Application Service Mesh

Billing

Issue   01

Date   2023-11-01

Huawei Cloud Computing Technologies Co., Ltd.

Address: Huawei Cloud Data Center Jiaoxinggong Road
             Qianzhong Avenue
             Gui'an New District
             Gui Zhou 550029
             People's Republic of China

Website: https://www.huaweicloud.com/intl/en-us/

Contents

1 Billing Overview

In this document, you will learn about how service meshes are billed, how you can renew subscriptions and manage costs, and what happens if your account goes into arrears.

- **Billing Modes**

  There are yearly/monthly and pay-per-use billing modes. Each one has different advantages and disadvantages. Yearly/Monthly: You pay upfront for the amount of time you expect to use a service mesh for. You will need to make sure you have a top-up account with a sufficient balance or have a valid payment method configured first. Pay-per-use: You can start using the service mesh first and then pay as you go. For details about the two billing modes, see **Overview**.

  You can also change the billing mode later if it no longer meets your needs. For details, see **Overview**.

- **Billed Items**

  Currently, the Basic edition is provided for free. A service mesh of the Basic edition can manage a maximum of 200 pods. You will be billed for the Enterprise edition and Dedicated edition for the number of pods managed in a CCE cluster. For details, see **Billed Items**.

  For more information about the billing examples and the billing for each item, see **Billing Examples**.

- **Renewing Subscriptions**

  After a yearly/monthly service mesh expires, it cannot run normally. If you want to continue using it, you need to renew the service mesh subscription within the specified period. Otherwise, related resources will be automatically released, and data may be lost. You can renew your subscription manually or automatically. For more details, see **Overview**.

- **Viewing Bills**

  You can choose **Billing & Costs** > **Bills** to check the service mesh transactions and bills. For details, see **Bills**.

- **Arrears**

  If there is no sufficient account balance to pay for your bill and there is no other payment method configured, your account will go into arrears. To continue using your cloud resources, top up your account in a timely manner. For details, see **Billing Termination**.

- **Stopping Billing**

  If you no longer need to use your service mesh, you can unsubscribe from or delete it to stop billing. For details, see **Billing Termination**.

2 Billed Items

Table 2-1 Billed items

Billed Item	Description	Billing Mode	Formula
Service mesh scale	Maximum number of pods managed by a service mesh	Yearly/ Monthly or pay-per-use	**Unit price of pod flavor x Number of pods x Required duration**

📖 NOTE

- The price of an ASM package does not include the price of Application Performance Management (APM). You are advised to purchase the APM service for comprehensive monitoring of service performance. For pricing details of APM, see **APM Price Calculator**.
- The price of an ASM package does not include the prices of other cloud resources, such as ECSs, CCE clusters, and ELBs.
    - For pricing of clusters, see **CCE Pricing Details**.
    - For more pricing details, see **Pricing Details**.

3 Billing Modes

3.1 Overview

There are yearly/monthly and pay-per-use billing modes. Each one has different advantages and disadvantages.

- Yearly/Monthly is a prepaid billing mode. You pay in advance for a subscription term, and in exchange, you get a discounted rate. The longer the subscription term, the bigger the discount. Yearly/Monthly billing is a good option for long-term, stable services.

- Pay-per-use is a postpaid billing mode. You pay as you go and just pay for what you use. The service mesh usage is calculated by the second but billed every hour. This mode allows you to flexibly adjust resource usage. You neither need to prepare for resources in advance, nor end up with excessive or insufficient preset resources. Pay-per-use billing is a good option for scenarios where there are sudden traffic bursts, such as e-commerce promotions.

3.2 Yearly/Monthly Billing

If you expect to use resources for a longer period, you can save money by selecting yearly/monthly billing. This section describes the billing rules for yearly/monthly resources on the ASM console.

Application Scenarios

If you want to ensure resource stability over a certain period of time, yearly/monthly billing is a good choice for the following types of workloads:

- Long-term workloads with stable resource requirements, such as official websites, online malls, and blogs.
- Long-term projects, such as scientific research projects and large-scale events.
- Workloads with high data security requirements.

Billed Items

Service mesh scale (maximum number of pods managed by a service mesh)

Billed Usage Period

A yearly/monthly service mesh is billed for the purchased duration. The billing starts when you successfully created a service mesh or renewed the subscription, and ends at 23:59:59 of the expiry date.

For example, if you purchased a one-month service mesh on March 08, 2023, 15:50:04, the billed usage period is from March 08, 2023, 15:50:04 to April 08, 2023, 23:59:59.

Billing Examples

Suppose you purchased a service mesh on March 08, 2023, 15:50:04, and renewed the subscription for one more month before the initial subscription expired. The following usage periods will be billed:

- March 08, 2023, 15:50:04 to April 08, 2023, 23:59:59
- April 08, 2023, 23:59:59 to May 08, 2023, 23:59:59

You will be billed for both usage periods.

Impact of Expiration

Figure 3-1 shows the statuses a yearly/monthly service mesh can have throughout its lifecycle. After a service mesh is purchased, it enters the valid period and runs normally during this period. If the service mesh is not renewed after it expires, before being released, it first enters a grace period and then a retention period.

Figure 3-1 Lifecycle of a yearly/monthly service mesh
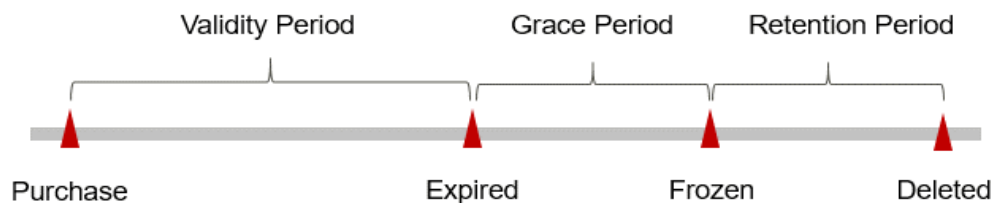
Expiration Alert

The system will send you an alert (by email, SMS, or in-app message) 7 days before a yearly/monthly service mesh expires to remind you to renew the subscription.

Impact of Expiration

If your yearly/monthly service mesh is not renewed after it expires, it changes to the **Expired** state and enters a grace period. Some operations (such as updating and upgrading a service mesh) are restricted.

If the yearly/monthly service mesh is not renewed after the grace period ends, it turns to **Frozen** and enters a retention period. During the retention period, you cannot perform any operations on the service mesh.

If the yearly/monthly service mesh is not renewed by the time the retention period ends, its resources will be released and data cannot be restored.

📖 **NOTE**

- For details about renewal, see **Overview**.
- If yearly/monthly resources have expired and are not renewed, Huawei Cloud provides a period of time during which you can renew or top up your accounts. For details, see **What Is a Grace Period of Huawei Cloud? How Long Is It?What Is a Retention Period of Huawei Cloud? How Long Is It?**
- For details about top-up, see **Topping Up an Account**.

3.3 Pay-per-Use Billing

Application Scenarios

Pay-per-use billing is good for short-term, bursty, or unpredictable workloads that cannot tolerate any interruptions, such as applications for e-commerce flash sales, temporary testing, and scientific computing.

Billed Items

Service mesh scale (maximum number of pods managed by a service mesh)

Billed Usage Period

The usage of pay-per-use resources is calculated by the second but billed every hour. The billing starts when a service mesh is created and ends when the service mesh is deleted.

📖 **NOTE**

- You will be billed for a pay-per-use service mesh of the Enterprise edition immediately after you purchase it. It takes some time to create a service mesh. The billing starts from the time when the service mesh was successfully created.
- A pay-per-use service mesh of the Enterprise edition that manages 20 pods or less is billed for 20 pods. If the service mesh manages more than 20 pods, it is billed according to the actual number of managed pods.

For example, if you purchased a pay-per-use service mesh at 8:45:30 and deleted it at 8:55:30, you are billed for the 600 seconds from 8:45:30 to 8:55:30.

Impact of Arrears

Figure 3-2 shows the statuses a pay-per-use service mesh can have throughout its lifecycle. After a service mesh is purchased, it enters the valid period and runs normally during this period. If your account goes into arrears, the service mesh enters a grace period and then a retention period.

Figure 3-2 Lifecycle of a pay-per-use service mesh
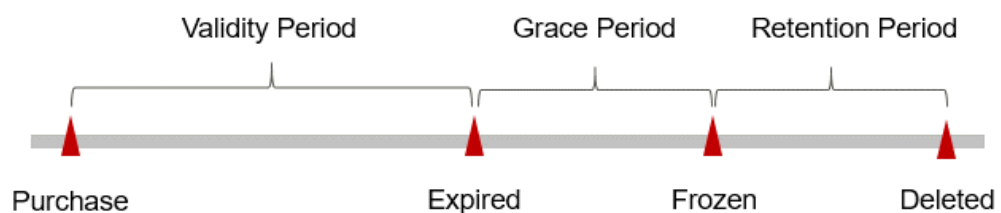
Arrears Reminder

The system will bill you for pay-per-use resources after each billing cycle ends. If your account goes into arrears, we will notify you by email, SMS, or in-app message.

Impact of Arrears

If your account is insufficient to pay your amount due, your account goes into arrears, and the pay-per-use service mesh enters a grace period. After you top up your account, Huawei Cloud will bill you for expenditures generated by the service mesh during the grace period. You can view the expenditures on the **Overview** page of Billing Center.

If your account is still in arrears after the grace period ends, the service mesh enters a retention period and turns to **Frozen**. You cannot perform any operations on the service mesh.

If you do not bring your account balance current before the retention period ends, the service mesh resources will be released and the data cannot be restored.

◻ **NOTE**

- If the outstanding amount for pay-per-use resources is still not paid off, Huawei Cloud provides a period of time during which you can renew or top up your accounts. For details, see **What Is a Grace Period of Huawei Cloud? How Long Is It?What Is a Retention Period of Huawei Cloud? How Long Is It?**

- For details about top-up, see **Topping Up an Account**.

4 Billing Examples

Billing Scenario

Service Mesh Edition	Billing Mode	Service Mesh Scale	Pod Scale Tier	Pay-per-Use	Monthly	Yearly
Enterprise edition	Pay-per-use	5,000	0–20	Unit price of pod flavor x 20 x Required duration	Unit price of pod flavor x 20 x Number of hours per month There is a discount on this basis.	Unit price of pod flavor x 20 x Number of hours per year You only pay for 10 months but enjoy a whole year.
			21–5,000	Unit price of pod flavor x 5,000 x Required duration	Unit price of pod flavor x 20 x Number of hours per month There is a discount on this basis.	Unit price of pod flavor x 20 x Number of hours per year You only pay for 10 months but enjoy a whole year.

Service Mesh Edition	Billing Mode	Service Mesh Scale	Pod Scale Tier	Pay-per-Use	Monthly	Yearly
Basic edition	Free	200	0–200	/	/	/
Dedicated edition	Pay-per-use	20	0–20	Unit price of pod flavor x 20 x Required duration	Unit price of pod flavor x 20 x Number of hours per month There is a discount on this basis.	Unit price of pod flavor x 20 x Number of hours per year There is a discount on this basis.
	Pay-per-use	5,000	0–5000	Unit price of pod flavor x 5,000 x Required duration	Unit price of pod flavor x 20 x Number of hours per month There is a discount on this basis.	Unit price of pod flavor x 20 x Number of hours per year There is a discount on this basis.

5 Billing Mode Changes

5.1 Overview

You can change the billing mode if it no longer meets your needs.

- Pay-per-use: On the ASM console, you can change the billing mode of service meshes of the Enterprise edition and Dedicated edition from pay-per-use to yearly/monthly.

- Yearly/Monthly: This billing mode cannot be changed. Yearly/Monthly resources cannot be deleted after being created. To stop using them, go to Billing Center and **unsubscribe** from them.

5.2 Pay-per-Use to Yearly/Monthly

Procedure

Step 1 Log in to the ASM console and click the name of the service mesh to go to its details page. In the navigation pane, choose **Mesh Configuration**. On the **Basic Information** tab, click **Change** next to **Pay-per-use**.
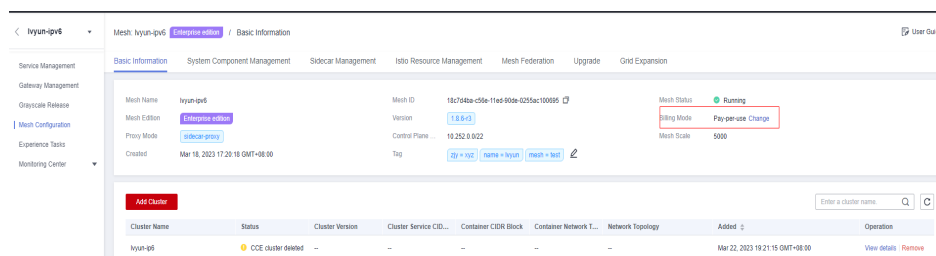
Step 2 Set **Mesh Scale (Pods)** and configure the period, and click **Submit**.

----End

5.3 Yearly/Monthly to Pay-per-Use

Yearly/Monthly billing cannot be changed to pay-per-use billing.

6 Renewal

6.1 Overview

When to Renew Subscriptions

If a yearly/monthly service mesh is about to expire but you want to continue using it, you need to renew the service mesh subscription within the specified period. Otherwise, related resources will be automatically released, and data will be lost and cannot be restored.

Only yearly/monthly service mesh subscriptions can be renewed. If you use a pay-per-use service mesh, just ensure that your account has a valid payment method configured or a top-up account with a sufficient balance.

If you renew the service mesh before it expires, resources will be retained and you can continue using the service mesh.

How to Renew Subscriptions

You can renew a service mesh manually or automatically, as shown in **Table 6-1**.

Table 6-1 Renewing a service mesh

Method	Description
Manually Renewing a Service Mesh	You can renew a yearly/monthly service mesh on the ASM console at any time before it is automatically deleted.
Automatically Renewing a Service Mesh	You can enable auto-renewal to automatically renew a service mesh before it expires. This prevents resources from being deleted in case you forget to renew a subscription.

You can select a method to renew a yearly/monthly service mesh based on the phase the service mesh is currently in, as shown in **Figure 6-1**.

Figure 6-1 Selecting a renewal method based on the current phase of a service mesh
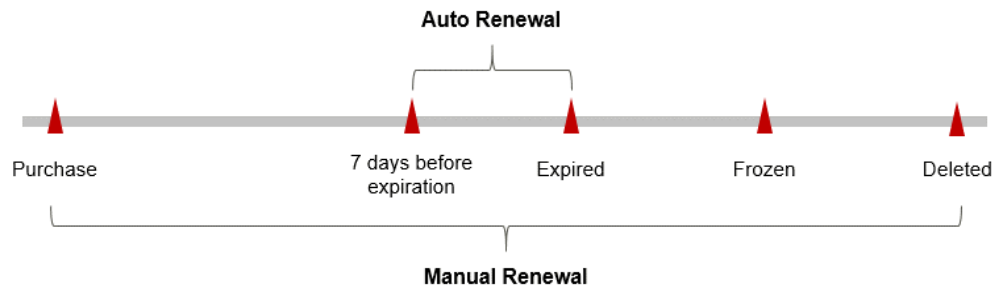

- A service mesh is in the **Running** state after it is provisioned.
- When a service mesh subscription expires, the status will change to **Expired**.
- If an expired service mesh is not renewed, it enters a grace period. If it is not renewed by the time the grace period expires, the service mesh will be frozen and enter a retention period.
- If you do not renew the subscription before the retention period expires, your service mesh will be automatically deleted.

You can enable auto-renewal anytime before a service mesh expires. By default, the system will make the first attempt to charge your account for the renewal at 03:00, seven days before the expiry date. If this attempt fails, it will make another attempt at 03:00 every day until the subscription is renewed or expires. You can change the auto-payment date for renewal as required.

6.2 Manually Renewing a Service Mesh

Renewing a Subscription on the Console

1. Log in to the ASM console.

2. On the service mesh list page, click in the upper right corner of the service mesh.
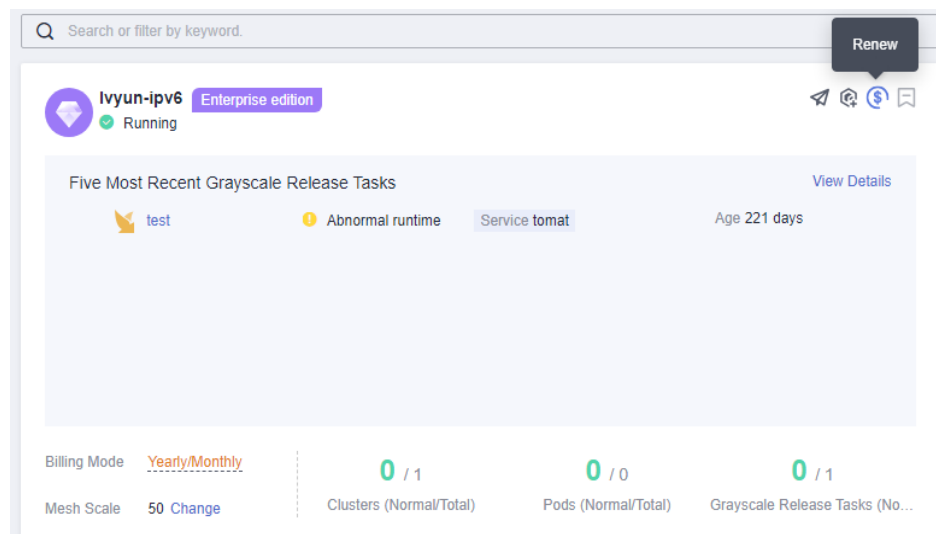
3. On the **Renew** page, select the renewal duration and optionally select **Renew on the standard renewal date**. For details, see **Setting the Same Renewal Day for Yearly/Monthly Resources**. Confirm the price and click **Pay**.
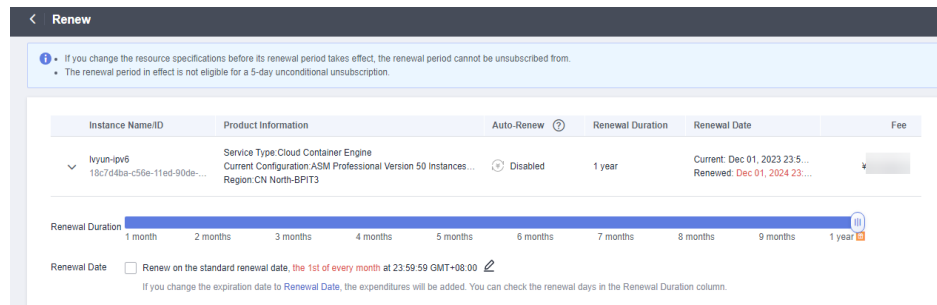
4. Select a payment method and make your payment. Once the order is paid, the renewal is complete.

Renewing a Subscription in Billing Center

This method is suitable for all resources.

Step 1 Log in to the management console.

Step 2 Hover over **Billing & Costs** in the upper part of the console and choose **Renewal** from the drop-down list.

The **Renewals** page is displayed.

Step 3 Set the search criteria.

On the **Manual Renewals**, **Auto Renewals**, **Pay-per-Use After Expiration**, and **Renewals Canceled** tabs, you can view the resources to be renewed.

You can move all resources that need to be manually renewed to the **Manual Renewals** tab. For details, see **Restoring to Manual Renewal**.

Step 4 Manually renew resources.

- Individual renewal: Click **Renew** in the **Operation** column for the desired resource.
- Batch renewal: Check the boxes for the desired resources, and click **Batch Renew** in the upper left corner.

Step 5 Select a renewal duration and optionally select **Renew on the standard renewal date**. For details, see **Setting the Same Renewal Day for Yearly/Monthly Resources**. Confirm the price and click **Pay**.

Step 6 Select a payment method and make your payment. Once the order is paid, the renewal is complete.
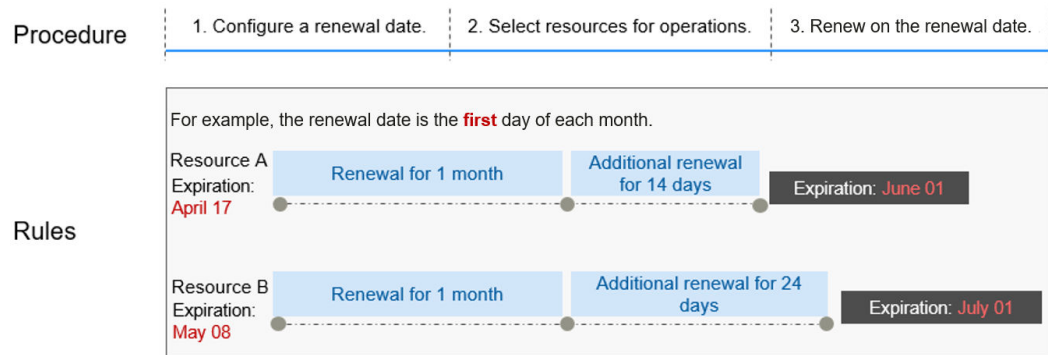
----End

Setting the Same Renewal Day for Yearly/Monthly Resources

If service meshes have different expiry dates, you can set the same renewal day to make it easier to manage renewals.

In **Figure 6-2**, a user sets the same renewal day for two resources that will expire at different dates.

Figure 6-2 Setting the same renewal day for resources with different expiry dates

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

6.3 Automatically Renewing a Service Mesh

Auto-renewal can prevent your service mesh from being automatically deleted if you forget to manually renew it. The auto-renewal rules are as follows:

- The first auto-renewal date is based on when the service mesh expires and the billing cycle.

- The auto-renewal period of a service mesh depends on the subscription term. For example, if you select 3-month renewal duration, your service mesh is automatically renewed for three months before each expiration.

- You can enable auto-renewal anytime before a service mesh expires. By default, the system will make the first attempt to charge your account for the renewal at 03:00, seven days before the expiry date. If this attempt fails, it will make another attempt at 03:00 every day until the subscription is renewed or expires.

- After auto-renewal is enabled, you can still renew the service mesh manually if you want to. After a manual renewal is complete, auto-renewal is still valid, and the renewal fee will be deducted from your account seven days before the new expiry date.

- By default, the renewal fee is deducted from your account seven days before the new expiry date. You can change this auto-renewal payment date as required.

For more information about auto-renewal rules, see **Auto-Renewal Rules**.

Prerequisites

The yearly/monthly service mesh has not expired.

Enabling Auto-Renewal During Purchase

You can enable auto-renewal on the page for purchasing a service mesh.

Auto-renewal complies with the following rules:

- Monthly billing: Your subscription will be renewed each month.
- Yearly billing: Your subscription will be renewed each year.

Enabling Auto-Renewal on the Renewals Page

This method is suitable for all resources.

1. Log in to the ASM console.

2. Hover over **Billing & Costs** in the upper part of the console and choose **Renewal** from the drop-down list.

   The **Renewals** page is displayed.

3. Set the search criteria.

   – You can view the resources for which auto-renewal has been enabled on the **Auto Renewals** page.

   – You can enable auto-renewal for resources on the **Manual Renewals**, **Pay-per-Use After Expiration**, and **Renewals Canceled** tabs.

4. Enable auto-renewal.

   – Enabling auto-renewal for a single resource: Select the resource for which you want to enable auto-renewal and choose **More** > **Enable Auto-Renew**.

   – Enabling auto-renewal for multiple resources at a time: Select the resources for which you want to enable auto-renewal and click **Enable Auto-Renew** above the list.

5. Select a renewal period, specify the auto-renewal times, and click **OK**.

   If auto-renewal is enabled on the **Renewals** page, the auto-renewal period is subject to the selected renewal period and number of auto-renewals. For example, if you select 3-month renewal duration and do not select **Preset Auto-renewals**, your subscription is automatically renewed for three months before each expiration.

7 Bills

You can view the resource usage and bills for different billing cycles on the **Dashboard** in Billing Center.

Bill Generation

Transaction records for yearly/monthly subscriptions are generated immediately after being paid for.

A pay-per-use resource is billed by the hour, day, or month, depending on the resource's usage type. ASM resource usage is billed by the hour.

You are not charged immediately after a record is generated. For example, if a pay-per-use service mesh billed on an hourly basis is deleted at 08:30, you will still have expenditures for the 08:00 to 09:00 hour, but you will not be billed for 08:00 to 09:00 until about 10:00. Choose **Billing & Costs** > **Bills** > **Expenditure Items**. On the displayed page, **Expenditure Time** in the bill indicates the time when the pay-per-use resource is used.

Viewing Bills of a Specific Resource

This following are operations for you to view the bill of a service mesh.

Step 1 Log in to the ASM console and click the name of the service mesh to go to its details page. Choose **Mesh Configuration**, click the **Basic Information** tab, and copy the service mesh ID.
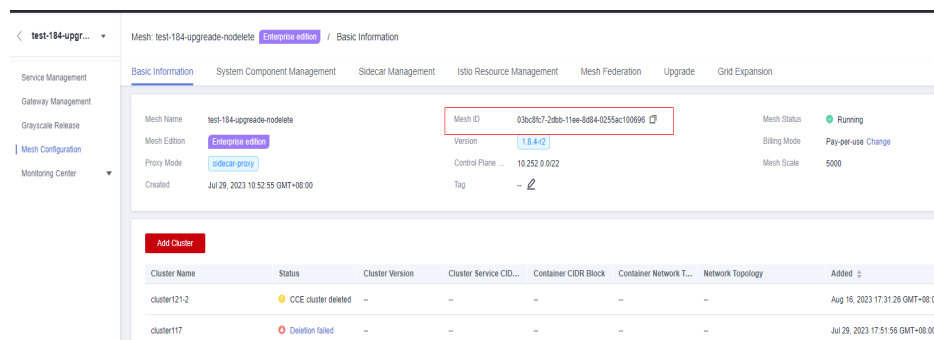
Step 2 On the top menu bar, choose **Billing & Costs** > **Bills**. Under **Billing**, choose**Expenditure Details**.

Step 3 Select **Resource ID** as the filter, enter the service mesh ID obtained in **Step 1**, and click 🔍 .

----End

8 Arrears

If your configured payment method is unable to pay for your bill, your account will be in arrears. You will need to update your payment method or to top up your account in a timely manner if you want to continue using your cloud services.

Impact of Arrears

- Yearly/Monthly

This is a pre-paid billing mode, so you can continue using yearly/monthly service meshes even if your account is in arrears. However, you cannot perform operations such as buying a service mesh and upgrading an existing service mesh, because they will generate new expenditures.

**Figure 8-1** Lifecycle of a yearly/monthly service mesh
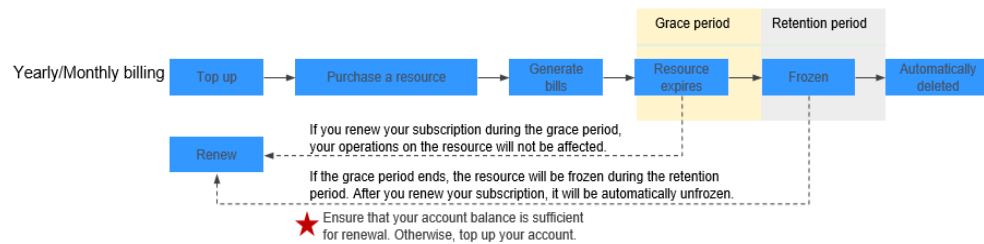
- Pay-per-Use

If your account is insufficient to pay your amount due, your account goes into arrears, and the pay-per-use service mesh enters a grace period. After you top up your account, Huawei Cloud will bill you for expenditures generated by the service mesh during the grace period. You can view the expenditures on the **Overview** page of Billing Center.

If your account is still in arrears after the grace period ends, the service mesh enters a retention period and turns to **Frozen**. You cannot perform any operations on the service mesh.

If you do not bring your account balance current before the retention period ends, the service mesh resources will be released and cannot be restored.

Figure 8-2 Lifecycle of a pay-per-use service mesh
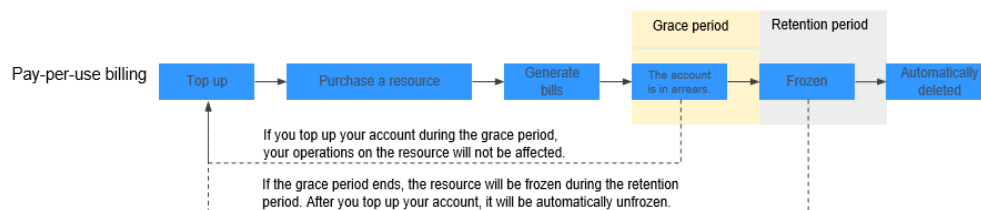
Avoiding and Handling Arrears

Make sure your account balance is sufficient or you have a valid payment method as soon as possible after your account is in arrears. For details, see **Topping Up an Account**.

If your service mesh is no longer used, you can delete it to avoid additional costs.

To help make sure your account never falls into arrears, you can enable **Balance Alert** on the **Overview** page of Billing Center. Then, any time an expenditure quota drops to below the threshold you specify, Huawei Cloud automatically notifies you by SMS or email.

If your account is in arrears, top up your account in time. If the resource usage becomes stable, you can purchase a yearly/monthly service mesh to save money. For details, see **Yearly/Monthly Billing**.

9 Billing Termination

If you no longer need a service mesh, you can delete it to stop billing as follows:

- Yearly/Monthly: Unsubscribe from the service mesh.
- Pay-per-use or free: Uninstall the service mesh.

Constraints

- To uninstall or unsubscribe from a service mesh of the Enterprise edition, remove all clusters from the service mesh.
- For a yearly/monthly service mesh of the Dedicated edition, change it to the Basic edition by unsubscribing from it and then uninstall the Basic edition.
- To uninstall or unsubscribe from a service mesh in which a grayscale release task is running, complete the grayscale release first.
- To uninstall a service mesh of the Basic or Dedicated edition, ensure that there are available nodes in the cluster for running the cleanup task to avoid uninstallation failures.

Yearly/Monthly Resources

When you purchase a yearly/monthly service mesh, you make a one-time up-front payment. By default, the billing automatically stops when the subscription expires.

- If you no longer need a service mesh, but the subscription has not yet expired, you can unsubscribe from it. Depending on what coupons were used for the purchase, Huawei Cloud may issue you a refund. For details, see **Unsubscribing from In-Use Resources**.
- If you have enabled auto-renewal but no longer wish to automatically renew the subscription, disable it before the auto-renewal date (7 days before the expiration date by default) to avoid unexpected expenditures.

> ⚠ **CAUTION**
>
> For a yearly/monthly service mesh, even if you have deleted the clusters, the service mesh will still be billed until successful unsubscription.

Pay-per-Use Resources

If pay-per-use resources, such as service meshes, are no longer required, delete them.

> ⚠️ **CAUTION**
>
> For a pay-per-use service mesh, even if you have deleted the clusters, the service mesh will still be billed until successful uninstallation.

10 Billing FAQ

10.1 How Do I Unsubscribe from a Yearly/Monthly Exclusive Node?

The entry for unsubscribing from yearly/monthly resources is on the **Service Tickets** page. The unsubscription rules for yearly/monthly resources are the same as those for CCE resources. You need to submit a service ticket to contact O&M personnel to unsubscribe from the resources.