

# Document Database Service

## Billing

Issue	01
Date	2023-09-30



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# 1 Billing Overview

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In this document, you will learn about how Document Database Service (DDS) DB instances 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 DB instance for. This billing mode offers a larger discount than pay-per-use and is recommended for users who can predict long-term resource usage.
- Pay-per-use (hourly): You pay only for the resources you actually use. Pricing is listed on a per-hour basis, but bills are calculated based on the actual usage duration.

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**

You will be billed for instance specifications, storage space, backup space, EIP bandwidths, and the Monitoring by Seconds function. 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 DB instance after it expires, you need to renew the DB instance subscription within the specified period. Otherwise, resources, such as compute and storage, 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 DDS 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 cloud services, 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 cloud service, you can unsubscribe from or delete it to stop the billing. For details, see [Billing Termination](#).

- **Managing Costs**

DDS costs include resource costs and O&M costs. You can allocate, analyze, and optimize DDS costs to save more money. 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 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. Pricing is listed on a per-hour basis, but bills are calculated based on the actual usage duration. Pay-per-use billing is a good option for scenarios where there are sudden traffic bursts, such as e-commerce promotions.

**Table 2-1** Differences between billing modes

Billing Mode	Yearly/monthly	Pay-per-use
Payment	Prepaid	Postpaid
Billing Method	Billed by the subscription term you purchase	Pricing is listed on a per-hour basis, but bills are calculated based on the actual usage duration.
Billed Items	Instance specifications (vCPUs and memory), storage space, backup space, EIPs, and monitoring by seconds	Instance specifications (vCPUs and memory), storage space, backup space, EIPs, and monitoring by seconds

<b>Changing the Billing Mode</b>	<p>Yearly/Monthly can be changed to pay-per-use.</p> <p>Auto renewal will be disabled after the billing mode of your DB instances change to pay-per-use. Exercise caution when performing this operation.</p> <p><a href="#">Changing the Billing Mode from Yearly/Monthly to Pay-per-Use</a></p>	<p>Pay-per-use can be changed to yearly/monthly.</p> <p><a href="#">Changing the Billing Mode from Pay-per-Use to Yearly/Monthly</a></p>
<b>Changing the Specifications</b>	Supported	Supported
<b>Application Scenarios</b>	<p>Recommended for resources expected to be in use long-term. A cost-effective option for scenarios where the resource usage duration is predictable.</p>	<p>Recommended when the resource demands are likely to fluctuate and you want more flexibility.</p>

## 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 DB instances.

### 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 predictable traffic bursts, for example, e-commerce promotions or festivals.
- Workloads with high data security requirements

### Billed Items

You are billed for the following items on a yearly/monthly basis.

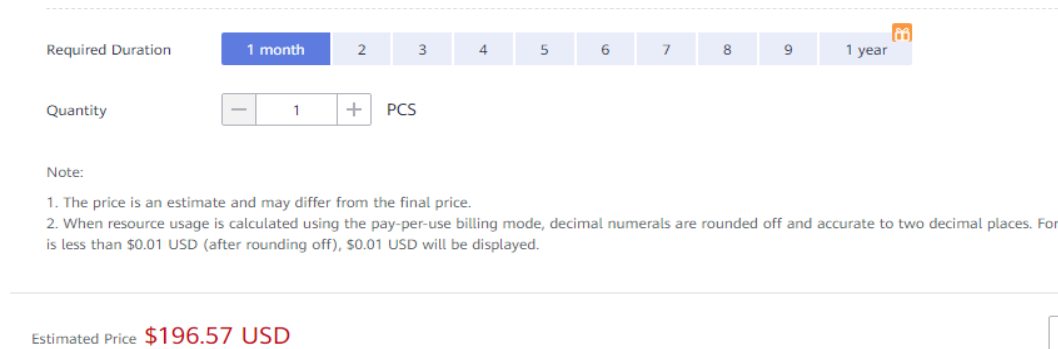


**Table 2-2** Items billed on a yearly/monthly basis

Billed Item	Description
Instance specifications	vCPUs and memory
Storage space	If the actual storage usage exceeds your purchased storage, you will be billed for additional storage on a pay-per-use basis.
Backup space	DDS provides free backup storage of the same size as your purchased database storage. After the free backup space is used up, charges are applied based on the backup space pricing details. Pricing is listed on a per-hour basis, but bills are calculated based on the actual usage duration.
(Optional) EIP bandwidth	If an EIP is purchased along with a yearly/monthly DB instance and the EIP is billed by bandwidth. You are not billed for traffic generated through a private network.
(Optional) Audit logs	You will be billed for the storage space for database audit logs.

If you want to purchase a replica set DB instance with 2 vCPUs, 4 GB of memory, five nodes, and 40 GB of storage for a duration of one month, the price will be as follows (excluding the backup space fee):

**Figure 2-1** Example price



The price includes:

- Instance specifications (including vCPUs and memory)
- Selected storage space

 **NOTE**

The backup space fee is not included. For details about the backup price, see the [Product Pricing Details](#) page.

Backup Storage Space

DB Instance Type	Hourly	Pricing Basis(USD)
Cluster	0.000064	Price per GB
Replica set	0.000064	Price per GB

## Billed Usage Period

A yearly/monthly DB instance 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.

For example, if you purchased a one-month DDS DB instance 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 one-month replica set DB instance (instance specifications: 2 vCPUs | 4 GB; number of nodes: 3; storage: 40 GB; backup space: 50 GB (40 GB for free)) 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
  - From April 08, 2023, 23:59:59 to May 01, 2023, 23:59:59, 20 GB of free backup space was used.
  - From May 01, 2023, 23:59:59 to May 08, 2023, 23:59:59, another 10 GB of backup space was used, which was billed for 168 hours.

You will be billed for both usage periods. DDS resources are billed individually as follows:

**Table 2-3** Formulas for billing yearly/monthly DDS resources

Resource	Formula	Unit Price
Instance specifications (including vCPUs and memory)	Unit price of the instance specifications x Required duration x Number of nodes	See <b>Specifications</b> in <a href="#">DDS Pricing Details</a> .
Storage space	Unit price of the storage space x Required duration x Storage capacity (GB)	See <b>Storage Space</b> in <a href="#">DDS Pricing Details</a> .

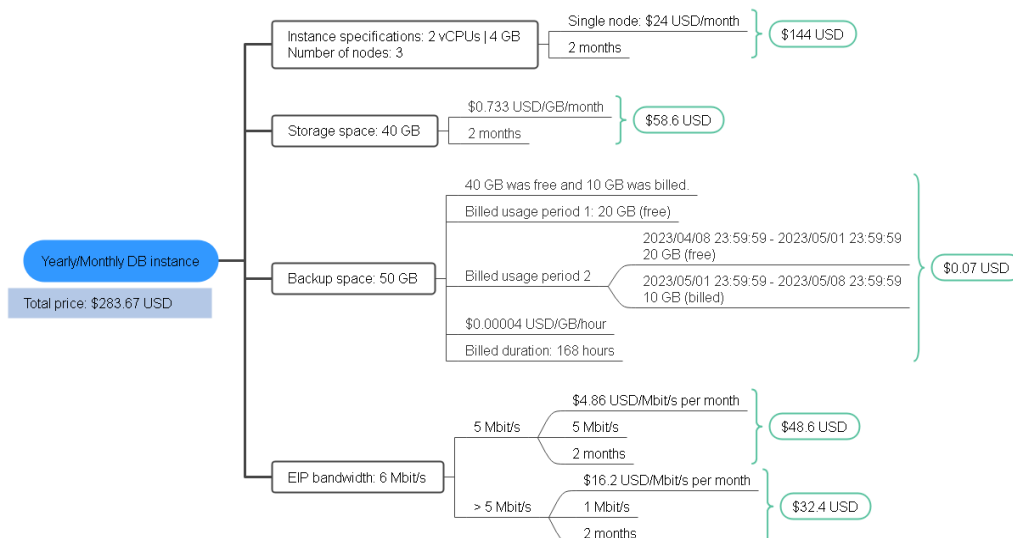
Resource	Formula	Unit Price
Backup space	Unit price of the backup space x Billed duration x (Backup capacity – Storage capacity) (GB) <b>NOTE</b> The billed duration refers to the length of time the billed backup space was used for.	See <b>Backup Storage Space</b> in <a href="#">DDS Pricing Details</a> .
EIP bandwidth	Billed by fixed bandwidth	See <a href="#">EIP Pricing Details</a> .

Figure 2-2 shows how the total price is calculated.

**NOTICE**

The prices in the figure are just examples. The actual prices are those displayed on [DDS Pricing Details](#).

Figure 2-2 Total price for a yearly/monthly DB instance



### Price Change After Specification Change

If the specifications of a yearly/monthly DB instance 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 DB instance specifications, you need to pay the difference in price.

- If you downgrade your DB instance specifications, Huawei Cloud will refund you the difference.

You are not advised to downgrade your DB instance to a lower specification because the instance performance may be affected. Suppose you purchased a one-month DB instance (2 vCPUs | 8 GB and 5 nodes) on April 08, 2023 and upgraded the instance specifications to 4 vCPUs | 16 GB and 5 nodes on April 18, 2023. The price of the original specifications was \$332.05 USD/month, and that for the new specifications was \$787.73 USD/month. The price difference will be calculated as follows:

**Price difference for the specification upgrade = Price for the new specifications × Remaining period × Number of nodes - Price for the original specifications × Remaining period × Number of nodes**

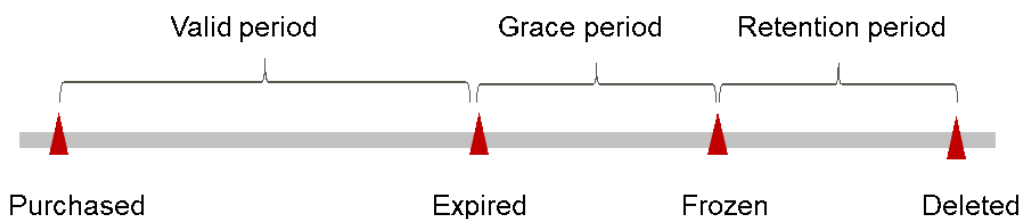
The remaining period is the remaining days of each calendar month divided by the maximum number of days in each calendar month. In this example, Remaining period = 12 (Remaining days in April)/30 (Maximum number of days in April) + 8 (Remaining days in May)/31 (Maximum number of days in May) = 0.6581. Cost of upgrade = \$787.73 USD × 0.6581 × 5 – \$332.05 USD × 0.6581 × 5 = \$1499.42 USD

For more details, see [Pricing of a Changed Specification](#).

## Impact of Expiration

**Figure 2-3** shows the statuses a yearly/monthly DB instance can go through throughout its lifecycle. After a DB instance is purchased, it enters the valid period and runs normally during this period. If the DB instance is not renewed after it expires, before being deleted, it first enters a grace period and then a retention period.

**Figure 2-3** Lifecycle of a yearly/monthly DB instance



### Expiration Reminder

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

### Impact of Expiration

If your yearly/monthly DB instance 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 DB instance but cannot:

- Change instance specifications.
- Change the billing mode from yearly/monthly to pay-per-use.

- Unsubscribe from the DB instance.

If the yearly/monthly DB instance 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 DB instance while it is in the retention period.

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

#### NOTE

- During the retention period, you cannot access or use your DB instance but data stored in it can be retained. The retention period for the Huawei Cloud International website is 15 days.
- During the grace period, you can access and use only some resources of your DB instance. The grace period for the Huawei Cloud International website is 15 days.
- 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 DB instances.

### 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

You are billed for the following items on a pay-per-use basis.

**Table 2-4** Items billed on a pay-per-use basis

Billed Item	Billing
Instance specifications	vCPUs and memory
Storage space	Instance storage space, which is billed hourly on a pay-per-use basis.
Backup space	DDS provides free backup storage of the same size as your purchased database storage. After the free backup space is used up, charges are applied based on the backup space pricing details. Pricing is listed on a per-hour basis, but bills are calculated based on the actual usage duration.
(Optional) EIP bandwidth	If an EIP is purchased along with a pay-per-use DB instance and the EIP is billed by bandwidth. You are not billed for traffic generated through a private network.

Billed Item	Billing
(Optional) Audit logs	You will be billed for the storage space for database audit logs.

If you want to purchase a pay-per-use replica set DB instance with 2 vCPUs, 4 GB of memory, five nodes, and 40 GB of storage, the price will be as follows (excluding the backup space fee):

 **NOTE**

The backup space fee is not included. For details about the backup price, see the [Product Pricing Details](#) page.

**Figure 2-4** Example price

Estimated Price **\$0.39 USD**

The price includes:

- Instance specifications (including vCPUs and memory)
- Selected storage space

 **NOTE**

The backup space fee is not included. For details about the backup price, see the [Product Pricing Details](#) page.

Backup Storage Space

DB Instance Type	Hourly	Pricing Basis(USD)
Cluster	0.000064	Price per GB
Replica set	0.000064	Price per GB

## Billed Usage Period

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

 **NOTE**

It takes a certain time to create a DB instance. The billing starts from the time in the **End Time** column on the **Task Center** page.

For example, if you purchased a pay-per-use DB instance 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.

## Billing Examples

Suppose you purchased a pay-per-use replica set DB instance (instance specifications: 2 vCPUs | 4 GB; number of nodes: 3; storage: 40 GB; backup space:

50 GB (40 GB for free)) on April 18, 2023, 9:59:30, and deleted 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
  - From April 18, 2023, 10:00:00 to April 18, 2023, 10:45:00, 20 GB of free backup space was used.
  - From April 18, 2023, 10:45:00 to April 18, 2023, 10:45:46, another 10 GB of backup space was used, which was billed for 46 seconds.

The price 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. DDS resources are billed individually as follows:

**Table 2-5** Formulas for billing pay-per-use DDS resources

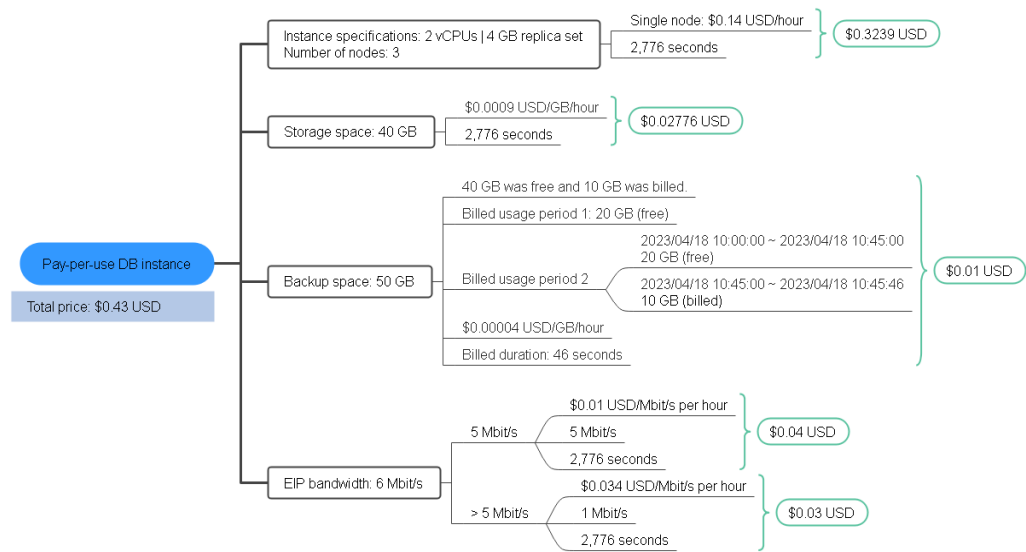
Resource	Formula	Unit Price
Instance specifications (including vCPUs and memory)	Unit price of the instance specifications x Required duration x Number of nodes	See <b>Specifications</b> in <a href="#">DDS Pricing Details</a> .
Storage space	Unit price of the storage space x Required duration x Storage capacity (GB)	See <b>Storage Space</b> in <a href="#">DDS Pricing Details</a> .
Backup space	Unit price of the backup space x Billed duration x (Backup capacity - Storage capacity) (GB) <b>NOTE</b> The billed duration refers to the length of time the billed backup space was used for.	See <b>Backup Storage Space</b> in <a href="#">DDS Pricing Details</a> .
EIP bandwidth	Billed by fixed bandwidth	See <a href="#">EIP Pricing Details</a> .

[Figure 2-5](#) shows how the total price is calculated.

**NOTICE**

The prices in the figure are examples only. The actual prices are those displayed on [DDS Pricing Details](#).

Figure 2-5 Total price for a pay-per-use DB instance



## Price Change After Specification Change

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

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

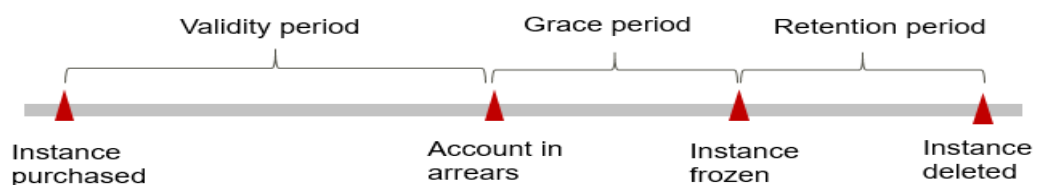
For example, if you purchased a pay-per-use DB instance (2 vCPUs | 8 GB) at 9:00:00 and changed the instance specifications to 4 vCPUs | 16 GB at 9:30:00, the following items will be billed:

- DB instance (2 vCPUs | 8 GB) usage from 9:00:00 to 9:30:00
- DB instance (4 vCPUs | 16 GB) usage from 9:30:00 to 10:00:00

## Impacts of Arrears

Figure 2-6 shows the statuses a pay-per-use DB instance can have throughout its lifecycle. After a DB instance is purchased, it enters the valid period and runs normally during this period. If your account goes into arrears, the DB instance enters a grace period and then a retention period.

Figure 2-6 Lifecycle of a pay-per-use DB instance





### Arrears Reminder

The system will bill you for pay-per-use DB instances 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 DB instance 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 DB instance turns to **Frozen** and enters a retention period. You cannot perform any operations on a pay-per-use DB instance in the **Frozen** status.

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

#### NOTE

- During the retention period, you cannot access or use your DB instance but data stored in it can be retained. The retention period for the Huawei Cloud International website is 15 days.
- During the grace period, you can access and use only some resources of your DB instance. The grace period for the Huawei Cloud International website is 15 days.
- For details about top-up, see [Topping Up an Account](#).

# 3 Billed Items

## Billing

You will be billed for the instance specifications, storage space, and backup space. For details, see [Table 3-1](#).

 **NOTE**

The billed items marked with asterisks (\*) are mandatory.

**Table 3-1** DDS billed items

Billed Item	Description	Billing Mode	Formula
* Instance specifications	Billed by vCPUs, memory, and the number of nodes. Computing and storage capabilities vary by the number of vCPUs and memory size.	Yearly/ Monthly and pay-per-use	<b>Unit price x Required duration</b> See <a href="#">Specifications</a> in <a href="#">DDS Pricing Details</a> .
* Storage space	Billed by storage capacity based on unified standards.	Yearly/ Monthly and pay-per-use	<b>Unit price x Storage capacity x Required duration</b> See <a href="#">Storage Space</a> in <a href="#">DDS Pricing Details</a> .
* Backup space	Billed based on unified standards.	Pay-per-use	<b>Unit price x Billed backup capacity x Billed duration</b> See <a href="#">Backup Storage Space</a> in <a href="#">DDS Pricing Details</a> . <b>NOTE</b> The billed duration refers to the length of time the billed backup space was used for.

Billed Item	Description	Billing Mode	Formula
EIP bandwidth	<p>An EIP is required if the DB instance needs to access the Internet.</p> <p>Billed by bandwidth, traffic, and the EIP reservation price.</p> <ul style="list-style-type: none"> <li>EIP for a yearly/monthly DB instance: billed by bandwidth.</li> <li>EIP for a pay-per-use DB instance: billed by bandwidth, traffic, or shared bandwidth. You are also charged for IP reservation if you do not bind the EIP to any instance.</li> </ul>	<p>Yearly/ Monthly and pay-per-use</p> <p>You can purchase a bandwidth add-on package or a shared traffic package.</p>	<p><b>Tiered pricing based on fixed bandwidth.</b></p> <ul style="list-style-type: none"> <li>0 Mbit/s to 5 Mbit/s (included): billed at a fixed unit price per Mbit/s</li> <li>Greater than 5 Mbit/s: billed at a different price per Mbit/s</li> </ul> <p>See <b>Bandwidth Price</b> on <a href="#">ECS Pricing Details</a> or <a href="#">EIP Pricing Details</a>.</p>
Audit logs	<p>Billed by audit log storage capacity based on unified standards.</p>	<p>Yearly/ Monthly and pay-per-use</p>	<p><b>Unit price for audit log storage space x Storage capacity x Required duration</b></p> <p>See <b>Audit Log</b> in <a href="#">DDS Pricing Details</a>.</p>

## Billing Examples

Suppose you purchased a one-month replica set DB instance (instance specifications: 2 vCPUs | 4 GB; number of nodes: 3; storage: 40 GB; backup space: 50 GB (40 GB for free)) 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:

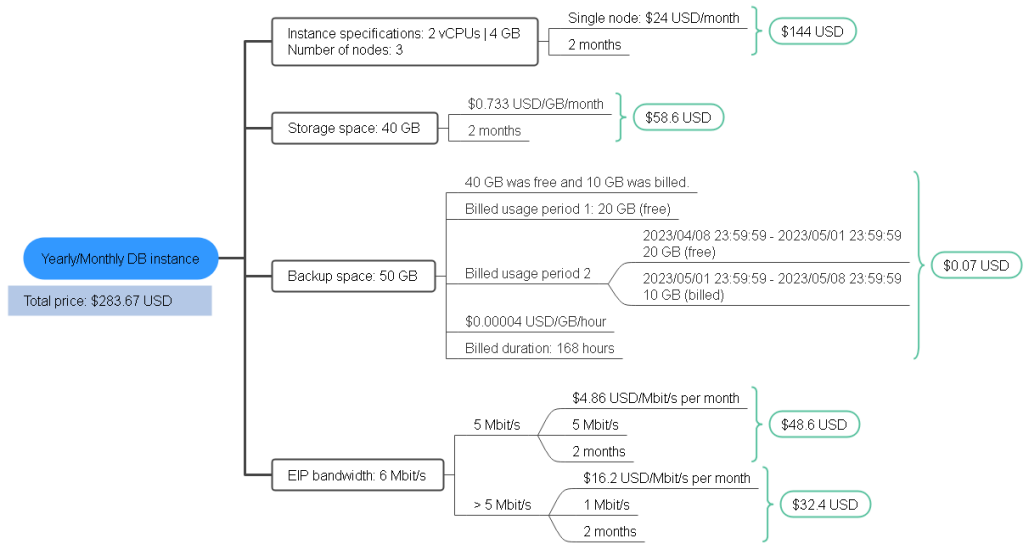
- March 08, 2023, 15:50:04 to April 08, 2023, 23:59:59
- April 08, 2023, 23:59:59 to May 08, 2023, 23:59:59
  - From April 08, 2023, 23:59:59 to May 01, 2023, 23:59:59, 20 GB of free backup space was used.
  - From May 01, 2023, 23:59:59 to May 08, 2023, 23:59:59, another 10 GB of backup space was used, which was billed for 168 hours.

[Figure 3-1](#) shows how the total price is calculated.

### NOTICE

The prices in the figure are only for reference. For details, see [DDS Pricing Details](#).

**Figure 3-1** Total price for a yearly/monthly DB instance



For more billing examples of a pay-per-use DB instance, see [Billing Examples](#).

# 4 Billing Examples

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## Billing Scenario

A user purchased a pay-per-use replica set DB instance at 15:30:00 on March 18, 2023. The DB instance configuration is as follows:

- Specifications: 2 vCPUs | 4 GB
- Number of nodes: 3
- Storage space: 20 GB
- EIP bandwidth: 6 Mbit/s

After a period of time, the user found that the current instance class no longer met service requirements and scaled up the storage to 40 GB at 8:00:00 on March 19, 2023, then updated the instance specifications to 4 vCPUs | 8 GB at 9:00:00 on March 20, 2023. Since the user wanted to use the DB instance long term, the user then changed the instance 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 DB instance in March and April?

## Billing Analysis

The total price of this DB instance 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
  - From March 18, 2023, 15:30:00 to March 19, 2023, 8:00:00
    - DB Instance specifications: 2 vCPUs | 4 GB
    - Number of nodes: 3
    - Storage space: 20 GB (with 20 GB backup space for free)
    - Used backup space: 20 GB (free)
    - EIP bandwidth: 6 Mbit/s
  - From March 19, 2023, 8:00:00 to March 20, 2023, 9:00:00
    - DB Instance specifications: 2 vCPUs | 4 GB

- Number of nodes: 3
- Storage space: 40 GB (with 40 GB backup space for free)
- Used backup space: another 20 GB (free)
- EIP bandwidth: 6 Mbit/s
- From March 20, 2023, 9:00:00 to March 20, 2023, 10:30:00
  - DB instance specifications: 4 vCPUs | 8 GB
  - Number of nodes: 3
  - Storage space: 40 GB (with 40 GB backup space for free)
  - Used backup space: another 30 GB (30 GB was billed on a pay-per-use basis from March 20, 2023, 10:00:00 to March 20, 2023, 10:30:00)
  - EIP bandwidth: 6 Mbit/s
- Yearly/Monthly usage: March 20, 2023, 10:30:00 to April 20, 2023, 23:59:59
  - DB instance specifications: 4 vCPUs | 8 GB
  - Number of nodes: 3
  - Storage space: 40 GB (with 40 GB backup space for free)
  - Used backup space: No new backup space is used. (30 GB was billed on a pay-per-use basis from March 20, 2023, 10:30:00 to April 20, 2023, 23:59:59)
  - EIP bandwidth: 6 Mbit/s
  - Billed duration: one month

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#### NOTICE

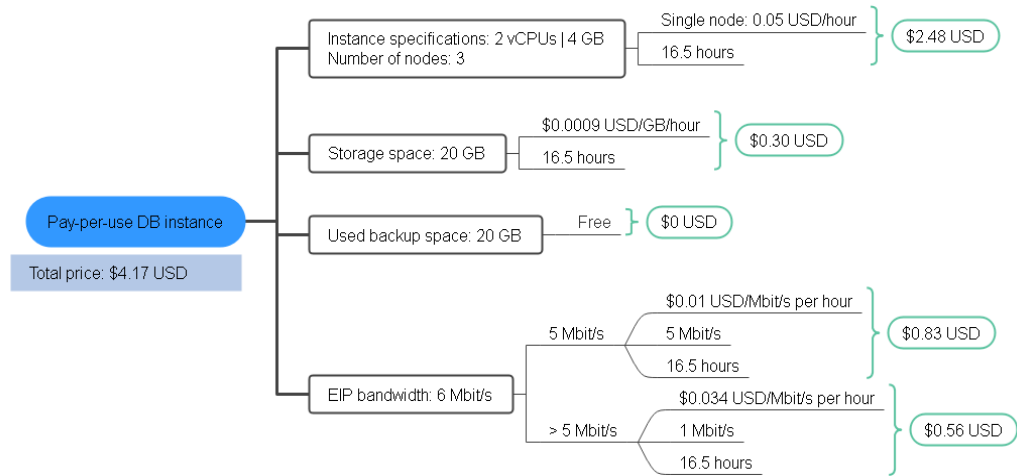
Unit prices in this example are used for reference only. The prices shown here are only estimates. The actual price and cost may vary. For details, see the data released on the Huawei Cloud official website.

---

#### Pay-per-use

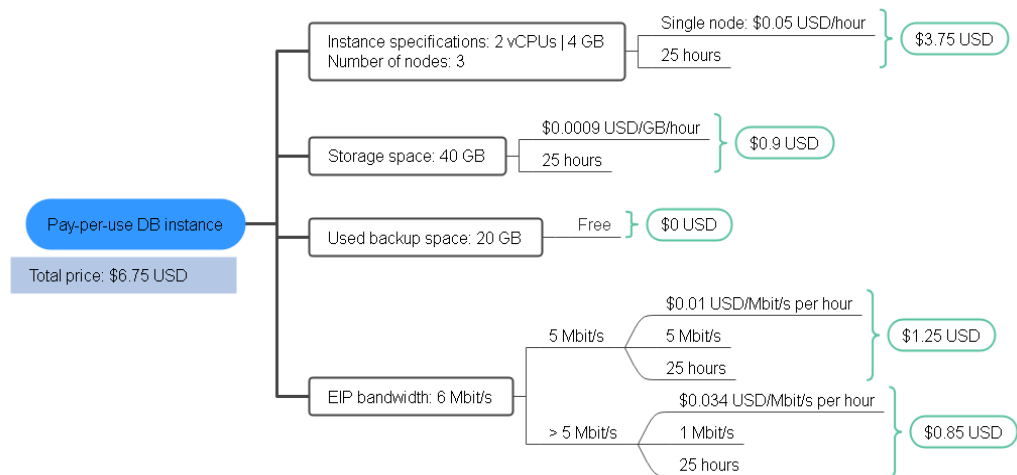
From March 18, 2023, 15:30:00 to March 19, 2023, 8:00:00, a DB instance with 2 vCPUs, 4 GB of memory, and 20 GB of storage was used for 16.5 hours, so the price would be calculated as follows:

Figure 4-1 Pricing details



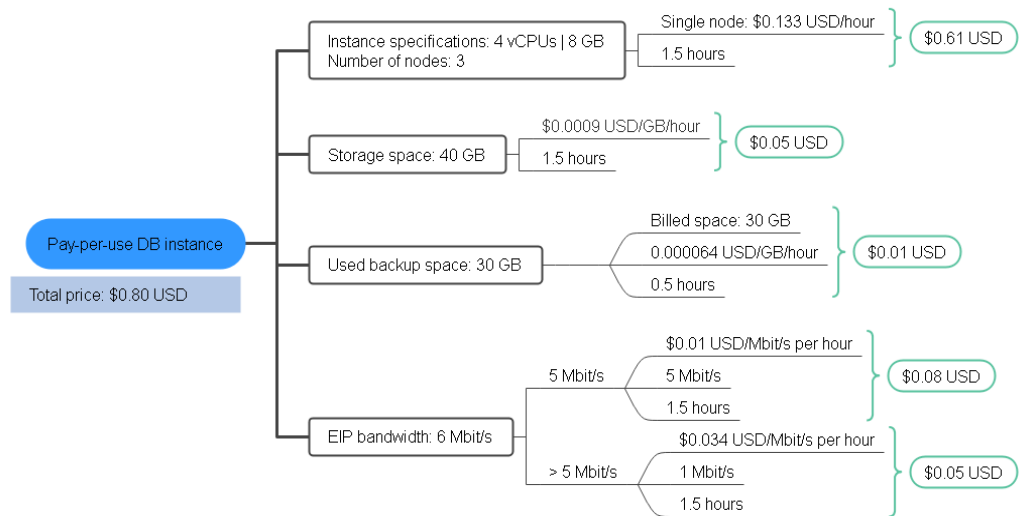
From March 19, 2023, 8:00:00 to March 20, 2023, 9:00:00, a DB instance with 2 vCPUs, 4 GB of memory, and 40 GB of storage was used for 25 hours, so the price would be calculated as follows:

Figure 4-2 Pricing details



From March 20, 2023, 9:00:00 to March 20, 2023, 10:30:00, a DB instance with 4 vCPUs, 8 GB of memory, and 40 GB of storage was used for 1.5 hours, so the price would be calculated as follows:

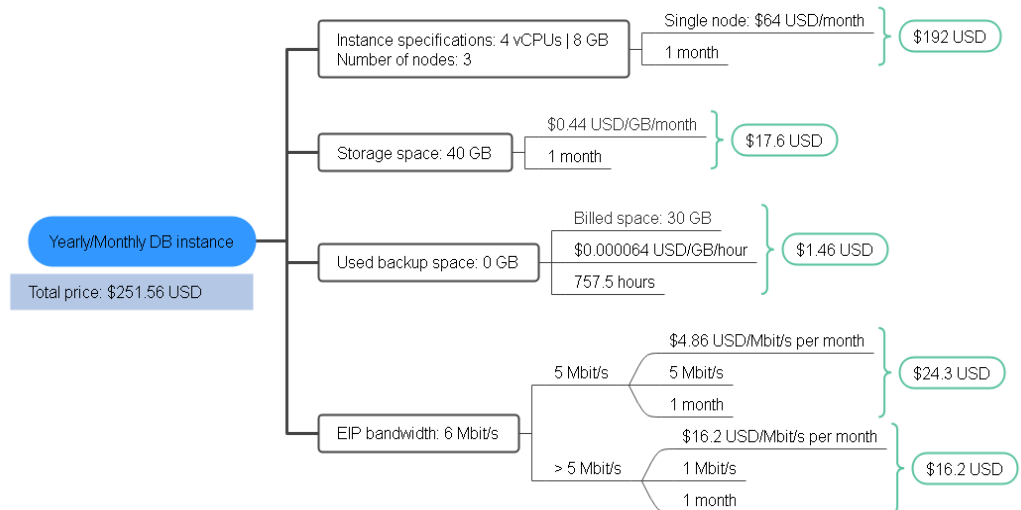
Figure 4-3 Pricing details



**Yearly/Monthly**

From March 20, 2023, 10:30:00 to April 20, 2023, 23:59:59, a DB instance purchased using yearly/monthly billing was used for one month, so the price would be calculated as follows:

Figure 4-4 Pricing details



From March to April, the total price of this DB instance is \$263.28 USD (4.17 + 6.75 + 0.8 + 251.56).



# 5 Billing Mode Changes

## 5.1 Overview

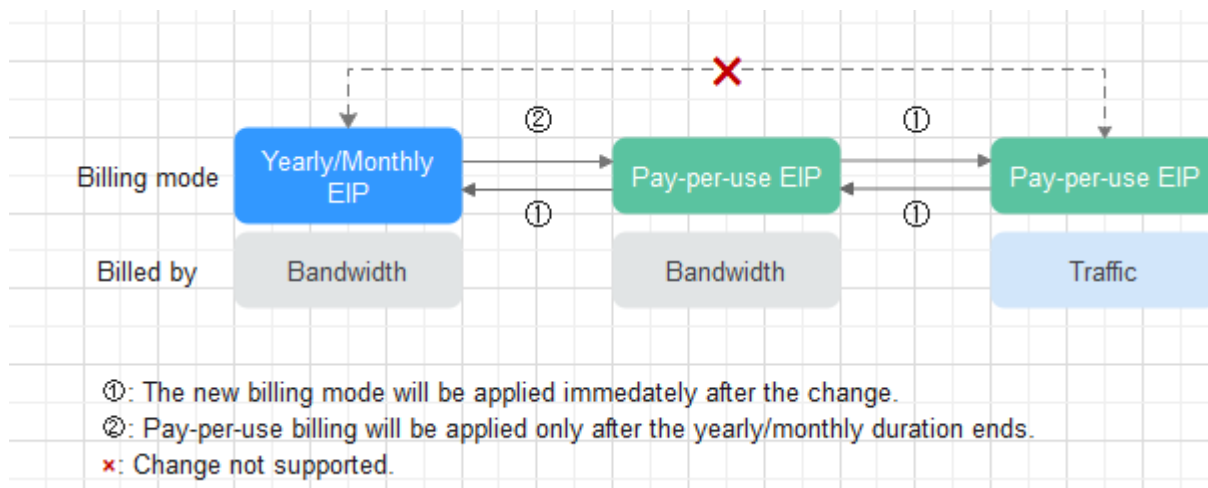
You can change the billing mode if it no longer meets your needs. [Table 5-1](#) lists the changeable DB instance billed items.

**Table 5-1** Changeable DB instance billed items

Billed Item	Change Description	Reference
Instance specifications (including vCPUs and memory)	<p>Changing the billing mode of a DB instance includes the changes to compute resources (vCPUs and memory) and storage space.</p> <ul style="list-style-type: none"><li>• Change from pay-per-use to yearly/monthly to enjoy lower prices.</li><li>• Change from yearly/monthly to pay-per-use to use the DB instance more flexibly.</li></ul> <p><b>NOTE</b> Such a change takes effect only after the yearly/monthly subscription ends.</p>	<ul style="list-style-type: none"><li>• <a href="#">Pay-per-Use to Yearly/Monthly</a></li><li>• <a href="#">Yearly/Monthly to Pay-per-Use</a></li></ul>

Billed Item	Change Description	Reference
EIP	<ul style="list-style-type: none"> <li>A yearly/monthly EIP can be changed to a pay-per-use EIP billed by bandwidth after the yearly/monthly subscription ends.</li> <li>A pay-per-use EIP billed by bandwidth can be changed to a yearly/monthly EIP.</li> <li>Pay-per-use EIPs billed by bandwidth can be changed to pay-per-use EIPs billed by traffic, and pay-per-use EIPs billed by traffic can be changed to pay-per-use EIPs billed by bandwidth.</li> </ul> <p>For details, see <a href="#">Figure 5-1</a>.</p>	<ul style="list-style-type: none"> <li><a href="#">Pay-per-Use to Yearly/Monthly</a></li> <li><a href="#">Yearly/Monthly to Pay-per-Use</a></li> </ul>

Figure 5-1 EIP billing mode change



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

If you have a pay-per-use DB instance 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 bought a pay-per-use DB instance 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 DB instance 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

Resources such as the EIP that is used by a DB instance may not support the change with this DB instance. For details about their billing mode change rules and handling methods, see [Table 5-2](#).



**Table 5-2** EIP billing mode change rules

Resource	Billing Mode	Billed By	Bandwidth Type	Change to Yearly/Monthly Billing with the DB instance	Handling Measure
EIP	Pay-per-use	Bandwidth	Dedicated	Not supported	Change the EIP to yearly/monthly billing on the EIP console. For details, see <a href="#">Changing EIP Billing Mode</a> .
EIP	Pay-per-use	Traffic	Dedicated	Not supported	An EIP that is billed by traffic on a pay-per-use basis cannot be directly changed to be billed on a yearly/monthly basis. To change this: <ol style="list-style-type: none"> <li>1. First, change the EIP billed by traffic on a pay-per-use basis to be billed by bandwidth on a pay-per-use basis.</li> <li>2. Then, change the EIP billed by bandwidth on a pay-per-use basis to be billed on a yearly/monthly basis.</li> </ol> For details, see <a href="#">Changing EIP Billing Mode</a> .

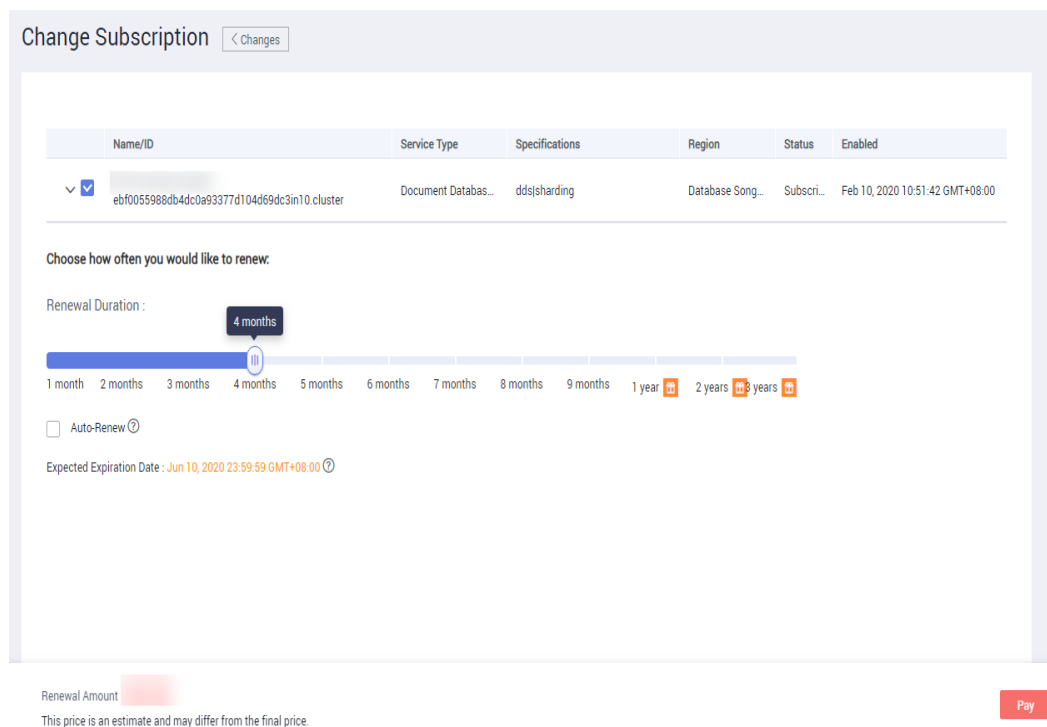
## Precautions

Only when the status of a pay-per-use instance is **Available**, its billing mode can be changed to yearly/monthly.

## Changing the Billing Mode of a Single Instance


- 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 of the page and choose **Databases > Document Database Service**.
- Step 4** On the **Instances** page, locate the target DB instance and in the **Operation** column, click **Change to Yearly/Monthly**.
- Step 5** On the displayed page, select the renewal duration in month. The minimum duration is one month. **Figure 5-2** shows how to change a pay-per-use cluster instance to yearly/monthly.

**Figure 5-2** Changing from pay-per-use to yearly/monthly



Confirm the settings and click **Pay**.


- Step 6** Select a payment method and click **Pay**.
- Step 7** View the results on the **Instances** page.


In the upper right corner of the instance list, click  to refresh the list. After the instance billing mode is changed to yearly/monthly, the instance status will change to **Available**. The billing mode becomes to **Yearly/Monthly**.

----End

## Changing Instance Billing in Batches

**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 of the page and choose **Databases > Document Database Service**.


**Step 4** On the **Instances** page, select the target instances and click **Change to Yearly/Monthly** above the instance list. In displayed dialog box, click **Yes**.

**Step 5** On the displayed page, select how many months you wish to renew the instance for. The minimum duration is one month.

Confirm the settings and click **Pay**.

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

**Step 7** View the results on the **Instances** page.

In the upper right corner of the instance list, click  to refresh the list. After the instance billing mode is changed to yearly/monthly, the instance status will change to **Available**. The billing mode becomes to **Yearly/Monthly**.

----End

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

After creating a yearly/monthly DB instance, you can change it to pay-per-use for more flexibility, and you can recoup part of what you paid for the subscription.

Suppose a user bought a yearly/monthly DB instance at 15:29:16 on April 18, 2023 and changed it to pay-per-use billing at 16:30:00 on May 18, 2023. On the **Billing Center > Billing** page, bills are generated as follows:

- Yearly/Monthly expenditures for 15:29:16 on April 18 to 23:59:59 on May 18, 2023
- Pay-per-use expenditures for 23:59:59 on May 18, 2023 to the end time of pay-per-use billing. A bill was generated every hour.

---

### NOTICE

The pay-per-use billing mode will be applied only after the yearly/monthly billed duration ends and auto-renew will be not in effect.

---

## Constraints

Resources such as the EIP that is used by a DB instance may not support the change with this DB instance. For details about their billing mode change rules and handling methods, see [Table 5-3](#).


**Table 5-3** EIP billing mode change rules

Resource	Billing Mode	Billed By	Bandwidth Type	Change to Pay-per-Use Billing with the DB Instance	Handling Measure
EIP	Yearly/Monthly	Bandwidth	Dedicated	Not supported	Change the EIP to yearly/monthly billing on the EIP console. For details, see <a href="#">Changing EIP Billing Mode</a> .
EIP	Yearly/Monthly	Traffic	Dedicated	Not supported	An EIP billed on a yearly/monthly basis cannot be directly changed to be billed by traffic on a pay-per-use basis. To change this: <ol style="list-style-type: none"><li>1. First, change the EIP billed on a yearly/monthly basis to be billed by bandwidth on a pay-per-use basis.</li><li>2. Then, change the EIP billed by bandwidth on a pay-per-use basis to be billed by traffic on a pay-per-use basis.</li></ol> For details, see <a href="#">Changing EIP Billing Mode</a> .

## Changing the Billing Mode of a DB Instance from Yearly/Monthly to Pay-per-Use

**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 of the page and choose **Databases > Document Database Service**.

**Step 4** On the **Instances** page, locate the yearly/monthly DB instance and choose **More > Change to Pay-per-use** in the **Operation** column.

- Step 5** On the displayed page, confirm the instance information and click **Change to Pay-per-Use** to submit the change. The billing mode will change to pay-per-use after the DB instance expires.
- Step 6** After you submit the change, check whether a message is displayed in the **Billing Mode** column, indicating that the billing mode will be changed to pay-per-use after the DB instance expires.
- Step 7** To cancel the change, choose **Billing & Costs > Renewal** to enter the Billing Center. On the **Renewals** page, locate the instance and click **More > Cancel Change to Pay-per-Use**.
- Step 8** In the displayed dialog box, click **Yes**.

----End

# 6 Renewing Subscriptions

## 6.1 Overview

### When to Renew Subscriptions

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

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

If you renew a DB instance before it expires, resources will be retained and you can continue using the DB instance. For details about DB instance statuses after they have expired and the associated impacts, see [Impact of Expiration](#).

### How to Renew Subscriptions

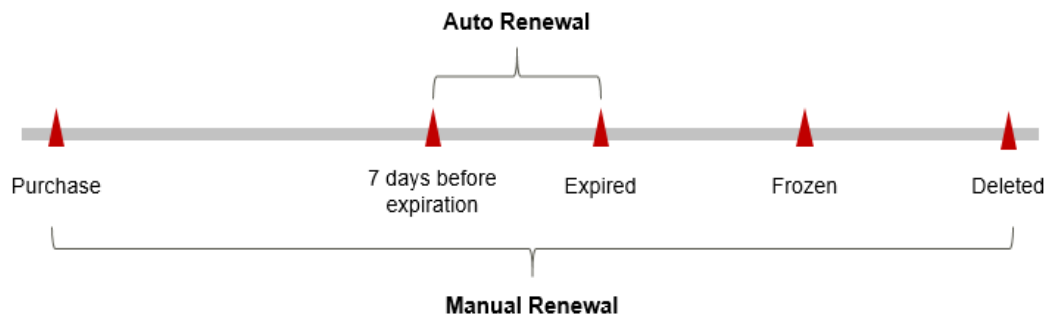
You can renew a yearly/monthly DB instance manually or automatically.

**Table 6-1** Renewing a yearly/monthly DB instance

Method	Description
<a href="#">Manually Renewing a DB Instance</a>	You can renew a yearly/monthly DB instance on the console any time before it is automatically deleted.
<a href="#">Auto-renewing a DB Instance</a>	You can enable auto-renewal to automatically renew a DB instance 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 DB instance based on the phase the instance is currently in.



**Figure 6-1** Selecting a renewal method based on the DB instance's current phase

- A DB instance is in the **Available** state after it is provisioned.
- When a DB instance subscription expires, the status will change from **Available** to **Expired**.
- If an expired DB instance is not renewed, it enters a grace period. If it is not renewed by the time the grace period expires, the DB instance 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.

**NOTE**

- During the retention period, you cannot access or use your DB instance but data stored in it can be retained. The retention period for the Huawei Cloud International website is 15 days.
- During the grace period, you can access and use only some resources of your DB instance. The grace period for the Huawei Cloud International website is 15 days.


You can enable auto-renewal any time before a DB instance 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 DB Instance

You can renew a yearly/monthly DB instance anytime on the console before it is automatically deleted.

### Renewing a DB Instance on the Console

**Step 1** [Log in to the management console](#).

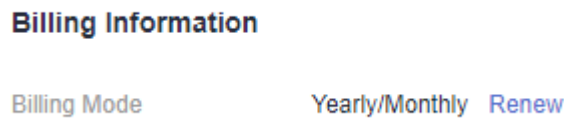
**Step 2** Click  in the upper left corner and select a region and a project.

**Step 3** Click  in the upper left corner of the page and choose **Databases > Document Database Service**.

**Step 4** On the **Instances** page, locate the DB instance you want to renew and choose **More > Renew** in the **Operation** column.

Alternatively, click the DB instance name to go to the **Basic Information** page. In the **Billing Information** area, click **Renew** on the right of **Billing Mode**.

Figure 6-2 Renewing a DB instance



**Step 5** On the displayed page, renew the DB instance.

----End

## Renewing a Subscription in the Billing Center

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

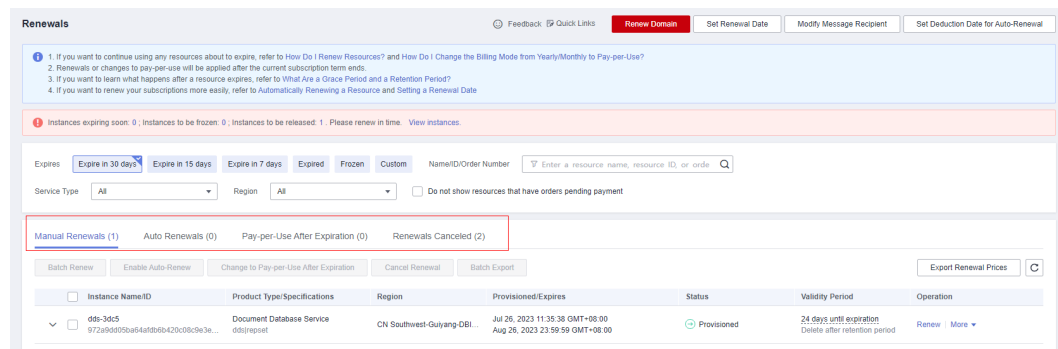
**Step 2** Hover over **Billing & Costs** in the upper part of the console and choose **Renewal** from the drop-down list.

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 DB instances to be renewed.

Figure 6-3 Renewals

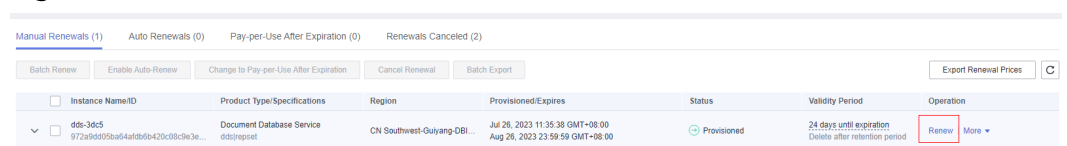


You can move all DB instances that need to be manually renewed to the **Manual Renewals** tab page. For details, see [Restoring to Manual Renewal](#).

**Step 4** Manually renew DB instances.

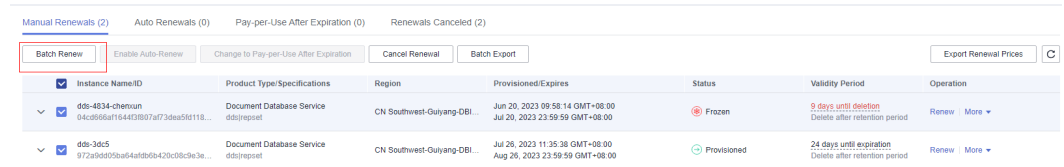
- Individual renewal: Click **Renew** in the **Operation** column for the desired DB instance.

Figure 6-4 Individual renewal



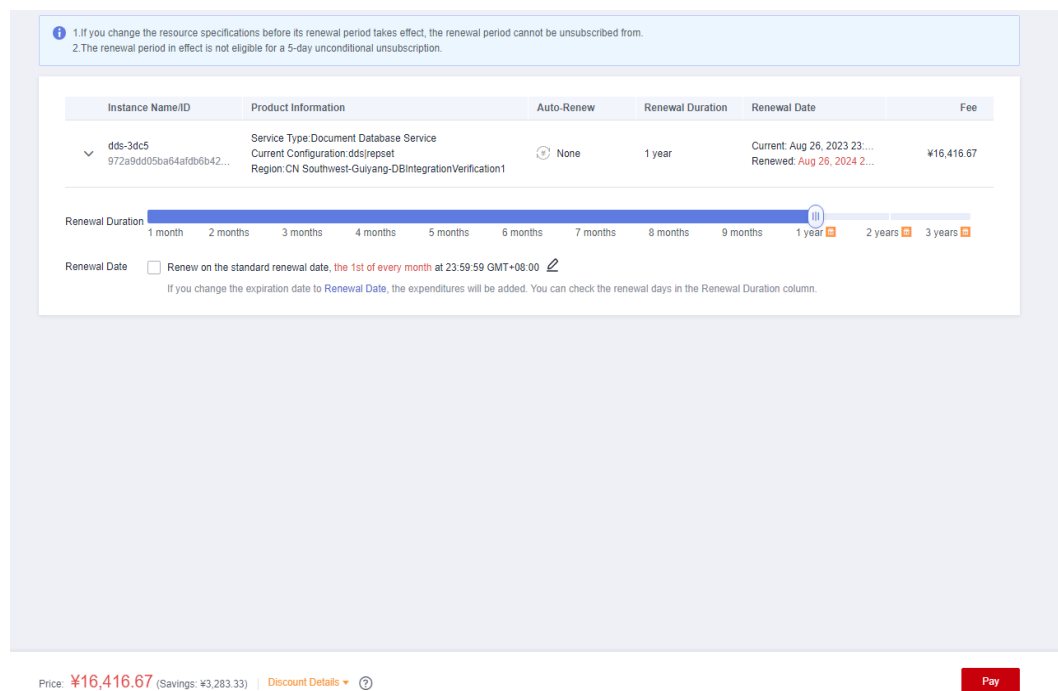
- Batch renewal: Check the boxes for the desired DB instances, and click **Batch Renew** in the upper left corner.

**Figure 6-5** Batch renewal



**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 DB Instances](#). Confirm the price and click **Pay**.

**Figure 6-6** Confirming renewal



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

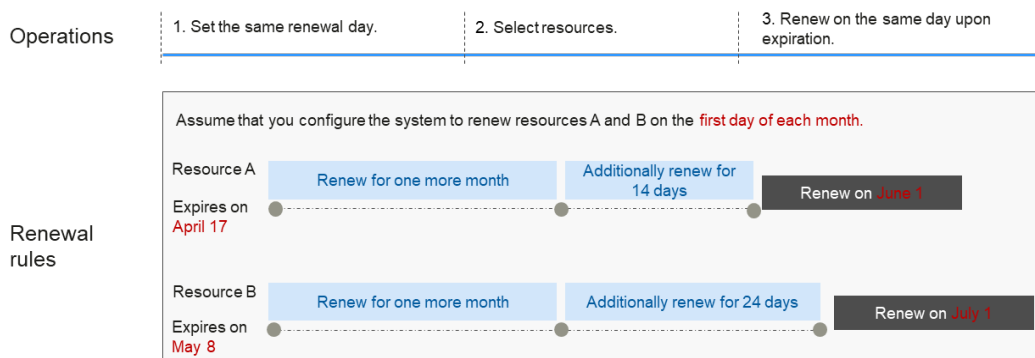
----End

## Setting the Same Renewal Day for Yearly/Monthly DB Instances

If the DB instances 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 6-7](#), a user sets the same renewal day for two resources that will expire at different dates.

**Figure 6-7** Setting the same renewal day for resources with different expiry dates



For more details, see [Setting a Renewal Date](#).

## 6.3 Auto-renewing a DB Instance

Auto-renewal can prevent DB instances 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 DB instance expires and the billing cycle.
- The auto-renewal period of a DB instance depends on the subscription term.
  - Monthly subscriptions renew each month.
  - Yearly subscriptions renew each year.
- You can enable auto-renewal any time before a DB instance 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 DB instance 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 DB instance is not expired.

### Enabling Auto-Renewal During Purchase

You can enable auto-renewal on the DB instance purchase page, as shown in [Figure 6-8](#). For details, see [Buy a DB Instance](#).

Figure 6-8 Enabling auto-renewal



## Enabling Auto-Renewal on the Renewals Page

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

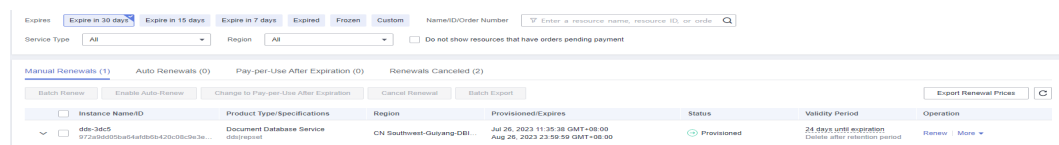
**Step 2** Hover over **Billing & Costs** in the upper part of the console and choose **Renewal** from the drop-down list.

The **Renewals** page is displayed.

**Step 3** Select the search criteria.

- You can view the DB instances that auto-renewal has been enabled for on the **Auto Renewals** page.
- You can enable auto-renewal for DB instances on the **Manual Renewals**, **Pay-per-Use After Expiration**, and **Renewals Canceled** pages.

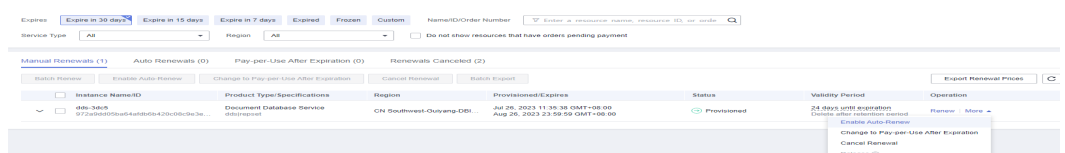
Figure 6-9 Renewals



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

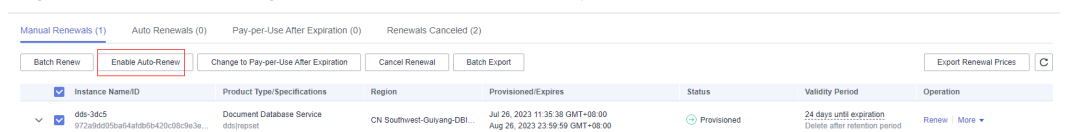
- Enabling auto-renewal for a single DB instance: Locate the DB instance that you want to enable auto-renewal for and choose **More > Enable Auto-Renew** in the **Operation** column.

Figure 6-10 Enabling auto-renewal for a single DB instance



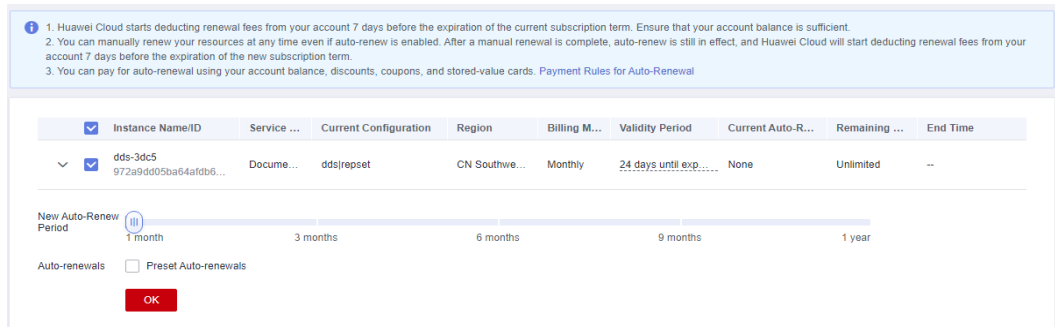
- Enabling auto-renewal for multiple DB instances at a time: Select the DB instances that you want to enable auto-renewal for and click **Enable Auto-Renew** above the list.

Figure 6-11 Enabling auto-renewal for multiple DB instances



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

**Figure 6-12** Enabling auto-renewal



----End

# 7 Bills

---

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

## Bill Generation


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


A pay-per-use DB instance is billed by the hour, day, or month, depending on the DB instance's usage type. The DDS DB instance 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 DB instance (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. On the **Billing** page of the Billing Center, select the **Expenditure Details** tab. **Expenditure Time** in the bill indicates the time when the pay-per-use DB instance is used.

## 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.

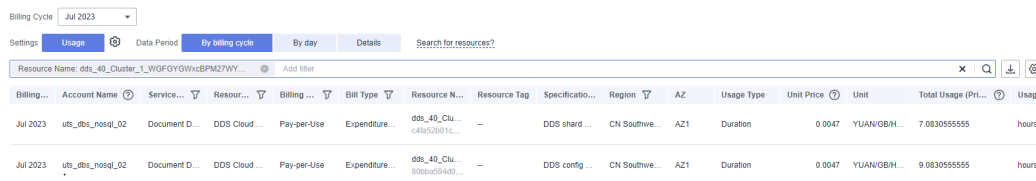
**Step 3** Click  in the upper left corner of the page and choose **Databases > Document Database Service**.

**Step 4** On the **Instances** page, copy the instance 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 DB instance name obtained in [4](#), and click the  icon.

**Figure 7-1** Searching for a bill



By default, the bill details are displayed by usage and billing cycle. You can choose other display options as required. For details, see [Bills](#).

----End

## Checking the Consistency of the Actual Usage and Billed Usage

Assume that you purchased a pay-per-use DB instance at 10:09:06 on April 8, 2023 and deleted it later that day, at 12:09:06.

- **Transaction Records**  
Pay-per-use DB instance usage is calculated by the second but billed on an hourly basis. You can check the transaction records against the actual usage. The billed resources are billed separately. For details, see [Table 7-1](#) (taking storage as an example).

**Table 7-1** DB instance transaction records

<b>Service Type</b>	DDS
<b>Specifications</b>	40 GB
<b>Billing Mode</b>	Pay-per-use
<b>Expenditure Time</b>	For the period of time from 10:09:06 to 12:09:06 on April 8, 2023, 3 transaction records would be generated for the resource usage in the following periods: <ul style="list-style-type: none"> <li>• 2023/04/08 10:09:06 ~ 2023/04/08 11:00:00</li> <li>• 2023/04/08 11:00:00 ~ 2023/04/08 12:00:00</li> <li>• 2023/04/08 12:00:00 ~ 2023/04/08 12:09:06</li> </ul>
<b>List Price</b>	List price on the official website = Usage x Unit price x Capacity The DB instance was used for 3,054 seconds in the first period, and the storage unit price can be obtained on the <a href="#">DDS Pricing Details</a> page. The list price for the first period = $(3,054 \div 3,600) \times 0.0009 \times 40 = \$0.0305$ USD. Similarly, you can calculate the storage list price for the other periods.



<b>Discounted Amount</b>	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.
<b>Truncated Amount</b>	Huawei Cloud billing is calculated 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 amounts.  Take the first period as an example. The truncated amount is \$0.0005 USD.
<b>Amount Due</b>	Amount due = List price - Discount amount - Truncated amount Take the first period as an example. If the discount amount is 0, the amount due is \$0.03 USD (0.0305 - 0 - 0.0005).

- DB instance bill records  
Bill details can display in multiple ways. By default, the bill details of a resource are displayed by usage and by billing cycle. [Table 7-2](#) illustrates the DB instance bill details, which can be used to check against the actual usage (taking storage as an example).

**Table 7-2** DB instance bill records

<b>Service Type</b>	DDS
<b>Resource Type</b>	Storage
<b>Billing Mode</b>	Pay-per-use
<b>Resource Name/ID</b>	DB instance name and ID Example: dds-3dc5, 972a9dd05ba64afdb6b420c08c9e3ed6in02
<b>Specifications</b>	40GB
<b>Usage Type</b>	Duration for a pay-per-use DB instance
<b>Unit Price</b>	When pay-per-use billing is used, the unit price is only provided if the amount is equal to the usage multiplied by the unit price. No unit price is provided in other pricing modes, for example, tiered pricing.  You can search for the unit price for pay-per-use DB instances on the <a href="#">DDS Pricing Details</a> page.
<b>Unit</b>	Displayed on the <a href="#">DDS Pricing Details</a> page. Example: USD/GB/hour

<b>Usage</b>	Depends on the unit of the unit price, which is USD/GB/hour. Storage usage is billed by the hour. Example: 2 hours.
<b>Usage Unit</b>	Hour
<b>List Price</b>	List price on the official website = Usage x Unit price x Capacity The DB instance was used for 2 hours in total, and the storage unit price can be obtained on the DDS Pricing Details page. The list price = $2 \times 0.0009 \times 40 = \$0.072$ USD.
<b>Discounted Amount</b>	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.
<b>Amount Due</b>	Amount that should be paid for used cloud services after discounts are applied.

# 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.

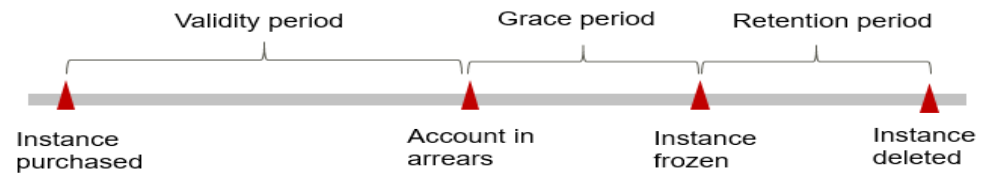
## Arrears Reason

If you do not have yearly/monthly DB instances, 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 DB instances even if your account is in arrears. However, you cannot perform operations such as purchasing new DB instances, scaling up storage space, upgrading instance specifications, or renewing DB instances, because they will generate new expenditures.
- Pay-per-Use  
If your configured payment method is unable to pay a bill for pay-per-use 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.  
After the retention period ends, the compute resources (vCPUs and memory) and EIPs will be released and cannot be restored.

**Figure 8-1** Lifecycle of a pay-per-use DB instance



**NOTE**

- During the retention period, you cannot access or use your DB instance but data stored in it can be retained. The retention period for the Huawei Cloud International website is 15 days.
- During the grace period, you can access and use only some resources of your DB instance. The grace period for the Huawei Cloud International website is 15 days.

## Avoiding and Handling Arrears

Make sure you have a valid payment method configured as soon as possible after your account is in arrears. For details, see [Topping Up an Account](#).

If a DB instance is no longer used, you can delete 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 DB 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, 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 DB instances, are no longer required, delete 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. On the top menu bar, choose **Billing & Costs > Bills**.
- Step 2** On the **Expenditure Details** page of the Billing Center, click the icon shown in the following figure to copy the resource name.


**Figure 9-1** Copying the resource name

Billing...	Account Name	Service...	Resour...	Billing ...	Bill Type	Resource N...	Resource Tag	Specificatio...	Region	AZ	Usage Type	Unit Price	Unit	Total Usage (Pri...	Usage
Jul 2023	uts_obs_nosql_02	Document D...	DDS Cloud ...	Pay-per-Use	Expenditure...	dds_49_Clu... c1fa2091c...	--	DDS shard ...	CN Southwe...	AZ1	Duration	0.0047	YUAN/OB/H...	7.0830555555	hours
Jul 2023	uts_obs_nosql_02	Document D...	DDS Cloud ...	Pay-per-Use	Expenditure...	dds_49_Clu... 808ba594d9...	--	DDS config ...	CN Southwe...	AZ1	Duration	0.0047	YUAN/OB/H...	9.0830555555	hours

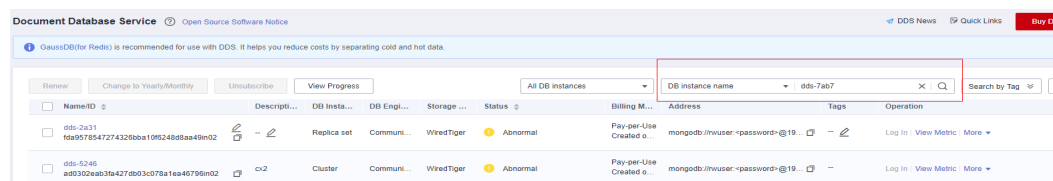
**Step 3** Log in to the management console.

**Step 4** Click  in the upper left corner and select a region and a project.

**Step 5** Click  in the upper left corner of the page and choose **Databases > Document Database Service**.

**Step 6** Enter the name of the DB instance copied in [Step 2](#) in the search box and click .

**Figure 9-2** Searching for a DB instance



**Step 7** Choose **More > Delete** in the **Operation** column to delete the DB instance. Ensure that the instance 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 DB instance (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

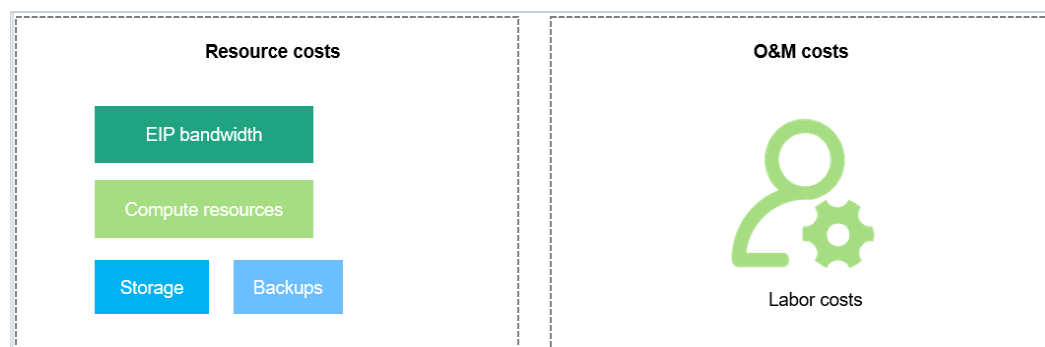
The following describes how to manage DDS costs in terms of cost composition, allocation, analysis, and optimization. Optimizing costs can help you maximize return on investment.

## 10.1 Cost Composition

DDS costs consist of two parts:

- Resource costs: costs of compute and storage resources. For details, see [Billing Modes](#).
- O&M costs: labor costs incurred during the use of DB instances.

**Figure 10-1** DDS 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.

## 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](#).

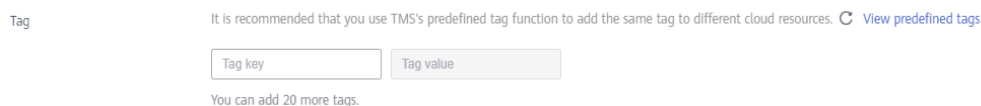
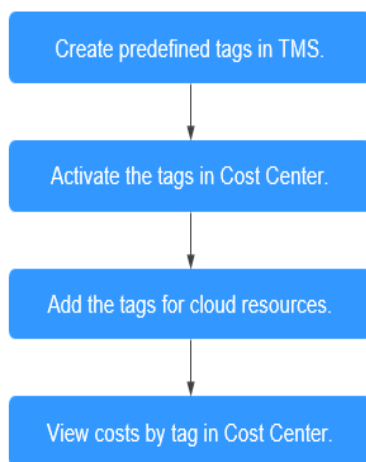
**Figure 10-2** Selecting an enterprise project



- **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 10-3** 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

Cloud Eye helps you monitor resource usage, identify idle resources, and 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. You can:

- View DB instance monitoring metrics on the Cloud Eye console, such as the CPU, memory, and disk usage. If the current configuration is more than you need, you can downgrade the instance specifications.
- Identify idle resources and delete idle DB instances in a timely manner.
- Purchase a general-purpose DB instance 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 DB instances and renew yearly/monthly instances that are about to expire in a timely manner.