Data Replication Service

Billing

Issue   01

Date   2023-09-30

Huawei Technologies Co., Ltd.

Address:	Huawei Industrial Base Bantian, Longgang Shenzhen 518129 People's Republic of China
Website:	https://www.huawei.com
Email:	support@huawei.com

Security Declaration

Vulnerability

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

Contents

1 Billing Overview

In this document, you will learn about how DRS tasks 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 the DRS task 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 DRS task first and then pay as you go.

  For details about the two billing modes, see **Billing Modes**.

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

- **Billed Items**

  You will be billed for configuration and data transmission fees. For details about the billing factors and formulas for each billed item, see **Billed Items**.

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

- **Renewing Subscriptions**

  If you want to continue using a DRS task after it expires, you need to renew the DRS subscription within the specified period. Otherwise, resources 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 & Costs** > **Bills** to check the DRS transactions and bills. For details, see **Bills**.

- **Arrears**

  If there is not a sufficient account balance to pay for your bill and there is no other payment method configured, your account will go into arrears. If you want to continue using your DRS task, you will need to top up your account in a timely manner. For details, see **Arrears**.

- **Stopping Billing**

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

- **Managing Costs**

  DRS costs include ownership costs and O&M costs. You can optimize costs in terms of cost collection, resource optimization, upgrade, cost saving awareness, and automatic O&M. For details, see **Cost Management**.

2 Billing Modes

2.1 Overview

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

- Yearly/Monthly is a prepaid billing. 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 DRS usage is calculated by the second but billed every 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.

Table 2-1 lists the differences between the two billing modes.

Table 2-1 Billing modes

Billing Mode	Yearly/Monthly	Pay-per-use
Payment	Prepaid	Postpaid
Billing Method	Billed by the subscription term you purchase	Calculated by the second but billed every hour
Billed Items	Configuration fee: Billed by the subscription term you purchase. Data transmission fee: Billed by the used public network traffic in GB.	Configuration fee: Billed by the actual usage duration. Data transmission fee: Billed by the used public network traffic in GB.
Billing Start	Upon task start	Upon task start

Changing the Billing Mode	Yearly/Monthly cannot be changed to pay-per-use.	Pay-per-use can be changed to yearly/monthly. **Pay-per-Use to Yearly/Monthly**
Changing the Specifications	Supported	Supported
Application Scenarios	Recommended for resources expected to be in use long-term. A cost-effective option for scenarios where the resource usage duration is predictable.	Recommended when the resource demands are likely to fluctuate and you want more flexibility.

☐ NOTE

Real-time migration supports only the pay-per-use billing mode.

Real-time synchronization and DR tasks support pay-per-use and yearly/monthly billing modes.

2.2 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 DRS tasks.

Application Scenarios

- If you want to ensure resource stability over a certain period of time, yearly/monthly billing is a good choice.
- Real-time migration supports only the pay-per-use billing mode. Real-time synchronization and DR tasks support pay-per-use and yearly/monthly billing modes.

Billed Items

Table 2-2 Items billed on a yearly/monthly basis

Billed Item	Description
Configuration fee	Configuration fees are generated when you use compute and storage resources and process data. In yearly/monthly mode, you need to make upfront payments on a yearly or monthly basis.

Billed Item	Description
Data transmission fee	Data transmission fees are generated when you process or transfer data through a public network (excluding VPN, VPC, Direct Connect, and CC networks). You are billed based on the actual public network traffic you use in GB.

NOTICE

The prices in the figure are just examples. The actual prices are those displayed on **DRS Price Calculator**.

Billed Usage Period

A yearly/monthly task is billed for the purchased duration. The billing starts from when you activated or renewed the subscription, and ends at 23:59:59 of the expiry date.

NOTE

It takes a certain time to create a DRS task. The billing starts from the **Started** time. You can view the **Task Created** time and **Started** time on the **Basic Information** page of a DRS task.

For example, if you purchased and started a one-month DRS task 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 and started a one-month DRS task 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 need to pay in advance for each billed usage period.

Price Change After Specification Change

If the specifications of a yearly/monthly DRS task no longer meet your needs, you can change the specifications on the console. The system will recalculate the price and either bill or refund you the difference.

- If you upgrade your task specifications, you need to pay the difference in price.

The price difference will be calculated as follows:

Price difference for the specification upgrade = Price for the new specifications × Remaining period - Price for the original specifications × Remaining period

> **NOTICE**
>
> - The prices in the example are only for reference. The actual prices are those displayed on **DRS Price Calculator**.
> - DRS allows you to select and change specifications for some specified synchronization and DR tasks. For details, see **Specification Description**.

Impact of Expiration

Figure 2-1 shows the statuses a yearly/monthly task can go through throughout its lifecycle. After a task is purchased and started, it enters the valid period and runs normally during this period. If the task is not renewed after it expires, before being deleted, it first enters a grace period and then a retention period.

Figure 2-1 Lifecycle of a yearly/monthly task
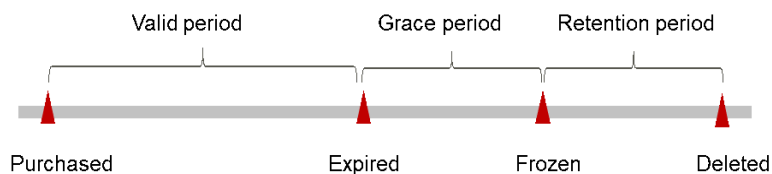
Expiration Reminder

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

Impact of Expiration

If your yearly/monthly task is not renewed after it expires, it changes to the **Expired** state and enters a grace period. During the grace period, you can access the DRS task but cannot perform operations such as changing task specifications.

If the yearly/monthly task is not renewed after the grace period ends, its status turns to **Frozen** and it enters a retention period. You cannot perform any operations on the task while it is in the retention period.

If the yearly/monthly task is not renewed by the time the retention period ends, it will be released and data cannot be restored.

> **NOTE**
>
> - For details about renewal, see **Overview**.

2.3 Pay-per-Use Billing

Pay-per-use billing means you pay nothing up front and are not tied into any contract or commitment. This section describes the billing rules for pay-per-use DRS tasks.

Application Scenarios

Pay-per-use billing is good for unpredictable or short-term workloads that cannot tolerate any interruptions.

Billed Items

Table 2-3 Items billed on a pay-per-use basis

Billed Item	Description
Configuration fee	Configuration fees are generated when you use compute and storage resources and process data. In pay-per-use mode, you are billed based on the actual usage duration.
Data transmission fee	Data transmission fees are generated when you process or transfer data through a public network (excluding VPN, VPC, Direct Connect, and CC networks). You are billed based on the actual public network traffic you use in GB.

NOTICE

The prices in the figure are just examples. The actual prices are those displayed on **DRS Price Calculator**.

Billed Usage Period

Pay-per-use task usage is calculated by the second and billed every hour. The billing starts when the task is launched and ends when the task is completed.

NOTE

It takes a certain time to create a DRS task. The billing starts from the **Started** time. You can view the **Task Created** time and **Started** time on the **Basic Information** page of a DRS task.

For example, if you created a pay-per-use DRS synchronization task at 8:40:00, started the task at 8:45:30, and stopped it at 8:55:30, you are billed for the 600 seconds from 8:45:30 to 8:55:30.

Billing Examples

Suppose you started a pay-per-use DRS synchronization task on April 18, 2023, 9:59:30 and stopped it on April 18, 2023, 10:45:46. Two usage periods will be billed:

- Usage of 30 seconds from 9:59:30 to 10:00:00
- Usage of 2,746 seconds from 10:00:00 to 10:45:46

You need to pay for each billed usage period. The prices displayed in the pricing details is per hour, so you need to divide it by 3,600 to obtain the price for each second and then multiple the per-second price by the total number of seconds.

Price Change After Specification Change

If you change the specifications of a pay-per-use task, the original order will become invalid and a new order will be placed. You will be billed based on the new specifications.

If you change the task specifications within a given hour, multiple records will be generated. Different records record the billing for different specifications.

For example, if you started a pay-per-use task with the Medium specifications at 9:00:00 and changed the specifications to Large at 9:30:00, the following items will be billed:

- Medium task usage from 9:00:00 to 9:30:00

- Large task usage from 9:30:00 to 10:00:00

📖 NOTE

DRS allows you to select and change specifications for some specified synchronization and DR tasks. For details, see **Specification Description**.

Impact of Arrears

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

Figure 2-2 Lifecycle of a pay-per-use task
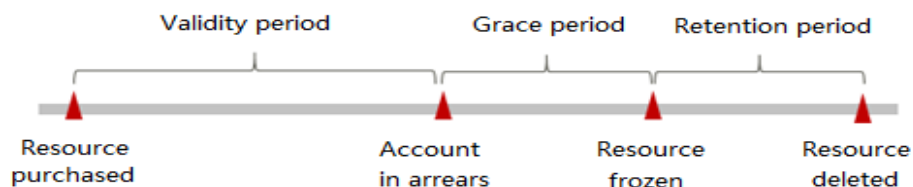
Arrears Reminder

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

Impacts of Arrears

If your account is insufficient to pay your amount due, your account goes into arrears, and the pay-per-use task enters the grace period. You are still responsible for expenditures generated during the grace period. You can view the charges on the **Billing Center** > **Overview** page and pay any past due balance as needed.

If you do not bring your account balance current before the grace period expires, the task turns to **Frozen** and enters a retention period. You cannot perform any operations on a pay-per-use task in the **Frozen** status.

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

2.4 Preferential Policies

We have arranged preferential pricing in the following scenarios:

- Real-time migration tasks are free of configuration and data transmission fees in the first seven days, lowering your costs for migrating data to the cloud.
- Real-time migration and synchronization tasks will provide long-term discounts, lowering your costs for data transfers.

You can use the **DRS Price Calculator** to quickly calculate the reference price based on the required specifications.

3 Billed Items

Billing

You will be billed for the configuration and data transmission fees based on a pay-per-use or yearly/monthly basis for a single DRS task.

Table 3-1 DRS billed items

Billed Item	Description	Billing Mode
Configuration fee	Configuration fees are generated when you use compute and storage resources and process data.	• In pay-per-use mode, you are billed based on the actual usage duration. • In yearly/monthly mode, you need to make upfront payments on a yearly or monthly basis.
Data transmission fee	Data transmission fees are generated when you process or transfer data through a public network (excluding VPN, VPC, Direct Connect, and CC networks).	You are billed based on the actual public network traffic you use in GB.

☐ **NOTE**

- Real-time migration supports only the pay-per-use billing mode.
- Real-time synchronization and DR tasks support pay-per-use and yearly/monthly billing modes.

Billing Scenarios

Table 3-2 shows the common billed data flow types.

Table 3-2 Billing description

Function	Billing Mode	Commercial Data Flow	Direction
Real-time migration	Only the pay-per-use billing is supported. For details, see **Pay-per-Use Billing**.	- MySQL -> MySQL - MySQL -> DDM - MySQL -> GaussDB(for MySQL) - MongoDB -> DDS - MongoDB->GeminiDB Mongo - MySQL schema and logic table -> DDM	To the cloud
		- MySQL -> MySQL - DDS -> MongoDB	From the cloud
Backup migration	Free of charge	N/A	N/A
Real-time synchronization	Pay-per-use and Yearly/Monthly - For details about the pay-per-use billing, see **Pay-per-Use Billing**. - For details about the yearly/monthly billing, see **Yearly/Monthly Billing**.	- MySQL -> MySQL - MySQL -> PostgreSQL - MySQL -> GaussDB(DWS) - MySQL -> GaussDB(for MySQL) - MySQL -> GaussDB Primary/Standby - MySQL -> GaussDB Distributed - DDM -> MySQL - DDM -> GaussDB(DWS) - DDM -> DDM - Oracle -> MySQL - Oracle -> GaussDB(DWS) - Oracle -> GaussDB(for MySQL) - Oracle -> DDM - Oracle > PostgreSQL - Oracle -> GaussDB Primary/Standby - Oracle -> GaussDB Distributed - PostgreSQL -> PostgreSQL - MongoDB -> DDS - MariaDB -> MariaDB - GaussDB(for MySQL) -> GaussDB(for MySQL)	To the cloud

Functi on	Billing Mode	Commercial Data Flow	Direction
		• MySQL -> MySQL	From the cloud
		• MySQL -> Oracle	
		• MySQL -> CSS/ES	
		• MySQL -> Kafka	
		• DDM -> MySQL	
		• DDM -> Oracle	
		• DDM -> Kafka	
		• DDS -> MongoDB	
		• DDS->Kafka	
		• GaussDB(for MySQL) -> MySQL	
		• GaussDB(for MySQL) -> GaussDB(DWS)	
		• GaussDB(for MySQL) -> Kafka	
		• GaussDB(for MySQL) -> Oracle	
		• GaussDB(for MySQL) -> CSS/ES	
		• GaussDB Primary/Standby -> MySQL	
		• GaussDB Primary/Standby -> Oracle	
		• GaussDB Primary/Standby -> GaussDB(DWS)	
		• GaussDB Primary/Standby ->Kafka	
		• GaussDB Primary/Standby -> GaussDB Primary/Standby	
		• GaussDB Primary/Standby -> GaussDB Distributed	
		• GaussDB Distributed -> MySQL	
		• GaussDB Distributed -> Oracle	
		• GaussDB Distributed -> GaussDB(DWS)	
		• GaussDB Distributed -> Kafka	
		• GaussDB Distributed -> GaussDB Distributed	
		• GaussDB Distributed -> GaussDB Primary/ Standby	
		• PostgreSQL -> Kafka	
		• MariaDB -> MariaDB	

Function	Billing Mode	Commercial Data Flow	Direction
		• MySQL -> CSS/ES • MySQL -> Kafka • MySQL -> GaussDB Primary/Standby • MySQL -> GaussDB Distributed • Oracle -> GaussDB Primary/Standby • Oracle -> GaussDB Distributed • Oracle -> Kafka • PostgreSQL -> Kafka • GaussDB Primary/Standby -> MySQL • GaussDB Primary/Standby -> Oracle • GaussDB Primary/Standby ->Kafka • GaussDB Primary/Standby -> GaussDB Primary/Standby • GaussDB Primary/Standby -> GaussDB Distributed • GaussDB Distributed -> MySQL • GaussDB Distributed -> Oracle • GaussDB Distributed -> Kafka • GaussDB Distributed -> GaussDB Distributed • GaussDB Distributed -> GaussDB Primary/Standby	Self-built -> Self-built
Data subscription	In the open beta test (OBT) phase, you can apply for the service free of charge.	N/A	N/A
Real-time disaster recovery	Pay-per-use and Yearly/Monthly • For details about the pay-per-use billing, see **Pay-per-Use Billing**. • For details about the yearly/monthly billing, see **Yearly/Monthly Billing**.	• MySQL -> MySQL	• Current cloud as standby • Current cloud as active • Dual-Active DR
		• MySQL -> GaussDB(for MySQL)	• Current cloud as standby

Function	Billing Mode	Commercial Data Flow	Direction
		• GaussDB(for MySQL) -> GaussDB(for MySQL)	• Current cloud as standby • Current cloud as active • Dual-Active DR
Traffic replay	This function is in the open beta test (OBT) phase and you can use it for free.	N/A	-

4 Billing Examples

Billing Scenario

A user started a pay-per-use DRS synchronization task in the EU-Dublin region at 15:30:00 on March 18, 2023. The task configuration is as follows:

- **Data Flow**: **To the cloud**
- **Source DB Engine**: **MySQL**
- **Destination DB Engine**: **MySQL**
- **Network Type**: **Public network**
- **DRS Task Type**: **Single AZ**
- **Specifications**: **Medium**

After a period of time, the user found that the current task specifications no longer met service requirements and upgraded the specifications to Large at 09:00:00 on March 20, 2023. Since the user wanted to use the task long term, the user then changed the task to yearly/monthly billing with a one-month duration at 10:30:00 on the same day. So how much will the user be billed for this task in March and April?

Billing Analysis

The total price of this DRS task involves both pay-per-use and yearly/monthly usage:

- Pay-per-use usage: March 18, 2023, 15:30:00 to March 20, 2023, 10:30:00
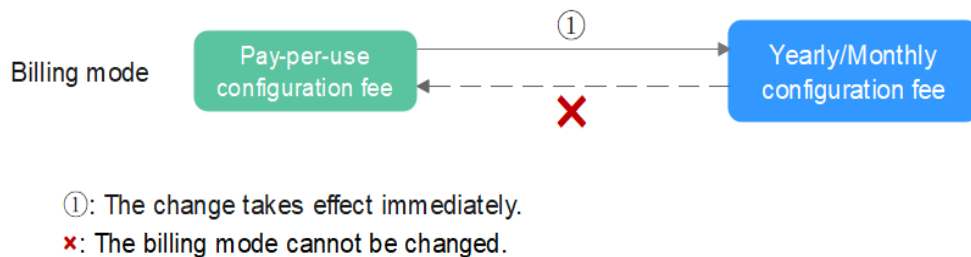- Yearly/Monthly: March 20, 2023, 10:30:00 to April 20, 2023, 23:59:59

5 Billing Mode Changes

5.1 Overview

You can change the billing mode if it no longer meets your needs. **Table 5-1** lists the changeable DRS billed items.

Table 5-1 Changeable DRS billed items

Billed Item	Change Description	Reference
Configuration fee	DRS tasks can be changed from pay-per-use to yearly/monthly, but cannot be changed from yearly/monthly to pay-per-use. ● Migration tasks: Only the pay-per-use billing is supported. ● Synchronization tasks: Only single-AZ tasks that are not frozen and in the incremental state can be changed from pay-per-use to yearly/monthly. ● DR tasks: Only tasks that are not frozen and in the DR state can be changed from pay-per-use to yearly/monthly. For dual-active DR, the billing mode can be changed from pay-per-use to yearly/monthly only when both the forward and backward subtasks are in DR state.	**Pay-per-Use to Yearly/Monthly**
Data transmission fee	The billing mode cannot be changed. You are billed based on the actual public network traffic you use in GB.	-

Figure 5-1 Billing mode change of the configuration fee

①: The change takes effect immediately.
✗: The billing mode cannot be changed.

5.2 Pay-per-Use to Yearly/Monthly

If you have a pay-per-use DRS synchronization task that you expect to use for a long time, you can change it to yearly/monthly billing to reduce costs. Doing so will create an order. After you pay for the order, yearly/monthly billing will be applied immediately.

Suppose a user started a pay-per-use DRS synchronization task at 15:29:16 on April 18, 2023 and changed it to yearly/monthly billing at 16:30:30 on the same day. After the user paid for the order, yearly/monthly billing was applied immediately. On the **Billing Center** > **Billing** page, three line items were generated, one for each of the hours the task was used on a pay-per-use basis, and one for the yearly/monthly subscription:

- Pay-per-use expenditures for 15:29:16 to 16:00:00 on April 18, 2023
- Pay-per-use expenditures for 16:00:00 to 16:30:30 on April 18, 2023
- A single, yearly/monthly expenditure generated on April 18, 2023, 16:30:30

Constraints

- Migration tasks: Only the pay-per-use billing is supported.
- Synchronization tasks: Only single-AZ tasks that are not frozen and in the incremental state can be changed from pay-per-use to yearly/monthly.
- DR tasks: Only tasks that are not frozen and in the DR state can be changed from pay-per-use to yearly/monthly. For dual-active DR, the billing mode can be changed from pay-per-use to yearly/monthly only when both the forward and backward subtasks are in DR state.

Procedure

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

Step 2 Click   in the upper left corner and select a region and a project.

Step 3 Click   in the upper left corner and choose **Databases** > **Data Replication Service**. The DRS information page is displayed.

Step 4 On the task management page, locate the target task and choose **More** > **Change to Yearly/Monthly** in the **Operation** column.

Step 5 Select a required duration. The minimum duration is one month. Confirm the order and click **Pay**.

Step 6 Select a payment method and click **Pay**.

Step 7 After the billing mode is changed to yearly/monthly, view and manage the task on the task management page.

In the upper right corner of the task list, click to refresh the list. After the billing mode is changed to yearly/monthly, the **Billing Mode** status changes to **Yearly/Monthly**.

----End

6 Renewing Subscriptions

6.1 Overview

When to Renew Subscriptions

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

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

If you renew a DRS task before it expires, resources will be retained and you can continue using the task. For details about DRS task statuses after they have expired and the associated impacts, see **Impact of Expiration**.

How to Renew Subscriptions

You can renew a yearly/monthly task manually or automatically.

Table 6-1 Renewing a yearly/monthly task

Method	Description
Manually Renewing a DRS Task	You can renew a yearly/monthly task on the console any time before it is automatically deleted.
Auto-renewing a DRS Task	You can enable auto-renewal to automatically renew a DRS task 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 DRS task based on the phase the task is currently in.

Figure 6-1 Selecting a renewal method based on DRS task's current phase
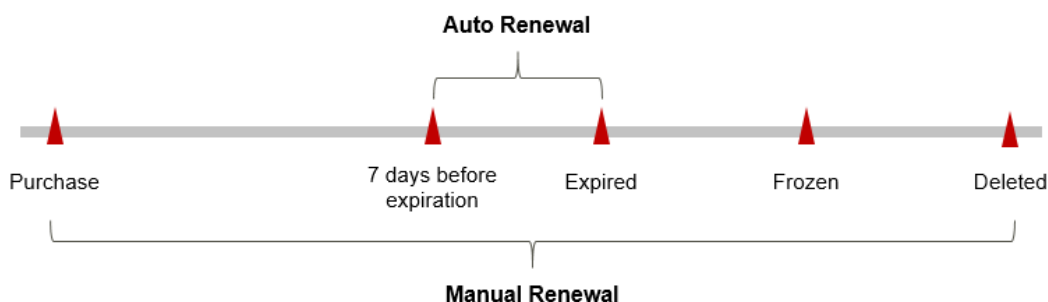
- A DRS task is in the **Available** state after it is provisioned.
- When a DRS task subscription expires, the status will change from **Available** to **Expired**.
- If an expired DRS task is not renewed, it enters a grace period. If it is not renewed by the time the grace period expires, the DRS task will be frozen and enter a retention period.
- If you do not renew the subscription before the retention period expires, your resources will be automatically deleted.

You can enable auto-renewal any time before a DRS task 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 DRS Task

You can renew a yearly/monthly DRS task on the console any time before it is automatically deleted due to arrears.

Renewing a DRS Task on the Console

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

Step 2 Click ⑨ in the upper left corner and select a region and a project.

Step 3 Click ☰ in the upper left corner and choose **Databases** > **Data Replication Service**.

Step 4 On the task management page, locate the DRS task you want to renew and choose **More** > **Renew** in the **Operation** column.

Step 5 On the displayed page, renew the DRS task.

----End

Renewing a Subscription in the Billing Center

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 Select the search criteria.

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

You can move all DRS tasks that need to be manually renewed to the **Manual Renewals** tab page.

Step 4 Manually renew DRS tasks.

- Individual renewal: Click **Renew** in the **Operation** column for the desired DRS task.

- Batch renewal: Check the boxes for the desired DRS tasks, 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 DRS Tasks**. Confirm the price and click **Pay**.

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

----End

Setting the Same Renewal Day for Yearly/Monthly DRS Tasks

If the DRS tasks have different expiry dates, you can set the same renewal day, for example, the first day of each month, 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
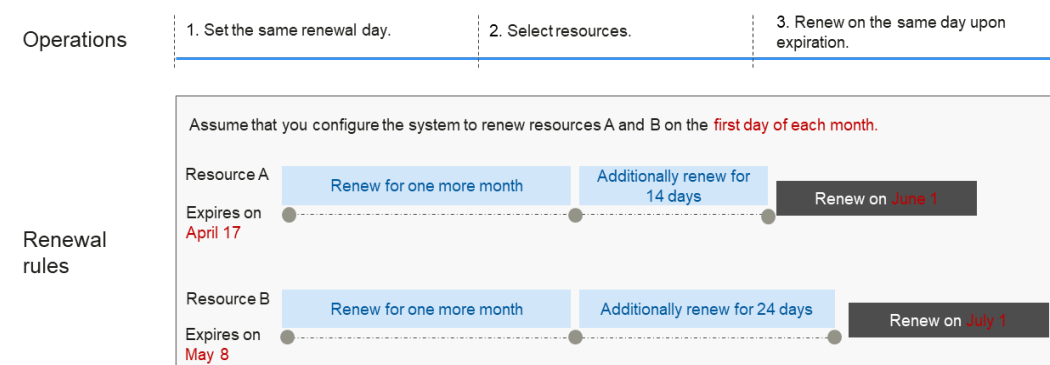
For more details, see .

6.3 Auto-renewing a DRS Task

Auto-renewal can prevent DRS tasks from being automatically deleted if you forget to manually renew them. The auto-renewal rules are as follows:

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

- The auto-renewal period of a DRS task depends on the subscription term.
  - Monthly subscriptions renew each month.
  - Yearly subscriptions renew each year.

- You can enable auto-renewal any time before a DRS task 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 DRS task 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.
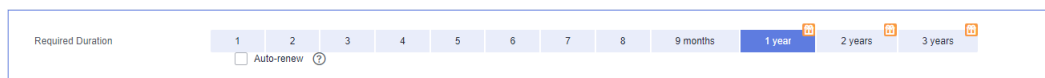
Prerequisites

The yearly/monthly DRS task is not expired.

Enabling Auto-Renewal During Purchase

You can enable auto-renewal on the page for creating a DRS task, as shown in **Figure 6-3**. For details, see **Creating a Synchronization Task**.

Figure 6-3 Enabling auto-renewal

Enabling Auto-Renewal on the Renewals Page

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 Select the search criteria.

- You can view the DRS tasks that auto-renewal has been enabled for on the **Auto Renewals** page.

- You can enable auto-renewal for DRS tasks on the **Manual Renewals**, **Pay-per-Use After Expiration**, and **Renewals Canceled** pages.

Step 4 Enable auto-renewal for yearly/monthly DRS tasks.

- Enabling auto-renewal for a single DRS task: Locate the DRS task that you want to enable auto-renewal for and choose **More** > **Enable Auto-Renew** in the **Operation** column.

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

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

----End

7 Bills

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

A pay-per-use DRS task is billed by the hour, day, or month, depending on the DRS task's usage type. The DRS task usage is billed by the hour. For details, see **Bill Run for Pay-per-Use Resources**.

You are not charged immediately after a record is generated. For example, if a pay-per-use DRS task (which is billed on an hourly basis) is deleted at 08:30, you will still have expenditures for the 08:00 to 09:00 hour. However, but you will not likely be billed for the 08:00 to 09:00 hour until about 10:00.

Viewing Bills of a Specific Resource

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

Step 2 Click 　 in the upper left corner and select a region and a project.

Step 3 Click 　 in the upper left corner and choose **Databases** > **Data Replication Service**.

Step 4 On the task management page, copy the task name.

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

Step 6 On the **Expenditure Details** tab, select **Resource Name** as the filter criteria, enter the obtained task name, and click the 　 icon.

----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 you payment method or to top up your account in a timely manner if you want to continue using your cloud services.

Arrears Reason

If you do not have yearly/monthly DRS tasks, your account falls into arrears any time your configured payment method is unable to pay for the used resources on the pay-per-use basis.

Arrears Impact

- Yearly/Monthly

  This is a pre-paid billing mode, so you can continue using yearly/monthly DRS tasks even if your account is in arrears. However, you cannot perform operations such as upgrading the specifications, because they will generate new expenditures.

- Pay-per-Use

  If your configured payment method is unable to pay a bill for pay-per-use DRS tasks, the tasks 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.

  After the retention period ends, the DRS resources (vCPUs, memory, and EIPs) will be released and cannot be restored.

Figure 8-1 Life cycle of a pay-per-use DRS task
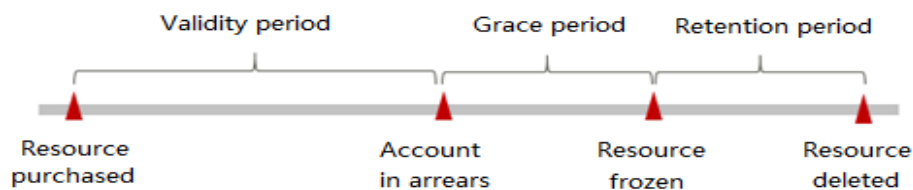
Avoiding and Handling Arrears

Make sure you have a valid payment method configured as soon as possible after your account is in arrears.

If a DRS task is no longer used, you can stop it to avoid generating further expenditures.

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

9 Billing Termination

Yearly/Monthly Resources

When you purchase a yearly/monthly resource, such as a yearly/monthly DRS task, 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 pay-per-use resources, such as pay-per-use DRS tasks, are no longer required, stop them in a timely manner.

Searching for Resources from Bills and Stopping Billing

To ensure that all related resources are deleted, you can search the billing records by resource name, and then delete the resources you identify in this way.

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

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

Step 3 On the **Expenditure Details** page of the Billing Center, click the icon shown in the following figure to copy the resource name.

Step 4 Click ☰ in the upper left corner and choose **Databases** > **Data Replication Service**.

Step 5 Enter the copied resource name in the search box to search for the resource.

Step 6 Choose **More** > **Stop** in the **Operation** column to stop the DRS task. You will not be billed for a stopped task.

Step 7 Choose **More** > **Delete** in the **Operation** column to delete the DRS task. Ensure that the task is not available in the list.

◻ 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 delete a DRS task (which is billed on an hourly basis) at 08:30, the expenditures for that hour from 08:00 to 09:00 are usually not billed until about 10:00.

----End

10 Cost Management

10.1 Cost Composition

DRS costs consist of two parts:

● Resource costs: costs of storage and backup resources. For details, see **Billing Modes**.

● O&M costs: labor costs incurred during the use of DRS tasks.

10.2 Cost Allocation

A good cost accountability system is the basis of cost management. It ensures that departments, business teams, and owners are accountable for their respective cloud costs. An enterprise can allocate cloud costs to different teams or projects so as to 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 business 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**.
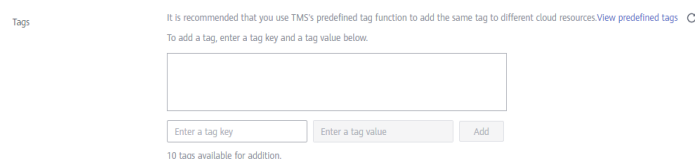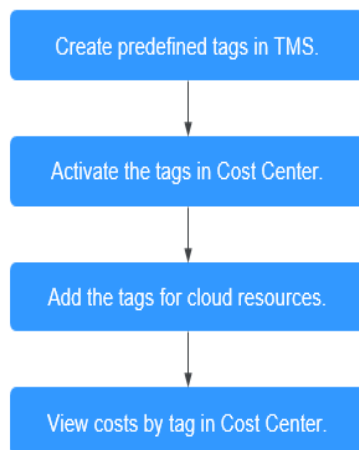
  Figure 10-1 Selecting an enterprise project

- **By cost tag**

  You 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).

  Figure 10-2 Adding tags

  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**.

10.3 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**.

10.4 Cost Optimization

You can identify resources with high costs based on the analysis results in the cost center, determine the causes of high costs, and take optimization measures accordingly.

Resource rightsizing

- View DRS task monitoring metrics on the Cloud Eye console, restore failed tasks, and delete idle tasks in a timely manner.
- Purchase a task with the small specifications for workloads requiring low performance stability to reduce costs.

Billing mode selection

Different types of services have different requirements on resource usage periods, so the most economical billing mode for one resource may not be the best option for another resource.

- For mature services that tend to be stable for the long term, select yearly/ monthly billing.
- For short-term, unpredictable services that experience traffic bursts and cannot afford to be interrupted, select pay-per-use billing.
- Monitor the lifecycle of tasks and renew yearly/monthly tasks that are about to expire in a timely manner.