# Distributed Cache Service

# Billing

**Issue** 01

**Date** 2024-09-11

# Huawei Cloud Computing Technologies Co., Ltd.

# Contents

# 1 Billing Overview

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

- **Billing Modes**

  DCS has two billing modes: yearly/monthly and pay-per-use. Yearly/Monthly is a prepaid mode. You need to pay first, and will be billed for your subscription period. Therefore, you need to ensure sufficient account balance. Pay-per-use is a postpaid mode. You use the service 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**.

  > 📖 **NOTE**
  >
  > Currently, the yearly/monthly billing mode is supported only in the CN-Hong Kong region.

- **Billing Items**

  The billing item of DCS is DCS instances. For details, see **Billing Items**.

- **Renewing Subscriptions**

  Yearly/Monthly DCS instances cannot run after their subscription expires. If you want to continue using a DCS instance after it expires, you need to renew the DCS instance subscription within the specified period. Otherwise, the instance will be automatically released, and data may be lost. You can renew your subscription manually or automatically. For details, see **Overview**.

- **Viewing Bills**

  You can choose **Billing Center** > **Billing** to check the DCS transactions and bills. For details, see **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 **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 **Billing Termination**.

# 2 Billing Modes

## 2.1 Overview

DCS has two billing modes: yearly/monthly and pay-per-use.

◻ **NOTE**

Currently, the yearly/monthly billing mode is supported only in the CN-Hong Kong region.

- Yearly/Monthly is a prepaid mode. You need to pay first, and will be billed for your subscription period. 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 can pay after using the service, and will be billed for your usage duration. 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.

**Table 2-1** compares the two billing modes.

**Table 2-1** Billing modes

| Billing mode | Yearly/Monthly | Pay-per-Use |
|---|---|---|
| **Payment** | Prepaid<br>Billed by the required duration specified in your order | Postpaid<br>Based on the usage duration of your DCS instance |
| **Billing period** | Billed by the required duration specified in your order | Calculated in seconds, settled by hour |

| Billing mode change | Can be changed to pay-per-use. The change takes effect only after the yearly/monthly subscription expires. **From Yearly/Monthly to Pay-per-Use** | Can be changed to yearly/monthly. **From Pay-per-Use to Yearly/Monthly** |
| --- | --- | --- |
| **Specification change** | Supported | Supported |
| **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. |

# 2.2 Yearly/Monthly Billing

In the yearly/monthly billing mode, you pay before using resources. It is suitable if you need stable resources and want lower costs. By selecting the yearly/monthly mode, you can pre-purchase cloud service resources and gain certain price discounts. This section describes the billing rules for yearly/monthly DCS instances.

📖 NOTE

Currently, the yearly/monthly billing mode is supported only in the CN-Hong Kong region.

## Recommended Scenario

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

● Running for a long time with constant 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 DCS instance is determined by purchase 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 DCS instance for one month on Mar 08, 2023, 15:50:04, the billing period is from Mar 08, 2023, 15:50:04 to Apr 08, 2023, 23:59:59.

## Billing Example

Assume that you purchased a yearly/monthly DCS instance on Mar 08, 2023, 15:50:04 (basic edition | Redis 5.0 | master/standby | x86 | 2 replicas | 8 GB). Assume the subscription is for one month, and will be manually renewed for one month before it expires:

- The first billing period: Mar 08, 2023, 15:50:04–Apr 08, 2023, 23:59:59
- The second billing period: Apr 08, 2023, 23:59:59–May 08, 2023, 23:59:59

You need to pay for each billing period in advance. The billing formula is as follows: Total fee = Unit price of instance specifications x Number of billing periods. For details about the unit price of instance specifications, see **DCS Pricing Details**.

For example, if the monthly price of the instance is USD106.85, the total fee for the preceding two billing periods is USD106.85 x 2 = USD213.7.

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**NOTICE**

The prices are for reference only. Actual prices are subject to those in **DCS Pricing Details**.

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## Impact on Billing After Specification Change

If the current resource specifications of your yearly/monthly DCS instance no longer meet your needs, you can change the specifications on the DCS instance console. The system calculates the billing change according to the following rules:

- Specification upgrade: You need to pay the price difference.
- Specification downgrade: Huawei Cloud will refund you the price difference.

You are not advised to degrade to lower specifications because DCS instance performance may be affected. Take specification upgrade as an example. Assume that you purchased a DCS instance (basic edition | Redis 5.0 | master/standby | x86 | 2 replicas | 8 GB) on April 8, 2023 for one month, but changed the specifications to basic edition | Redis 5.0 | master/standby | x86 | 2 replicas | 16 GB on April 18, 2023. The price for the old specification is USD106.85/month, and the new one is USD213.7/month. The formula is as follows:

**Specification upgrade fee = New specification price × Remaining period – Old specification price × Remaining period**

The remaining period in the formula is the remaining days of each calendar month divided by the maximum days of the corresponding calendar month. In this sample, the remaining period = 12/30 (the remaining days of April/maximum days

of April) + 8/31 (the remaining days of May/maximum days of May) = 0.6581. Then, the upgrade fees = 213.7 x 0.6581 – 106.85 x 0.6581 = USD70.31.

For more information, see **Pricing of a Changed Specification**.

## Impact of Expiration

**Figure 2-1** describes the status of each stage of a yearly/monthly DCS 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 DCS instance
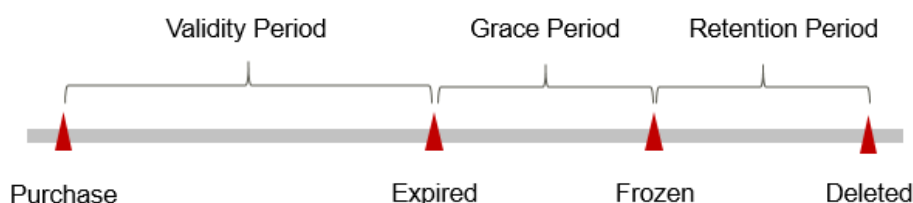


**Expiration Reminder**

From the 7th day before a yearly/monthly DCS 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 DCS resource is not renewed after expiration, it goes into the grace period and changes to the **Expired** state. Within the grace period, you can access your DCS instance, but the following operations will be restricted:

● Changing specifications

● Changing the bandwidth size

If you do not renew your yearly/monthly DCS 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 DCS instance in the retention period.

**If you still do not renew your yearly/monthly DCS 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 **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 DCS instances.

## 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 DCS 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 DCS instance is successfully created and ends at the time when the instance is deleted.

> ☐ NOTE
>
> It takes a certain time to launch a DCS instance. Billing starts from the **Run** time on the DCS instance's **Basic Information** page

For example, if you purchase a pay-per-use DCS instance at 8:45:30, and delete it at 8:55:00, the billing period is from 8:00:00 to 9:00:00. Fees are generated from 8:45:30 to 8:55:30, and the billing duration is 600 seconds.

## Billing Example

Assume that you purchased a pay-per-use DCS instance (specifications: basic edition | Redis 5.0 | master/standby | x86 | 2 replicas | 8 GB) at 9:59:30 on April 18, 2023, and deleted it at 10:45:46 on April 18, 2023.

- The first billing period is from 9:00:00 to 10:00:00. Fees are generated from 9:59:30 to 10:00:00. The billing duration is 30 seconds within the period.
- The second billing period is from 10:00:00 to 11:00:00. Fees are generated from 10:00:00 to 10:45:46. The billing duration is 2746 seconds within the period.

You need to pay for each billing period in advance. The billing formula is as follows: Unit price of instance specifications x Billing duration. For details about the hourly price of a DCS instance, see **DCS Pricing Details**. Divide the price by 3600 to obtain the price for each second.

The unit price of this pay-per-use instance is USD0.208/hour. The total fee for the two billing periods is 0.208 x (30 + 2746)/3600 = USD0.16.

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**NOTICE**

The prices are for reference only. Actual prices are subject to those in **DCS Pricing Details**.

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## 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. The start time and end time of each billing record correspond to when different specification took effect within the hour.

For example, you purchased a pay-per-use DCS instance (basic edition | Redis 5.0 | master/standby | x86 | 2 replicas | 8 GB) at 9:00:00 and upgraded it to basic edition | Redis 5.0 | master/standby | x86 | two replicas | 16 GB at 9:30:00. Two billing records will be generated from 9:00:00 to 10:00:00.

- The first record corresponds to 9:00:00 to 9:30:00, based on the price for basic edition | Redis 5.0 | master/standby | x86 | 2 replicas | 8 GB.
- The second record corresponds to 9:30:00 to 10:00:00, based on the price for basic edition | Redis 5.0 | master/standby | x86 | 2 replicas | 16 GB.

## Impact of Arrears

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

**Figure 2-2** Life cycle of a pay-per-use DCS instance
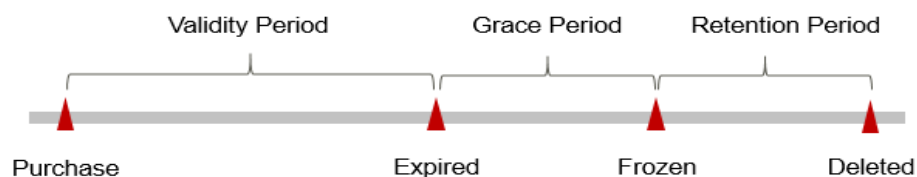


### Arrears Alert

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 DCS instances, the account status turns to arrears. In arrears, the pay-per-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 DCS 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)**.

# 3 Billing Items

## Description

The billing item of DCS is DCS instances. For details, see **Table 3-1**.

**Table 3-1** DCS billing item

| Billing Item | Description | Billing Mode | Formula |
|---|---|---|---|
| DCS instance | DCS usage is billed by DCS instance specification. | Yearly/Monthly and pay-per-use | **Instance specification unit price x Purchase duration**<br>For details, see **DCS Pricing Details**. |

If a client accesses a DCS instance through an ECS, see **ECS Pricing Details** for ECS billing details.

# **4** Billing Mode Changes

## 4.1 Overview

After purchasing a DCS instance, you can change your billing mode to meet changing needs. You can **change from pay-per-use to yearly/monthly** or **from yearly/monthly to pay-per-use**.

📖 **NOTE**

Currently, the yearly/monthly billing mode is supported only in the CN-Hong Kong region. In other regions, only the pay-per-use mode is supported, and it cannot be changed.

## 4.2 Pay-per-Use to Yearly/Monthly

If you want to use a pay-per-use DCS instance for a long time, you can change the billing mode to yearly/monthly to reduce costs. If you change the billing mode from pay-per-use to yearly/monthly, a new order is generated. The yearly/monthly resource takes effect immediately when you make the payment.

Assume that you bought a pay-per-use DCS instance on Apr 18, 2023, 15:29:16, and you changed the instance's billing mode to yearly/monthly on Apr 18, 2023, 16:30:30 (a change-to-yearly/monthly order generated). After you paid the order, the DCS instance immediately entered the yearly/monthly billing mode. On the **Billing Center** > **Billing** page, three bills are generated as follows:

- Pay-per-use: Apr 18, 2023, 15:00:00 to Apr 18, 2023, 16:00:00. Fees are generated for the period from 15:29:16 to 16:00:00.
- Pay-per-use: Apr 18, 2023, 16:00:00 to Apr 18, 2023, 17:00:00. Fees are generated for the period from 16:00:00 to 16:30:30.
- Yearly/Monthly: Apr 18, 2023, 16:30:30

📖 **NOTE**

Currently, the yearly/monthly billing mode is supported only in the CN-Hong Kong region. In other regions, only the pay-per-use mode is supported, and it cannot be changed.

## Prerequisites

- The billing mode of the DCS instance is pay-per-use.
- The DCS instance is in the **Running** state.

## Procedure

**Step 1** Log in to the console.

**Step 2** Click ☰ in the upper left and choose **Middleware** > **Distributed Cache Service (for Redis)**.

**Step 3** In the navigation pane, choose **Cache Manager**.

**Step 4** Choose **More** > **Change Billing** in the **Operation** column of the target DCS instance.
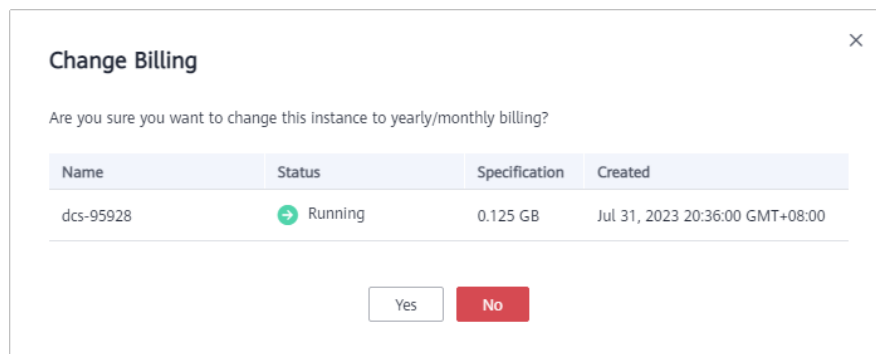
> 📖 **NOTE**
>
> The billing mode of multiple pay-per-use DCS instances can be changed in batches. The procedure is as follows:
>
> 1. Select multiple DCS instances whose billing mode is to be changed to yearly/monthly.
> 2. Click **Change Billing** above the instance list.

**Step 5** In the displayed **Change Billing** dialog box, click **Yes**.

**Figure 4-1** Changing billing



**Step 6** Select the required duration, determine whether to enable auto-renewal, confirm the expected expiration date and price, and click **Pay**.

**Figure 4-2** Changing from pay-per-use to yearly/monthly
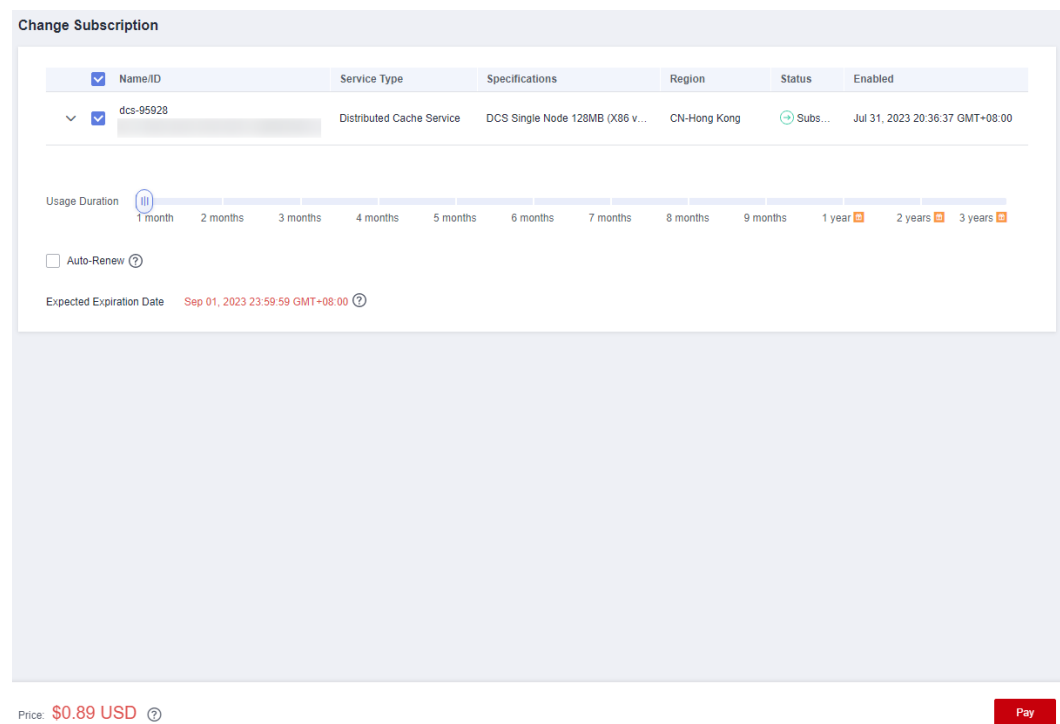


**Step 7** Select a payment method and make your payment. Once the order is paid, the billing mode becomes yearly/monthly.

**----End**

# 4.3 Yearly/Monthly to Pay-per-Use

After creating a yearly/monthly DCS instance, you can change the billing mode to pay-per-use to reclaim some costs and use the instance more flexibly.

You can change the billing mode from yearly/monthly to pay-per-use on the DCS console (see **Changing to Pay-per-Use on the Cloud Service Console**) or in Billing Center (see **Changing to Pay-per-Use in Billing Center**).

📖 **NOTE**

The pay-per-use billing mode will take effect only after the yearly/monthly subscription has expired.

## Prerequisites

Your DCS instance is in the **Running** state.

## Changing to Pay-per-Use on the Cloud Service Console

**Step 1** Log in to the console.

**Step 2** Click ☰ in the upper left and choose **Middleware** > **Distributed Cache Service (for Redis)**.

**Step 3** In the navigation pane, choose **Cache Manager**.

**Step 4** Choose **More** > **Change to Pay-per-Use** in the **Operation** column of the target DCS instance.

**Step 5** Confirm the change details, and click **Change to Pay-per-Use**.

**Figure 4-3** Changing the billing mode to pay-per-use upon expiration
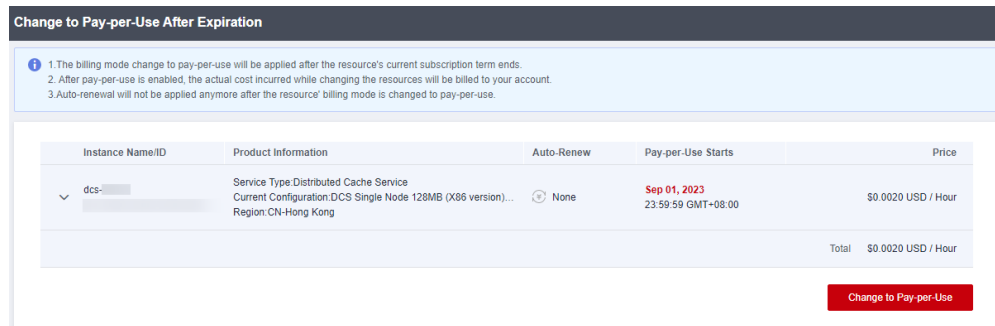


----**End**

## Changing to Pay-per-Use in Billing Center

**Step 1** Log in to the 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** Customize search criteria. For example, set **Service Type** to **Distributed Cache Service**.

- 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.
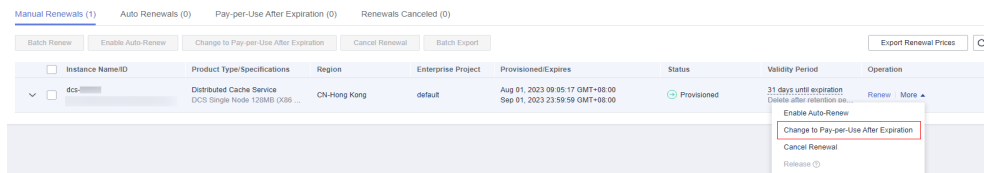
**Figure 4-4** Renewals
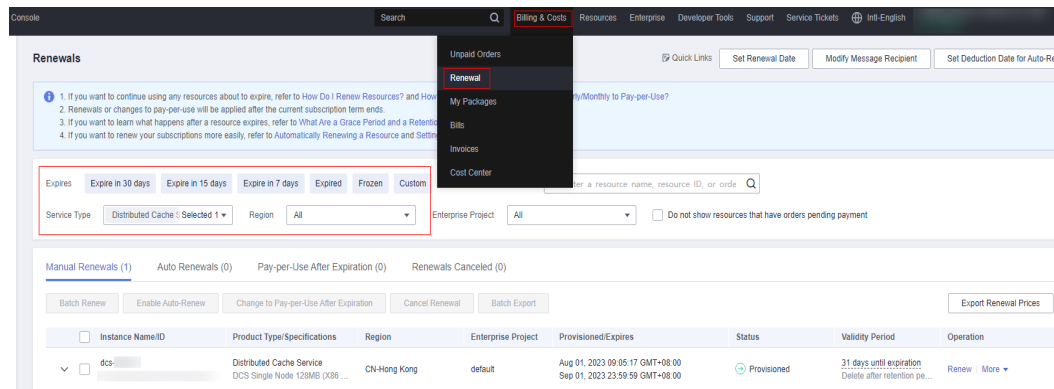


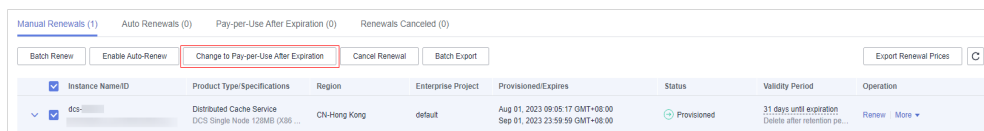**Step 4** Set the billing mode to change to pay-per-use after the yearly/monthly subscription expires.

- Single resource: Select the DCS instance for which you want to change the billing mode, and choose **More** > **Change to Pay-per-Use After Expiration** in the **Operation** column.

**Figure 4-5** Changing the billing mode of a single resource from yearly/monthly to pay-per-use after expiration



- Multiple resources: Select the DCS instances for which you want to change the billing mode, and click **Change to Pay-per-Use After Expiration** above the resource list.

**Figure 4-6** Batch changing the billing mode from yearly/monthly to pay-per-use after expiration



**Step 5** Confirm the change details, and click **Change to Pay-per-Use**.

**Figure 4-7** Changing the billing mode to pay-per-use upon expiration
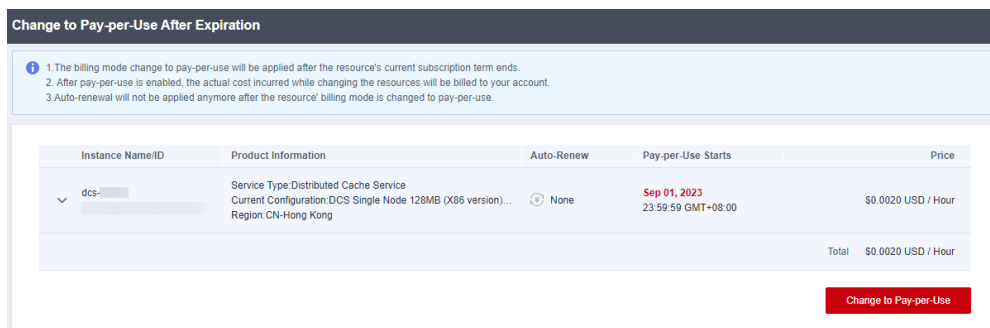


**----End**

# 5 Renewing Subscriptions

## 5.1 Overview

### Description

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

Only yearly/monthly DCS instances can be renewed. Pay-per-use DCS 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 DCS instance is not affected. For details about the statuses of a DCS instance after it expires, see **Impact of Expiration**.

📖 **NOTE**

Currently, the yearly/monthly billing mode is supported only in the CN-Hong Kong region.

### Renewal Functions

**Table 5-1** describes the functions related to the renewal of DCS instances.

**Table 5-1** Renewal functions

| Function | Description |
|---|---|
| **Manually Renewing a DCS Instance** | To use a yearly/monthly DCS instance longer, renew the subscription anytime on the console as long as the instance is not automatically deleted due to expiration. |
| **Auto-renewing a DCS Instance** | After auto-renewal is enabled, the DCS 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 DCS instance, as shown in **Figure 5-1**.

**Figure 5-1** Life cycle of a DCS instance
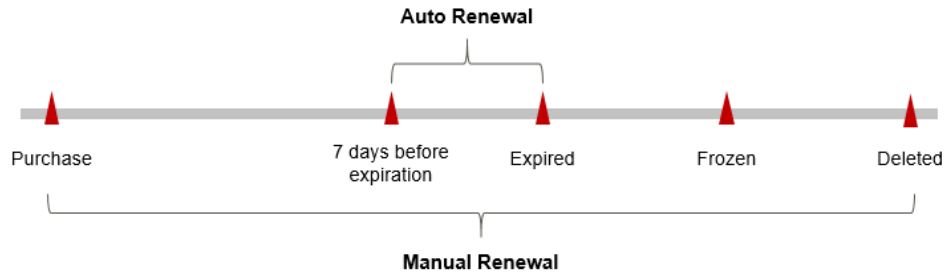


- A DCS instance is in the **Running** state from the time when it is purchased to the time when it expires.

- 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 a retention period. If you do not renew the subscription within the retention period, your instance is automatically deleted.

☐ **NOTE**

　　Both the grace and retention periods are 15 days.

Auto-renewal can be enabled anytime before a DCS 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.

# 5.2 Manually Renewing a DCS Instance

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

## Renewing a Subscription on the Cloud Service Console

**Step 1** Log in to the console.

**Step 2** Click ☰ in the upper left and choose **Middleware** > **Distributed Cache Service (for Redis)**.

**Step 3** In the navigation pane, choose **Cache Manager**.

**Step 4** Choose **More** > **Renew** in the **Operation** column of the target DCS instance.

📖 NOTE

> You can also batch renew multiple yearly/monthly DCS instances. The procedure is as follows:
> 1. Select multiple DCS instances whose subscription is to be renewed.
> 2. Click **Renew** above the instance list.
> 3. In the displayed **Renew** dialog box, click **Yes**.

**Step 5** Select a renewal duration and determine whether to enable **Renewal Date**. Confirm the price and click **Pay**.

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

**Figure 5-2** Confirming renewal



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

**----End**

## Renewing a Subscription in Billing Center

**Step 1** Log in to the 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** 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.
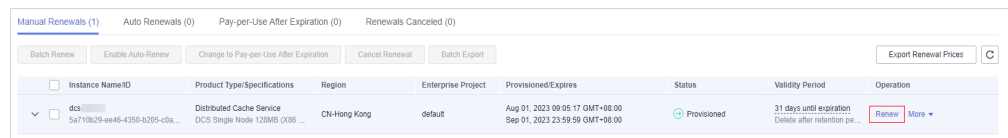
**Figure 5-3** Renewals
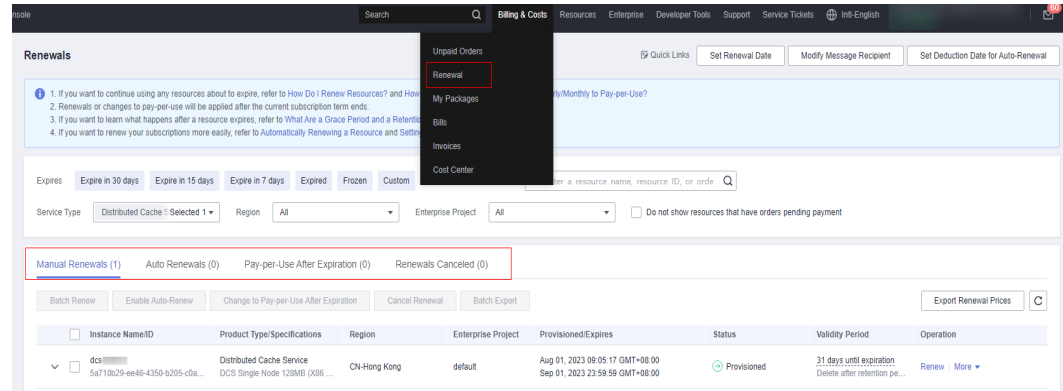


All resources that need to be manually renewed can be placed on the **Manual Renewals** tab page. For details, see **Restoring to Manual Renewal**.

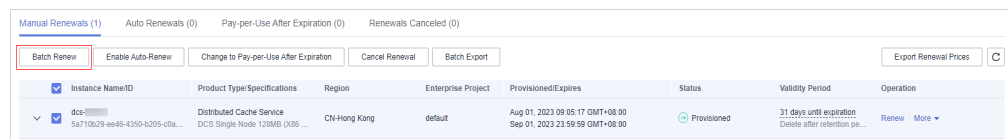**Step 4**   Manually renew resources.

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

  **Figure 5-4** Separate renewal

  

- Batch renewal: Check the boxes for the desired resources, and click **Batch Renew** in the upper left corner.
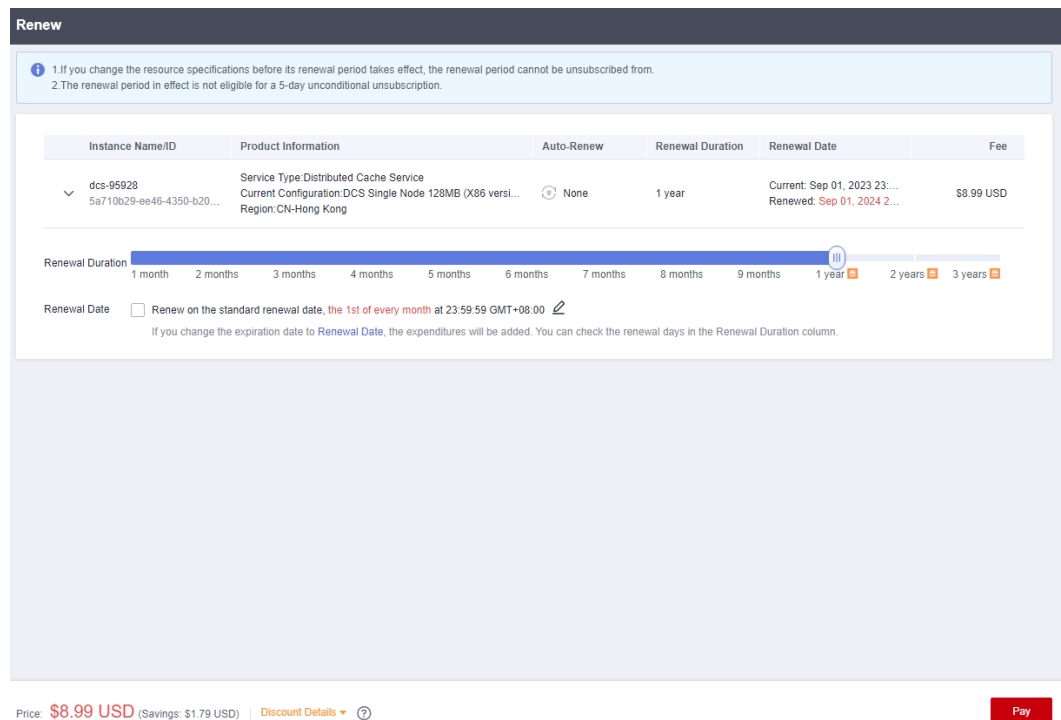
  **Figure 5-5** Batch renewal

  

**Step 5**   Select a renewal duration and determine whether to enable **Renewal Date**. Confirm the price and click **Pay**.

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

**Figure 5-6** Confirming renewal



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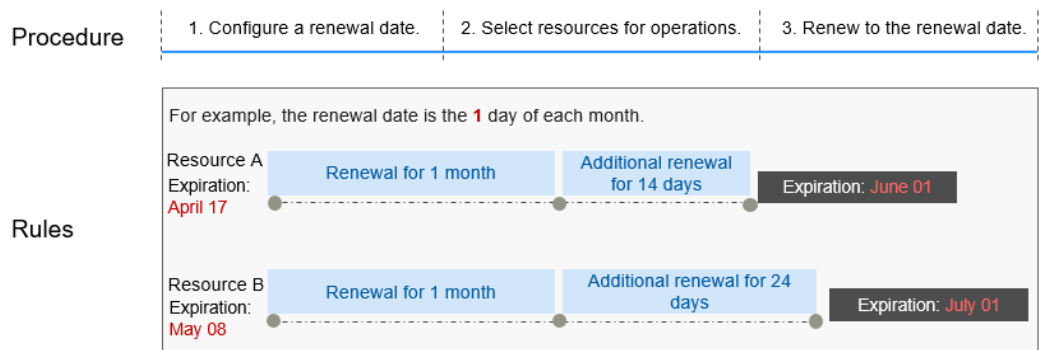
**----End**

## Setting a Renewal Date

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

In **Figure 5-7**, a user renews two resources that will expire at different time for one month and sets a fixed renewal date.

**Figure 5-7** Setting a fixed renewal date



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

# 5.3 Auto-renewing a DCS Instance

Auto-renewal is easier and prevents DCS 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 period are calculated based on the expiration date of the instance.

- The auto-renewal duration is customized by you. For example, if you select 3-month renewal duration, your instance is automatically renewed for three months before each expiration.

- Auto-renewal can be enabled anytime before a DCS 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.

- 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 When Buying a DCS Instance

You can enable auto-renewal when buying a DCS instance, as shown in **Figure 5-8**. For more information about buying a DCS instance, see **Buying a DCS Redis Instance**.

**Figure 5-8** Enabling auto-renewal



If you enable auto-renewal when buying a DCS instance, the auto-renewal periods are as follows:

- 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

**Step 1** Log in to the 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**  Customize search criteria. For example, set **Service Type** to **Distributed Cache Service**.

- 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.
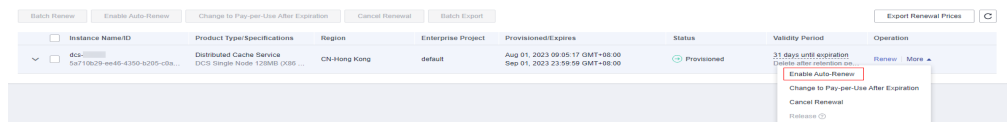
**Figure 5-9** Renewals
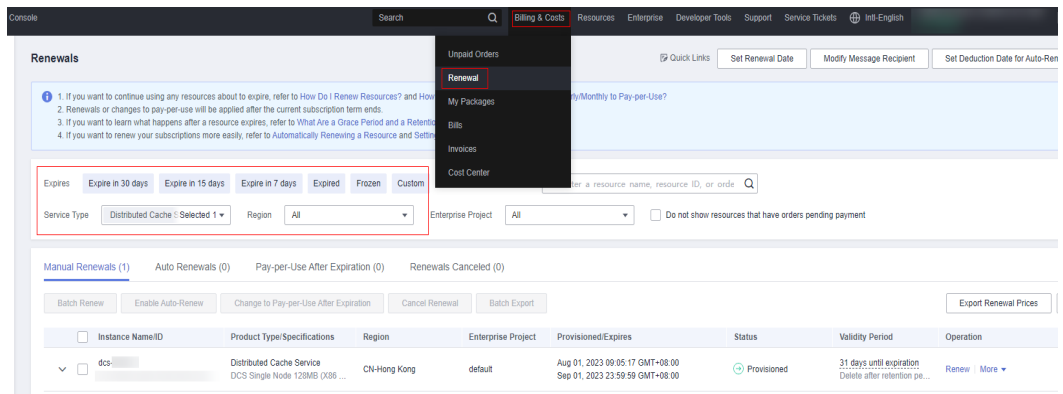


**Step 4**  Enable auto-renewal for yearly/monthly resources.

- Separate auto-renewal: Choose **More** > **Enable Auto-Renew** in the **Operation** column of the desired DCS instance.

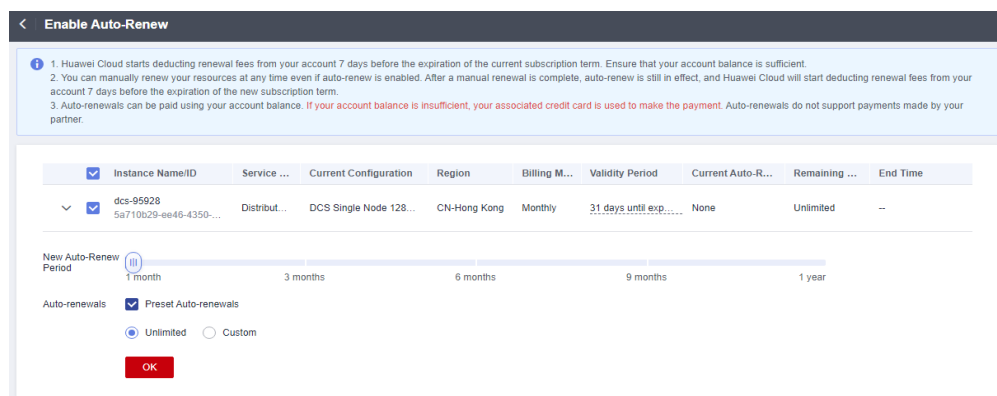**Figure 5-10** Enabling auto-renewal for a single resource



- Batch auto-renewal: Select the desired DCS instances and click **Enable Auto-Renew** above the list.

**Figure 5-11** Enabling auto-renewal for multiple resources
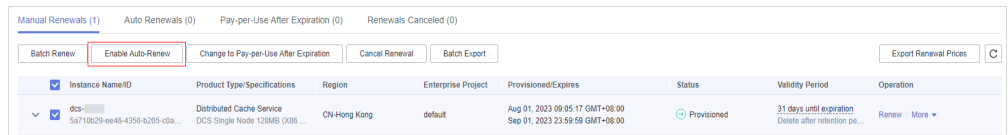


**Step 5**  Select a renewal period, specify the desired auto-renewal times, and click **Pay**.

**Figure 5-12** Enabling auto-renewal



**----End**

# 6 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 resources can be settled by hour, day, or month based on usage type. Pay-per-use DCS resources are settled by hour.

The fee deduction time of pay-per-use resources may be later than the settlement period. For example, if a DCS instance (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** > **Expenditure Details** page, **Expenditure Time** indicates the time when a pay-per-use product is used.

## Viewing Bills of a Specific Resource

**Step 1**  Log in to the console.

**Step 2**  Click  ☰  in the upper left and choose **Middleware** > **Distributed Cache Service (for Redis)**.

**Step 3**  In the navigation pane, choose **Cache Manager**.

**Step 4**  Click the icon shown in the following figure to copy the resource ID.

**Figure 6-1** Obtaining the resource ID



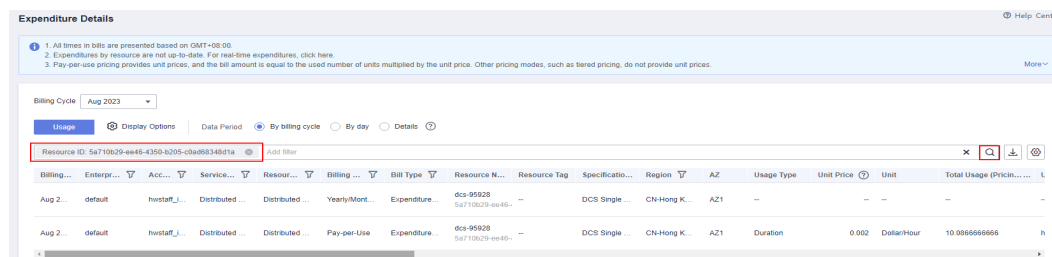**Step 5**  On the top menu bar, choose **Billing & Costs** > **Bills**.

**Step 6** In the navigation pane, choose **Billing** > **Expenditure Details**. Select **Resource ID** as the filter condition, enter the resource ID copied in **Step 4**, and click 🔍 to locate the bill of the resource.

**Figure 6-2** Querying a resource bill



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

**----End**

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

Assume that you purchased a pay-per-use DCS instance (basic edition | Redis 5.0 | master/standby | x86 | 2 replicas | 128 MB) at 10:09:06 on July 13, 2023, and deleted it at 12:53:16 on July 13, 2023.

- Expenditure items

  Pay-per-use DCS instances are billed by second and are settled on the hour. You can check whether the information about each billing period in the transaction bill is consistent with the actual information. For details, see **Table 6-1**.

**Table 6-1** Transaction bill of a DCS instance

| Service Type | Distributed Cache Service (DCS) |
|---|---|
| Resource Type | Distributed Cache Service V2 |
| Billing mode | Pay-per-use |
| Expenditure time | From 10:09:06 on July 13, 2023 to 12:53:16 on July 13, 2023, three transaction bills are generated for the following periods:<br>• July 13, 2023, 10:09:06–July 13, 2023, 11:00:00<br>• July 13, 2023, 11:00:00–July 13, 2023, 12:00:00<br>• July 13, 2023, 12:00:00–July 13, 2023, 12:53:16 |

| List price | List price = Usage x Unit price |
| --- | --- |
| | In this example, the usage of the DCS instance in the first billing period is 3054 seconds. You can query the unit price from **DCS Pricing Details**. For example, if the unit price for the instance flavor is USD0.004/hour, the list price = (3054/3600) x 0.004 = USD0.00339333. 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 (USD) 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. |
| | Take the first period as an example. The truncated amount is USD0.00339333. |
| Amount | Amount = List price – Discount amount – Truncated amount |
| | Take the first billing period as an example. If the discount amount is 0, the amount due is 0.00339333 – 0 – 0.00339333 = USD0.00. |

- Expenditure details

  Expenditure details display detailed information of bills from multiple dimensions. By default, the expenditure details of a resource are displayed by usage and by billing period. **Table 6-2** illustrates the DCS bill details, which can be used to check against the actual usage.

**Table 6-2** Bill details of a DCS instance

| Service Type | Distributed Cache Service (DCS) |
| --- | --- |
| Resource Type | Distributed Cache Service V2 |
| Billing Mode | Pay-per-use |
| Resource name/ID | Name and ID of a DCS instance<br>Example: **dcs-272f**, **19482898-a061-41f9-bd9d-e4265dba3a8a** |
| Specifications | DCS instance type and specifications<br>Example: **DCS master standby 128 MB 2 replica instance (X86)** |
| Usage type | **Duration** for pay-per-use |

| 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.
For details about the unit price of pay-per-use DCS instances, see **DCS Pricing Details**. |
|---|---|
| Unit | USD/hour for pay-per-use |
| Total usage | The usage is displayed by the resource's unit price, which is USD/hour for a DCS instance. Therefore, the DCS instance usage is measured by hour.
In this example, the total usage from July 13, 2023, 10:09:06 to July 13, 2023, 12:53:16 is (3054 + 3600 + 3196)/3600 = 2.7361111111 hours. |
| Usage unit | Hour |
| List price | List price = Usage x Unit price
In this example, the usage of the DCS instance is 2.7361111111 hours. You can query the unit price from **DCS Pricing Details**. For example, if the unit price for the instance flavor is USD0.004/hour, the list price = 2.7361111111 x 0.004 = USD0.01094444. |
| 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. |
| Amount | Amount that should be paid for used cloud services after discounts are applied. |

# 7 Arrears

If there is insufficient balance and there is 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

  This is a pre-paid billing mode, so you can continue using yearly/monthly DCS instances even if your account is in arrears. However, you cannot perform operations such as modifying instance specifications and renewing orders, because they will generate new expenditures.

- Pay-per-use

  If your configured payment method is unable to pay a bill for pay-per-use DCS resources, the resources enter a grace period. After you top up your account, Huawei Cloud will bill you for expenditures generated by the resources during the grace period. You can view the expenditures on the **Overview** page of the Billing Center.

  If your account is still in arrears after the grace period ends, the resources enter the retention period and their status turns to **Frozen**. You cannot perform any operations on these resources.

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

**Figure 7-1** Life cycle of a pay-per-use DCS resource
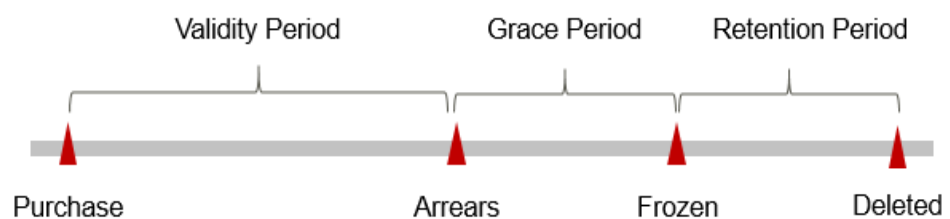


### ☐ NOTE

Both the grace and retention periods are 15 days.

## Avoiding and Handling Arrears

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

To help make sure your account never falls into arrears, you can enable **Balance Alert** on the **Overview** page of Billing Center. 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 as soon as possible. For details, see **Top-Up and Repayment**.

# 8 Billing Termination

## Yearly/Monthly Resources

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

- If you no longer need a resource, but the subscription has not yet expired, you can unsubscribe from it. Depending on what coupons were used for the purchase and on if 5-day unconditional unsubscription rules apply, Huawei Cloud may issue you a refund. For details about unsubscription rules, see **Unsubscriptions**.
- 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.

## Pay-per-Use Resources

If a pay-per-use DCS instance is no longer needed, delete it to stop billing.

## Searching for Resources from Bills and Stopping Billing

To ensure that all related resources are deleted, you can search the billing records by resource ID, and then delete the resources you identify in this way. To do so, perform the following operations:

**Step 1** Log in to the console.

**Step 2** On the top menu bar, choose **Billing & Costs** > **Bills**.

**Step 3** In the navigation pane, choose **Billing** > **Expenditure Details**. Click the icon shown in the following figure to copy the resource ID.

**Figure 8-1** Copying resource ID
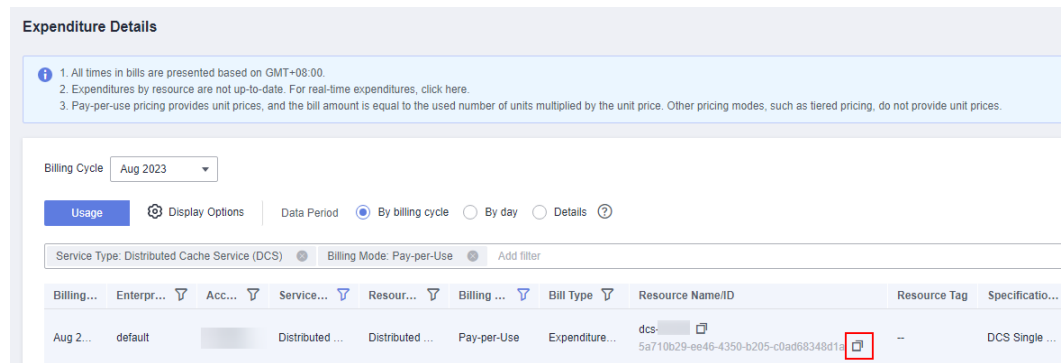


**Step 4** Click ☰ in the upper left and choose **Middleware** > **Distributed Cache Service (for Redis)**.

**Step 5** In the navigation pane, choose **Cache Manager**.

**Step 6** Select the region where the instance resource is located, select **ID** from the filter criteria, enter the resource ID copied in **Step 3**, and click the 🔍 icon to search for the resource.

> ◫ NOTE
>
> You can also copy the resource name in **Step 3** and select **Resource Name** as the filter criteria to search for instance resources by resource name.

**Figure 8-2** Searching for resources
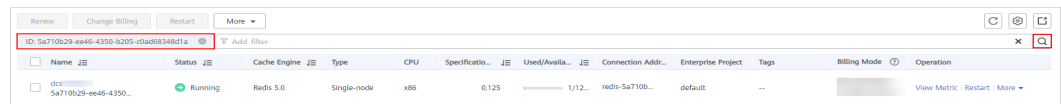


**Step 7** Click **More** > **Delete** in the **Operation** column to delete the DCS instance.

> ◫ NOTE
>
> You are billed one hour after the resource usage is calculated, so a bill may still be generated after the pay-per-use resource is deleted. For example, if you deleted a pay-per-use resource (which is billed on an hourly basis) at 08:30, the expenditures for that hour from 08:00 to 09:00 are usually charged at about 10:00.

**----End**

# 9 Cost Management

As you migrate more of your services to the cloud, managing cloud costs becomes more important. How can you manage costs when using DCS? The following describes how to manage costs in terms of cost composition, allocation, analysis, and optimization. Optimizing costs can help you maximize return on investment.

## Cost Composition

DCS incurs two types of costs:

- Resource costs: cost of resources, depending on the billing items of DCS. For details, see **Billing Items**.
- O&M costs: labor costs generated during the use of DCS.

**Figure 9-1** DCS costs
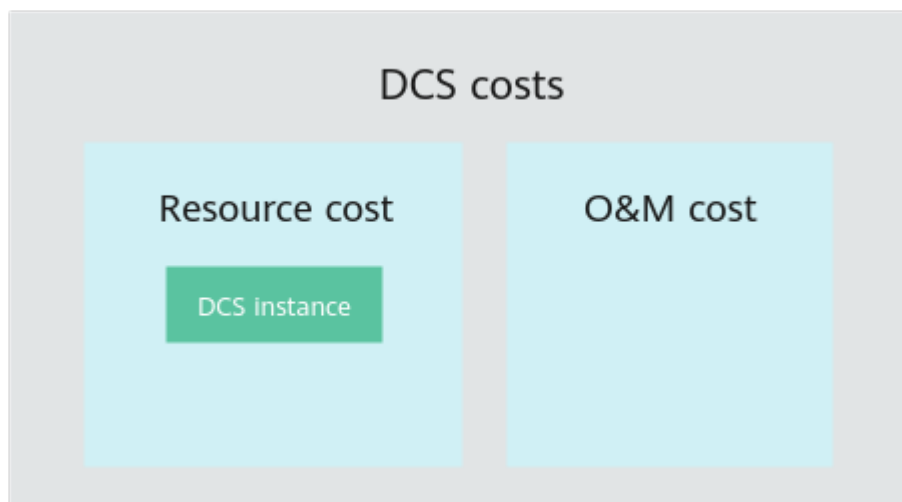


Huawei Cloud **Cost Center** helps you manage resource costs with ease. However, you need to identify, manage, and optimize O&M costs by yourself.

## Cost Allocation

A good cost accountability system is a prerequisite for cost management. It ensures that departments, business teams, and owners are accountable for their

respective cloud costs. Allocate costs to different teams or projects so that organizations have a clear picture of their respective costs.

Huawei Cloud **Cost Center** provides various tools for you to group costs in different ways. You can experiment with these tools and find a way that works best for you.

- **By linked account**

  The enterprise master account can manage costs by grouping the costs of its member accounts by linked account. 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. When purchasing cloud resources, select an enterprise project so that the costs of the resources will be allocated to the selected enterprise project. For details, see **Viewing Costs by Enterprise Project**.

  **Figure 9-2** Selecting an enterprise project for a DCS instance

  | Name | dcs-xm41 |
  |---|---|
  | Enterprise Project | default ▾  C View Enterprise Project ⑦ |

- **By cost tag**

  You can use tags to sort your Huawei Cloud resources in a variety of different ways, for example, by purpose, owner, or environment. The following is the process of managing costs by predefined tags (recommended).
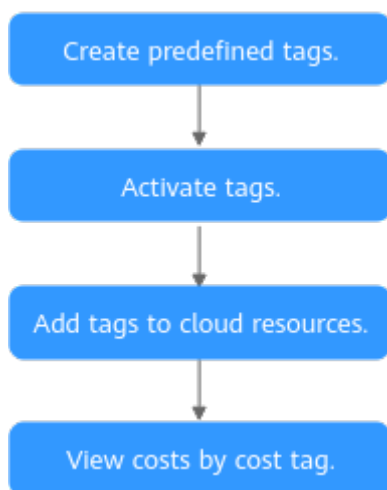
  Create predefined tags.
  ↓
  Activate tags.
  ↓
  Add tags to cloud resources.
  ↓
  View costs by cost tag.

  **Figure 9-3** Adding a tag to a cloud server

  | Tag | It is recommended that you use TMS's predefined tag function to add the same tag to different cloud resources. View predefined tags  C |
  |---|---|
  | | To add a tag, enter a tag key and a tag value below. |
  | | Enter a tag key    Enter a tag value    Add |
  | | 20 tags available for addition. |

For details, see **Viewing Costs by Cost Tag**.

- **By cost category**

  You can use cost categories provided by **Cost Center** to split shared costs. Shared costs are the costs of resources (compute, network, storage, or resource packages) shared across multiple departments or the costs that cannot be directly split by cost tag or enterprise project. These costs are not directly attributable to a singular owner, and they cannot be categorized into a singular cost type. In this case, you can define cost splitting rules to fairly allocate 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 incurred different costs. **Cost Center** visualizes your original costs and amortized costs using various dimensions and display filters for cost analysis so that you can analyze the trends and drivers of your service usage and costs from a variety of perspectives or within different defined 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**

  You can create different types of budgets on the **Budgets** page of Cost Center to track your costs against the budgeted amount 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 if any at a frequency you configured.

  Suppose you want to create a monthly budget of USD2000 for a pay-per-use DCS instance, and expect to receive an alert if the forecasted amount exceeds 80% of the budgeted amount. You can refer to the following budget information.

**Figure 9-4** Basic budget information



**Figure 9-5** Defining the budget scope



**Figure 9-6** Setting a budget alert

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

- **Resource rightsizing**

  Cloud Eye helps you monitor usage of resources, such as CPU, memory, and bandwidth, to find opportunities to save costs. You can also identify resources with high costs based on the results of **Cost Analysis** and take optimization measures accordingly.