-1 Header parameters

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

Request

Request Parameters

Parameter	Mandatory	Type	Value Range	Description
time_condition	Yes	TimeCondition Object	-	Time condition. For details, see Table 8-2 .
groupby	Yes	List<GroupBy>	A maximum of 2 values	Search dimension. For details, see Table 8-3 . NOTE If there are two values for this parameter, the values must be a combination of tag , cost_unit , and dimension , or both of these two values are set to dimension .

Parameter	Mandatory	Type	Value Range	Description
cost_type	Yes	String	A maximum of 256 characters	Cost type. - ORIGINAL_COST: Original cost - AMORTIZED_COST: Amortized cost
amount_type	Yes	String		Amount type. - PAYMENT_AMOUNT - NET_AMOUNT.
filters	No	List<Filter>	Minimum length: 0 characters Maximum length: 100 characters	Filter. For details, see Table 8-4 . 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.
offset	No	Integer	[0-200000]	Offset, starting from 0 . The default value is 0 . NOTE This parameter is used for pagination. Use the default value 0 if pagination is not required. offset indicates the offset relative to the first data record that meets the conditions. If you set offset to 1 , the second and subsequent data records will be returned. For example, there are 10 data records, and if you set limit to 10 and offset to 1 , the second to the tenth data records will be returned.
limit	No	Integer	[1,1000]	Number of records queried each time. The default value is 10 .

Table 8-2 TimeCondition

Parameter	Mandatory	Type	Value Range	Description
time_measure_id	Yes	Integer	[1,2]	Time unit. • 1: Day • 2: Month
begin_time	Yes	String	32	Start date (GMT+08:00). • If the value for time_measure_id is 1, the date is in YYYY-MM-DD format. • If the value for time_measure_id is 2, the date is in YYYY-MM format.
end_time	Yes	String	32	End date (GMT+08:00). • If the value for time_measure_id is 1, the date is in YYYY-MM-DD format. • If the value for time_measure_id is 2, the date is in YYYY-MM format. NOTICE Only the cost data within 18 months can be queried.

Table 8-3 GroupBy

Parameter	Mandatory	Type	Value Range	Description
type	Yes	String	A maximum of 64 characters	• tag: Grouped by cost tags • cost_unit: Grouped by cost categories • dimension: Default value

Parameter	Mandatory	Type	Value Range	Description
key	Yes	String	A maximum of 128 characters	• If type is set to tag, the value for this parameter is the key of the tag. • If type is set to cost_unit, set this parameter to the key of cost_unit. • If type is set to dimension, the value options are as follows: – CLOUD_SERVICE_TYPE: Service type – ASSOCIATED_ACCOUNT: Linked account NOTE An enterprise master account that has the permission to view the expenditure data of its associated member accounts can view the cost data of the member accounts. – REGION_CODE: Region – RES_SPEC_CODE: Specification code – USAGE_TYPE: Usage type – ENTERPRISE_PROJECT_ID: Enterprise project – RESOURCE_ID: Resource – CHARGING_MODE: Billing mode – BILL_TYPE: bill type – RESOURCE_TYPE: Resource type – AZ_CODE: AZ – BE_ID: Business entity – PAYER_ACCOUNT_ID: Payer account – SPLIT_ITEM_NAME: split item

Table 8-4 Filter

Parameter	Mandatory	Type	Value Range	Description
operator	Yes	Integer	[0-1]	Operator. • 0: Only contains • 1: Only excludes
filter_factor	Yes	FilterFactor Object	-	Filter factor. For details, see Table 8-5 .

Table 8-5 FilterFactor

Parameter	Mandatory	Type	Value Range	Description
key	Yes	String	A maximum of 256 characters	Grouping conditions. - CLOUD_SERVICE_TYPE: Service type - ASSOCIATED_ACCOUNT: Linked account NOTE Set this parameter to the HUAWEI ID of the associated account. An enterprise master account that has the permission to view the expenditure data of its associated member accounts can view the cost data of the member accounts. - REGION_CODE: Region - RES_SPEC_CODE: Specification code - USAGE_TYPE: Usage type - ENTERPRISE_PROJECT_ID: Enterprise project - RESOURCE_ID: Resource - CHARGING_MODE: Billing mode - BILL_TYPE: bill type. - RESOURCE_TYPE: Resource type - AZ_CODE: AZ - BE_ID: Business entity - PAYER_ACCOUNT_ID: Payer account - RESOURCE_TAG: Cost tag - COST_UNIT: Cost category - SPLIT_ITEM_NAME: split item NOTE When the cost type is ORIGINAL_COST, split items cannot be used to query costs.

Parameter	Mandatory	Type	Value Range	Description
value	Yes	List<String>	Minimum count: 1 Maximum count: 100	Filter value.

Parameter	Mandatory	Type	Value Range	Description
				NOTE When key is set to BILL_TYPE, the value has the following options: • Yearly/Monthly: 1 • Pay-per-use: 3 • Reserved instance: 10 • Savings Plans: 11 When key is set to CHARGING_MODE, the value has the following options: • Expenditure-purchase: 1 • Expenditure - renewal: 2 • Expenditure - change: 3 • Expenditure - unsubscription: 4 • Expenditure-use: 5 • Expenditure - auto-renewal: 8 • Account adjustment - compensation: 9 • Reserved instance - split/combine: 11 • Expenditure - hourly billing: 12 • Expenditure - unsubscription handling fee: 13 • Expenditure - month-end supplementary deduction for support plan: 14 • Account adjustment - fee deduction: 16 • Expenditure-difference amount (min. guaranteed - actual): 17 • Expenditure - monthly payment: 18 • Refund - change: 20 • Expenditure-savings plans used: 23 • Refund - changing to pay-per-use: 24 • Refund - tax: 100 • Adjustment - compensation tax: 101 • Adjustment - deduction tax: 102 • Expenditure-yearly payment: 103 • Expenditure-savings plans unused: 200 • Expenditure-resource packages used: 201 • Expenditure-resource packages unused: 202 • Expenditure-reserved instances used: 203 • Expenditure-reserved instances unused: 204

Example Request

```
POST https://bss-intl.myhuaweicloud.com/v4/costs/cost-analysed-bills/query HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
{
  "amount_type": "PAYMENT_AMOUNT",
  "offset": 0,
  "cost_type": "ORIGINAL_COST",
  "limit": 10,
  "groupby": [{
    "type": "dimension",
    "key": "CLOUD_SERVICE_TYPE"
  }],
  "filters": [{
    "filter_factor": {
      "value": ["cn-north-1"],
      "key": "REGION_CODE",
    },
    "operator": 0
  }],
  "time_condition": {
    "end_time": "2021-07-15",
    "begin_time": "2021-07-14",
    "time_measure_id": 1
  }
}
```

Response Message

Response Parameters

Parameter	Type	Value Range	Description
error_code	String	A maximum of 20 characters	Returned value. 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.
currency	String	A maximum of 8 characters	Currency. • USD
total_count	Integer	-	Total number of records.

Parameter	Type	Value Range	Description
cost_data	List<CostDataByDimension>	-	Cost details by day or month. For details, see Table 8-6 .

Table 8-6 CostDataByDimension

Parameter	Type	Value Range	Description
dimensions	List<DimensionGroup>	A maximum of 1 value	Dimensions. For details, see Table 8-7 .
costs	List<Cost>	Max Count: 10000	Cost value. For details, see Table 8-8 .
amount_by_costs	String	A maximum of 64 characters	Total cost in a period.
official_amount_by_costs	String	A maximum of 64 characters	Total expenditures based on list prices in a period.

Table 8-7 DimensionGroup

Parameter	Type	Value Range	Description
key	String	A maximum of 128 characters	Grouping conditions • CLOUD_SERVICE_TYPE: Service type • ENTERPRISE_PROJECT_ID: Enterprise project • USAGE_TYPE: Usage type • RESOURCE_TYPE: Resource type • AZ_CODE: AZ • BILL_TYPE: Bill type • ASSOCIATED_ACCOUNT: Linked account • RES_SPEC_CODE: Specification Code • BE_ID: Business entity • REGION_CODE: Region • CHARGING_MODE: Billing mode • PAYER_ACCOUNT_ID: Payer account • RESOURCE_TAG: Resource tag • RESOURCE_ID: Resource ID • COST_UNIT: Cost category • SPLIT_ITEM_NAME: Split item

Parameter	Type	Value Range	Description
value	String	-	Dimension. NOTE When key is set to BILL_TYPE, the value has the following options: • Yearly/Monthly: 1 • Pay-per-use: 3 • Reserved instance: 10 • Savings Plans: 11 When key is set to CHARGING_MODE, the value has the following options: • Expenditure-purchase: 1 • Expenditure - renewal: 2 • Expenditure - change: 3 • Expenditure - unsubscription: 4 • Expenditure-use: 5 • Expenditure - auto-renewal: 8 • Account adjustment - compensation: 9 • Reserved instance - split/combine: 11 • Expenditure - hourly billing: 12 • Expenditure - unsubscription handling fee: 13 • Expenditure - month-end supplementary deduction for support plan: 14 • Account adjustment - fee deduction: 16 • Expenditure-difference amount (min. guaranteed - actual): 17 • Expenditure - monthly payment: 18 • Refund - change: 20 • Expenditure-savings plans used: 23 • Refund - changing to pay-per-use: 24 • Refund - tax: 100 • Adjustment - compensation tax: 101 • Adjustment - deduction tax: 102 • Expenditure-yearly payment: 103 • Expenditure-savings plans unused: 200 • Expenditure-resource packages used: 201 • Expenditure-resource packages unused: 202 • Expenditure-reserved instances used: 203 • Expenditure-reserved instances unused: 204

Table 8-8 Cost

Parameter	Type	Value Range	Description
time_dimension_value	String	A maximum of 20 characters	Time dimension. • yyyy-mm-dd indicates that data is filtered by day. • yyyy-mm indicates that data is filtered by month.
time_measure_id	Int	-	Time unit. • 1: Day • 2: Month
amount	String	A maximum of 64 characters	One of the following cost types: original costs, net original costs, amortized costs, and net amortized costs.
official_amount	String	A maximum of 64 characters	List price.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
  "currency": "USD",
  "total_count": 1,
  "cost_data": [
    {
      "dimensions": [
        {
          "key": "tag",
          "value": "Group:noTagKey"
        }
      ],
      "costs": [
        {
          "time_dimension_value": "2021-08",
          "time_measure_id": 2,
          "amount": "13225.00",
          "official_amount": "13225.00"
        }
      ],
      "amount_by_costs": "13225.00",
      "official_amount_by_costs": "13225.00"
    }
  ]
}
```

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	Invalid parameter.
400	CBC.18000014	Cost Center not enabled.
400	CBC.18000016	Insufficient permissions. Contact your partner.
400	CBC.18000053	Insufficient permissions. Contact your enterprise master.
500	CBC.0999	Other errors.
400	CBC.18000048	Too many independent accounting members. Specify a member account for query.

9 Managing an Enterprise

9.1 Managing Enterprise Projects

9.1.1 Enabling the Enterprise Project Management

Function

This API is used to enable the enterprise project management on your own platform.

Constraints

Your AK/SK or token is required for invoking this API.

Debugging

You can debug this API in [API Explorer](#). Automatic authentication is supported. API Explorer can automatically generate and debug SDK sample code.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
Billing::activeEP Finance	Grants the permission to enable the enterprise project function.	write	-	-	-

URI

POST /v2/enterprises/enterprise-projects/authority

Request

Request parameters

None.

Example request

POST https://bss-intl.myhuaweicloud.com/v2/enterprises/enterprise-projects/authority HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZihvcNAQcCo...ggg1BBIINPXsidG9rZ

Response

Response parameters

Status code: 204

Success is returned by default.

Status code: 400

Parameter	Type	Value Limit	Description
error_code	String	20	Status code. For details, see Status Code . This parameter is returned when the query fails.
error_msg	String	1,000	Error description. This parameter is returned when the query fails.
fail_check_items	List<String>	-	Check item not satisfied. For details, see Table 9-1 . This parameter matches the error code: CBC.99007004.

Table 9-1 Invalid request.

Check Item	Description
NOT_OPEN_PROJECT_GROUP	Enabling enterprise project management not supported. You have enabled project group management.
NOT_OPEN_MULTI_PROJECT	Enabling enterprise project management not supported. You have enabled the Multi-Project function.
SELF_OPEN_ONLY_FOR_ENT_AND_INTR_CUST	Only customers who have completed real-name authentication or customers whose accounts are verified to be of enterprise type can enable project management.

Example response

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

Status Code **NOTE**

- **4xx:** indicates an error resulting from a client, such as the request contains bad syntax or an invalid parameter. You need to check the statement and format and make a request again.
- **5xx:** 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.

Status Code	Error Code	Description
400	CBC.0100	Invalid parameter.
400	CBC.99007004	Check item not satisfied.
403	CBC.0151	Access denied.
500	CBC.0999	Other errors.

9.2 Managing Enterprise Accounts

9.2.1 Querying Enterprise Member Accounts

Function

This API can be used by an enterprise master account to query member accounts on the self-built platform.

Constraints

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

Debugging

You can debug this API in [API Explorer](#). Automatic authentication is supported. API Explorer can automatically generate and debug SDK sample code.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
businessUnitCenter:businessUnit:view	Grants the permission to view organizations and accounts.	read	-	-	-

URI

GET /v2/enterprises/multi-accounts/sub-customers

The following table describes the parameters.

Table 9-2 Parameters

Parameter	Mandatory	Type	Maximum Length/Value Range	Description
sub_customer_account_name	No	String	A maximum of 64 characters	Account name of the enterprise member account. The value of fuzzy_query determines whether to perform a fuzzy search. Only prefix, suffix, or middle part can be used for fuzzy search. The content you enter for fuzzy search cannot contain spaces. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. If the value is "", it can be used as a filter criterion.
sub_customer_display_name	No	String	A maximum of 64 characters	Display name of the enterprise member account. • The value of fuzzy_query determines whether to perform a fuzzy search. Only prefix, suffix, or middle part can be used for fuzzy search. The content you enter for fuzzy search cannot contain spaces. NOTE If the value contains Chinese characters or special characters, use encodeURIComponent to encode the value. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. If the value is "", it can be used as a filter criterion.

Parameter	Mandatory	Type	Maximum Length/Value Range	Description
fuzzy_query	No	Integer	-	Whether to perform a fuzzy search for the display name and account name of the enterprise member account. The default value is 0 (indicating not to perform a fuzzy search). • 0: No • 1: Yes
offset	No	Integer	[0, Maximum integer]	Offset, starting from 0 . The default value is 0 . NOTE This parameter is used for pagination. Retain its default value 0 if pagination is not required. offset indicates the offset relative to the first data record among all that meets the conditions configured. If you set offset to 1 , the second and subsequent data records are returned. For example, if there 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. 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 .
org_id	No	String	A maximum of 20 characters	ID of the organization to which the member account belongs. If this parameter is not included or is left empty, it will not be used as a filter criterion.

Request Message

Request Parameters

None

Example Request

```
GET https://bss-intl.myhuaweicloud.com/v2/enterprises/multi-accounts/sub-customers?
offset=0&limit=10&sub_customer_account_name=d_2035&sub_customer_display_name=m&fuzzy_query=1&
org_id=65419 HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
```

Response Message

Response Parameters

Parameter	Type	Maximum Length/ Value Range	Description
error_code	String	A maximum of 16 characters	Error code. For details, see Status Codes . This parameter is returned only when a failure occurs.
error_msg	String	A maximum of 1,024 characters	Error description. This parameter is returned only when a failure occurs.
sub_customer_info	List<SubCustomerInfoV2>	-	List of customers, which is available only when the API calling is successful. For details, see Table 9-3 .
total_count	Integer	-	Number of customers returned in the response, which is available only when the API calling is successful.

Table 9-3 SubCustomerInfoV2

Parameter	Type	Maximum Length/ Value Range	Description
id	String	A maximum of 64 characters	Customer ID of the enterprise member account.

Parameter	Type	Maximum Length/ Value Range	Description
name	String	A maximum of 64 characters	Account name of the enterprise member account.
display_name	String	A maximum of 64 characters	Display name of the enterprise member account. Special characters are allowed.
status	Integer	-	Member account statuses. The values are as follows: • 1: Normal • 2: Creating • 3: Closing • 4: Closed • 101: Registering • 102: To be activated
org_id	String	A maximum of 20 characters	ID of the organization to which the member account belongs.
org_name	String	A maximum of 64 characters	Name of the organization to which the member account belongs. NOTE If the organization to which the member account belongs is the root organization of an enterprise, this parameter may be left empty.

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
  "total_count": 1,
  "sub_customer_infos": [
    {
      "id": "4C2DC9*****2F8F890E654589C2F7",
      "name": "A8***F112",
      "display_name": "A8***F112",
      "status": 1,
      "org_id": "65419",
      "org_name": "Level-1 organization"
    }
  ]
}
```

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

10 Invoice Management

10.1 Invoice Management

10.1.1 Querying the Invoice List

Function

Customers can query the invoice list.

Log in to Billing Center, and choose **Invoices** in the left navigation pane. The invoice list is displayed.

Constraints

This API can be invoked using the customer 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.

Authorization

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

- If you are using role/policy-based authorization, see the required permissions in [Actions Supported by Policy-based Authorization](#).
- If you are using identity policy-based authorization, the permission listed below is required.

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
billing:invoice:manage	Grants the permission to manage invoices, request invoices, and manage invoice titles and addresses.	write	-	-	-

URI

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

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?

Table 10-1 Request parameters

Parameter	Mandatory	Type	Value Range	Description
start_time	Yes	String	A maximum of 64 characters	Invoice application start time 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 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.

Parameter	Mandatory	Type	Value Range	Description
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: MIIPAgYJKoZlHvcNAQcCo...ggg1BBIIlNPXsidG9rZ
```

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.
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 0: Individual customer 1: Corporate customer
channelType	Integer	-	Channel type 0: HUAWEI CLOUD
invoiceType	Integer	[0-1]	Invoice type 0: Special VAT invoice 1: General VAT invoice
invoiceTitle	String	A maximum of 1024 characters	Invoice title
invoiceAmount	Number	-	Invoiced amount (USD)
invoiceMethod	Integer	[0-2]	Invoicing method 0: Invoicing by bill 1: Invoicing by payment 2: Invoicing by order
invoiceClass	Integer	[0-1]	Invoice type 0: Tax invoice 1: Business invoice

Parameter	Type	Value Range	Description
invoiceState	Integer	-	Invoicing state • 0: Draft • 1: Waiting for the first trial • 4: Waiting for the export invoice file • 5: Waiting for the invoice file backfile • 6: Waiting for the mail confirmation • 7: Waiting for receipt confirmation • 8: Complete • 9: Refunded • 11: Waiting for rebut audit • 13: Invoice return audit • 14: Waiting return cis notify • 15: Invoice return failed
applyOpera	String	A maximum of 32 characters	Invoice applicant
addressInfo	PostAddressInfoIntl	-	Address information. For details, see Table 10-3 .
applyTime	String	A maximum of 64 characters	Application time (UTC time)
invoiceMode	String	0	Invoice type • 0: Paper invoice
email	String	A maximum of 400 characters	Email receiving the electronic invoice
requestMode	String	[0-2]	Application type • 0: Invoice creation application • 1: Invoice return application • 2: Invoice change application

Parameter	Type	Value Range	Description
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
tradeType	Integer	-	Transaction type • 3: Settlement by credit card • 4: Settlement by billing • 5: Invoicing by payment • 6: BP settle by billing • 7: Invoicing by recharge • 8: Order payment online • 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
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 • VAT • ISS • WHT • GST
taxRate	String	A maximum of 64 characters	Tax rate

Parameter	Type	Value Range	Description
subTaxClass	String	A maximum of 64 characters	Tax subtype • PIS • COFINS • CGST • SGST • IGST • ISS • WHT • VAT
taxAmount	Number	-	Tax amount 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 APIs to Be Taken Offline

11.1 Product Management

11.1.1 Querying Product Information

11.1.1.1 Querying Cloud Service Types (Old)

Function

This API is used to query cloud service types on the customer self-built 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 customer AK/SK or token.

KooGallery services are not included.

URI

GET /v2/bases/service-types

Table 11-1 Header parameter

Parameter	Mandatory	Maximum Length of Characters	Description
X-Language	No	A maximum of 8 characters	Language. • zh_CN: Chinese • en_US: English Default value: zh_CN

Table 11-2 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 . 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 11-3 .

Table 11-3 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.

11.1.1.2 Querying Resource Types (Old)

Function

This API is used to query the resource types on the customer self-built 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 customer AK/SK or token.

URI

GET /v2/bases/resource-types

Table 11-4 Header parameter

Parameter	Mandatory	Maximum Length of Characters	Description
X-Language	No	A maximum of 8 characters	Language. • zh_CN: Chinese • en_US: English Default value: zh_CN

Table 11-5 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 . 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: MIIPAgYJKoZlHvcNAQcCo...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 11-6 .

Table 11-6 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.

11.2 Transaction Management

11.2.1 Yearly/monthly Order Management

11.2.1.1 Querying Orders (Old)

Function

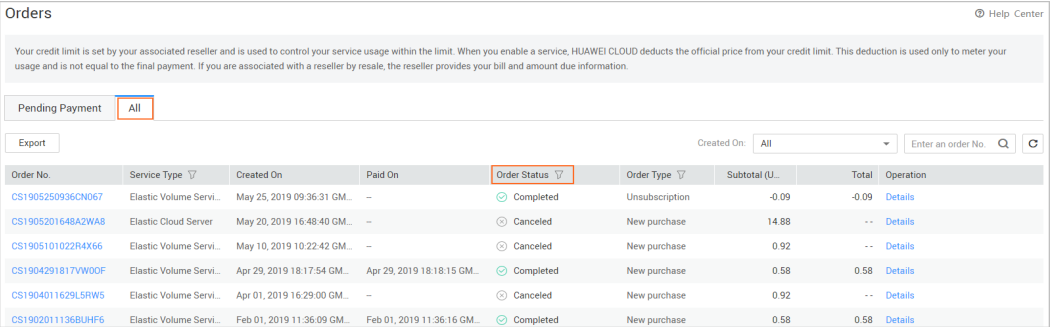
After a customer purchases yearly/monthly resources, it can query the orders in different statuses, such as in the pending approval, processing, canceled, completed, and pending payment statuses.

NOTE

This API will be brought offline soon. For details about the new API for querying orders, see [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 self-built platform, such as in the pending approval, processing, canceled, completed, and pending payment statuses.

NOTE

- This API can be invoked using the customer AK/SK or token.
- 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 [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 11-7 URI parameters

Parameter	Mandatory	Maximum Length of Characters	Description
domain_id	Yes	A maximum of 64 characters	Customer account ID. For details about how to obtain the customer account ID, see How Do I Obtain customer_id or domain_id?

Table 11-8 Request parameters

Parameter	Mandatory	Type	Maximum Length of Characters/ Value Range	Description
order_id	No	String	A maximum of 64 characters	Order ID. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. 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 about how to obtain the customer account ID, see How Do I Obtain customer_id or domain_id? 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. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, 2019-05-06T08:05:01Z . The range of <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> 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 .

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 <i>HH</i> is 0 - 23, and the range of <i>mm</i> and <i>ss</i> 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 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: • 1: Pending approval • 3: Processing • 4: Canceled • 5: Completed • 6: Pending payment • 9: To be confirmed 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: • 1: New purchase • 2: Renewal • 3: Change • 4: Unsubscription • 10: Yearly/monthly to pay-per-use • 11: Pay-per-use to yearly/monthly • 13: Trial • 14: Commercial use • 15: Price adjustment If this parameter is not included in the request parameters, 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 to 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 <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> 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. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, 2019-05-06T08:05:01Z . The range of <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> 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.

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/1.1Content-Type: application/jsonX-Auth-Token:
MIIPAgYJKoZlhvcNAQcCo...ggg1BBIIINPXsidG9rZ
```

3. Response

Response Parameters

Parameter	Type	Description
error_code	String	Error code. For details, see 4 .
error_msg	String	Error description.
data	Result	Order list For details, see Table 11-9 .

Table 11-9 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. For details, see Table 11-10 .

Table 11-10 CustomerOrder

Parameter	Type	Description
orderId	String	Order ID.
baseOrderId	String	Parent order ID (order ID before splitting). 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. This field has been discarded.
beld	String	HUAWEI CLOUD business entity ID.
customerId	String	Customer ID.

Parameter	Type	Description
sourceType	Integer	Customer order source type. The value can be: • 1: Customer • 2: Agent • 3: Contract • 4: Distributor • 5: Deleted resources • 6: Supplement • 7: Compensation • 8: Auto-created NOTE Orders generated in the following scenarios are automatically created by the system: • Unsubscription orders created in the cases of subscription failed and auto unsubscription • Auto unsubscription triggered for failed hardware orders or failed subscription of combined cloud services (including hardware) • Return orders automatically created for hardware replacement • Renewal orders created during auto-renewal
status	Integer	Order status. The value can be: • 1: Pending approval • 3: Processing • 4: Canceled • 5: Completed • 6: Pending payment • 9: To be confirmed
orderType	Integer	Order Type: • 1: New purchase • 2: Renewal • 3: Change • 4: Unsubscription • 10: Yearly/monthly to pay-per-use • 11: Pay-per-use to yearly/monthly • 13: Trial • 14: Commercial use • 15: Price adjustment
currency	Double	Order amount (original price). In the unsubscription order, the amount is equal to the value of currencyAfterDiscount.

Parameter	Type	Description
currencyAfterDiscount	Double	Order amount after a discount (excluding the vouchers or cards)
measureId	Integer	Order amount unit. • 1: Dollar • 2: Dime • 3: Cent
measureName	String	Amount unit name.
createTime	String	Creation time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, 2019-05-06T08:05:01Z . The range of <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> is 0-59.
paymentTime	String	Payment time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, 2019-05-06T08:05:01Z . The range of <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> is 0-59.
lastUpdateTime	String	Latest status update time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, 2019-05-06T08:05:01Z . The range of <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> is 0-59.
needAudit	Boolean	Whether the approval is required.
currencyType	String	Currency code.
contractId	String	Contract ID.
currencyOfficial	Double	Order amount (list price). In the unsubscription order, the amount is equal to the value of currencyAfterDiscount .
amountInfo	AmountInfo	Order deduction details. For details, see Table 11-11 .
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 Querying Cloud Service Types .

Table 11-11 AmountInfo

Parameter	Type	Description
discountList	List<DiscountItem>	Fee item. For details, see Table 11-12 .
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 11-12 DiscountItem

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

Example Response

```
HTTP/1.1 200 OKContent-Type: application/json;charset=UTF-8Content-Length: lengthDate: response time {  "error_code": "CBC.0000",  "error_msg": "success",  "data": {    "pageSize": 10,    "pageIndex": 1,    "totalSize": 1,    "orderInfos": [{      "orderId": "9Lw9b****mqK5k",      "baseOrderId": null,      "beld": "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

- **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
200	CBC.000	Succeeded.
400	CBC.0100	Incorrect parameter.
400	CBC.0101	Invalid parameter.
403	CBC.0151	Access denied.
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.

11.2.1.2 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 [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.

Order No.	Service Type	Order Type	Created On	Paid On	Order Status	Subtotal (USD)	Total	Operation
CS2010131423QA44N	Elastic Volume Service	New purchase	Oct 13, 2020 14:23:4...	--	Pending Payment	10.80	--	Pay Details Cancel
CS2010091009K0297	Elastic Cloud Server	New purchase	Oct 09, 2020 10:09:0...	--	Pending Payment	6.00	--	Pay Details Cancel

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

Order No.	Service Type	Order Type	Created On	Paid On	Order Status	Subtotal (USD)	Total	Operation
CS2010131423QA44N	Elastic Volume Service	New purchase	Oct 13, 2020 14:23:4...	--	Pending Payment	10.80	--	Pay Details Cancel
CS2010091009K0297	Elastic Cloud Server	New purchase	Oct 09, 2020 10:09:0...	--	Pending Payment	6.00	--	Pay Details Cancel

NOTE

If the order status is **Processing**, 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.

Name/ID	Region	Service Type	Current Configuration	Enterprise Pr...	Billing Mode	Resource Period	Quantity	Subtotal (USD)
CD3 linear EVS Monthl... 00301-28212-0-0	CN North-Beijing1	Elastic Volume Service	Common IO	default	Yearly/Monthly 1 Month	Jun 17, 2020 16:48:22 GMT+08:00 Jul 17, 2020 23:59:59 GMT+08:00	1	4.60

- 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

Customers can query order details on the self-built platform.

 NOTE

- This API can be invoked using the customer AK/SK or token.
- If you want to query the resource information of a specified order, invoke the API described in [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 11-13 URI parameters

Parameter	Mandatory	Maximum Length of Characters	Description
domain_id	Yes	A maximum of 64 characters	Customer account ID. For details about how to obtain the customer account ID, see How Do I Obtain customer_id or domain_id?
order_id	Yes	A maximum of 64 characters	Order ID. The system will return the orders if the orders are queried.

Table 11-14 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. 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 .

Parameter	Mandatory	Value Range	Description
limit	No	1 to 100	Number of records displayed on each page. If this parameter is not input, the default value is 10 . 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. 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 . For details, see Table 11-15 .
count	Integer	Number of order items
orderlineitems	List<Order LineItemEntity>	Order items in an order For details, see Table 11-16 .

Table 11-15 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.
beld	String	HUAWEI CLOUD business entity ID.
customerId	String	Customer ID.

Parameter	Type	Description
sourceType	Integer	Customer order source type. The value can be: • 1: Customer • 2: Agent • 3: Contract • 4: Distributor • 5: Deleted resources • 6: Supplement • 7: Compensation • 8: Auto-created NOTE Orders generated in the following scenarios are automatically created by the system: • Unsubscription orders created in the cases of subscription failed and auto unsubscription • Auto unsubscription triggered for failed hardware orders or failed subscription of combined cloud services (including hardware) • Return orders automatically created for hardware replacement • Renewal orders created during auto-renewal
status	Integer	Order status. The value can be: • 1: Pending approval • 3: Processing • 4: Canceled • 5: Completed • 6: Pending payment • 9: To be confirmed
orderType	Integer	Order type. The value can be: • 1: New purchase • 2: Renewal • 3: Change • 4: Unsubscription • 10: Yearly/monthly to pay-per-use • 11: Pay-per-use to yearly/monthly • 13: Trial • 14: Commercial use • 15: Price adjustment
currency	Double	Order amount (original price). In the unsubscription order, the amount is equal to the value of currencyAfterDiscount.

Parameter	Type	Description
currencyAfterDiscount	Double	Order amount after a discount (excluding the vouchers or cards)
measureId	Integer	Order amount unit. • 1: Dollar • 2: Dime • 3: Cent
measureName	String	Amount unit name.
createTime	String	Creation time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, 2019-05-06T08:05:01Z . The range of <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> is 0-59.
paymentTime	String	Payment time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, 2019-05-06T08:05:01Z . The range of <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> is 0-59.
lastUpdateTime	String	Latest status update time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, 2019-05-06T08:05:01Z . The range of <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> is 0-59.
needAudit	Boolean	Whether the approval is required.
currencyOfficial	Double	Order amount (list price). In the unsubscription order, the amount is equal to the value of currencyAfterDiscount .
amountInfo	AmountInfo	Order deduction details. For details, see Table 11-17 .
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 Querying Cloud Service Types .

Table 11-16 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 Querying Cloud Service Types .
productId	String	Product ID.
productSpecDesc	String	Product specification description.
periodType	Integer	Period type. • 0: Day • 1: Week • 2: Month • 3: Year • 4: Hour • 5: One-off • 6: Pay-per-use (reserved) • 7: By usage report (reserved)
periodNum	Integer	Number of periods.
validTime	String	Effective time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, 2019-05-06T08:05:01Z . The range of <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> is 0-59.
expireTime	String	Expiration time. UTC time in "yyyy-MM-dd'T'HH:mm:ss'Z'" format, for example, 2019-05-06T08:05:01Z . The range of <i>HH</i> is 0-23, and the range of <i>mm</i> and <i>ss</i> is 0-59.
subscriptionNum	Integer	Number of subscriptions.
currency	Double	Order amount (original price). 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).

Parameter	Type	Description
currencyOfficial	Double	Order amount (list price). In the unsubscription order, the amount is equal to the value of currencyAfterDiscount .
amountInfo	AmountInfo	Order deduction details. For details, see Table 11-17 .
currencyType	String	Currency code.
categoryCode	String	Product catalog code.

Table 11-17 AmountInfo

Parameter	Type	Description
discountList	List<DiscountItem>	Fee item. For details, see Table 11-18 .
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 11-18 DiscountItem

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

Example Response

```
HTTP/1.1 200 OKContent-Type: application/json;charset=UTF-8Content-Length: lengthDate: response time {  "error_code": "CBC.0000",  "error_msg": "success",  "orderInfo": {    "orderId": "CS1****LZ2",    "baseOrderId": null,    "beld": "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

- **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
200	CBC.000	Succeeded.
400	CBC.0100	Incorrect parameter.
400	CBC.0101	Invalid parameter.
403	CBC.0151	Access denied.
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.

11.2.1.3 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 [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 using the AK/SK or token of the customer.

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. The value is the same as the order_ids value in the response message of API described in Renewing Subscription to Yearly/Monthly Resources .

Parameter	Mandatory	Type	Maximum Length of Characters	Description
coupon_infos	No	List<CouponSimpleInfoOrderPay>	[0-3]	This parameter is reserved. For details, see Table 11-19. 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_infos	No	List<DiscountSimpleInfo>	[0-1]	Discount ID list. For details, see Table 11-20. 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 11-19 CouponSimpleInfoOrderPay

Parameter	Mandatory	Type	Maximum Length of Characters	Description
id	Yes	String	A maximum of 64 characters	Coupon ID.

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

Table 11-20 DiscountSimpleInfo

Parameter	Mandatory	Type	Maximum Length of Characters	Description
id	Yes	String	A maximum of 64 characters	Discount ID.
type	Yes	Integer	[0,2,3,609]	Discount type. • 0: promotion discount • • 2: commercial discount • 3: discount granted by a partner • 609: discount for adjusting an order price NOTE 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. 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. For details, see Table 11-21 . This parameter is valid only when error_code is set to CBC.99003141 . • If the quota is insufficient, submit a service ticket on the HUAWEI CLOUD official website to increase the quota and then pay the order. • If the capacity is insufficient, place an order again. • If the specifications have changed, place an order again.
enterprise_project_auth_result	List<EnterpriseProject>	-	Information about the enterprise project whose fund is insufficient. For details, see Table 11-22 . This parameter is valid only when error_code is set to CBC.99003155 .

Table 11-21 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.

Parameter	Type	Description
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 .
auth_result	Integer	Verification result of the change of the cloud service quota, capacity, or specifications. • 1: The quota is insufficient. • 2: The capacity is insufficient. • 3: The resource specifications are incorrect. This value is valid only when the resource specifications change between the time when a customer places an order and the time when the customer pays the order. • 4: The associated resource information is incorrect. This value is valid only when the resource specifications change between the time when a customer places an order and the time when the customer pays the order. • 99: Other errors. This value is valid only when the resource specifications change between the time when a customer places an order and the time when the customer pays the order.
available_zone	String	AZ ID. For details, see the AZ names of regions listed on the Regions and Endpoints , for example, cn-north-1a .

Table 11-22 EnterpriseProject

Parameter	Type	Description
enterprise_project_id	String	ID of the enterprise project where an order belongs. • 0: ID of a default project • - 1 or null: Non-project ID
enterprise_project_name	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

- **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.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. 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.

11.2.2 Yearly/Monthly Resource Management

11.2.2.1 Querying Customer's Yearly/Monthly Resources (Old)

Function

A customer can query one or all yearly/monthly resources on the self-built 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 11-23 URI parameters

Parameter	Mandatory	Maximum Length of Characters	Description
domain_id	Yes	A maximum of 64 characters	Customer account ID. For details about how to obtain the customer account ID, see How Do I Obtain customer_id or domain_id?

Table 11-24 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. NOTE 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. • 0: Queries both the primary resources and attached resources. • 1: Queries only the primary resources. The default value is 0. If this parameter is not included in the request parameters, is left empty, or is set to null, the default value 0 is used. This parameter cannot be set to "". NOTE A primary resource takes the primary position in the associated resources. • For the ECS service, ECSs are the primary resources, and EVS disks are attached resource. • For VPC, if the shared bandwidth is used, the bandwidth is the primary resource, and EIPs are the attached resource. If the exclusive bandwidth is used, EIPs are the primary resources, and the bandwidth is the attached resource.
status_list	No	String	-	Resource status. Queries resources in a specified status. If there are multiple statuses, separate them using commas (,). • 2: Provisioned • 4: Frozen • 5: Expired If this parameter is not included in the request parameters 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: MIIIPAgYJKoZlHvcNAQcCo...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. For details, see Table 11-25 .
total_count	Integer	Total number of records. The default value is 0 .

Table 11-25 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	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 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 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	Integer	Primary resource or not. ● 0: No ● 1: Yes

Parameter	Type	Description
status	Integer	Resource status. • 2: Provisioned • 3: Closed (not visible to customers) • 4: Frozen • 5: Expired
valid_time	String	Effective time of a resource. 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. 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. • 0: Entering the grace period upon expiration • 1: Yearly/monthly to pay-per-use • 2: Automatically deleted upon expiration (directly deleted from resources that take effect) • 3: Automatically renewed upon expiration • 4: Automatically frozen upon expiration • 5: Automatically deleted upon expiration (deleted from resources in the retention period) NOTE Only 3 indicates that the resource is automatically renewed. In other cases, the expiration policy for non-automatic renewal is used.

Example Response

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

{
  "data": [
    {
      "id": "01154-21800069-0",
      "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

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

11.2.2.2 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.

 NOTE

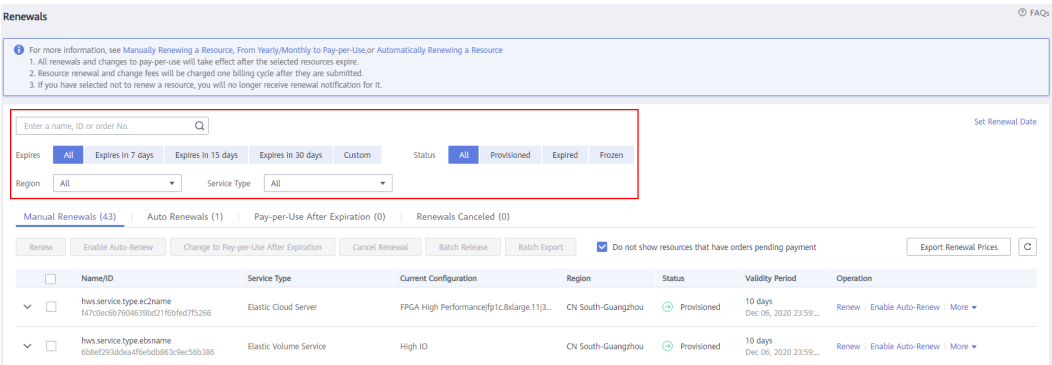
This API will be brought offline. For details about the new API for renewing subscription to yearly/monthly resources, see [Renewing Subscription to Yearly/Monthly Resources](#).

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.



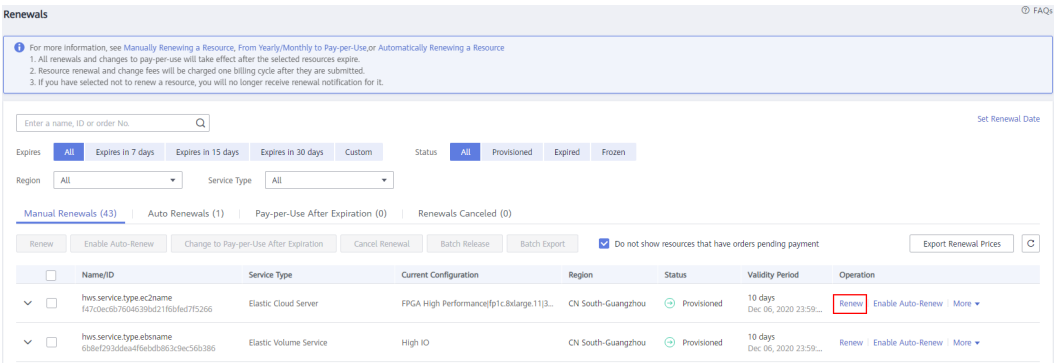
 NOTE

- 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.

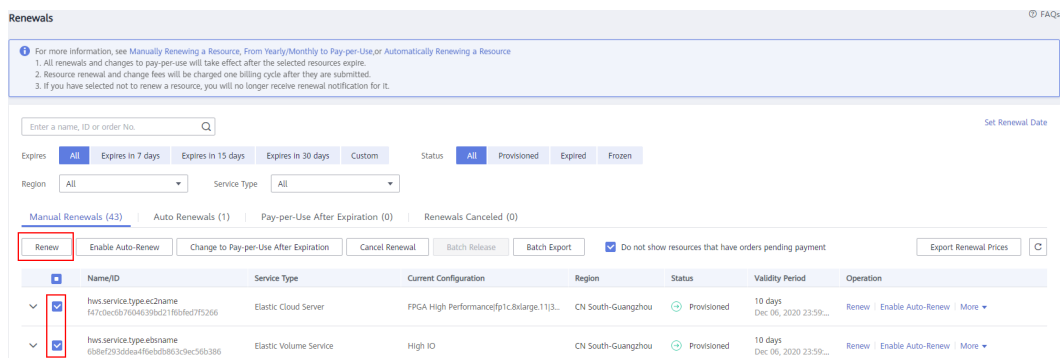
Step 3 All resources that need to be manually renewed can be moved to the **Manual Renewals** tab. For details, see [Restoring to Manual Renewal](#).

Step 4 Renew resources separately or in batches.

- Separate renewal: Click **Renew** in the **Operation** column for the desired resource.



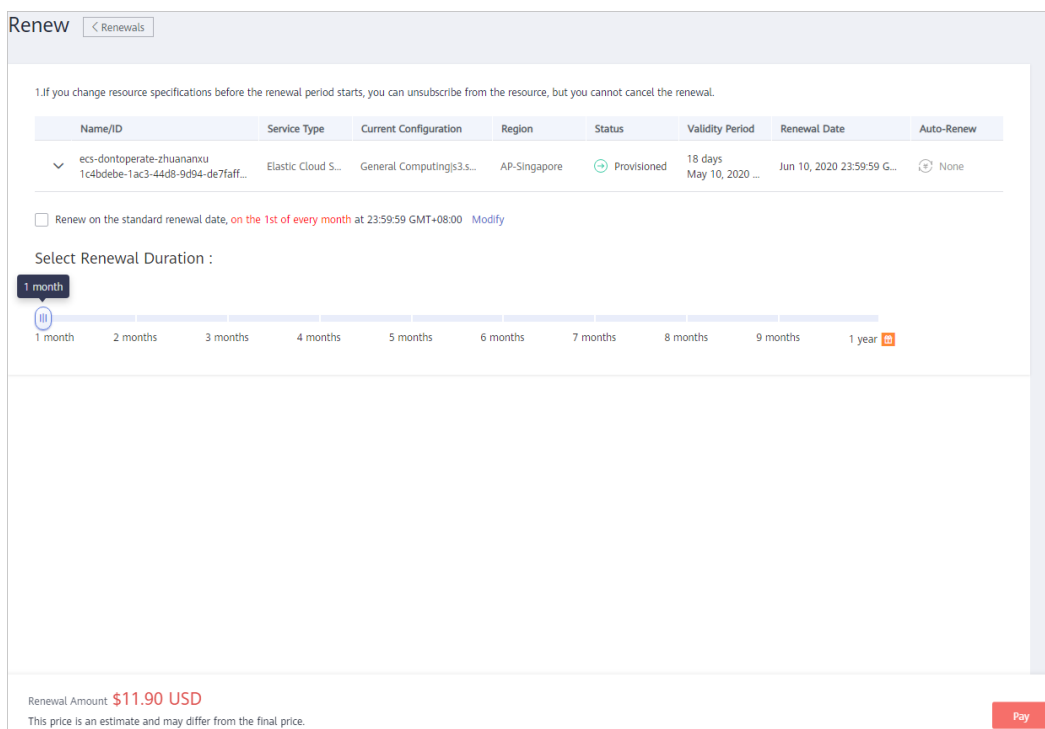
- Batch renewal: Select the check boxes for the desired resources, and click **Renew** in the upper left corner.



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 its yearly/monthly resources on the customer platform.

 NOTE

- This API can be invoked using the customer AK/SK or token only.
- 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 [Support for Discounts or Coupons](#).

1. URI

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

The following table describes the parameters.

Table 11-26 URI parameter description

Parameter	Mandatory	Value Range	Description
domain_id	Yes	A maximum of 64 characters	Customer account ID. For details about how to obtain the customer account ID, see How Do I Obtain customer_id or domain_id?

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 Querying Customer's Yearly/Monthly Resources (Old) .
period_type	Yes	Integer	[2 3]	Period type. The value can be: • 2: Month • 3: Year

Parameter	Mandatory	Type	Value Range	Description
period_num	Yes	Integer	[1-11]	Number of periods. - Month: 1 to 11 - Year: 1 to 3
isAutoPay	No	Integer	[0-1]	Whether enable automatic payment. 0: No 1: Yes If this parameter is left empty, default value 0 is used (automatic payment disabled). Automatic payment supports only payment from the balance. 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: MIIPAgYJKoZlhvcNAQcCo...ggg1BBIIINPXsidG9rZ

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

3. Response

Response Parameters

Parameter	Type	Description
error_code	String	Status code. 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. 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

- **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
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.
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.

HTTP Status Code	Error Code	Description
200	CBC.30050006	Automatic order payment failed.

11.2.2.3 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 [Unsubscribing from Yearly/Monthly Resources](#).

Web UI

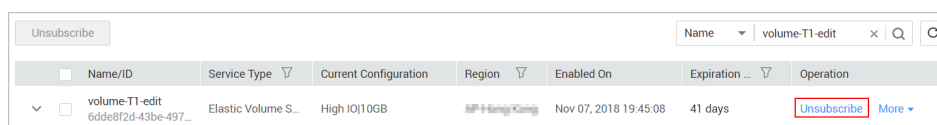
If a customer has subscribed to a yearly/monthly resource, the customer can use this API to unsubscribe from the resource in the Billing Center.

Step 1 Go to the [Unsubscriptions](#) page.

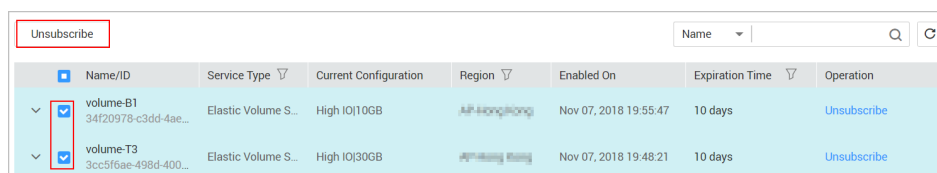
Step 2 Click the **Succeeded Resources** tab.

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**.

Name/ID	Service Type	Current Configuration	Region	Period	Consumed(USD)	Handling Fee...	Unsubscription...
ijie20181123 49dd1802-ec07-4fc5-83d7-701...	Elastic Volum...	HongKong-...	...	Nov 23, 2018 20:58:55 Nov 23, 2019 23:59:59	0.32	3.84	34.24

* Select Reason for Unsubscription

☒ Incorrect parameter selection during purchase

☐ More services purchased than deployment requirement

☐ Service tests completed

☐ Poor service

☐ Service deployment requirements not met

☐ Irreparable fault

☐ Other

Actual Payment ⓘ

\$38.40 USD

Consumed ⓘ

-\$0.32 USD

Handling Fee ⓘ

-\$3.84 USD

Unsubscription

\$34.24 USD

Balance Returned

\$34.24 USD

☒ I have confirmed that a handling fee will be charged for this unsubscription

[View Details](#)

Unsubscribe

----End

REST API

A customer can unsubscribe from its yearly/monthly resources on the customer 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 using the AK/SK or token of the customer.
- 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.

1. URI

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

The following table describes the parameters.

Table 11-27 URI parameter description

Parameter	Mandatory	Value Range	Description
domain_id	Yes	A maximum of 64 characters	Customer account ID. For details about how to obtain the customer account ID, see How Do I Obtain customer_id or domain_id?

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 Querying Customer's Yearly/Monthly Resources (Old) .
unSubType	Yes	Integer	[1-2]	Unsubscription type. The value can be: • 1: Unsubscribe from the resource and its renewal periods. • 2: Unsubscribe from only the resource renewal periods.
unsubscribeReasonType	No	Integer	[1-5]	Unsubscription cause. The value can be: • 1: The product is of poor usability. • 2: The product functions cannot meet the requirements. • 3: Customers do not know how to use the product, or the product operations are complex. • 4: Customers are not satisfied with the service. • 5: Others If this parameter is not included in the request parameters, is set to "", or is set to null, no value is returned.

Parameter	Mandatory	Type	Value Range	Description
unsubscribeReason	No	String	A maximum of 512 characters	Unsubscription reason, which is generally specified by the customer. 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/1.1Content-Type: application/jsonX-Auth-Token:
MIIPAgYJKoZlhvcNAQcCo...ggg1BBIIINPXsidG9rZǃ "resourceIds":
["53fa7828774df68b","72a256456xdf45g"], "unSubType":2, "unsubscribeReasonType":2,
"unsubscribeReason":"xxxxxxx"}
```

3. Response

Response Parameters

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

Example Response

```
HTTP/1.1 200 OKContent-Type: application/json;charset=UTF-8Content-Length: lengthDate: response
time { "error_code": "CBC.0000", "error_msg": "unsubscribe success", "orderIds": ["xxxxxxxxxx"]}
```

4. 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 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.
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 supported for this cloud service in KooGallery.
200	CBC.99003656	Operation not allowed. Your resource has been frozen.

11.2.3 Managing Resource Packages

11.2.3.1 Querying the Package Usage (Old)

Function

A customer can query the package usage on the self-built platform.

 NOTE

This API will be taken offline. For details about the new API for querying the usage in a package, see [Querying Resource Packages](#) and [Querying the Package Usage](#).

Constraints

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

URI

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

Table 11-28 Header parameter

Parameter	Mandatory	Value Range	Description
X-Language	No	A maximum of 8 characters	Language. • zh_CN: Chinese • en_US: English If this parameter is not included in the request parameters or is left empty, the value en_US is used. This parameter cannot be set to "" or null .

Request

Request Parameters

N/A

Example Request

```
POST https://bss-intl.myhuaweicloud.com/v2/payments/free-resources/usages/query 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.

Parameter	Type	Value Range	Description
error_msg	String	A maximum of 1000 characters	Error description. This parameter is returned only when the query failed.
package_usage_infos	list<PackageUsageInfo>	-	Package usage. For details, see Table 11-29 .

Table 11-29 Package usage information

Parameter	Type	Value Range	Description
order_instance_id	String	A maximum of 255 characters	Identifier of a subscribed resource package.
resource_type_name	String	A maximum of 255 characters	Resource type.
quota_reuse_mode	Integer	-	Use model. The options are as follows: • 1: Resettable Indicates that the usage of the purchased pay-per-use resource package can be restored based on a specified period. For example, if you purchase a 1-year 40 GB pay-per-use resource package with quota_reuse_mode set to 1 and quota_reuse_cycle to 4, then the resource package will be reset each month (you will get 40 GB resource each month) within the year. • 2: Not resettable Indicates that the usage of the purchased pay-per-use package will not be restored. 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.

Parameter	Type	Value Range	Description
quota_reuse_cycle	Integer	-	Reset period. This parameter is valid only when quota_reuse_mode is set to 1 (Resettable). • 1: Hour • 2: Day • 3: Week • 4: Month • 5: Year
quota_reuse_cycle_type	Integer	-	Reset period type. This field is valid only when quota_reuse_mode is set to 1 (Resettable). If quota_reuse_mode is set to resettable and the value of quota_reuse_cycle_type is null , the quota is reset by calendar period by default. • 1: Reset by calendar period Indicates that the resource package is reset by calendar month or calendar year. For example, if you set quota_reuse_cycle to 4 (month) and quota_reuse_cycle_type to 1, the resource package is reset on the first day of each month. • 2: Reset by order period Indicates that the resource package is reset by order period. For example, if you set quota_reuse_cycle to 4 (month), and 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.
start_time	String	A maximum of 64 characters	Start time. The value is in UTC format. • If quota_reuse_mode is set to 1, the value is the start time of the reset period for the current time. • If quota_reuse_mode is set to 2, the value is the time when the purchased instance takes effect.

Parameter	Type	Value Range	Description
end_time	String	A maximum of 64 characters	End time. The value is in UTC format. - If quota_reuse_mode is set to 1, the value is the end time of the reset period for the current time. - If quota_reuse_mode is set to 2, the value is the time when the purchased instance becomes invalid.
balance	Number	-	Remaining resources in a package.
total	Number	-	Total number of resources in a package.
measurement_name	String	A maximum of 255 characters	Measurement unit name of a package resource.
region_code	String	A maximum of 255 characters	Cloud service region code, for example, ap-southeast-1 . Obtain the value from the Region column in Regions and Endpoints .

Example Response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: length
Date: response time
{
  "package_usage_infos": [
    {
      "order_instance_id": "01154-119701448-0",
      "resource_type_name": "cdn.cdn.flow",
      "quota_reuse_mode": 1,
      "quota_reuse_cycle": 1,
      "quota_reuse_cycle_type": 1,
      "start_time": "2019-12-26T02:00:00Z",
      "end_time": "2019-12-26T02:24:11Z",
      "balance": 100,
      "total": 100,
      "measurement_name": "Byte",
      "region_code": "global-cbc-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 Status Code	Error Code	Description
500	CBC.0999	Other errors.

11.3 Bill Management

11.3.1 Querying Bill Summary (Old)

Function

This API can be used to query the expenditure summary bills of a customer on the self-built platform. The bills summarize the summary data by month.

Postpaid customers who have enabled the monthly settlement can log in to Billing Center to query their expenditure summary bills by referring to [here](#).

NOTE

- You can query data from the past three years.
- This API will be brought offline. For details about the new API for Querying Summary Bills, see [Querying Bill Summary](#).

Constraints

- This API can be invoked using the customer AK/SK or token only.
- If **cloud_service_type_code** is not specified in the request, the obtained bill is the monthly expenditure bill generated by cloud service type. That is, the total number of records (**total_count**) is calculated by cloud service type. Each record contains the expenditure summary of a cloud service type. In this case, **resource_type_code** in the response is **null**.
- If **cloud_service_type_code** is specified in the request, the obtained bill is the monthly expenditure bill generated by resource type for a cloud service. That is, the total number of records (**total_count**) is calculated by resource type. Each record contains the expenditure summary of a resource type for the cloud service. In this case, **resource_type_code** in the response is the resource type.

URI

GET /v1.0/{domain_id}/customer/account-mgr/bill/monthly-sum

The following table describes the parameters.

Table 11-30 Path parameters

Parameter	Mandatory	Maximum Length	Description
domain_id	Yes	64	Customer account ID.

Table 11-31 Query parameters

Parameter	Mandatory	Type	Maximum Length	Description
cycle	Yes	String	7	Billing cycle of the expenditure summary bill, which is in YYYY-MM format (GMT+08:00).
cloud_service_type_code	No	String	256	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 Querying Cloud Service Types. • If this parameter is not specified, the obtained bill is a monthly expenditure bill generated by cloud service. • If this parameter is not specified, the obtained bill is a monthly expenditure bill generated by resource type of a cloud service.

Parameter	Mandatory	Type	Maximum Length	Description
type	No	String	[0 1]	0: HUAWEI CLOUD account 1: Account for which the partner set a budget. This type of account is available only when a customer is associated with a partner in the reseller model. If this parameter is not specified, the expenditure summary of the HUAWEI CLOUD account is queried by default. This parameter cannot be left empty or set to "" or null.
enterpriseProjectId	No	String	-	Enterprise project ID. 0: ID of a default project - 1: The service does not support enterprise project management. If this parameter is not included or is left empty, it cannot be used as a filter criterion. If this parameter is set to null, it cannot be used as a filter criterion. This parameter cannot be set to "".

Request Message

Request Parameters

None

Example Request

```
GET https://bss-intl.myhuaweicloud.com/v1.0/{domain_id}/customer/account-mgr/bill/monthly-sum?
cycle=2018-05&type=0 HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
```

Response Message

Response Parameters

Parameter	Type	Description
error_code	String	Status code. For details, see Status Code . This parameter is returned only when a failure occurs.
error_msg	String	Error description. This parameter is returned only when a failure occurs.
currency	String	Currency. USD If the parameter is left blank, USD is used.
total_count	Integer	Number of the total records. The value must be greater than or equal to 0.
bill_sums	List<BillSumRecordInfo>	Record information. For details, see Table 11-32 .
total_amount	BigDecimal	Total amount (tax included).
debt_amount	BigDecimal	Total debt.
coupon_amount	BigDecimal	Cash coupon amount.
cashcoupon_amount	BigDecimal	Flexi-purchase coupon amount (reserved).
storedcard_amount	BigDecimal	Stored-value card amount (reserved).
debit_amount	BigDecimal	Balance in the cash account.
credit_amount	BigDecimal	Balance in the credit account.
measure_id	Integer	Unit. 1: Yuan/Dollar 3: Fen/Cent

Table 11-32 BillSumRecordInfo

Parameter	Type	Description
customer_id	String	Customer account ID.

Parameter	Type	Description
resource_type_code	String	Resource type code. For example, the resource type code of ECS is hws.resource.type.vm . NOTE If the cloud_service_type_code parameter is not passed in the request, the bill_sums response parameter will provide bill records categorized by cloud service type. The returned value for the resource type code is invalid.
region_code	String	Cloud service region. This parameter is reserved.
cloud_service_type_code	String	Cloud service type code. For example, the cloud service type code of OBS is hws.service.type.obs .
consume_time	String	Expenditure data collection period. GMT+08:00 and format: YYYY-MM Example: 2018-05

Parameter	Type	Description
pay_method	String	Expenditure type. This field is reserved. - If the request does not contain the parameter, cloud_service_type_code, and value 0 is returned, all resources of the service are billed on a yearly/monthly basis. If value 1 is returned, all resources are billed on a pay-per-use basis. If value 4 is returned, all resources are billed in savings plan-subscription mode. If the value 5 is returned, all resources are billed in savings plan-hourly billing mode. If value 6 is returned, all resources are billed in savings plan-discount mode. If an empty string is returned, all resources are billed in other-expenses mode. - If the request contains the parameter, cloud_service_type_code, and value 0 is returned, all resources of the service are billed in yearly/monthly mode. If value 1 is returned, all resources are billed in pay-per-use mode. If value 4 is returned, all resources are billed in savings plan-subscription mode. If the value 5 is returned, all resources are billed in savings plan-hourly billing mode. If value 6 is returned, all resources are billed in savings plan-discount mode.
consume_amount	BigDecimal	Consumption amount, that is, the amount deducted from the customer's account. It includes the amount paid using cash coupons.
debt	BigDecimal	Outstanding amount, that is, the amount due generated when fees are deducted from the customer account and the account balance is insufficient.
discount	BigDecimal	Discounted amount.
measure_id	Integer	Unit. 1: Yuan/Dollar 3: Fen/Cent

Parameter	Type	Description
bill_type	Integer	Bill type. • 0: Expenditure • 1: Unsubscription
account_details	List<BalanceTypePay>	Total payment amount distinguished by expenditure type and payment method of an account. For details, see Table 11-33 .
discount_detail_infos	List<DiscountDetailInfo>	Discounted amount details. For details, see Table 11-34 . This parameter is not returned when bill_type is 1.
enterpriseProjectId	String	Enterprise project ID. • 0: ID of a default project • null: The service does not support enterprise project management. If enterpriseProjectId is specified in the request, the bill_sums value in the response is the records by enterprise project ID. NOTE If the enterpriseProjectId parameter is not included in the request, the bill_sums response parameter will provide bill records categorized by non-enterprise project ID. Please note that this field is for reference purposes only.

Table 11-33 BalanceTypePay

Parameter	Type	Description
balance_type_id	String	Account type. • BALANCE_TYPE_DEBIT: Cash account • BALANCE_TYPE_CREDIT: Credit account • BALANCE_TYPE_BONUS: Bonus account (already offline) • BALANCE_TYPE_COUPON: Cash coupon account • BALANCE_TYPE_DEBIT_RATE: Discount account

Parameter	Type	Description
deduct_amount	Bigdecimal	Deducted amount. Unit.

Table 11-34 DiscountDetailInfo

Parameter	Type	Description
promotion_type	String	Discount type. 500: Specified discount for agent subscription 501: Specified exemption for agent subscription 502: Specified buy-it-now price for agent subscription 600: Contract discount rebate (commercial discount) 601: Discount specified in the channel frame contract 602: Discount specified in the designated-purpose fund contract (special commercial contract discount) 603: Discount specified in the directly signed offline contract 604: Discount specified in the authorized telemarketing contract 605: Discount specified in the commercial contract 606: Discount specified in the channel commercial contract 607: Partner authorized discount 608: Featured product discount 610: Discount amount 611: savings plan 700: Promotion discount (for promotion, available only in yearly/monthly billing scenarios) 800: Bonus
discount_amount	BigDecimal	Discounted amount.
promotion_id	String	Discount type ID. It can be a contract ID or a commerce ID.

Parameter	Type	Description
measure_id	Integer	Unit. • 1: Yuan/Dollar • 3: Fen/Cent The default value is 3.

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",
  "currency": "USD",
  "total_count": 1,
  "total_amount": 10212,
  "debt_amount": 56,
  "coupon_amount": 0,
  "cashcoupon_amount": 0,
  "storedcard_amount": 0,
  "debit_amount": 10156,
  "credit_amount": 0,
  "measure_id": 3,
  "bill_sums": [
    {
      "customer_id": "7b47a4c7ec764e1a94c5c2eb1a578e77",
      "resource_type_code": "",
      "region_code": null,
      "cloud_service_type_code": "hws.service.type.ebs",
      "consume_time": "2019-12",
      "pay_method": "",
      "consume_amount": 10212,
      "debt": 56,
      "discount": 0,
      "measure_id": 3,
      "bill_type": 0,
      "account_details": [
        {
          "balance_type_id": "BALANCE_TYPE_DEBIT",
          "deduct_amount": 10156
        },
        {
          "balance_type_id": "BALANCE_TYPE_CREDIT",
          "deduct_amount": 0
        },
        {
          "balance_type_id": "BALANCE_TYPE_BONUS",
          "deduct_amount": 0
        },
        {
          "balance_type_id": "BALANCE_TYPE_COUPON",
          "deduct_amount": 0
        },
        {
          "balance_type_id": "BALANCE_TYPE_DEBIT_RATE",
          "deduct_amount": 0
        },
        {
          "balance_type_id": "BALANCE_TYPE_FOREGIFT",
          "deduct_amount": 0
        }
      ]
    }
  ]
}
```

```
{
  {
    "balance_type_id": "BALANCE_TYPE_BE_AVAILABLE",
    "deduct_amount": 0
  },
  {
    "balance_type_id": "BALANCE_TYPE_OTHER",
    "deduct_amount": 0
  },
  {
    "balance_type_id": "BALANCE_TYPE_RCASH_COUPON",
    "deduct_amount": 0
  },
  {
    "balance_type_id": "WRITEOFFDEBT",
    "deduct_amount": 0
  },
  {
    "balance_type_id": "BALANCE_TYPE_STORED_VALUE_CARD",
    "deduct_amount": 0
  }
],
"discount_detail_infos": [],
"enterpriseProjectId": "0"
}
```

Status Code

NOTE

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

Status Code	Description
CBC.0000	Success.
CBC.0999	Other errors.
CBC.0151	Access denied.
CBC.0100	Parameter error.
CBC.0154	Token authentication failed.

11.3.2 Viewing Resource Usage Details (Old)

Function

This API can be used to query usage details of each resource for a customer on the self-built platform.

Note:

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

 NOTE

- This API will be taken offline. For details about the new API for querying resource usage details, see [Viewing Resource Usage Details](#).
- After a customer associates with an enterprise master in the unified accounting model, bill queries will return both bills before and after the association.
- You can query data from the past three years.

URI

GET /v1.0/{domain_id}/customer/account-mgr/bill/res-records

The following table describes the parameters.

Table 11-35 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 11-36 Request parameters

Parameter	Mandatory	Type	Maximum Length of Characters/Value Range	Description
cycle	Yes	String	A maximum of 8 characters	Billing cycle. The value is in "YYYY-MM" format. Example: 2020-01

Parameter	Mandatory	Type	Maximum Length of Characters/Value Range	Description
cloudServiceTypeCode	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 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 it is set to null, it can be used as a filter criterion. This parameter cannot be set to "".
resourceTypeCode	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 Querying Resource Types. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. If it is set to null, it can be used as a filter criterion. This parameter cannot be set to "".
regionCode	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. If this parameter is not included in the request parameters or is left empty, it cannot 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 "".

Parameter	Mandatory	Type	Maximum Length of Characters/Value Range	Description
resInstanceId	No	String	A maximum of 256 characters	Resource instance ID.
payMethod	Yes	String	A maximum of 4 characters	Payment method. The options are: • 0: Yearly/monthly • 1: Pay-per-use • 10: Reserved instance
enterpriseProjectId	No	String	A maximum of 64 characters	Enterprise project ID. • 0: ID of a default project • - 1: The service does not support enterprise project management. If this parameter is not included in the request parameters or is left empty, it cannot 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 "".
offset	Yes	Integer	[1-Maximum integer]	Page number.
limit	Yes	Integer	[1-1000]	Page limit.

Request

Request Parameters

None

Example Request

```
GET https://bss-intl.myhuaweicloud.com/v1.0/{domain_id}/customer/account-mgr/bill/res-records?
cycle=2019-06&payMethod=0&offset=1&limit=10 HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZlHvcNAQcCo...ggg1BBIINPXsidG9rZ
```

Response

Response Parameters

Parameter	Mandatory	Type	Maximum Length of Characters	Description
error_code	No	String	A maximum of 16 characters	Error code. For details, see Status Code . 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.
monthlyRecords	No	List<MonthlyRecord>	N/A	Resource usage record. For details, see Table 11-37 .
totalCount	No	Int	N/A	Number of result sets. This parameter is returned only when the query is successful.
currency	No	String	A maximum of 3 characters	Currency. USD

Table 11-37 MonthlyRecord

Parameter	Mandatory	Type	Maximum Length of Characters/Value Range	Description
cloudServiceTypeCode	No	String	A maximum of 256 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 Querying Cloud Service Types .

Parameter	Mandatory	Type	Maximum Length of Characters/Value Range	Description
regionCode	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 .
resourceTypeCode	No	String	A maximum of 256 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 Querying Resource Types .
resInstanceId	No	String	A maximum of 256 characters	Resource instance ID.
resourceName	No	String	-	Resource name. When creating a resource, a customer can enter the resource name. Some resource names can also be changed during resource management.
resourceTag	No	String	A maximum of 8,192 characters	Resource tag. Customers can set tags when managing resources.
consumeAmount	No	Number	-	Amount of expenditures of a customer on cloud services, including the cash coupons. The value of this parameter is accurate to two decimal places.
cycle	No	String	-	Expenditure month.
measureId	No	Integer	[1-2]	Unit. 1. USD 2. Cent

Parameter	Mandatory	Type	Maximum Length of Characters/Value Range	Description
enterpriseProjectId	No	String	-	Enterprise project ID. • 0: ID of a default project • null: The service does not support enterprise project management.
payMethod	No	String	[0-1]	Billing mode. 0 : Yearly/monthly 1 : Pay-per-use 10 : Reserved instance
officialAmount	No	Number	-	Standard price.

Example Response

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

```
{
  "monthlyRecords": [{
    "cloudServiceTypeCode": "hws.service.type.marketplace",
    "regionCode": "cn-north-1",
    "resourceTypeCode": "hws.resource.type.marketplace",
    "resInstanceId": null,
    "resourceName": null,
    "resourceTag": null,
    "consumeAmount": 0,
    "cycle": "2019-06",
    "measureId": 3,
    "enterpriseProjectId": null,
    "payMethod": "0",
    "officialAmount": 10
  },
  {
    "cloudServiceTypeCode": "hws.service.type.marketplace",
    "regionCode": "cn-north-1",
    "resourceTypeCode": "hws.resource.type.marketplace",
    "resInstanceId": "00*****aae",
    "resourceName": null,
    "resourceTag": null,
    "consumeAmount": 600,
    "cycle": "2019-06",
    "measureId": 3,
    "enterpriseProjectId": null,
    "payMethod": "0",
    "officialAmount": 10
  },
  {
    "cloudServiceTypeCode": "hws.service.type.ebs",
```

```
"regionCode": "cn-north-1",
"resourceTypeCode": "hws.resource.type.volume",
"resInstanceId": "005*****1b8c",
"resourceName": null,
"resourceTag": null,
"consumeAmount": 10000,
"cycle": "2019-06",
"measureId": 3,
"enterpriseProjectId": "0",
"payMethod": "0",
    "officialAmount": 10
},
{
    "cloudServiceTypeCode": "hws.service.type.ebs",
    "regionCode": "cn-north-1",
    "resourceTypeCode": "hws.resource.type.volume",
    "resInstanceId": "06c*****88a",
    "resourceName": null,
    "resourceTag": null,
    "consumeAmount": 10000,
    "cycle": "2019-06",
    "measureId": 3,
    "enterpriseProjectId": "0",
    "payMethod": "0",
        "officialAmount": 10
},
{
    "cloudServiceTypeCode": "hws.service.type.ebs",
    "regionCode": "cn-north-1",
    "resourceTypeCode": "hws.resource.type.volume",
    "resInstanceId": "08*****23",
    "resourceName": null,
    "resourceTag": null,
    "consumeAmount": 9500,
    "cycle": "2019-06",
    "measureId": 3,
    "enterpriseProjectId": "0",
    "payMethod": "0",
        "officialAmount": 10
},
{
    "cloudServiceTypeCode": "hws.service.type.marketplace",
    "regionCode": "cn-north-7",
    "resourceTypeCode": "hws.resource.type.marketplace",
    "resInstanceId": "0fa*****21e",
    "resourceName": null,
    "resourceTag": null,
    "consumeAmount": 400,
    "cycle": "2019-06",
    "measureId": 3,
    "enterpriseProjectId": null,
    "payMethod": "0",
        "officialAmount": 10
},
{
    "cloudServiceTypeCode": "hws.service.type.ebs",
    "regionCode": "cn-north-1",
    "resourceTypeCode": "hws.resource.type.volume",
    "resInstanceId": "0ff*****04d",
    "resourceName": null,
    "resourceTag": null,
    "consumeAmount": 10000,
    "cycle": "2019-06",
    "measureId": 3,
    "enterpriseProjectId": "0",
    "payMethod": "0",
        "officialAmount": 10
},
{
```

```
{
  "cloudServiceTypeCode": "hws.service.type.ebs",
  "regionCode": "cn-north-1",
  "resourceTypeCode": "hws.resource.type.volume",
  "resInstanceId": "1b92****8c2",
  "resourceName": null,
  "resourceTag": null,
  "consumeAmount": 10000,
  "cycle": "2019-06",
  "measureId": 3,
  "enterpriseProjectId": "0",
  "payMethod": "0",
  "officialAmount": 10
},
{
  "cloudServiceTypeCode": "hws.service.type.marketplace",
  "regionCode": "cn-north-1",
  "resourceTypeCode": "hws.resource.type.marketplace",
  "resInstanceId": "1e4****6a1",
  "resourceName": null,
  "resourceTag": null,
  "consumeAmount": 600,
  "cycle": "2019-06",
  "measureId": 3,
  "enterpriseProjectId": null,
  "payMethod": "0",
  "officialAmount": 10
},
{
  "cloudServiceTypeCode": "hws.service.type.ebs",
  "regionCode": "cn-north-1",
  "resourceTypeCode": "hws.resource.type.volume",
  "resInstanceId": "295****448a1",
  "resourceName": null,
  "resourceTag": null,
  "consumeAmount": 10000,
  "cycle": "2019-06",
  "measureId": 3,
  "enterpriseProjectId": "0",
  "payMethod": "0",
  "officialAmount": 10
}
],
"totalCount": 33,
"currency": "USD"
}
```

Status Code

NOTE

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

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

11.3.3 Viewing Resource Expenditures (Old)

Function

This API can be used to query expenditures of each resource for a customer on the self-built platform.

Note:

- This API can be invoked only using the AK/SK or token of the customer.
- This API can be used to query resource expenditure records generated in the same month.
- Customers can use this API to query resource expenditures, but enterprise members cannot.

NOTE

- This API will be brought offline. For details about the new API for querying resource expenditures, see [Viewing Resource Expenditures](#).
- You can query data from the past three years.

URI

GET /v1.0/{domain_id}/customer/account-mgr/bill/res-fee-records

The following table describes the parameters.

Table 11-38 URI parameters

Parameter	Mandatory	Maximum Length of Characters	Description
domain_id	Yes	A maximum of 64 characters	Customer account ID. For details about how to obtain the customer account ID, see How Do I Obtain customer_id or domain_id?

Table 11-39 Request parameters

Parameter	Mandatory	Type	Maximum Length of Characters	Description
startTime	Yes	String	A maximum of 10 characters	Start time. The format is <i>yyyy-MM-dd</i> . NOTE The start time and end time must be in the same month.
endTime	Yes	String	A maximum of 10 characters	End time. The format is <i>yyyy-mm-dd</i> . NOTE The start time and end time must be in the same month.
cloudServiceTypeCode	No	String	A maximum of 256 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 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 it is set to null , it can be used as a filter criterion. This parameter cannot be set to "".
regionCode	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 . If this parameter is not included in the request parameters or is left empty, it cannot 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 "".

Parameter	Mandatory	Type	Maximum Length of Characters	Description
orderId	No	String	A maximum of 64 characters	Order ID. If this parameter is not included in the request parameters or is left empty, it cannot be used as a filter criterion. If it is set to null , it can be used as a filter criterion. This parameter cannot be set to "".
payMethod	Yes	String	A maximum of 4 characters	Payment method. The options are: 0 : Yearly/monthly 1 : Pay-per-use
offset	No	Integer	[1-Maximum integer]	Page number. If this parameter is not included in the request parameters, the value 1 is used. It cannot be set to "" or null , and cannot be left empty.
limit	No	Integer	[1-100]	Number of records on each page. If this parameter is not included in the request parameters, the value 10 is used. It cannot be set to "" or null , and cannot be left empty.
resourceId	No	String	A maximum of 256 characters	Resource ID, If this parameter is not included in the request parameters or is left empty, it cannot 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 "".

Parameter	Mandatory	Type	Maximum Length of Characters	Description
enterpriseProjectId	No	String	A maximum of 64 characters	Enterprise project ID. • 0: ID of a default project • - 1: The service does not support enterprise project management. If this parameter is not included in the request, it cannot 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 "".

Request

Request Parameters

None

Example Request

```
GET https://bss-intl.myhuaweicloud.com/v1.0/{domain_id}/customer/account-mgr/bill/res-fee-records?
startTime=2019-08-01&endTime=2019-08-31&payMethod=0&cloudServiceTypeCode=hws.service.type.ebs&r
egionCode=cn-
north-1&orderId=orderId&offset=1&limit=10&resourceId=hws.service.type.ebs&enterpriseProjectId=pjzV4N9U
q1LWMUgh3fYAhJqUbtD6Ad8yALoRJeDoYGl0jWdZoS8UHbcGBqEin1la HTTP/1.1
Content-Type: application/json
X-Auth-Token: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ
```

Response

Response Parameters

Parameter	Type	Maximum Length of Characters	Description
error_code	String	A maximum of 16 characters	Error code. For details, see Status Code . 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	Maximum Length of Characters	Description
feeRecords	List<ResFeeRecord>	-	Resource usage record. For details, see Table 11-40 .
totalCount	Integer	-	Number of result sets. This parameter is returned only when the query is successful.
currency	String	A maximum of 3 characters	Currency. USD

Table 11-40 ResFeeRecord

Parameter	Type	Maximum Length of Characters	Description
createTime	String	A maximum of 32 characters	Time when a fee record is generated.
effectiveTime	String	A maximum of 32 characters	Start time of using the resource corresponding to the fee. This field is valid only when the resource is billed on a pay-per-use basis. It is reserved for resources billed on a yearly/monthly basis.
expireTime	String	A maximum of 32 characters	End time of using the resource corresponding to the fee. This field is valid only when the resource is billed on a pay-per-use basis. It is reserved for resources billed on a yearly/monthly basis.
feeld	String	A maximum of 64 characters	Fee SN.
productId	String	A maximum of 64 characters	Product ID.

Parameter	Type	Maximum Length of Characters	Description
productName	String	A maximum of 256 characters	Product name.
orderId	String	A maximum of 64 characters	Order ID. This field is available only for usage records of yearly/monthly resources. This field is left empty for pay-per-use resources.
amount	Number	-	Consumption amount, including the amount of cash coupons. The value is accurate to two decimal places.
measureId	Integer	-	Unit. 1. USD 2. Cent
usageAmount	Number	-	Usage.
usageMeasureId	Integer	-	Usage unit. You can call the API in Querying Measurement Units to obtain the value.
freeResourceAmount	Number	-	Package usage.
freeResourceMeasureId	Integer	-	Unit of the package usage. You can call the API in Querying Measurement Units to obtain the value.
cloudServiceTypeCode	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 Querying Cloud Service Types .
regionCode	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 .
resourceTypeCode	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 Querying Resource Types .

Parameter	Type	Maximum Length of Characters	Description
payMethod	String	A maximum of 32 characters	Payment method. The options are: 0 : Yearly/monthly 1 : Pay-per-use
projectId	String	A maximum of 64 characters	Project ID.
projectName	String	A maximum of 256 characters	Project name.
resourceTag	String	A maximum of 8,192 characters	Resource tag.
resourceName	String	A maximum of 256 characters	Resource name.
resourceId	String	A maximum of 128 characters	Resource ID.

Parameter	Type	Maximum Length of Characters	Description
feeSourceOperation	Integer	-	Order Type 1: Subscription 2: Renewal 3: Change 4: Unsubscription 5: Pay-per-use 6: Discount 7: Special offer 8: Free 9: Huawei write-offs 17: Expenditure - difference amount (min. guaranteed-actual) 19: Change - specifications upgrade 20: Refund - change (entire server) 21: Refund - change (specification downgrade)
enterpriseProjectId	String	A maximum of 128 characters	Enterprise project ID. ● 0: ID of a default project ● null: The service does not support enterprise project management.
periodType	String	-	Period type. The value can be: 19: Year 20: Month 24: Day 25: Hour 5: Minute 6: Second
spot	String	A maximum of 64 characters	Spot instance ID. 2 indicates that the resource is a spot instance.
rAmount	Number	-	Reserved instance usage.
rMeasureId	Integer	-	Unit (reserved instance usage).
officialAmount	Number	-	Standard price.

Example Response

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

{
  "totalCount": 1,
  "currency": "USD",
  "feeRecords": [{
    "createTime": null,
    "effectiveTime": null,
    "expireTime": null,
    "feeld": null,
    "productId": null,
    "productName": null,
    "orderId": "orderId",
    "amount": null,
    "measureId": 0,
    "usageAmount": null,
    "usageMeasureId": 0,
    "freeResourceAmount": null,
    "freeResourceMeasureId": 0,
    "cloudServiceTypeCode": "hws.service.type.ebs",
    "regionCode": "cn-north-1",
    "resourceTypeCode": null,
    "payMethod": "0",
    "projectId": "04f480425980d32a2f04c018d3326097",
    "projectName": null,
    "resourcetag": null,
    "resourceName": null,
    "resourceId": null,
    "feeSourceOperation": 0,
    "periodType": null,
    "enterpriseProjectId":
"pjzV4N9Uq1LWMUgh3fYAhJqUbtd6Ad8yALoRJeDoYGl0jWdZoS8UHbcGBqEin1Ia",
    "spot": null,
    "rlAmount": null,
    "rlMeasureId": 0,
    "officialAmount": 10
  }]
}
```

Status Code

NOTE

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

HTTP Status Code	Error Code	Description
400	CBC.0100	Incorrect parameter.
403	CBC.0151	Access denied.

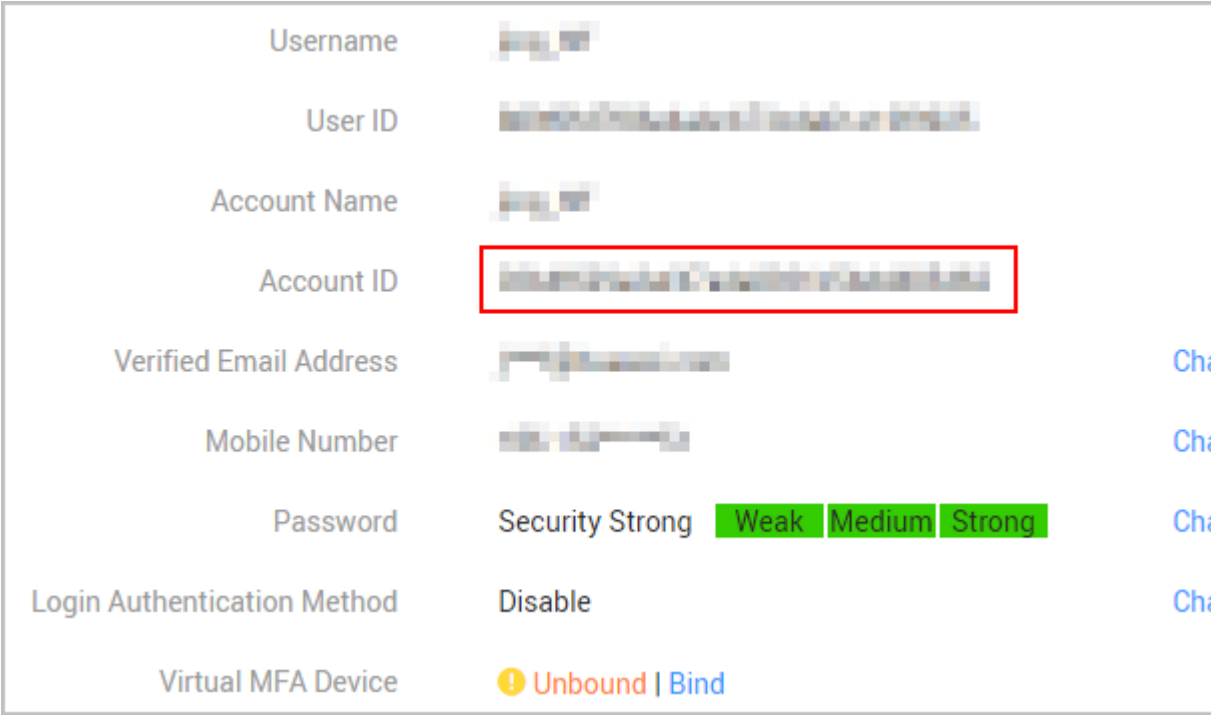
HTTP Status Code	Error Code	Description
500	CBC.0999	Unknown error.

12 Appendix

12.1 How Do I Obtain customer_id or domain_id?

You can sign in to Huawei Cloud and obtain **customer_id** from the **My Credential** page.

Visit **My Credential** at <https://console-intl.huaweicloud.com/iam/#/myCredential>.



12.2 Support for Discounts or Coupons

When a customer invokes the interface described in [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](#).

12.3 Status Codes and Retry Policies

 NOTE

To ensure reliability, the API call success rate should hit 99.99%. If errors arise during API access, it is recommended to implement a retry strategy. For short-term issues, retry up to three times within six hours. For persistent problems, attempt one retry at an interval of one minute over the same period.

[Table 12-1](#) describes the HTTP status codes and retry policies.

Table 12-1 HTTP status codes and retry policies

Status Code	Message	Description	Retr y Polic y
100	Continue	Continue sending requests. This temporary response is used to inform the client that initial part of the request has been received and has not yet been rejected by the server.	Retr y up to three time s withi n six hour s.
101	Switching Protocols	Switching protocols. The target protocol must be more advanced than the original one. For example, the protocol in use is switched to a later version of HTTP.	Retr y is not perf orm ed.
200	OK	The request was successfully processed. It is generally used for GET and POST requests.	Retr y is not perf orm ed.

Status Code	Message	Description	Retry Policy
201	Created	The request has been fulfilled and has resulted in one or more new resources being created.	Retry is not performed.
202	Accepted	The request has been accepted for processing, but the processing has not been completed.	Retry is not performed.
203	Non-Authoritative Information	The request was successful but the response has been modified by a transforming proxy.	Retry is not performed.
204	NoContent	The server has successfully fulfilled the request, but did not return any response body. The status code is returned in response to an HTTP OPTIONS request.	Retry is not performed.
205	Reset Content	The server has fulfilled the request and requires the client to reset the content.	Retry is not performed.
206	Partial Content	The server has fulfilled a range GET request.	Retry up to three times within six hours

Status Code	Message	Description	Retry Policy
300	Multiple Choices	There are multiple options for 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.	Retry is not performed.
301	Moved Permanently	The requested resource has been assigned with a new permanent URI. This new URI is contained in the response.	Retry is not performed.
302	Found	The requested resource resides temporarily under a different URI.	Retry is not performed.
303	See Other	The response to the request can be found under a different URI. It is expected to be accessed using a GET or POST method.	Retry is not performed.
304	Not Modified	The requested resource has not been modified. When the server returns this status code, it does not return any resources.	Retry is not performed.
305	Use Proxy	The requested resource must be accessed through a proxy.	Retry is not performed.
306	Unused	This HTTP status code is no longer used.	Retry is not performed.

Status Code	Message	Description	Retry Policy
400	BadRequest	Invalid request. Modify the request and retry.	Retry is not performed.
401	Unauthorized	The status code is returned after the client provides the authentication information, indicating that the authentication information is incorrect or invalid.	Retry up to three times within six hours
402	Payment Required	This status code is reserved for future use.	Retry is not performed.
403	Forbidden	The request has been rejected. The server has received and understood the request; yet it refused to respond, because the request is set to deny access. Do not retry the request before modification.	Retry is not performed.
404	NotFound	The requested resource could not be found. Modify the request and retry.	Retry is not performed.
405	MethodNotAllowed	The request contains one or more methods not supported by the resource. Modify the request and retry.	Retry is not performed.

Status Code	Message	Description	Retry Policy
406	Not Acceptable	The server cannot fulfill the request according to the content characteristics of the request.	Retry is not performed.
407	Proxy Authentication Required	This status code is similar to 401, but the client must be authenticated using a proxy.	Retry is not performed.
408	Request Time-out	The client does not produce a request within the time that the server was prepared to wait. The client may repeat the request without modifications at any time later.	Attempt one retry at an interval of one minute within six hours.
409	Conflict	The request cannot be processed due to a conflict. The resource that the client attempts to create already exists, or the request fails to be processed because of the update of the conflict request.	Retry is not performed.
410	Gone	The requested resource is no longer available. The requested resource has been deleted permanently.	Retry is not performed.

Status Code	Message	Description	Retry Policy
411	Length Required	The server fails to process the request which does not contain the Content-Length header field.	Retry is not performed.
412	Precondition Failed	The server does not meet one of the requirements that the requester puts on the request.	Retry is not performed.
413	Request Entity Too Large	The request is larger than that the server can process. The server may close the connection to prevent the client from continuously sending the request. If the server cannot process the request temporarily, the response will contain a Retry-After header field.	Retry is not performed.
414	Request-URI Too Large	The Request-URI is too long for the server to process.	Retry is not performed.
415	Unsupported Media Type	The server cannot process the media format in the request.	Retry is not performed.
416	Requested range not satisfiable	The requested range is invalid.	Retry is not performed.
417	Expectation Failed	The server fails to meet the requirements of the Expect request header field.	Retry is not performed.

Status Code	Message	Description	Retry Policy
422	UnprocessableEntity	The request is well-formed but is unable to be processed due to semantic errors.	Retry is not performed.
429	TooManyRequests	Too many requests have been made within the allowed time. In this case, the client should retry after the time period specified in the Retry-After response header.	Attempt one retry at an interval of one minute within six hours.
500	InternalServerError	The server is able to receive the request but unable to understand it.	Attempt one retry at an interval of one minute within six hours.
501	Not Implemented	The server does not support the function required to fulfill the request.	Retry is not performed.

Status Code	Message	Description	Retry Policy
502	Bad Gateway	The server was acting as a gateway or proxy and received an invalid request from a remote server.	Attempt one retry at an interval of one minute within six hours.
503	ServiceUnavailable	The requested service is invalid. Modify the request and retry.	Retry is not performed.
504	ServerTimeout	The request cannot be fulfilled within a given amount of time. The response will reach the client only if the request carries a timeout parameter.	Attempt one retry at an interval of one minute within six hours.
505	HTTP Version not supported	The server does not support the HTTP protocol version used in the request.	Retry is not performed.

12.4 Error Codes

Function Description

This section describes the error code and message for the operational APIs provided by Huawei Cloud for customers.

NOTICE

- **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.

Error Code Structure Format

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

Error Codes

Table 12-2 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.18000016	Insufficient permissions. Contact your associated partner.	Insufficient permissions. Contact your partner.
400	CBC.18000048	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.

Status Code	Error Code	Error Message	Description
200	CBC.3006	Unsupported cloud service type.	Unsupported cloud service type.
200	CBC.3016	Expired resources exist.	Expired resources exist.
200	CBC.30050007	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.30050008	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.30050009	The resources do not exist or has been deleted due to expiration.	The resources have expired and been deleted or do not exist.
200	CBC.30050010	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.30050011	The resources are being unsubscribed from or changed.	Resources are being unsubscribed from or changed.
200	CBC.30050013	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.

Status Code	Error Code	Error Message	Description
200	CBC.3144	Operation not supported. There is an order in progress for this resource.	You have orders in progress and cannot perform the current operation.
200	CBC.3128	The resource does not have renewed periods or its renewed periods have taken effect, and the renewal periods cannot be unsubscribed from.	The resource does not have renewed periods or its renewed periods have taken effect, and the renewal periods cannot be unsubscribed from.
200	CBC.3141	Cloud service quota or capacity is insufficient, or the resource specifications have changed.	Cloud service quota or capacity is insufficient, or the resource specifications have changed.
200	CBC.3155	Insufficient enterprise project fund quota, or invalid project.	Insufficient enterprise project fund quota, or invalid project.
200	CBC.3162	The add-on package you purchased does not meet payment requirements.	The add-on package you purchased does not meet payment requirements.
200	CBC.3185	The cloud service can only be 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.

Status Code	Error Code	Error Message	Description
400	CBC.50000030	Setting budgets not supported. This reseller's budget quota is insufficient.	Setting budgets not supported. This reseller's budget quota is insufficient.
400	CBC.50000033	Budget setting permissions have been revoked. This reseller cannot set budgets.	Budget setting permissions have been revoked. This reseller cannot set budgets.
200	CBC.5023	The account type does not match the association type.	The account type does not match the association type.
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.
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.

Status Code	Error Code	Error Message	Description
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.5003	Insufficient balance.	Insufficient balance.
400	CBC.50010085	Customer association not allowed. The account of this partner has been restricted.	Customer association not allowed. The account of this partner has been restricted.

Status Code	Error Code	Error Message	Description
400	CBC.50010086	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.50010120	Customer development not supported. There are no credits granted for the partner.	Customer development not supported. There are no credits granted for the partner.
400	CBC.70600026	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.70900002	You can only create an enterprise member account through the HIS platform.	You can only create an enterprise member account through the HIS platform.
400	CBC.99000004	An exception occurred when the customer authorized rights to the partner.	An exception occurred when the customer authorized rights to the partner.
400	CBC.99000026	Incorrect verification code.	Incorrect verification code.
400	CBC.99000027	Expired verification code.	Expired verification code.
400	CBC.99000028	The email address already exists.	Invalid email address. Email already in-use.
400	CBC.99000031	Invalid DomainName.	Invalid DomainName.

Status Code	Error Code	Error Message	Description
400	CBC.99000032	Invalid email address.	Invalid email address.
400	CBC.99000034	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.99000036	Invalid password.	Invalid password.
400	CBC.99000037	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.99000038	The account name already exists.	The account name already exists.
400	CBC.99000039	xAccountId exists.	Duplicate xAccountId.
400	CBC.99000046	Insufficient budget.	Insufficient budget.
400	CBC.99000049	BindType cannot be resale.	The customer associated in Reseller model has no account balance.
400	CBC.99000082	You have exceeded the maximum verification code requests allowed.	Maximum verification code requests reached.
400	CBC.99000088	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.99000089	The current operation can only be performed on combined orders.	Operation failed. Sub-orders of a combine order cannot be processed independently.

Status Code	Error Code	Error Message	Description
400	CBC.99000092	Incorrect subscription period.	Incorrect subscription period.
400	CBC.99003004	The resource has dependencies.	The resource has dependencies.
400	CBC.99003012	The resource ID does not exist.	The resource ID does not exist.
400	CBC.99003016	The resources have expired and been deleted or do not exist.	The resources have expired and been deleted or do not exist.
400	CBC.99003100	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.99003106	The order status has changed and no payment can be made.	The order status has changed and no payment can be made.
400	CBC.99003108	Unavailable discount.	Unavailable discount.
400	CBC.99003110	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.99003112	The coupon or stored-value card has been used.	The coupon or stored-value card has been used.
400	CBC.99003115	An error occurred. Try again later.	An error occurred. Try again later.
400	CBC.99003116	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 43	The product in this order is no longer available.	The product in this order is no longer available.
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.

Status Code	Error Code	Error Message	Description
400	CBC.99003147	Discounts and cash coupons cannot be used together.	Discounts and cash coupons cannot be used together.
400	CBC.99003151	This discount cannot be used together with other discounts.	This discount cannot be used together with other discounts.
400	CBC.99003154	The sum of the existing and renewal durations has exceeded the maximum. Select another renewal duration.	Subscription plus renewal too long. Select shorter renewal.
400	CBC.99003155	Insufficient enterprise project fund quota, or invalid project.	Insufficient enterprise project fund quota, or invalid project.
400	CBC.99003156	Coupons applicable to KooGallery products cannot be used together with dedicated coupons.	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.	The payment time must be earlier than the specified effective time.
400	CBC.99003185	The cloud service can only be unsubscribed from as a whole.	The cloud service can only be unsubscribed from as a whole.
400	CBC.99003198	Insufficient organization budget.	Insufficient budget of the organization.
400	CBC.99003602	Automatic renewal is not supported for expired or frozen resources.	Automatic renewal is not supported for expired or frozen resources.

Status Code	Error Code	Error Message	Description
400	CBC.99003605	The automatic renewal has been canceled. The current operation cannot be performed.	Automatic renewal has been canceled and you cannot perform the current operation.
400	CBC.99003609	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.99003610	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.99003611	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.99003622	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.99003623	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.99003624	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.

Status Code	Error Code	Error Message	Description
400	CBC.99003626	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.99003631	Unsubscribed,deleted, and released resources cannot be renewed.	Resources that are being unsubscribed, deleted, or released cannot be renewed.
400	CBC.99003634	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.99003638	Subscription to bandwidth add-on packages cannot be renewed.	Subscription to bandwidth add-on packages cannot be renewed.
400	CBC.99003643	Unsubscription not allowed for cloud services that have been invoiced.	For cloud services for which invoices have been issued, unsubscription is not supported.
400	CBC.99003645	Unsubscription not supported for the service type of the resource.	Unsubscription not supported for this cloud service type.
400	CBC.99003647	Unsubscription not supported for this pay-per-use package.	Unsubscription not supported for this pay-per-use package.
400	CBC.99003649	Unsubscription not supported for cloud services in trial use.	Unsubscription not supported for cloud services in trial use.
400	CBC.99003650	Unsubscription not supported for this cloud service from the KooGallery.	Unsubscription not supported for this cloud service in KooGallery.

Status Code	Error Code	Error Message	Description
400	CBC.99003651	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.99003652	Unsubscription is not supported for DevCloud packages.	Unsubscription is not supported for DevCloud packages.
400	CBC.99003654	This renewal period cannot be canceled because it includes an add-on bandwidthpackage.	If there is a bandwidth add-on package, you cannot unsubscribe from the renewal period.
400	CBC.99003656	Operation not allowed. Your account has been frozen.	Operation not allowed. Your resource has been frozen.
400	CBC.99004007	Failed to verify the email address.	Failed to verify the email address.
400	CBC.99004008	Invalid verification code.	Invalid verification code.
400	CBC.99004009	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.99004010	The verification code entered is incorrect.	The verification code entered is incorrect.
400	CBC.99005003	Your balance is insufficient.	Insufficient balance.
400	CBC.99005010	Orders in this state cannot be canceled.	Orders in this state cannot be canceled.

Status Code	Error Code	Error Message	Description
400	CBC.99005036	The customer does not support payment via interface.	The customer does not support payment via interface.
400	CBC.99005026	The order is not a degrade or unsubscription order.	The order is not a degrade or unsubscription order.
400	CBC.99005042	The resource cannot be found or unsubscribed from.	The resource cannot be found or unsubscribed from.
400	CBC.99006006	Product not found.	Product not found.
400	CBC.99006016	Failed to query coupon information.	Failed to query coupon information.
400	CBC.99006017	Failed to query customer details.	Failed to query customer information.
400	CBC.99006024	Failed to query product information.	Failed to query product information.
400	CBC.99006050	Incorrect usage measurement unit.	Incorrect usage unit
400	CBC.99006055	The queried amount exceeds the upper limit.	The queried amount exceeds the upper limit.
400	CBC.99006066	An error occurred during the query of the fee information.	An error occurred during the query of the fee information.
400	CBC.99006073	Project not found.	Project not found.
400	CBC.99006074	The billing item does not exist.	The billing item does not exist.
400	CBC.99006093	Failed to obtain tax rate information.	Failed to obtain the tax rate.

Status Code	Error Code	Error Message	Description
400	CBC.99008040	Too many attempts.	Too many attempts.
400	CBC.99008056	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.
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.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.7228	Invalid password.	Invalid password.

12.5 SDK Overview

This document provides the SDKs of different programming languages for customer operations 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 customer operations. You can view SDK updates, obtain installation packages, and view user guides in GitHub.

Table 12-3 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
.NET	huaweicloud-sdk-net-v3	.Net SDK Usage Guide
PHP	huaweicloud-sdk-php-v3	PHP SDK User Guide'

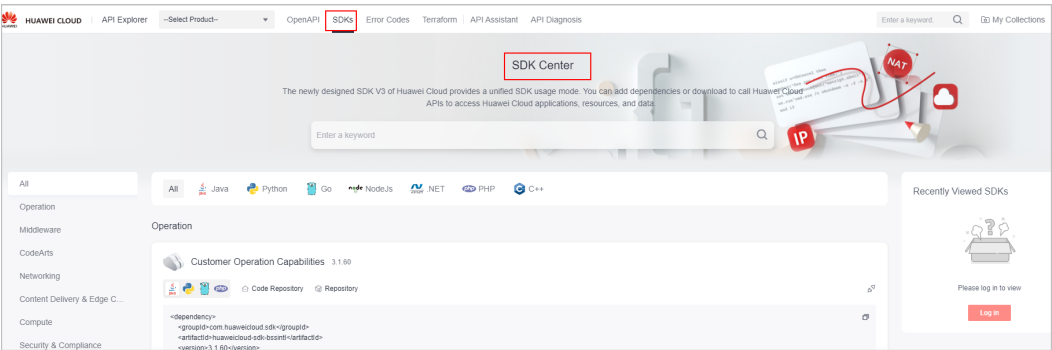
12.6 SDK-related FAQ

How Do I Update the SDK Version?

The SDK version will be updated accordingly after a product is updated. If the current version is not the latest, you are advised to update the SDK version.

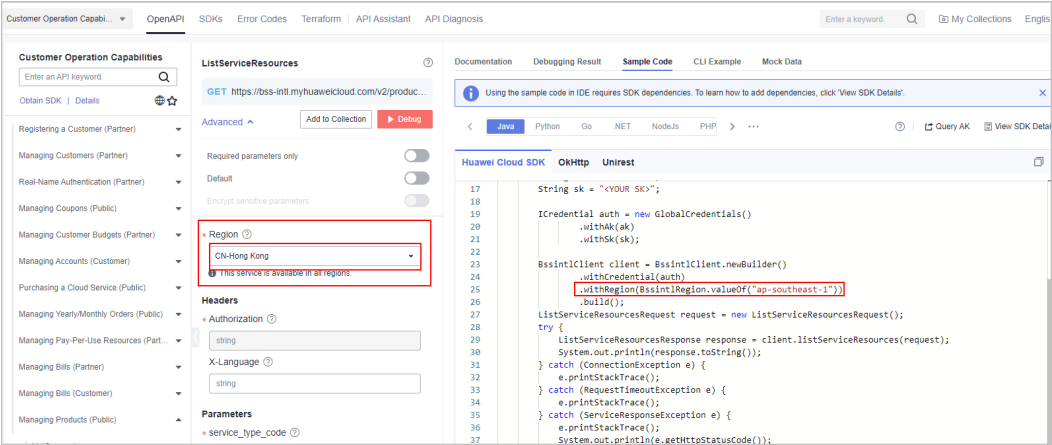
Log in to [SDK Center](#). You can access and use the SDK V3.

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.



12.7 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

IANA Code	IANA Cipher Suite	Security Level
0x00,0xA9	TLS_PSK_WITH_AES_256_GCM_SHA384	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_POLY1305_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_GCM_SHA256	High
0xC0,0x30	TLS_ECDHE_RSA_WITH_AES_256_GCM_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_GCM_SHA256	High
0xD0,0x02	TLS_ECDHE_PSK_WITH_AES_256_GCM_SHA384	High
0xD0,0x05	TLS_ECDHE_PSK_WITH_AES_128_CCM_SHA256	High
0xC0,0x9E	TLS_DHE_RSA_WITH_AES_128_CCM	High
0xC0,0x9F	TLS_DHE_RSA_WITH_AES_256_CCM	High
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

IANA Code	IANA Cipher Suite	Security Level
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

12.8 Price Inquiry API Guide

12.8.1 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

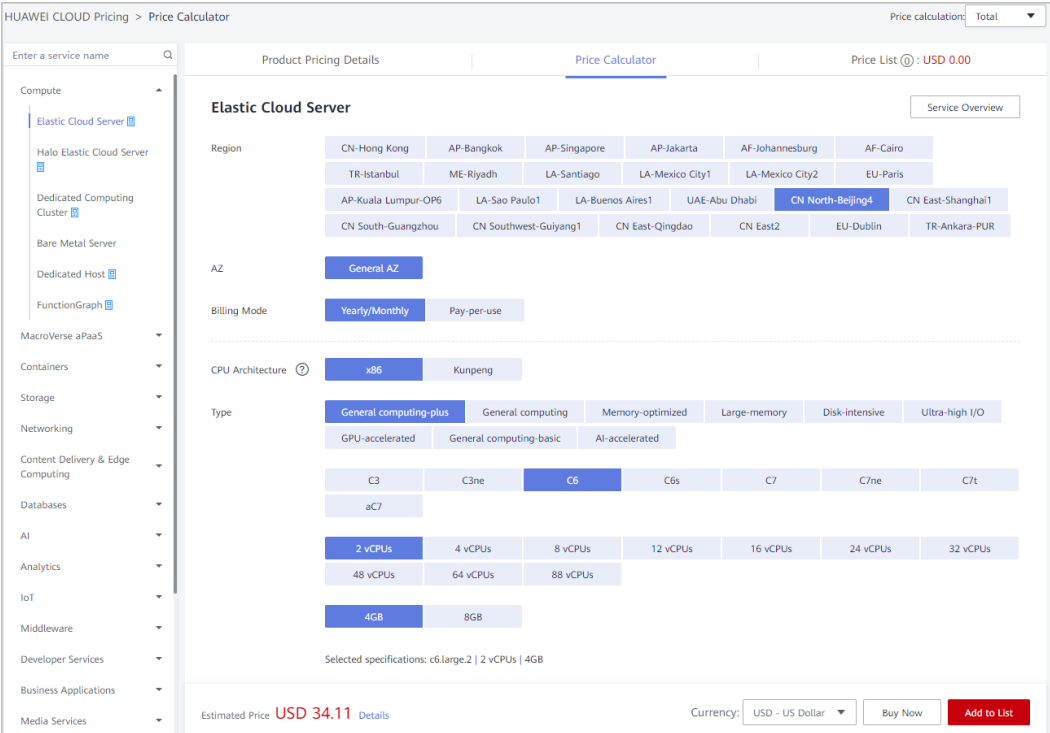
Type: General computing-plus C6 | 2 vCPUs | 4 GB

System Disk: General Purpose SSD 40 GB

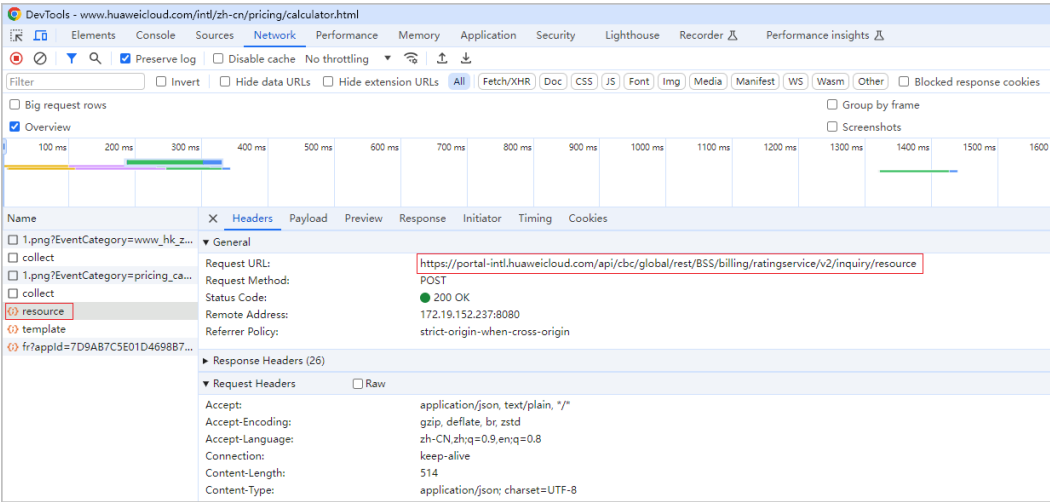
Required Duration: 1 Month

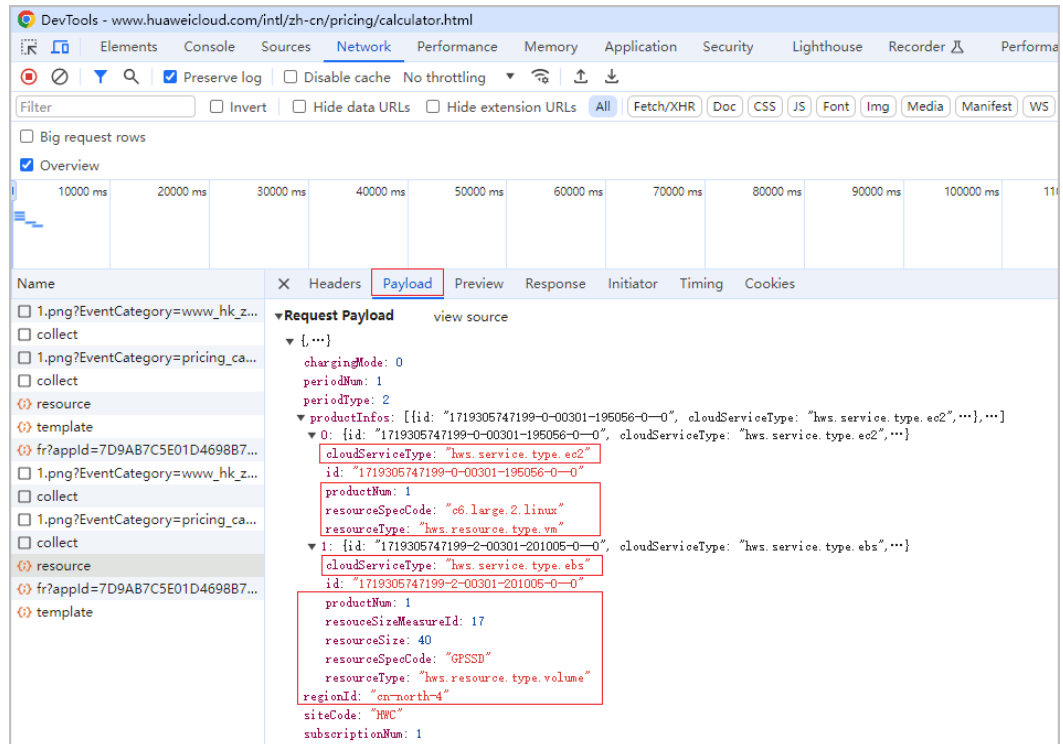
Quantity: 1

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.



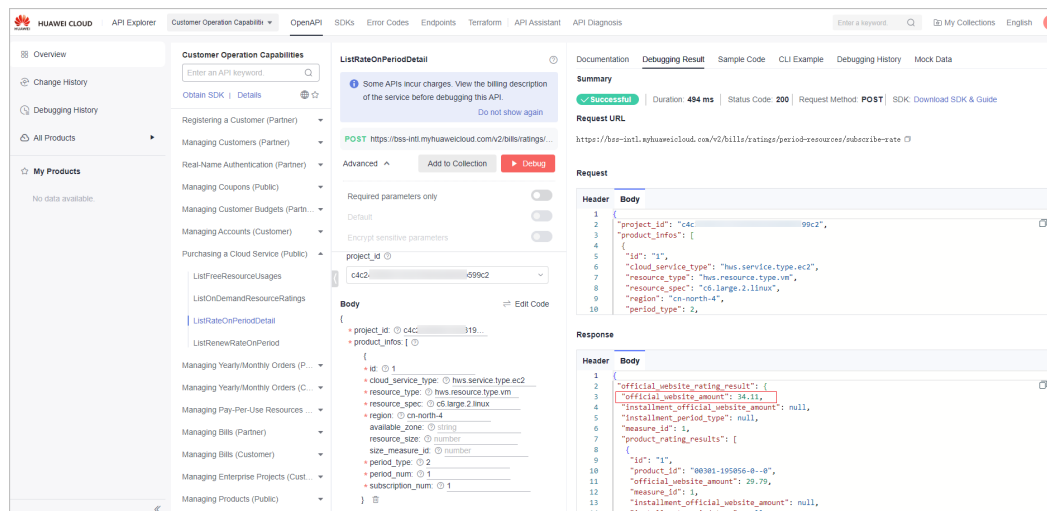


Step 3 Add the parameters obtained in **Step 2** to the request.

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": "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

12.8.2 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.

HUAWEI CLOUD Pricing > Price Calculator

Price calculation: Total

Enter a service name

Compute

- Elastic Cloud Server
- Halo Elastic Cloud Server
- Dedicated Computing Cluster
- Bare Metal Server
- Dedicated Host
- FunctionGraph

MacroVerse aPaaS

Containers

Storage

Networking

Content Delivery & Edge Computing

Databases

AI

Analytics

IoT

Middleware

Developer Services

Business Applications

Media Services

Product Pricing Details

Price Calculator

Price List @ : USD 0.00

Service Overview

Elastic Cloud Server

Region

CN-Hong Kong	AP-Bangkok	AP-Singapore	AP-Jakarta	AF-Johannesburg	AF-Cairo
TR-Istanbul	ME-Riyadh	LA-Santiago	LA-Mexico City1	LA-Mexico City2	EU-Paris
AP-Kuala Lumpur-OP6	LA-Sao Paulo1	LA-Buenos Aires1	UAE-Abu Dhabi	CN North-Beijing4	CN East-Shanghai1
CN South-Guangzhou	CN Southwest-Guiyang1	CN East-Qingdao	CN East2	EU-Dublin	TR-Ankara-PUR

AZ

General AZ

Billing Mode

Yearly/Monthly Pay-per-use

CPU Architecture

x86 Kunpeng

Type

General computing-plus General computing Memory-optimized Large-memory Disk-intensive Ultra-high I/O

GPU-accelerated General computing-basic AI-accelerated

C3	C3ne	C6	C6s	C7	C7ne	C7t
aC7						

2 vCPUs 4 vCPUs 8 vCPUs 12 vCPUs 16 vCPUs 24 vCPUs 32 vCPUs

48 vCPUs 64 vCPUs 88 vCPUs

4GB 8GB

Selected specifications: c6.large.2 | 2 vCPUs | 4GB

Estimated Price USD 0.07 Details

Currency: USD - US Dollar Buy Now Add to List

Step 2 Click **Network > resource > Payload** to view request parameters.

DevTools - www.huaweicloud.com/pricing/calculator.html

Elements Console Sources Network Performance Memory Application Security Lighthouse Recorder Performance insights

Filter

Preserve log Disable cache No throttling

Fetch/XHR Doc CSS JS Font Img Media Manifest WS Wasm Other Blocked response cookies

Big request rows

Overview

100 ms 200 ms 300 ms 400 ms 500 ms 600 ms 700 ms 800 ms 900 ms 1000 ms 1100 ms 1200 ms 1300 ms 1400 ms 1500 ms 1600 ms

Name X Headers Payload Preview Response Initiator Timing Cookies

1.png?EventCategory=www_chin...
1.png?EventCategory=pricing_ca...
resource
template
fr7appId=7D9AB7C5E01D4698B7...

General

Request URL: https://portal.huaweicloud.com/api/cbc/global/rest/BSS/billing/ratingservice/v2/inquiry/resource

Request Method: POST

Status Code: 200 OK

Remote Address: 172.19.152.237:8080

Referrer Policy: strict-origin-when-cross-origin

Response Headers (26)

Request Headers

:authority: portal.huaweicloud.com

:method: POST

:path: /api/cbc/global/rest/BSS/billing/ratingservice/v2/inquiry/resource

:scheme: https

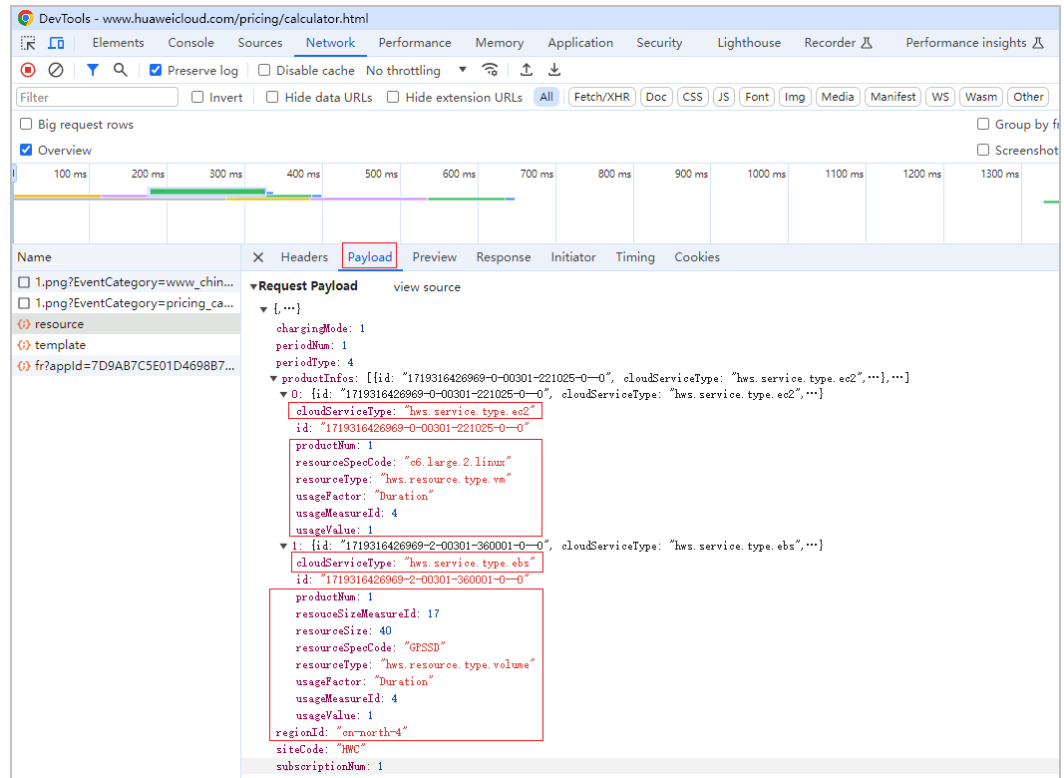
Accept: application/json, text/plain, */*

Accept-Encoding: gzip, deflate, br, zstd

Accept-Language: zh-CN,zh;q=0.9,en;q=0.8

Content-Length: 632

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



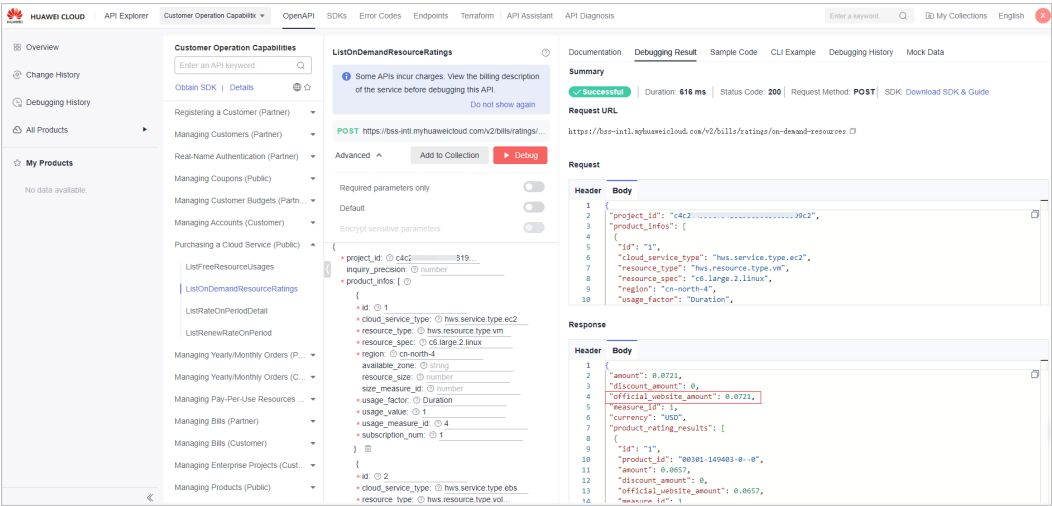
Step 3 Add the parameters obtained in **Step 2** to the request.

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    }  ]}
```

 NOTE

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