## **ROMA Connect**

## **Billing Description**

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## Overview

In this document, you will learn about the billing modes, billing items, renewal, and arrears of ROMA Connect.

• Billing Modes

Old version: yearly/monthly. New version: pay-per-use and packages.

- Yearly/Monthly: You pay for an instance for the period specified in the order before using it. Therefore, ensure that your account balance is sufficient before placing an order.
- Pay-per-use: You can use the service first, and will be billed for the used ROMA Compute Units (RCUs) and your usage duration.
- Packages: You pay for a package before using the specified RCU duration quota in it. A ROMA Connect instance of the new version consumes the RCU duration quota in the package first, and the overflow (if any) is billed on a pay-per-use basis.

For details, see 2 Billing Modes.

• Billing Items

The billing item of the old version is ROMA Connect instances. The new version is billed on the number of RCUs and the usage duration. For details, see **3 Billing Items**.

• Renewal

Yearly/Monthly instances beyond their subscription cannot run properly. To continue using your instance, renew it before it expires. Otherwise, the instance will be automatically released, and your data may be lost. You can renew your subscription manually or automatically. For details, see **4.1 Overview**.

• Bills

To learn about your expenditures, go to **Billing Center** > **Billing**, and view the transactions and billing details related to your instance. For details, see **5 Bills**.

• Arrears

Your account goes into arrears when the balance is less than the bill to be settled. To continue using your cloud services, top up your account in time. For details, see **6** Arrears.

• Stopping Billing

To avoid unexpected bills, you can unsubscribe from or delete your cloud services if they are no longer needed. For details, see **7 Stopping Billing**.

## • Cost Management

ROMA Connect costs are classified into resource costs and O&M costs. You can manage your costs from three aspects: allocation, analysis, and optimization. For details, see **8 Cost Management**.

# **2** Billing Modes

- 2.1 Overview
- 2.2 Yearly/Monthly
- 2.3 Pay-per-Use Billing
- 2.4 Package

## 2.1 Overview

Old version: yearly/monthly.

New version: pay-per-use and packages.

- Yearly/Monthly is a prepaid mode. You are billed for your subscription period in advance. The longer the subscription, the bigger the discount. This mode is suitable for long-term, stable services.
- Pay-per-use is a postpaid mode. You are billed for your RCU usage. The fees are calculated in seconds and settled by hour. This mode allows you to adjust resource usage easily. You do not need to prepare resources in advance, and will not have excessive or insufficient preset resources. This mode is suitable for scenarios with traffic bursts, such as e-commerce.
- Packages: You pay for a package before using the specified RCU duration quota in it. A ROMA Connect instance of the new version consumes the RCU duration quota in the package first, and the overflow (if any) is billed on a pay-per-use basis. If there are multiple instances, the total number of RCUs will be calculated. The package quota is valid only in one effective month. The remaining quota expires and cannot be transferred to the next month.

Table 2-1 compares the two billing modes.

Table 2-1 Billing modes

Payment	Prepaid Billed by the required duration specified in your order	Postpaid Based on the number of RCUs and usage duration	Prepaid Billed by the RCU- hour quota and duration of the package
Billing Period	Billed by the required duration specified in your order	Calculated in seconds, settled by hour	Billed by the required duration specified in your order
Billing Mode Change	Not supported	Not supported	N/A
Specificati on Change	Unavailable for old- version instances	By adjusting RCUs for new-version instances	N/A
Billing Item	Old-version instances	RCUs	RCU-hour quota of new-version instances
Scenario	Recommended when resource usage duration can be estimated. Yearly/ Monthly billing is more cost-effective than pay-per-use billing.	Recommended if you want more flexibility. Suitable for scenarios where resource demands fluctuate.	Recommended for long-term users. Packages are more cost-effective than pay-per-use billing.

## 2.2 Yearly/Monthly

If you expect to use resources for a longer period, you can save money with yearly/monthly billing. This section describes the billing rules for yearly/monthly ROMA Connect instances.

## **Recommended Scenario**

In yearly/monthly mode, you pay upfront for a certain duration. This mode is suitable for services with the following characteristics:

- Running for a long time with stable resources: For example, enterprise official websites, online malls, and blogs. Yearly/Monthly billing provides higher cost-efficiency.
- Long-term: For example, scientific research projects and large-scale events. Yearly/Monthly billing ensures stable resource supply throughout the project period.
- Predictable service peaks: For example, e-commerce promotions, festivals, and holidays. Resources insufficiency can be avoided by purchasing resources in advance for peak demands.

• High data security requirements: For services with this characteristic, yearly/ monthly billing ensures continuous resource supply to prevent data security risks caused by account arrears.

## **Billing Period**

The billing period of yearly/monthly ROMA Connect instance is determined by purchased duration (GMT+8). The billing period starts from the time you activate or renew your subscription (precise to seconds), and ends at 23:59:59 on the expiration date.

For example, if you purchased a ROMA Connect instance for one month at 15:50:04 on Oct 16, 2023, the billing period is from Oct 16, 2023, 15:50:04 to Nov 16, 2023, 23:59:59.

## Billing Example

Assume that you purchased a yearly/monthly ROMA Connect instance (basic edition) for one month on Oct 16, 2023, 15:50:04, and manually renewed it for another month before it expires:

- The first billing period: Oct 16, 2023, 15:50:04–Nov 16, 2023, 23:59:59
- The second billing period: Nov 16, 2023, 23:59:59–Dec 16, 2023, 23:59:59

You need to pay for each billing period in advance. The billing formula is as follows: Unit price of instance specifications x Purchased duration.

For example, if the monthly price of the instance is \$10,800 USD, the total fee for the preceding two billing periods is  $10,800 \times 2 = $21,600 \text{ USD}$ .

## Impact of Expiration

**Figure 2-1** describes the status of each stage of a yearly/monthly ROMA Connect instance. After you purchase a resource, it runs properly during the billing period, which is also called "validity period". If the resource is not renewed after expiration, it goes into the grace period and then the retention period.

Figure 2-1 Life cycle of a yearly/monthly ROMA Connect instance



### **Expiration Reminder**

From the 7th day before a yearly/monthly ROMA Connect instance expires, the system will send an expiration reminder through the email address or mobile number you used to create your Huawei Cloud account or through internal messages.

### Impact of Expiration

If your yearly/monthly ROMA Connect resource is not renewed after expiration, it goes into the grace period and changes to the **Expired** state. You can still view the instance during this period.

If you do not renew your yearly/monthly ROMA Connect instance before the grace period ends, it goes into the retention period and its status turns to **Frozen**. You cannot perform any operations on your yearly/monthly ROMA Connect instance in the retention period.

If you still do not renew your yearly/monthly ROMA Connect instance before the retention period ends, the instance will be released, and the data cannot be restored.

**NOTE** 

- Both the grace and retention periods are 15 days.
- For details about renewals, see 4.1 Overview.

## 2.3 Pay-per-Use Billing

Pay-per-use is a billing mode in which you pay after using the service. This mode is recommended if you do not need any prepayment or long-term commitment. This section describes the billing rules for pay-per-use ROMA Connect instances of the new version.

## **Recommended Scenario**

Pay-per-use is applicable to short-term, abrupt, or unpredictable services that cannot be interrupted, such as e-commerce flash sales, temporary testing, and scientific computing.

## **Billing Period**

A pay-per-use ROMA Connect instance is billed in seconds, and settled on the hour (GMT+8). Once settlement is complete, it enters a new billing period. **Billing starts from the time when the ROMA Connect instance is successfully created and ends at the time when the instance is deleted.** 

### **NOTE**

It takes a certain time to launch a ROMA Connect instance. Billing starts from the time when the instance is successfully created.

## Billing Example

Assume you purchased a pay-per-use 15-RCU ROMA Connect instance at 09:30:00 on Oct 16, 2023 and then deleted it at 11:15:46 on the same day. The following usage periods are billed:

- 9:30:00 to 10:00:00: 1,800 seconds
- 10:00:00 to 11:00:00: 3,600 seconds

From 11:00:00 to 11:15:46, the fee is not charged since the period is less than an hour.

You need to pay for each billing period in advance. The billing formula is as follows: Unit price of instance specifications x Billing duration. You need to divide the hourly price by 3,600 to get the price for each second and then multiple the per-second price by the total number of seconds.

The unit price of this pay-per-use instance is 24 USD/hour. The total fee for the two billing periods is  $24 \times (1,800 + 3,600)/3,600 = 36 \text{ USD}$ .

## Impact on Billing After Specification Change

If you change instance specifications after purchasing a pay-per-use instance, a new order will be generated based on the new specification's price. The old order automatically becomes invalid.

If you change instance specifications within one hour, multiple billing records will be generated. Different bills record the billing for different specifications.

For example, assume that you purchased a pay-per-use 15-RCU ROMA Connect instance at 9:00:00. You upgrade the instance flavor to 30 RCUs at 9:30:00. Then, two billing records are generated from 9:00:00 to 10:00:00.

- The first record is for 09:00:00 to 09:30:00, billed by 15 RCUs.
- The second record is for 09:30:00 to 10:00:00, billed by 30 RCUs.

## **Impact of Arrears**

**Figure 2-2** describes the status of each stage of a pay-per-use ROMA Connect instance. After you purchase a new-version ROMA Connect instance, the instance is running properly within the billing period, and this period is the validity period. When the automatic billing of the pay-per-use instance leads to arrears on your account, the account status turns to arrears, and the instance enters the grace period and retention period accordingly.

Figure 2-2 Life cycle of a pay-per-use ROMA Connect instance



### **Arrears Alert**

The system will deduct fees for pay-per-use resources at the end of each billing period. You will be notified by email, SMS, or internal messages when your account is in arrears.

### **Arrears Impact**

When your account is in arrears due to automatic fee deduction for pay-per-use ROMA Connect instances, the account status turns to arrears. In arrears, the payper-use resource continues rendering service but the resource enters the grace period. You need to pay the fees of your pay-per-use resource incurred during the grace period. To view the fees, go to the **Billing Center** > **Overview** page. Huawei Cloud will deduct the fees after you top up your account.

If you do not pay the arrears within the grace period, the instance enters the retention period and its status turns to **Frozen**. You cannot perform any operations on pay-per-use resources in the retention period.

If you do not pay the arrears within the retention period, your ROMA Connect instance will be released, and data will be lost.

#### **NOTE**

- Both the grace and retention periods are 15 days.
- For details about how to make repayment, see Making Repayments (Postpaid Direct Customers).

## 2.4 Package

Packages: You pay for a package before using the specified RCU duration quota in it. A ROMA Connect instance of the new version consumes the RCU duration quota in the package first, and the overflow (if any) is billed on a pay-per-use basis. If there are multiple instances, the total number of RCUs will be calculated. The package quota is valid only in one effective month. The remaining quota expires and cannot be transferred to the next month.

A package can be purchased separately, and works only for the new ROMA Connect instance. A package cannot be unsubscribed after being purchased.

## Scenario

Packages are more cost-effective than pay-per-use billing and recommended for long-term users.

## **Billing Period**

The billing period of RCU-hour packages is determined by purchased duration (GMT+8). The billing period starts from the time you activate your subscription (precise to seconds), and ends at 23:59:59 on the expiration date.

For example, if you purchased an RCU-hour package for two months at 15:50:04 on Nov 28, 2023, the billing period is from Nov 28, 2023, 15:50:04 to Jan 28, 2024, 23:59:59.

The package is effective for two consecutive months, with same specifications for each month. The remaining quota in the first month cannot be transferred to the next month.

## **Billing Example**

For example, if you purchased an RCU-hour package (100 RCU-hours/month) for two months at 15:50:04 on Nov 28, 2023, the billing period is from Nov 28, 2023, 15:50:04 to Jan 28, 2024, 23:59:59.

You need to pay for the billing period in advance. The billing formula is as follows: Unit price of the RCU-hour package x Purchased duration.

For example, if the monthly price of the package is \$157 USD, the total fee for the billing period is  $157 \times 2 = $314 \text{ USD}$ .

## Impact on Billing After Specification Change

After modifying a pay-per-use instance's configuration, if you have purchased an RCU package, its quota is preferentially deducted based on the instance's current RCU count; any excess usage is billed pay-per-use without affecting the package billing.

## **3** Billing Items

## Description

The billing item is ROMA Connect instances. For details, see Table 3-1.

Billing Item	Description	Billing Mode	Formula
ROMA Connect instance	ROMA Connect usage is billed by ROMA Connect instance specification.	Yearly/Monthly	Instance specification unit price x Purchased duration

 Table 3-1 ROMA Connect billing items

## Billing (New Version)

The new version is billed on the number of RCUs and the usage duration. For details, see **Table 3-2**.

Table 3-2 ROMA Co	nnect billing items	

Billing Item	Description	Billing Mode	Formula
RCU	ROMA Computing Unit, billed by quantity and duration.	Pay-per-use and package	<ul> <li>Number of RCUs x RCU unit price x Purchased duration</li> <li>RCU-hour package unit price x</li> </ul>
			Purchased duration

Billing Item	Description	Billing Mode	Formula
Bandwidth (optional)	Public network bandwidth is required for accessing ROMA Connect from the public network, and is billed based on the bandwidth size and duration.	For details, see EIP Billed Items.	For details, see EIP Billed Items.

Pay-per-use billing and packages are available for new-version ROMA Connect instances.

- Pay-per-use: The instance is billed based on the RCU quantity and duration (by hour). If the duration is less than an hour, billing is based on the actual usage.
- Packages: A package contains a specified RCU-hour quota. A ROMA Connect instance of the new version consumes the RCU-hours in the package first, and the overflow (if any) is billed on a pay-per-use basis. The package quota is valid only in one effective month. The remaining quota expires and cannot be transferred to the next month.

If you select **1,000 RCU Hours/Month** for a five-RCU instance, you can use the instance for 200 hours in the effective month. After the 200 hours, the instance is billed in the pay-per-use mode. If there are multiple instances, the total number of RCUs will be calculated.

## **4** Renewal

4.1 Overview

4.2 Manually Renewing a ROMA Connect Instance

4.3 Auto Renewal

## 4.1 Overview

## Description

Yearly/Monthly ROMA Connect instances cannot run after their subscription expires. To continue using them, renew your subscription within the specified period. Otherwise, your instance resources will be deleted, and your data will be lost and cannot be restored.

Only yearly/monthly ROMA Connect instances can be renewed. Pay-per-use ROMA Connect instances can run as long as you have sufficient account balance.

If your subscription is renewed before it expires, all resources are retained and your ROMA Connect instance is not affected. For details about the status of a ROMA Connect instance after it expires, see **Impact of Expiration**.

## **Renewal Functions**

**Table 4-1** describes the functions related to the renewal of ROMA Connect instances.

Function	Description
4.2 Manually Renewing a ROMA Connect Instance	To use a yearly/monthly ROMA Connect instance longer, renew the subscription anytime on the console as long as the instance is not automatically deleted due to expiration.

Function	Description
4.3 Auto Renewal	After auto-renewal is enabled, the ROMA Connect instance is automatically renewed before the subscription expires. This prevents resources from being automatically deleted in the event that you forget to manually renew the subscription.

You can renew your subscription across the life cycle of your yearly/monthly ROMA Connect instance, as shown in **Figure 4-1**.

Figure 4-1 Life cycle of a ROMA Connect instance



- A ROMA Connect instance is in the **Running** state from the time when it is purchased to the time when it expires.
- After the instance expires, its status changes to Expired.
- If the instance is not renewed upon expiration, it enters the grace period. If it is not renewed after the grace period ends, the status changes to **Frozen**.
- If you do not renew your subscription after the grace period ends, your instance enters the retention period. If you do not renew the subscription within the retention period, your instance will be automatically deleted.

## **NOTE**

Both the grace and retention periods are 15 days.

Auto-renewal can be enabled anytime before a ROMA Connect instance expires. The system attempts to automatically renew the instance at 03:00 seven days before the instance expires. If the fee deduction fails, there will be one attempt at 03:00 every day until the instance expires or the renewal is successful. By default, fees are deducted seven days before your subscription expires. You can change this deduction date as required.

## 4.2 Manually Renewing a ROMA Connect Instance

To use a yearly/monthly ROMA Connect instance longer, renew the subscription anytime on the console as long as the instance is not automatically deleted due to expiration.

## **Renewing a Subscription in Billing Center**

- 1. Go to the **Billing > Renewal** page.
- 2. Customize search criteria.

You can view all resources to be renewed on the **Manual Renewals**, **Auto Renewals**, **Pay-per-Use After Expiration**, and **Renewals Canceled** pages, and manually renew the resources.

All resources that need to be manually renewed can be placed on the **Manual Renewals** tab page. For details, see **Restoring to Manual Renewal**.

- 3. Manually renew resources.
  - Separate renewal: Click **Renew** in the **Operation** column of the desired resource.
  - Batch renewal: Check the boxes for the desired resources, and click Batch Renew in the upper left corner.
- 4. Select a renewal duration and determine whether to enable **Renewal Date**. Confirm the fee and click **Pay**.

For details about how to renew ROMA Connect instances on a standard day in each month, see **Setting a Renewal Dat**.

5. Select a payment method and make your payment. Once the order is paid, the renewal is complete.

## Setting a Renewal Date

If you have multiple ROMA Connect instances with different expiration dates, you can set a fixed expiration date to facilitate routine management and renewal.

In **Figure 4-2**, a user renews two resources that will expire at different time for one month and sets a fixed renewal date.

#### Figure 4-2 Setting a fixed renewal date

Procedure	1. Configu	re a renewal date.	2. Select res	ources for operations.	3. Renew to the renewal date.
Rules	For example Resource A Expiration: April 17	, the renewal date is Renewal for 1	the 1 day of ea	Additional renewal for 14 days	Expiration: June 01
	Resource B Expiration: May 08	Renewal for 1	month	Additional renewal fo days	r 24 Expiration: July 01

For details, see **Setting a Renewal Date**.

## 4.3 Auto Renewal

Auto-renewal is easier and prevents ROMA Connect instances from being automatically deleted if you forget to manually renew them. The auto-renewal rules are as follows:

- The first auto-renewal date and billing cycle are calculated based on the expiration date of the gateway.
- The auto-renewal duration is customized by you. For example, if you select 3month renewal duration, your instance is automatically renewed for three months before each expiration.
- Auto-renewal can be enabled anytime before a ROMA Connect instance expires. The system attempts to automatically renew the instance at 03:00 seven days before it expires. If the fee deduction fails, there will be one attempt at 03:00 every day until the instance expires or the renewal is successful.
- After auto-renewal is enabled, you can still manually renew your instance. After a manual renewal is complete, auto-renewal is still valid, and fees start to be deducted seven days before the new subscription expires.
- Fees are deducted seven days before your subscription expires. You can change this deduction date as required.

Learn about Auto-Renewal Rules before enabling auto-renewal.

## Prerequisites

Your yearly/monthly instance has not expired.

## Enabling Auto-Renewal on the Renewals Page

- 1. Go to the **Billing > Renewal** page.
- 2. Customize search criteria. For example, set **Service Type** to **ROMA Connect**.
  - For resources on the Manual Renewals, Auto Renewals, and Renewals
     Canceled pages, you can set the billing mode to change to pay-per-use upon expiration.
  - On the **Pay-per-Use After Expiration** tab, you can view the resources whose billing mode will change to pay-per-use upon expiration.
- 3. Enable auto-renewal for yearly/monthly resources.
  - Separate auto-renewal: Choose More > Enable Auto-Renew in the Operation column of the desired ROMA Connect instance.
  - Batch auto-renewal: Select the desired ROMA Connect instances and click **Enable Auto-Renew** above the list.
- 4. Select a renewal period, specify the desired auto-renewal times, and click **Pay**.

## **5** Bills

You can view the bill of a resource in the **Billing** section of Billing Center to learn about its usage and billing information in a certain period.

## **Bill Reporting Period**

After yearly/monthly resources are paid, a bill is reported to the billing system for settlement.

The usage of pay-per-use resources is reported to the billing system at a fixed interval. Pay-per-use products can be settled by hour, day, or month based on the usage type. Pay-per-use ROMA Connect instances are settled by hour.

The fee deduction time of pay-per-use resources may be later than the settlement period. For example, if a gateway (settled by hour) is deleted at 08:30, the fees generated during 08:00 to 09:00 are usually deducted at about 10:00. On the **Billing Center > Billing > Bill Details** page, **Expenditure Time** indicates the time when a pay-per-use resource is used.

## Viewing Bills of a Specific Resource

1. Log in to the ROMA Connect console and go to the **Instances** page.

If the resource belongs to the new version, click **Try New Version** on the ROMA Connect console, and choose **Resource** from the main menu on the left.

- 2. Copy the instance ID.
- 3. Choose **Billing > Bill Details**.
- 4. Select **Resource ID** as the filter, paste the instance ID obtained in **2**, and click the <sup>Q</sup> icon.

You can view the fees deducted for the ROMA Connect instance, which depend on the ROMA Connect billing mode and billing items. For details, see **1 Overview**.

## Scenario Example: Check the Consistency Between the Actual Usage and Billed Usage

Assume that a user created a pay-per-use ROMA Connect instance (APIC only, 2 RCUs) at 09:44:38 on Oct 16, 2023 and deleted the instance at 11:20:08 on the same day.

• Bill details

Pay-per-use instances are billed by second and settled on the hour. You can check whether the information about each billing period in a transaction bill is consistent with the actual information. For details, see **Table 5-1**.

Service Type	ROMA Connect
Resource Type	ROMA Connect
Billing Mode	Pay-per-use
Expenditur e Time	<ul> <li>For the period of time from 09:44:38 to 11:20:08 on Oct 16, 2023, two transaction records were generated for the resource usage in the following periods:</li> <li>09:44:38–10:00:00</li> <li>10:00:00–11:00:00</li> <li>NOTE From 11:00:00 to 11:20:08, the fee is not charged since the period is less than an hour.</li> </ul>
List Price	List price = Usage x Unit price In this example, the instance is used for 922 seconds in the first billing period, and the unit price is \$1.6 USD/RCU-hour. The list price is $(922/3,600) \times 2 \times 1.6 = $0.81955555$ USD. Similarly, you can calculate the list price for the other periods.
Discount	Discounts offered for cloud services, for example, commercial discounts, partner authorized discounts, and promotional discounts. It is the discounted amount based on the list price.
Truncated	Huawei Cloud bills a resource with the price accurate to the 8th decimal place. However, the amount due is truncated to the 2nd decimal place. The third and later decimal places are referred to as the truncated amount. The truncated amount for the first billing cycle is \$0.00955555 USD.
Amount	Amount = List price – Discount amount – Truncated amount Take the first period as an example. If the discounted amount is 0, the amount due is 0.81955555 – 0 – 0.009555555 = \$0.81 USD.

Table 5-1 Transaction bill of a ROMA Connect instance

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## • Expenditure details

Expenditure details can be displayed in multiple ways. By default, the expenditure details of a resource are displayed by usage and by billing period. **Table 5-2** illustrates the bill details, which can be used to check against the actual usage.

Service Type	ROMA Connect
Resource Type	ROMA Connect
Billing Mode	Pay-per-use
Resource Name/ID	Resource name and ID
	Example: roma-zwnn, 8ec1b2db-92c7-4785-888b- b4db4b57546c_rcu.apic.api
Specifications	Instance type and specifications RCUs
Usage Type	RCUHour for pay-per-use instances
Unit Price	Pay-per-use pricing provides unit prices, and the bill amount is equal to the used number of units multiplied by the unit price.
Unit	USD/RCU-hour for pay-per-use instances
Total Usage	In RCU-hours In this example, the total usage from 09:44:38 to 11:00:00 on Oct 16, 2023 is (922 + 3,600)/3,600 x 2 = 2.5122 RCU-hours.
Usage Unit	RCU-hour
List price	List price = Usage x Unit price In this example, the total usage is 2.5122 RCU-hours, and the unit price is \$1.6 USD/RCU-hour. The list price is 2.5122 x 1.6 = \$4.0195 USD.
Discount	Discounts offered for cloud services, for example, commercial discounts, partner authorized discounts, and promotional discounts. It is the discounted amount based on the list price.

Table 5	<b>2</b> Bill	details d	of a	ROMA	Connect	instance
Tuble J		uctuits (	ла	KO WIA	connect	motunee

Amount	Amount that should be paid for used cloud services after discounts are applied.

## 6 Arrears

If there is insufficient balance but no other payment method configured, your account will go into arrears. To continue using your cloud services, top up your account in time.

## **Arrears Impact**

• Yearly/Monthly

For ROMA Connect instances billed on a yearly/monthly basis, you have paid for the resources in advance. Even if your account is in arrears, existing yearly/ monthly ROMA Connect instances can still be used. However, you cannot perform operations that involve fees, such as modifying instance specifications and renewing orders.

Pay-per-use

When your account is in arrears due to automatic fee deduction for pay-peruse ROMA Connect instances, the account status turns to arrears. In arrears, the pay-per-use resource continues rendering service but enters the grace period. You need to pay the fees of your pay-per-use resource incurred during the grace period. To view the fees, go to the **Billing Center** > **Overview** page. Huawei Cloud will deduct the fees after you top up your account.

If you do not pay the arrears within the grace period, the resource enters the retention period and its status turns to **Frozen**. You cannot perform any operations on pay-per-use resources in the retention period.

If you do not pay the arrears within the retention period, your ROMA Connect instance will be released, and data will be lost.

Figure 6-1 Life cycle of a pay-per-use ROMA Connect resource



## **NOTE**

Both the grace and retention periods are 15 days.

## **Avoiding and Handling Arrears**

Delete unnecessary ROMA Connect instances to avoid unexpected fees. After an instance is deleted, data cannot be restored. To save cache data, back up, download, and save it in advance.

Enable balance alert on the **Billing Center** > **Overview** page. When the total amount of the available quota and all coupons is lower than the threshold, you will be notified by SMS or email.

If your account is in arrears, top up your account as soon as possible. For details, see **Top-Up and Repayment**.

## **7** Stopping Billing

## Yearly/Monthly Resources

You pay for a yearly/monthly ROMA Connect instance when you purchase it. Billing automatically stops when the subscription expires.

- If a yearly/monthly resource is no longer needed before the subscription expires, you can unsubscribe from the resource. The system will return a specific amount of money to your account based on whether the resource is subject to five-day unconditional unsubscription or whether coupons are used. For details about unsubscription rules, see **Unsubscriptions**.
- If you have enabled the auto-renewal function, disable it before the autorenewal deduction date (seven days before the expiration date by default) to avoid unexpected fees.

## **Pay-per-Use Resources**

If a pay-per-use ROMA Connect instance is no longer needed, you can delete it to stop billing.

## Searching for Resources from Bills and Stopping Billing

From bills, you can find the IDs of all resources that incur fees. Then find the specific resources based on the IDs, and delete the resources. To do so, perform the following operations:

- 1. Choose **Billing > Expenditure Details**.
- 2. Copy the ID of the resource to be deleted.
- 3. Click in the navigation pane on the left and choose **Business Applications** > **ROMA Connect**. The **Instances** page is displayed.

If the resource belongs to the new version, click **Try New Version** on the ROMA Connect console, and choose **Resource** from the main menu on the left.

4. In the upper right of the **Instances** page, set the search filter to **ID**, enter the ID copied in **2**, and click **Q** to locate the instance.

You can also copy the resource name in **2** and set the search filter to **Name** to search for the instance by name.

5. Click **Delete** on the instance to delete it.

### D NOTE

The system usually deducts fees of the last settlement period within one hour after resources are used. As a result, after a pay-per-use resource is deleted, the bill information may still exist. For example, if you delete a pay-per-use resource at 08:30, the fees generated from 08:00 to 09:00 are usually deducted at about 10:00.

# 8 Cost Management

Enterprises are paying more and more attention to the cost of using clouds. How can you manage costs when using ROMA Connect? This section describes cost composition, allocation, analysis, and optimization to maximize return on investments.

## **Cost Composition**

There are two cost components when you use ROMA Connect.

- Resource costs: depend on ROMA Connect billing items. For details, see 3 Billing Items.
- O&M costs: labor costs incurred during the use of ROMA Connect.

### Figure 8-1 ROMA Connect cost



Huawei Cloud **Cost Center** helps you manage resource costs with ease. However, you need to identify, manage, and optimize O&M costs by yourself.

## Cost Allocation

A good cost accountability system ensures that departments, business teams, and owners are accountable for their respective cloud costs. Allocate costs to different

teams or projects so that your organization has a clear picture of their respective costs.

Huawei Cloud **Cost Center** supports cost collection and reallocation with multiple tools for you to choose from.

#### • By linked account

An enterprise master account can manage the accounting of associated member accounts. For details, see **Viewing Costs by Linked Account**.

#### • By enterprise project

Before allocating costs, enable Enterprise Project Management Service (EPS) and plan your enterprise projects based on your organizational structure or service needs. Select an enterprise project when purchasing a ROMA Connect instance so that the costs of that resource will be allocated to the selected enterprise project. For details, see Viewing Costs by Enterprise Project.

Figure 8-2 Selecting an enterprise project for a ROMA Connect instance

* Enterprise Project	test-projest 🔻	J
* Instance Name	roma-4ttb	]

#### **NOTE**

**Enterprise Project** defaults to **default** for the new-version ROMA Connect instances and cannot be changed.

#### • By cost category

You can use **Cost Categories** provided by **Cost Center** to split shared costs. Shared costs include the costs for the resources (compute, network, storage, or resource packages) shared across departments, and the costs that cannot be split by cost tag or enterprise project. These costs are not attributable to one owner, and hence cannot be categorized as a whole. By defining split rules, you can fairly split these costs among teams or business units. For details, see **Viewing Cost By Cost Category**.

## **Cost Analysis**

To precisely control and optimize your costs, you need a clear understanding of what parts of your enterprise incur costs. **Cost Center** visualizes your original costs or amortized costs by dimension and filter for cost analysis so that you can analyze the trends and drivers of your service usage and costs from various perspectives and scopes.

You can also use **Cost Anomaly Detection** provided by **Cost Center** to detect unexpected expenses in a timely manner. In this way, costs can be monitored, analyzed, and traced.

For details, see **Performing Cost Analysis to Explore Costs and Usage** and **Enabling Cost Anomaly Detection to Identify Anomalies**.

## **Cost Optimization**

### Cost control

**Budget Details** 

You can create different types of budgets on the **Budgets** page of Cost Center to track your costs against the budget you specified. If the budget thresholds you defined are reached, Cost Center will send alerts to the recipients you configured. You can also create budget reports and specify recipients to receive budget alerts at a specified interval.

Suppose that you want to create a monthly budget of \$20,000 USD for a payper-use ROMA Connect instance, and to receive an alert if the forecasted amount exceeds 80% of the budget. Then, the budget to create is shown in the following figure.

#### \* Budget Name ROMAConnect \* Reset Period Monthly Daily Yearly Quarterly moving forward. \* Budget Duration Recurring Expiring \* Start Time 2023/11 ▦ \* Allocation Fixed Monthly Dynamic \* Budgeted Amount 20000 (USD)

### Figure 8-3 Basic budget information

## Figure 8-4 Budget alerts



## For details, see **Enabling Forecasting and Creating Budgets to Track Cost** and Usage.

### • Resource optimization

You can monitor resource usage to evaluate whether your configurations are too high. For example, monitor the usage of CPU, memory, and bandwidth. You can also identify resources with high costs based on the results of **Cost Analysis** and optimize configurations accordingly.

## • Billing mode selection

Different types of services have different requirements on resource usage periods and therefore require different billing modes to achieve the optimal outcome.

- For mature services that are stable for a long time, use the yearly/ monthly billing mode.
- For short-term, unpredictable services that experience traffic bursts and cannot be interrupted, use pay-per-use billing.

# **9** FAQ

9.1 Can I Change the Billing Mode of a ROMA Connect Instance?

9.2 Can I Use the Remaining RCU-Hours in this Month until the Next Month?

## 9.1 Can I Change the Billing Mode of a ROMA Connect Instance?

No. Currently, the billing mode of ROMA Connect instances cannot be changed.

Old-version ROMA Connect instances support only the yearly/monthly billing, while the new version supports packages and pay-per-use billing. After a package expires, instances are billed in pay-per-use mode.

## 9.2 Can I Use the Remaining RCU-Hours in this Month until the Next Month?

No. Remaining RCU-hours cannot be transferred to the next month.