Object Storage Service

Billing

Issue   01

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Contents

1 Billing Overview

This document describes how you will be billed for using Object Storage Service (OBS), including the billing items and billing modes. For the pricing about the Parallel File System (PFS), see **Product Pricing Details**.

Billed Items

You will be billed for **storage space**, **requests**, **data transfer**, **data retrievals**, and **data processing**. For details, see **Figure 1-1**.

Figure 1-1 OBS billing items
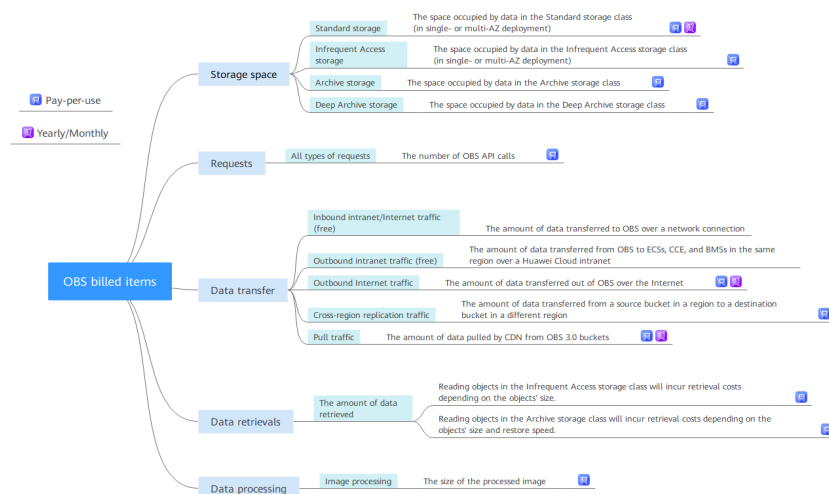
Billing Modes

OBS provides two billing modes: pay-per-use and yearly/monthly. Pay-per-use is recommended if you are unsure of your future service needs and want to avoid paying for unused resources. If you are sure of your needs, yearly/monthly will be less expensive.

- **Pay-per-use**

You are billed for using OBS on a pay-per-use basis by default. With this billing mode, you pay only for how long (hours) you actually use the resources. There is no minimum cost. For details, see **Pay-per-Use Billing**.

- **Yearly/Monthly**

  You can purchase a yearly/monthly resource package to save money, but if your usage exceeds the package quota, subsequently used resources will be billed on a pay-per-use basis. For details, see **Resource Package Overview**.

Renewing Subscriptions

If you want to continue using a yearly/monthly OBS resource package after it expires, you need to renew the subscription within the specified period. You can renew your subscription manually or automatically. For details, see **Overview**.

Viewing Bills

You can choose **Billing & Costs** > **Bills** to check the OBS 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 protect your data in OBS from being lost, you will need to top up your account in a timely manner. For details, see **Arrears**.

Terminating Billing

If you no longer need to use your data stored in OBS, you can delete it to stop the billing. For details, see **Billing Termination**.

Billing Method

OBS is billed by the hour based on the usage. For details, see .

Table 1-1 Billing description

Billed Item		Billed By	Description	Billing Mode
Storage space	Standard storage	Hour	The system creates a bill for the usage generated in a previous hour in the next hour.	Resource packages (if any) are used first. After packages are used up, pay-per-use billing applies.
	Infrequent Access storage			Pay-per-use

Billed Item		Billed By	Description	Billing Mode
	Archive storage			Resource packages (if any) are used first. After packages are used up, pay-per-use billing applies.
	Deep Archive storage			Pay-per-use
Req uest s	All types of requests	Hour	The system creates a bill for the usage generated in a previous hour in the next hour.	Pay-per-use
Dat a tran sfer	Inbound intranet/ Internet traffic	Hour	The system creates a bill for the usage generated in a previous hour in the next hour.	Free
	Outbound intranet traffic	Hour	The system creates a bill for the usage generated in a previous hour in the next hour.	Free
	Outbound Internet traffic	Hour	The system creates a bill for the usage generated in a previous hour in the next hour.	Resource packages (if any) are used first. After packages are used up, pay-per-use billing applies.
	Cross-region replication traffic	Hour	The system creates a bill for the usage generated in a previous hour in the next hour.	Resource packages (if any) are used first. After packages are used up, pay-per-use billing applies.
	Pull traffic	Hour	The system creates a bill for the usage generated in a previous hour in the next hour.	Resource packages (if any) are used first. After packages are used up, pay-per-use billing applies.

Billed Item		Billed By	Description	Billing Mode
Data retrievals	Traffic for retrieving Infrequent Access, Deep Archive, or Archive objects	Hour	The system creates a bill for the usage generated in a previous hour in the next hour.	Pay-per-use
Data processing	Image processing	Hour	The system creates a bill for the usage generated in a previous hour in the next hour.	Pay-per-use

Pricing

For detailed prices, see **Product Pricing Details**.

2 Billing Items

2.1 Storage Space

You pay for using OBS based on your objects' size, the object storage class, and how long your objects are stored. The billing items slightly vary depending on the storage classes. For details, see **Table 2-1**.

📖 **NOTE**

> For details about storage classes, see **Storage Classes**.

Billing Description

Table 2-1 Storage space billing

Billing Item	Sub Item	Description	Billing Mode
Storage space	Standard storage	Space occupied by data in the Standard storage class (with **single-AZ or multi-AZ redundancy**). ● Storage duration is the number of days during which data is stored in OBS. ● Minimum storage size: 64 KB. If an object is smaller than 64 KB, it will be billed as if it were 64 KB. Objects larger than 64 KB are billed for their actual size.	Pay-per-use Yearly/ monthly

Billing Item	Sub Item	Description	Billing Mode
	Infrequent Access storage	Space occupied by data in the Infrequent Access storage class (with **single-AZ or multi-AZ redundancy**). • Minimum storage duration: 30 days. Objects stored for less than 30 days are billed for a full 30 days, while those stored for over 30 days are billed based on their actual storage duration. If objects are deleted or transitioned to another storage class before they have been stored for this minimum storage duration, you still need to pay for the remaining days. The cost for the remaining days is calculated as follows: Unit price of Infrequent Access storage x Used space x Remaining days/30. • Minimum storage size: 64 KB. If an object is smaller than 64 KB, it will be billed as if it were 64 KB. Objects larger than 64 KB are billed for their actual size.	Pay-per-use

Billing Item	Sub Item	Description	Billing Mode
	Archive storage	Space occupied by data in the Archive storage class. ● Minimum storage duration: 90 days. Objects stored for less than 90 days are billed for a full 90 days, while those stored for over 90 days are billed on their actual storage duration. If objects are deleted or transitioned to another storage class before they have been stored for this minimum storage duration, you still need to pay for the remaining days. The cost for the remaining days is calculated as follows: Unit price of Archive storage x Used space x Remaining days/30. ● Minimum storage size: 64 KB. If an object is smaller than 64 KB, it will be billed as if it were 64 KB. Objects larger than 64 KB are billed for their actual size.	Pay-per-use

Billing Item	Sub Item	Description	Billing Mode
	Deep Archive storage (under limited beta testing)	Space occupied by data in the Deep Archive storage class. ● Minimum storage duration: 180 days. Objects stored for less than 180 days are billed for a full 180 days, while those stored for over 180 days are billed based on their actual storage duration. If objects are deleted or transitioned to another storage class before they have been stored for this minimum storage duration, you still need to pay for the remaining days. The cost for the remaining days is calculated as follows: Unit price of Deep Archive storage x Used space x Remaining days/30. ● Minimum storage size: 64 KB. If an object is smaller than 64 KB, it will be billed as if it were 64 KB. Objects larger than 64 KB are billed for their actual size.	Pay-per-use

📖 **NOTE**

Overwriting objects in the Infrequent Access, Deep Archive, or Archive storage class works the same as deleting and then uploading these objects. This will incur extra storage costs.

Pricing

For detailed prices, see **Product Pricing Details**.

Billing Examples

> **NOTICE**
>
> The prices in the following examples are for reference only. For the actual prices, see **Pricing Details**.

Example 1

On July 1, 2023, suppose you uploaded 40 GB of Standard data to a single-AZ OBS bucket in the CN-Hong Kong region, and there were 100 upload requests generated. Then, on the same day and in the same region, you purchased a 1-month Standard single-AZ storage package of 40 GB at $0.16 USD. You did not perform any other operations in the rest of July.

You would pay for the storage of Standard data and the upload requests. The billing for storage started from July 1, 2023, while the requests were billed on July 1, 2023. Specific billing analysis is given as follows:

Pay-per-use billing:

Standard storage cost = ($0.0230 USD per GB-month)/30 x 40 GB x 30 days = $0.92 USD

Request cost = $0.0001 USD per 1,000 requests x (100 requests/1,000 requests) = $0.00001 USD

Yearly/monthly (resource package) billing:

From July 1, 2023 to July 30, 2023, the purchased package covered the daily storage of 40 GB Standard data in 30 days. The total cost in July was as follows:

Total cost = 0.16 + 0.00001 = $0.16001 USD

Example 2

On July 1, 2023, suppose you uploaded 100 GB Archive data to an OBS bucket in the CN-Hong Kong region, and there were 100 requests generated. In this 100 GB data, there were 10,000 24 KB files, and the rest files are greater than or equal to 64 KB. Then, on the same day and in the same region, you purchased a 1-month Archive storage package of 100 GB at $0.4517145 USD. You did not perform any other operations in the rest of July.

You would pay for the storage of Archive data and the upload requests. The billing for storage started from July 1, 2023, while the requests were billed on July 1, 2023. Since a file smaller than 64 KB would be billed as if it were 64 KB, the total Archive storage was calculated as follows:

Archive storage = 100 GB + 10,000 x (64 KB – 24 KB) = 100.381 GB

Specific billing analysis is given as follows:

Pay-per-use billing:

Archive storage cost = ($0.0045 USD per GB-month)/30 x 100.381 GB x 30 days = $0.4517145 USD

Request cost = $0.0050 USD per 1,000 requests x (100 requests/1,000 requests) = $0.0005 USD

Yearly/monthly (resource package) billing:

From July 1, 2023 to July 30, 2023, the purchased package covered the daily storage of 100 GB Archive data in 30 days. The total cost in July was as follows:

Total cost = $0.4517145 USD + ($0.0045 USD per GB-month/30) x 0.381 GB x 30 days + $0.0005 USD = $0.453929 USD

2.2 Requests

When you perform operations on OBS using OBS Console, tools, the API, or SDKs, you are actually calling APIs. Each API call is counted as a request. You will be billed for the number of OBS API calls (requests).

Request Types

OBS requests fall into the following types:

- Read requests: GET (for downloading objects), HEAD (for obtaining bucket locations or bucket policies), LIST (for listing objects), and others
- Write requests: PUT/POST (for uploading objects), COPY (for copying objects), and others
- Delete requests: DELETE (for deleting objects or canceling multipart uploads) and others
- Lifecycle-based storage class transition requests: transition requests generated when objects are transitioned from Standard to Infrequent Access or Archive or Deep Archive, or from Infrequent Access to Archive or Deep Archive, or from Archive to Deep Archive

Billing Description

Billing Item	Sub Item	Description	Billing Mode
Requests	GET, PUT, and storage class transition requests (during the execution of a lifecycle rule)	GET, PUT, and storage class transition requests, including PUT, POST, COPY, LIST, GET, and HEAD	Pay-per-use
	DELETE requests	Requests for deleting objects or canceling multipart uploads	Pay-per-use in some regions and free in the other regions. For details, see **Pricing Details**.

Request Billing

Requests can only be billed on a pay-per-use basis. The unit prices for different types of requests are the same. For details, see **Product Pricing Details**.

If you buy a monthly Standard storage package (with a validity period of less than 1 year), you will receive a quota of free read and write requests. The free quota is used first. After the free quota is used up, subsequent requests are billed on a pay-

per-use basis. You will be rewarded certain free quota each time you buy a monthly Standard storage package, and all the rewarded quotas are accumulated.

📖 **NOTE**

> Except the requests whose status code is 5*XX* or 403, all other requests returned by the server are counted in the number of requests.

Billing Examples

NOTICE

The prices in the following examples are for reference only. For the actual prices, see **Pricing Details**.

Example 1

Take object upload as an example. Each time you upload an object or an object part is counted as a request. Suppose you need to upload 100 objects:

- If you call the PutObject API to upload all of the objects, 100 PUT requests will be sent.

- If there are some large objects that need to be uploaded using multipart uploads, the final number of requests will be greater than 100, because additional requests are required for processing object parts, initiating multipart uploads, or assembling parts.

Example 2

Each operation on OBS Console delivers a request.

For example, when you open the homepage of OBS Console, OBS starts loading the list of buckets and delivers requests for obtaining the bucket list and bucket locations. Likewise, when you switch to the **Overview** page of a bucket, requests will be sent to query the bucket storage information and bucket metadata.

Example 3

Take object download as an example. Each time you download an object is counted as a request. Assume that you need to download 100 objects:

- If the objects are in the Standard or Infrequent Access storage class, downloading them will send 100 GET requests.

- If these 100 objects are in the Archive storage class and direct reading is not enabled for the bucket, you need to restore the objects before downloading them. Restoring 100 objects to Standard will generate 100 PUT requests. Then, downloading these 100 Standard objects will send another 100 GET requests. In this case, there are 200 requests in total.

- If these 100 objects are in the Archive storage class and direct reading has been enabled for the bucket, you can directly download the objects without restoring them first. In this case, a total of 100 GET requests will be sent.

Pricing

For detailed prices, see **Product Pricing Details**.

2.3 Data Transfer

You will be billed for the traffic generated when data is transferred into or out of OBS. There are the following types of traffic: inbound intranet/Internet traffic, outbound intranet traffic, cross-region replication traffic, pull traffic, and outbound Internet traffic.

Billing Description

Billing Item	Sub Item	Description	Billing Mode
Data transfer	Inbound intranet/ Internet traffic	The amount of data transferred over a network connection to OBS	Free
	Outbound intranet traffic	The amount of data transferred from OBS to ECSs, CCE, and BMSs in the same region over a Huawei Cloud intranet. You need to configure network settings before you can access OBS over the intranet of a given region. For details, see **Accessing OBS from an ECS over an Intranet**.	Free

Billing Item	Sub Item	Description	Billing Mode
	Outbound Internet traffic	The amount of data (in the Standard storage class) transferred out of OBS over the Internet. After Infrequent Access, Deep Archive, and Archive objects are restored, the outbound Internet traffic generated when you download those restored objects can only be billed on a pay-per-use basis. **NOTE** ● Internet traffic is generated as long as data is downloaded from OBS over the Internet, regardless of whether the download is successful. ● The outbound Internet traffic generated when you download the restored Infrequent Access, Deep Archive, and Archive objects cannot be covered by outbound Internet traffic packages.	Pay-per-use Yearly/monthly
	Cross-region replication traffic	The amount of data transferred from one region to another.	Pay-per-use
	CDN pull traffic	The amount of data pulled by Huawei Cloud CDN from OBS 3.0 buckets. Downloading data from OBS 2.0 buckets generates outbound Internet traffic, which can be covered by a matched outbound Internet traffic package.	Pay-per-use

Pricing

For detailed prices, see **Product Pricing Details**.

Billing Examples

> **NOTICE**
>
> The prices in the following examples are for reference only. For the actual prices, see **Pricing Details**.

On July 1, 2023, suppose you uploaded 50 GB of Standard data to a single-AZ OBS bucket in the CN-Hong Kong region, and there were 100 upload requests generated. Then, on the same day and in the same region, you purchased a 1-month outbound Internet traffic package of 50 GB at $2.79 USD. From 08:00 to 24:00 (busy hours) on each of the following two days, you downloaded 50 GB of data to your local PC over the Internet, which generated 100 requests a day, and you did not perform any other operations in the rest of July. You would be billed for the following items:

Standard storage: billed every day from July 1, 2023

Requests: billed on July 1, 2, and 3, 2023

Traffic: billed on July 2 and 3, 2023

Specific billing analysis is given as follows:

Pay-per-use billing:

Standard storage cost = ($0.0230 USD per GB-month)/30 x 50 GB x 30 days = $1.15 USD

Request cost = $0.0001 USD per 1,000 requests x (100 requests/1,000 requests) x 3 = $0.00003 USD

Outbound Internet traffic cost = $0.1180 USD/GB x 50 GB x 2 = $11.8 USD

Yearly/monthly (resource package) billing:

On July 2, 2023, the purchased package covered the 50 GB traffic generated. On July 3, 2027, the 50 GB traffic was billed on a pay-per-use basis ($0.1180 USD/GB x 50 GB = $5.9 USD). The total cost in July was as follows:

Total cost = 2.79 + 1.15 + 0.00003 + 5.9 = $9.84003 USD

2.4 Data Retrievals

Accessing objects in the Deep Archive, Archive and Infrequent Access storage classes will incur data retrieval costs based on the objects' size. You are billed for data retrievals regardless of whether you read the objects over an intranet or Internet connection. If you are using an Internet connection, you will also be billed for the outbound Internet traffic generated.

Billing Description

Billing Item	Sub Item	Description	Billing Mode
Data retrievals	The amount of data retrieved	• Reading objects in the Infrequent Access storage class will incur retrieval costs depending on the objects' size. • Reading objects in the Archive storage class will incur retrieval costs depending on the objects' size and restore speed. • Reading objects in the Deep Archive storage class will incur retrieval costs depending on the objects' size and restore speed. You are billed for data retrievals regardless of whether you read the objects over an intranet or Internet connection. If you are using an Internet connection, you will also be billed for the outbound Internet traffic generated. After an Archive or Deep Archive object is restored, an object copy is generated and stored in the Standard storage class. During the copy retention period, you will be billed for the storage space occupied by both the object and its copy. The object copy will be automatically deleted after it expires. The object copy storage in the entire validity period is billed at a time when the object is restored. Such storage can be billed on a pay-per-use basis or covered by a resource package. Retrieving Infrequent Access objects or retrieving Archive objects from a bucket with direct reading enabled does not create object copies, so	Pay-per-use

Billing Item	Sub Item	Description	Billing Mode
		there will not be additional costs on Standard storage. Downloading and copying Archive objects from a bucket with direct reading enabled will generate data read traffic. **NOTE** You can repeatedly restore archived data if you want to: ● Prolong the validity: If you do this, the new restore will be also billed. After a second restore, the validity period of Standard object copies will be prolonged, and you need to pay for storing these copies during the prolonged period. Suppose that you restored an Archive object yesterday, with a validity period of seven days. Then, at the same time today, you made a second restore for the object and configured a validity period of eight days. In this case, the final costs include the cost for two restore operations and the cost for storing the Standard object copy for nine days. ● Shorten the validity: If you do this, error code "409 ObjectHasAlreadyRestored" will be reported. In such case, no restoration costs or additional costs for storing Standard object copies are incurred.	

Pricing

For detailed prices, see **Product Pricing Details**.

Billing Examples

> **NOTICE**
>
> The prices in the following examples are for reference only. For the actual prices, see **Pricing Details**.

On July 1, 2023, suppose you uploaded 10 GB Infrequent Access data to a single-AZ OBS bucket in the CN-Hong Kong region, and there were 100 requests

generated. Then, on July 2, 2023, you read the uploaded data from 08:00 to 24:00 (busy hours), with 100 requests generated, and you did not perform any other operations in the rest of July. You would be billed for the following items:

> ⚠️ **CAUTION**
>
> Bills are settled by hour.

Infrequent Access storage: billed at 00:00 on July 1, 2023

Infrequent Access data retrievals: billed on July 2, 2023

Requests: billed on July 1 and 2, 2023

Outbound Internet traffic: billed on July 2, 2023

There was no resource package applicable to data retrievals, so pay-per-use billing applied.

Pay-per-use billing:

Infrequent Access storage cost = ($0.0140 USD per GB-month/30 days/24 hours) x 10 GB x 48 hours = $0.0093 USD

Retrieval cost = $0.0075 USD/GB x 10 GB = $0.075 USD

Read request cost = $0.0010 USD per 1,000 requests x (100 requests/1,000 requests) = $0.0001 USD

Write request cost = $0.0050 USD per 1,000 requests x (100 requests/1,000 requests) = $0.0005 USD

Outbound Internet traffic cost = $0.1180 USD/GB x 10 GB = $1.180 USD (peak hours)

Total cost: 0.0093 + 0.075 + 0.0001 + 0.0005 + 1.180 = $1.2649 USD

2.5 Data Processing

You will be billed for using the image processing of OBS.

Billing Description

Billing Item	Sub Item	Description	Billing Mode
Data processing	Image processing	The size of the processed image For details, see **How Is Image Processing Billed?**	Pay-per-use

Pricing

For detailed prices, see **Product Pricing Details**.

2.6 Billing in Special Scenarios

Lifecycle Management

If you configure lifecycle rules to perform actions automatically, you may be billed. The following tables list billable items and their descriptions.

For billing details, see **OBS Billing Items**.

Table 2-2 Billing for lifecycle management actions (during action execution)

Action	Billing Item	Description
Delete after expiration	Requests	You are billed for the number of successfully deleted objects.
	Storage space	If objects are deleted before they have been stored for the required minimum duration (180, 90, and 30 days for Deep Archive, Archive, and Infrequent Access storage, respectively), you still need to pay for the remaining days.
Transition from Standard to Infrequent Access	Requests	You are billed for the number of successfully transitioned objects. Specifically, if N objects are successfully transitioned, you are billed for N requests.
Transition from Standard to Archive	Requests	
Transition from Infrequent Access to Archive	Requests	
Transition from Standard to Deep Archive	Requests	You are billed for the number of successfully transitioned objects. Specifically, if N objects are successfully transitioned, you are billed for N requests.
Transition from Infrequent Access to Deep Archive	Requests	
Transition from Archive to Deep Archive	Requests	

Table 2-3 Billing for lifecycle management actions (after action execution)

Action	Billing Item	Description
Delete after expiration	N/A	N/A
Transition from Standard to Infrequent Access	Storage space	After the transition, you will be billed for the Infrequent Access storage.
Transition from Standard to Archive	Storage space	After the transition, you will be billed for the Archive storage.
Transition from Infrequent Access to Archive	Storage space	1. After the transition, you will be billed for the Archive storage. 2. If Infrequent Access objects are transitioned to Archive before they have been stored for the required minimum duration (30 days), you still need to pay for Infrequent Access storage of the remaining days.
Transition from Standard to Deep Archive	Storage space	After the transition, you will be billed for the Deep Archive storage.
Transition from Infrequent Access to Deep Archive	Storage space	1. After the transition, you will be billed for the Deep Archive storage. 2. If Infrequent Access objects are transitioned to Deep Archive before they have been stored for the required minimum duration (30 days), you still need to pay for Infrequent Access storage of the remaining days.
Transition from Archive to Deep Archive	Storage space	1. After the transition, you will be billed for the Deep Archive storage. 2. If Archive objects are transitioned to Deep Archive before they have been stored for the required minimum duration (90 days), you still need to pay for Archive storage of the remaining days.

Restoration of Archive or Deep Archive Objects

You must restore objects in the Archive or Deep Archive storage class before you can download them, access them with URL, or configure the ACL and metadata for them. The table below lists the items you might be billed for during object restore.

Table 2-4 Billing for restoring Archive or Deep Archive objects

Action	Billing Item	Description
Restoring objects	Requests	You are billed for the number of successfully restored objects. Specifically, if N objects are successfully restored, you are billed for N requests.
	Data transfer	You are billed for the data restore traffic.
	Temporary storage	After an object is restored, an object copy in the Standard storage class will be generated. This way, there is both the original Archive or Deep Archive object and its Standard object copy in the bucket. During the copy retention period, you will be billed for the storage space occupied by both the object and its copy. The Standard object copy will be automatically deleted after it expires.

Cross-Bucket Replication in the Same Region

If you replicate objects from one bucket to another in the same region using OBS Browser+, obsutil, APIs, or SDKs, you may be billed for the items listed in the table below.
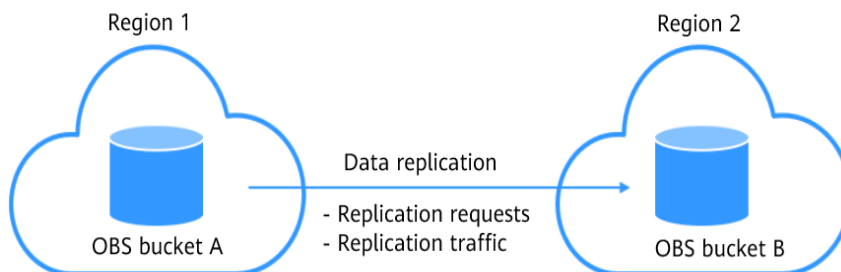
Table 2-5 Billing for cross-bucket replication

Action	Billing Item	Description
Replicate data across buckets in the same region	Requests	You are billed for the number of successfully replicated objects. Successfully replicating one object creates a copy request. For details, see **Copying Objects**. To learn about the request billing, see **Requests**.
	Data transfer	Free, because data in the same region is replicated over an intranet.
	Storage space	Storage space occupied by objects stored in the destination bucket. If you have specified another storage class for object copies in the destination bucket, these copies are billed based on the new storage class.

Cross-Region Replication

Figure 2-1 shows the items that will be billed when data is replicated from one region to another.

Figure 2-1 Items billed for cross-region replication

Table 2-6 Billing for cross-region replication

Action	Billing Item	Description
Replicate data across regions	Requests	You are billed for the number of successfully replicated objects. Successfully replicating one object creates a copy request. For details, see **Copying Objects**. To learn about the request billing, see **Requests**.
	Data transfer	You are billed for the amount of data transferred from one region to another.
	Storage space	Storage space occupied by objects stored in the destination bucket. If you have specified another storage class for object copies in the destination bucket, these copies are billed based on the new storage class.
Synchronize existing objects	Requests	You are billed for the number of existing objects that are successfully replicated to the destination bucket. With synchronization of existing objects enabled, OBS synchronously replicates the objects that already exist in the bucket before a cross-region replication rule is created to the destination bucket.
	Data transfer	You are billed for the traffic generated when OBS synchronizes objects across regions.

Action	Billing Item	Description
	Storage space	Storage space occupied by objects stored in the destination bucket. If you have specified another storage class for object copies in the destination bucket, these copies are billed based on the new storage class.

CDN-Accelerated Access to OBS

If you use Huawei Cloud CDN to accelerate access to the data stored in OBS, you will be billed for using both OBS and CDN.

Figure 2-2 shows how and what costs are generated.

Figure 2-2 Using CDN to access OBS
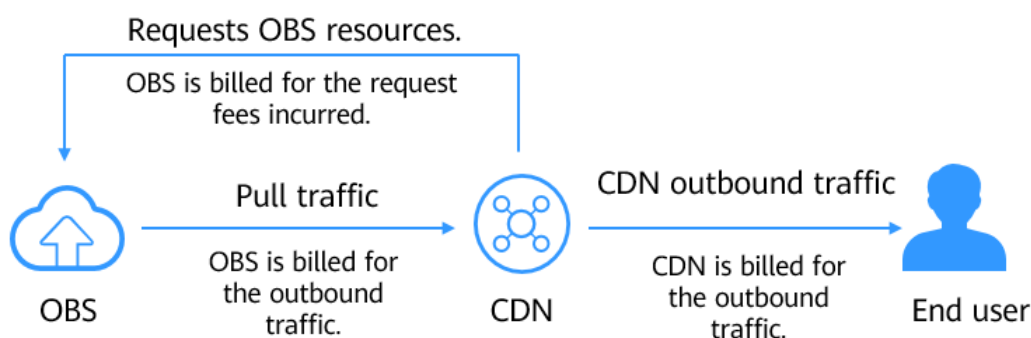
Table 2-7 describes the billing items in detail.

Table 2-7 Billing for using CDN to access OBS

Billing Item	Billing Party	Description
Requests	OBS	When you access data the first time, a CDN edge node will pull data from the origin server (OBS). During this process, CDN sends requests to OBS. OBS bills you for the API calls. For details, see **Requests**.
CDN pull traffic	OBS	Pull traffic generated when the origin server returns data and caches it on the CDN node. Such traffic is only for OBS 3.0 buckets. If data is pulled from OBS 2.0 buckets, the data is directly transferred out over the Internet.
CDN traffic	CDN	Outbound traffic generated from CDN after you access a CDN node. For details, see **CDN Traffic Billing**.

Back to Source by Mirroring

If the data you requested is not found in a bucket with a mirroring back-to-source rule configured and the data meets the specified back-to-source conditions, OBS will pull the data from the origin server and then return it to you.

Table 2-8 Billing for back to source by mirroring

Action	Billing Item	Description
Perform mirroring-based back to source	Requests	If the data you requested the first time is not found in OBS, OBS will send a request to pull it from the origin server. OBS bills you for the API calls. For details, see **Requests**.
	Storage space	Space occupied by data pulled from the origin server. The pulled data is stored in the Standard storage class in OBS.

3 Billing Modes

3.1 Overview

There are pay-per-use and yearly/monthly (resource package) 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 data storage.
- Pay-per-use is a postpaid billing mode. You pay as you go and just pay for what you use. The OBS usage is calculated by the second but billed every hour. Pay-per-use billing is a good option for scenarios where there are sudden traffic bursts, such as e-commerce promotions.

Table 3-1 lists the differences between these billing modes.

Table 3-1 Differences between billing modes

| Billing Mode	Yearly/monthly	Pay-per-use
Payment	Prepaid Billed by the subscription term you purchase	Postpaid Billed by the actual OBS usage
Billed Usage Period	Hour	Hour

Billing Items	Single-AZ Standard storage Multi-AZ Standard storage Single-AZ Archive storage Outbound Internet traffic Pull traffic Cross-region replication traffic	All OBS items can be billed on a pay-per-use basis. For details, see **Pay-per-Use Billing**.
Billing Mode Change	Yearly/Monthly can be changed to pay-per-use. The change takes effect only after the yearly/monthly subscription expires. **Billing Mode Changes**	Pay-per-use can be changed to yearly/monthly. **Billing Mode Changes**
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.	Good for short-term, bursty, or unpredictable workloads that cannot tolerate any interruptions, such as requests, data read, and image processing.

Checking the Billing Mode of an Item in a Bill

In a bill, you can check wether an item is billed on a pay-per-use or yearly/monthly (resource packages) basis.

Step 1 In the navigation pane of **OBS Console**, choose **Object Storage**.

Step 2 In the bucket list, copy the name of the bucket whose bill you want to view.

Step 3 On the right of the top navigation bar, click **Billing & Costs**.

Step 4 In the navigation pane, choose **Billing** > **Expenditure Details**. On the page displayed, view all expenditure details.

Step 5 Choose a billing cycle and specify a display dimension (**Usage** by default).

Step 6 Select **Resource ID** as the search criteria, enter the bucket name copied in **Step 2**, and click the 🔍 icon.

Figure 3-1 Searching for a bill
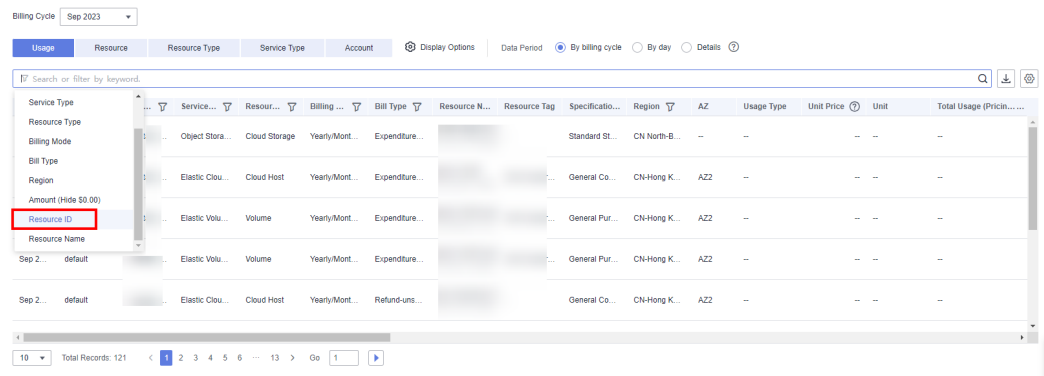
You can also click above the list to export the bill details.

Step 7 In the **Billing Mode** column of the bill, check the billing mode of an item.

Resource Type	Billing Mode
	Yearly/Monthly-Month
	Yearly/Monthly-Month
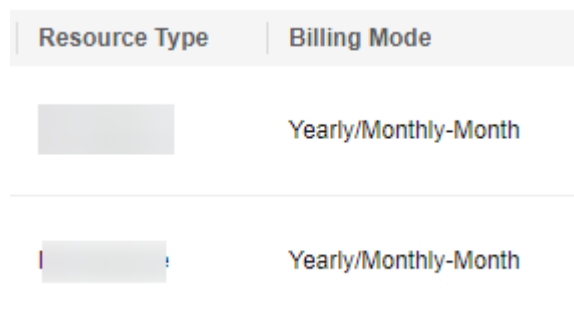
----End

3.2 Pay-per-Use Billing

Application Scenarios

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

Billed Items

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

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

Billing Item		Description
Storage space	Standard storage	Space occupied by data in the Standard storage class (with **single-AZ or multi-AZ redundancy**). ● Storage duration is the number of days during which data is stored in OBS. ● Minimum storage size: 64 KB. If an object is smaller than 64 KB, it will be billed as if it were 64 KB. Objects larger than 64 KB are billed for their actual size.
	Infrequent Access storage	Space occupied by data in the Infrequent Access storage class (with **single-AZ or multi-AZ redundancy**). ● Minimum storage duration: 30 days. Objects stored for less than 30 days are billed for a full 30 days, while those stored for over 30 days are billed based on their actual storage duration. If objects are deleted or transitioned to another storage class before they have been stored for this minimum storage duration, you still need to pay for the remaining days. The cost for the remaining days is calculated as follows: Unit price of Infrequent Access storage x Used space x Remaining days/30. ● Minimum storage size: 64 KB. If an object is smaller than 64 KB, it will be billed as if it were 64 KB. Objects larger than 64 KB are billed for their actual size.

Billing Item		Description
	Archive storage	Space occupied by data in the Archive storage class. • Minimum storage duration: 90 days. Objects stored for less than 90 days are billed for a full 90 days, while those stored for over 90 days are billed on their actual storage duration. If objects are deleted or transitioned to another storage class before they have been stored for this minimum storage duration, you still need to pay for the remaining days. The cost for the remaining days is calculated as follows: Unit price of Archive storage x Used space x Remaining days/30. • Minimum storage size: 64 KB. If an object is smaller than 64 KB, it will be billed as if it were 64 KB. Objects larger than 64 KB are billed for their actual size.
	Deep Archive storage (under limited beta testing)	Space occupied by data in the Deep Archive storage class. • Minimum storage duration: 180 days. Objects stored for less than 180 days are billed for a full 180 days, while those stored for over 180 days are billed based on their actual storage duration. If objects are deleted or transitioned to another storage class before they have been stored for this minimum storage duration, you still need to pay for the remaining days. • Minimum storage size: 64 KB. If an object is smaller than 64 KB, it will be billed as if it were 64 KB. Objects larger than 64 KB are billed for their actual size.
Requests	GET, PUT, and storage class transition requests	GET, PUT, and storage class transition requests, including PUT, POST, COPY, LIST, GET, and HEAD

Billing Item		Description
Data transfer	Outbound Internet traffic	The amount of data (in the Standard storage class) transferred out of OBS over the Internet. After Infrequent Access, Deep Archive, and Archive objects are restored, the outbound Internet traffic generated when you download those restored objects can only be billed on a pay-per-use basis. **NOTE** ● Internet traffic is generated as long as data is downloaded from OBS over the Internet, regardless of whether the download is successful. ● The outbound Internet traffic generated when you download the restored Infrequent Access, Deep Archive, and Archive objects cannot be covered by outbound Internet traffic packages.
	Cross-region replication traffic	The amount of data transferred from one region to another
	CDN pull traffic	The amount of data pulled by Huawei Cloud CDN from OBS 3.0 buckets. Downloading data from OBS 2.0 buckets generates outbound Internet traffic, which can be covered by a matched outbound Internet traffic package.

Billing Item		Description
Data retrievals	The amount of data retrieved	• Reading objects in the Infrequent Access storage class will incur retrieval costs depending on the objects' size. • Reading objects in the Archive storage class will incur retrieval costs depending on the objects' size and restore speed. • Reading objects in the Deep Archive storage class will incur retrieval costs depending on the objects' size and restore speed. You are billed for data retrievals regardless of whether you read the objects over an intranet or Internet connection. If you are using an Internet connection, you will also be billed for the outbound Internet traffic generated. After an Archive object is restored, an object copy is generated and stored in the Standard storage class. During the copy retention period, you will be billed for the storage space occupied by both the object and its copy. The object copy will be automatically deleted after it expires. The storage cost for the object copy in the entire validity period will be charged at a time when the object is restored. Retrieving Infrequent Access objects or retrieving Archive objects from a bucket with direct reading enabled does not create object copies, so there will not be additional costs on Standard storage. Downloading and copying Archive objects from a bucket with direct reading enabled will generate data read traffic.

Billing Item		Description
		NOTE You can repeatedly restore archived data if you want to: • Prolong the validity: If you do this, the new restore will be also billed. After a second restore, the validity period of Standard object copies will be prolonged, and you need to pay for storing these copies during the prolonged period. • Shorten the validity: If you do this, error code "409 ObjectHasAlreadyRestored" will be reported. In such case, no restoration costs or additional costs for storing Standard object copies are incurred.
Data processing	Image processing	The size of the processed image For details, see **How Is Image Processing Billed?**

Pricing Details

You are billed for using OBS on a pay-per-use basis by default. With this billing mode, you pay only for how long (hours) you actually use the resources. There is no minimum cost.

Billed Usage Period

The system collects usage of a previous hour (for example, 18:00–19:00) every hour and generates an SDR accordingly. An SDR generated at 19:30 usually records the cost from 18:00 to 19:00 or from 17:00 to 18:00 due to possible delays.

The minimum settlement duration is one hour regardless of when objects are uploaded. Specifically, if you uploaded an object between 18:00 and 19:00, you will be billed for its storage of a full hour (18:00 to 19:00).

Billing Formula

Cost = Used resources x Unit price

For detailed prices under pay-per-use billing, see **Product Pricing Details**. The **Price Calculator** can help you make a cost estimate for the resources you select.

📖 **NOTE**

If you want the price per hour, make a conversion. Taking Standard storage (single AZ) as an example, its hourly unit price is as follows: $0.0230 USD per GB-month x (1/24) x (1/30) = $0.00003194 USD per GB-hour.

Billing Examples

> **NOTICE**
>
> The prices in the following examples are for reference only. For the actual prices, see **Pricing Details**.

Suppose the unit price of Standard storage (single AZ) is $0.0230 USD per GB-month and there are 100,000 GB Standard objects in a single-AZ bucket. In this case, the cost for storing these objects in an hour is as follows: $0.0230 USD per GB-month × 100,000 GB × (1/24/30) months = $3.19 USD.

Impacts of Arrears

Figure 3-2 shows the statuses a pay-per-use OBS resource can have throughout its lifecycle. After an OBS resource is purchased, it enters the valid period and runs normally during this period as long as your account balance is sufficient or there are resource packages available for use. If your account goes into arrears, the OBS resource enters a grace period and then a retention period.

Figure 3-2 Lifecycle of a pay-per-use OBS resource
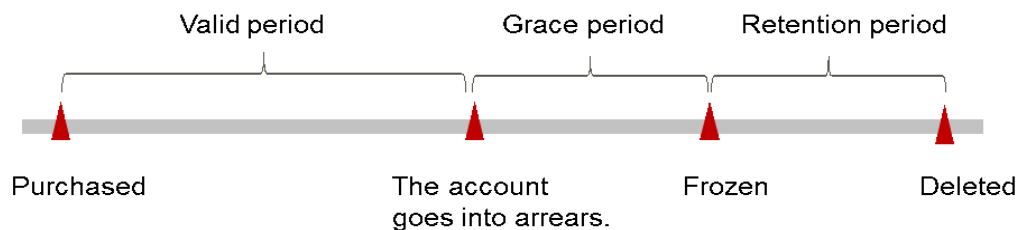
Arrears Reminder

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

Impacts of Arrears

If your account is insufficient to pay your amount due, your account goes into arrears, and your pay-per-use resources enter 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 resource status turns to **Frozen** and it enters a retention period. You cannot perform any operations on a pay-per-use resource in the **Frozen** status.

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

📖 **NOTE**

- For details about the grace period and retention period, see **What Is a Grace Period of Huawei Cloud? How Long Is It?** and **What Is a Retention Period of Huawei Cloud? How Long Is It?**
- For details about top-up, see **Top-Up and Repayment**.

3.3 Yearly/Monthly (Resource Packages)

3.3.1 Resource Package Overview

Introduction

You can purchase a yearly/monthly resource package to save money, but if your usage exceeds the package quota, subsequently used resources will be billed on a pay-per-use basis. For details, see **Resource Package Purchase**.

> **NOTICE**
>
> - OBS does not allow you to unsubscribe from resource packages, so plan the resource quota and validity period carefully before making your purchase.
> - Any usage before the purchase of a resource package cannot be covered by the resource package. For example, you have stored 500 GB data in a single-AZ Standard bucket in the CN-Hong Kong region. Then on June 30, 2023, you purchased a single-AZ Standard resource package in the CN-Hong Kong region. The resource package took effect on that day. In such case, the purchased resource package does not cover the storage cost (for 500 GB data) incurred before June 30, 2023, but it can cover the storage cost incurred after June 30, 2023.

📖 **NOTE**

Standard storage packages (with valid period shorter than one year) offer free quotas of requests.

Standard storage packages (with valid period longer than one year) are cheaper than monthly packages, so free quotas of requests are not offered. In this case, you will be charged for your actual read and write requests.

Table 3-3 lists the resource packages provided for OBS. For details about their pricing details, see **Product Pricing Details**. The **Price Calculator** can help you make a cost estimate for the resources you select.

Table 3-3 Yearly/Monthly resource packages

Resource Package	Function	Constraints
Standard storage (single-AZ)	Covers Standard storage for data stored in a single-AZ bucket.	Applies only to Standard data stored in a single-AZ bucket that is in the region you specified for the purchased package.
Standard storage (multi-AZ)	Covers Standard storage for data stored in a multi-AZ bucket.	Applies only to Standard data stored in a multi-AZ bucket that is in the region you specified for the purchased package.
Outbound Internet traffic	Covers network traffic generated for transferring Standard data from OBS to local devices over the Internet.	Applies only to data stored in the region that you specified for the purchased package. This type of package is applicable to both single-AZ and multi-AZ buckets. After Infrequent Access or Archive objects are restored, the outbound Internet traffic generated when you download those restored objects cannot be covered by outbound Internet traffic packages. Such traffic can only be billed on a pay-per-use basis.

Resource Package	Function	Constraints
Pull traffic	Covers network traffic generated for pulling data by CDN from OBS (served as the origin server).	Applies only to data transferred from OBS 3.0 buckets in the region that you specified for the purchased package. This type of package is applicable to both single-AZ and multi-AZ buckets. Scenarios when a pull data package can be used: ● A user domain name is bound to a bucket through OBS Console. ● An acceleration domain name is added through the CDN Console and its origin server is set to an OBS bucket domain name. The pull traffic package does not cover the traffic generated when a third-party CDN is used to retrieve files from Huawei Cloud OBS.

Resource packages below can also be used for parallel file systems.

Table 3-4 Resource packages available for parallel file systems

Resource Package	Function	Constraints
Standard storage (single-AZ)	Covers Standard storage for data stored in a single-AZ parallel file system.	Applies only to Standard data stored in a single-AZ parallel file system that is in the region you specified for the purchased package.
Standard storage (multi-AZ)	Covers Standard storage for data stored in a multi-AZ parallel file system.	Applies only to Standard data stored in a multi-AZ parallel file system that is in the region you specified for the purchased package.

Resource Package	Function	Constraints
Outbound Internet traffic	Covers network traffic generated for transferring Standard data from parallel file systems to local devices over the Internet.	Applies only to data stored in the region that you specified for the purchased package. This type of package is applicable to both single-AZ and multi-AZ parallel file systems.

Resource Package Use Sequence

Use Sequence

If there are multiple resource packages with the same attributes, the packages that were in effect latest and that expire soonest are used first. See the examples below for details.

Examples

Scenario
A customer purchased two Standard storage packages (multi-AZ) in the AP-Bangkok region. ● Package A (100 GB): valid from October 1, 2020 to December 1, 2020 (2 months) ● Package B (500 GB): valid from October 10, 2020 to December 10, 2020 (2 months)

Use sequence	
From Oct. 1 to Oct. 9	Package A was used. The Standard storage usage beyond 100 GB was billed on a pay-per-use basis.
From Oct. 10 to Nov. 30	Both packages A and B were used. Package A was used first, and any usage beyond 100 GB was covered by package B. After the 600 GB, covered by both packages combined, was used up, any other usage was billed on a pay-per-use basis.
From Dec. 1 to Dec. 9	Package A had expired. Only package B was used. The usage beyond 500 GB (covered by package B) was billed on a pay-per-use basis.
From Dec. 10 on	Both packages A and B had expired. Any subsequent usage was billed on a pay-per-use basis.

Related Operations

- **Resource Package Purchase**
- **Purchase of Additional Resource Packages**
- **Resource Package Renewals**

3.3.2 Resource Package Purchase

You can purchase resource packages to implement the yearly/monthly billing for OBS. Package unsubscription is currently not supported, so plan the resource quota and validity period before purchasing resource packages.

OBS offers the following types of resource packages: Standard storage (single-AZ), Standard storage (multi-AZ), outbound Internet traffic, and pull traffic.

For pricing details about these packages, see **Resource Package Overview**.

Step 1 Go to the **Buy OBS Package** page.

Step 2 On the displayed page, configure the parameters as instructed.

> 📖 **NOTE**
>
> A resource package can be used to deduct bucket fees only when the package's region and type match the bucket.
>
> **Availability**: This parameter specifies which enterprise projects can use the purchased resource package. Only the buckets in the selected enterprise projects can use the package. Additionally, the package's region and type must match the bucket. This option is only displayed for enterprise accounts.

Step 3 Click **Add**.

Step 4 Confirm the resource package list on the right and click **Next**.

Step 5 Confirm the order and click **Submit**.

If there is something wrong with the order, click **Previous** to modify it and then continue with your purchase.

Step 6 Complete the payment as instructed.

📖 **NOTE**

> **Precautions for purchasing resource packages:**
>
> Package renewal is supported but unsubscription is not. When a package expires, you can still use OBS resources, and data security in OBS is ensured. Make sure that your account balance is sufficient and the system will automatically settle the charges on a pay-per-use basis.
>
> **Monthly reset rules for resource packages:**
>
> Reset by subscription period means that after a resource package is purchased, its quota will reset at 24:00:00 on the same day (the purchase day) of each month. For example, after you purchase an Internet outbound traffic package of 2 TB (each month) for 6 months on April 15, you will have 2 TB Internet outbound traffic available to use from April 15 to 24:00:00 of May 15. Then, at 00:00:00 on May 16, another 2 TB outbound Internet traffic will be allocated to you, so you can use this 2 TB traffic between 00:00:00 on May 16 and 24:00:00 on June 15. The following months follow the same rule until the purchased package expires. If you do not use up your quota in a given month, the remaining quota will not be carried over to the following month. The quota resets every month.
>
> Note that if you purchase a resource package on January 28, the quota will reset at 00:00:00 on March 1 because there are only 28 days in February. Also, in the months following March, the quota still resets on the first day of a given month.

Step 7 Use OBS.

After a resource package is purchased, the system automatically matches it to a bucket based on the properties, so that you can directly use OBS. If your resource package properties are consistent with the bucket properties, the system will use the resource package to offset corresponding billing items. The other items are billed on a pay-per-use basis.

----End

Purchase Guide

Figure 3-3 explains resource package purchasing, helping you select right resource packages in different scenarios.

Figure 3-3 Guide for purchasing OBS resource packages
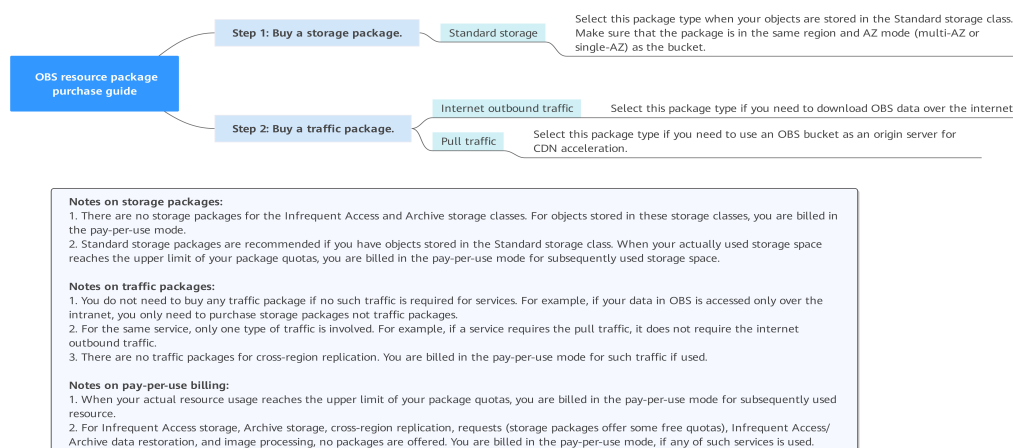
3.3.3 Purchase of Additional Resource Packages

If your resource package is about to expire, or a larger package quota is required, you can buy additional packages. Currently, OBS does not support the direct capacity expansion of your existing resource package.

Purchase Description

After purchasing a resource package, you can still purchase any other packages except the ones with special discounts. OBS offers the 40 GB storage package and 50 GB outbound Internet traffic package with special discounts. An account can have only one of each kind, and cannot purchase again until such packages are used up or expire. Resource packages of other specifications do not have purchase restrictions.

After a new resource package is purchased, the old package is preferentially used. If there is already pay-per-use usage before you purchase a new package, the usage will not be offset after you purchase the package. To avoid this, you are advised to purchase a new resource package before the old one expires or is used up.

Procedure

Step 1 In the navigation pane of OBS Console, choose **Resource Packages**.

Step 2 Select the region and type of the new resource package you want to purchase.

Step 3 In the row containing the old package, click **Buy Again** in the **Operation** column.

Figure 3-4 Buying a new resource package
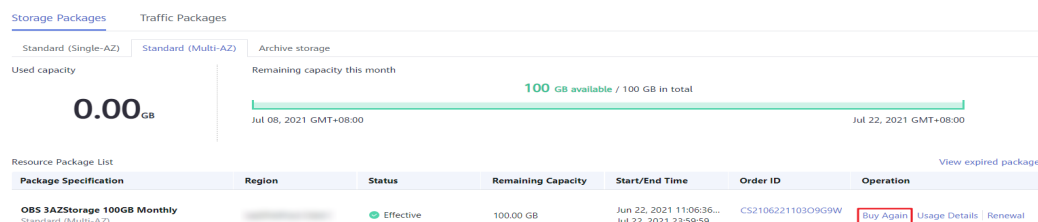
Step 4 Configure package parameters.

If you want this package to have the same configurations as the old one, retain the default values.

Figure 3-5 Parameter configuration

Step 5 Ensure the configurations are correct and click **Next**.

Step 6 Click **Pay** and complete the payment.

----End

Example

> **NOTICE**
>
> The prices in the following examples are for reference only. For the actual prices, see **Pricing Details**.

A user had 2.8 TB data stored in a Standard single-AZ bucket. On March 18, 2022, the user purchased a 2 TB Standard single-AZ package (package A), and then purchased another 1 TB Standard single-AZ package (package B) on March 25, 2022. From March 18 to April 18, 2022, 2 TB of package A was used, and 0.8 TB of package B was used. On April 18, 2022, package A expired, and the user did not renew it. After that, from April 18 to April 25, 2022, 0.2 TB of package B was used, and the rest 2.6 TB data was billed on a pay-per-use basis.

3.3.4 Viewing Resource Package Details

You can view usage details of your resource packages on OBS Console.

Procedure

Step 1 In the navigation pane of OBS Console, choose **Resource Packages**.

Step 2 Select the region and type of your package to view its details.

The detailed information includes the specification, region, status, remaining capacity, start/end time, order ID, and usage details.

----End

Viewing the Remaining Resources of a Resource Package

There are pay-per-use and yearly/monthly billing modes for OBS.

If you have subscribed to yearly/monthly resource packages, do as follows to view the remaining resources of your package:

Step 1 Log in to the Huawei Cloud console.

Step 2 On the right of the top navigation bar, choose **Billing & Costs** > **My Packages**.

Step 3 Click the **Resource Packages** tab and search for your packages by package name/ID or order number. You can then view the remaining resources or export the usage details.

Figure 3-6 Viewing the remaining resources

Step 4 Click the **Remaining Quotas** tab, specify a region and an enterprise project and select **Object Storage Service** to view the remaining resources of all your OBS packages.

Figure 3-7 Viewing the total remaining resources of all your resource packages

----End

4 Billing Examples

Example 1

NOTICE

The prices in the following examples are for reference only. For the actual prices, see **Pricing Details**.

- **Billing Scenario**

An enterprise runs its basic services on Elastic Cloud Servers (ECSs). As its data grows, the disks cannot satisfy the storage and access for a large number of images and videos. The enterprise decides to use Huawei Cloud OBS as a storage resource pool to reduce burdens on local servers. Suppose the enterprise has one ECS in regions CN-Hong Kong and AP-Singapore respectively. Both ECSs write data to and read data from OBS buckets in the CN-Hong Kong region.

- **User Actions**

The detailed actions are as follows:

- At 00:00 UTC on July 1, 2023, 1,000 Standard objects (1 GB in total) and 1,000 Infrequent Access objects (1 GB in total) were uploaded from the ECS in the AP-Singapore region to a single-AZ bucket in the CN-Hong Kong region.

- At 00:00 UTC on July 2, 2023, 1,000 Standard objects were downloaded from the ECS in the AP-Singapore region to a bucket in the CN-Hong Kong region.

- At 00:00 UTC on July 2, 2023, 1,000 Standard objects were downloaded from the ECS in the CN-Hong Kong region to a bucket in the same region.

- At 00:00 UTC on July 2, 2023, 1,000 Infrequent Access images were processed on the ECS in the CN-Hong Kong region.

- At 08:00 UTC on July 2, 2023, a lifecycle rule was configured on the ECS in the CN-Hong Kong region to transition 1,000 Standard objects and 1,000 Infrequent Access objects in the current region to Infrequent Access and Archive, respectively, eight days later (on July 10).

- At 08:00 UTC on July 20, 2023, 100 Archive objects (0.1 GB in total) were downloaded from the ECS in the CN-Hong Kong region. The objects were restored

at a standard speed, and the Standard object copies after restore were retained for 10 days.

- **Billing Analysis**

An ECS can access OBS over the Internet or an intranet. Access over an intranet requires that the ECS and OBS buckets be in the same region. In this scenario, access from the ECS in CN-Hong Kong to OBS buckets in CN-Hong Kong is over an intranet, while access from the ECS in AP-Singapore to OBS buckets in CN-Hong Kong is over the Internet. **Table 4-1** describes the billing details in July.

Table 4-1 Billing details

Category	Action	Billed Item	Unit Price	Usage	Cost
Object upload over the Internet	Uploaded 1,000 Standard objects and 1,000 Infrequent Access objects from the ECS in AP-Singapore to a bucket in CN-Hong Kong.	Requests	Standard write requests: $0.0001 USD per 1,000 requests Infrequent Access write requests: $0.0050 USD per 1,000 requests	2,000 requests Standard write requests: 1,000 Infrequent Access write requests: 1,000	Standard write requests: $0.0001 USD Infrequent Access write requests: $0.0050 USD Total: $0.0051 USD
		Inbound Internet traffic	Free	1 GB	$0 USD
		Single-AZ Standard storage	$0.0230 USD per GB-month	1 GB	$0.0077 USD
		Single-AZ Infrequent Access storage	$0.0140 USD per GB-month	1 GB	$0.0047 USD
Object download over the Internet	Downloaded 1,000 Standard objects from the ECS in AP-Singapore to a bucket in CN-Hong Kong.	Requests	$0.0001 USD per 1,000 requests	1,000 requests	$0.0001 USD
		Outbound Internet traffic	$0.1180 USD per GB	1 GB	$0.1180 USD

Category	Action	Billed Item	Unit Price	Usage	Cost
Object download over an intranet	Downloaded 1,000 Standard objects from the ECS in the CN-Hong Kong region to a bucket in the same region.	Requests	$0.0001 USD per 1,000 requests	1,000 requests	$0.0001 USD
		Outbound intranet traffic	Free	1 GB	$0 USD
Image processing	Processed 1,000 Infrequent Access images on the ECS in CN-Hong Kong.	Requests	$0.0050 USD per 1,000 requests	1,000 requests	$0.0050 USD
		Data processing	Free	1 GB	$0 USD
Lifecycle-based storage class transition	Transitioned 1,000 Standard objects and 1,000 Infrequent Access objects in the CN-Hong Kong region to Infrequent Access and Archive, respectively, 10 days later.	Requests	Standard write requests: $0.0001 USD per 1,000 requests Infrequent Access write requests: $0.0050 USD per 1,000 requests	2,000 requests Standard write requests: 1,000 Infrequent Access write requests: 1,000	Standard write requests: $0.0001 USD Infrequent Access write requests: $0.0050 USD Total: $0.0051 USD
		Single-AZ Infrequent Access storage	$0.0140 USD per GB-month	1 GB	$0.0093 USD
		Single-AZ Archive storage	$0.0045 USD per GB-month	1 GB	$0.0030 USD
		Early deletion or transition of Infrequent Access objects	$0.0140 USD per GB-month	1 GB	$0.0093 USD

Categ ory	Action	Billed Item	Unit Price	Usage	Cost
Archiv e object downl oad	Downloaded 100 Archive objects from the ECS in CN-Hong Kong.	Requests	$0.0010 USD per 1,000 requests	100 request s	$0.0001 USD
		Restore traffic	$0.0300 USD per GB (1–5 minutes for expedited restore) $0.0100 USD per GB (3–5 hours for standard restore)	0.1 GB	$0.001 USD
		Temporary single-AZ Standard storage	$0.0230 USD per GB-month	0.1 GB	$0.00077 USD

Storage Cost

The storage cost consists of two parts: cost for storage before the transition on July 10 and cost for storage after the transition:

Storage cost before transition = 0.0077 (for 10-day single-AZ Standard storage of 1 GB data) + 0.0047 (for 10-day single-AZ Infrequent Access storage of 1 GB data) = $0.0124 USD

Storage cost after transition = 0.0093 (for 21-day single-AZ Infrequent Access storage of 1 GB data) + 0.0030 (for 21-day single-AZ Archive storage of 1 GB data) + 0.0093 (for early deletion or transition of 1 GB Infrequent Access data) = $0.0216 USD

Total storage cost = 0.0124 (storage cost before transition) + 0.0216 (storage cost after transition) + 0.00077 (for 10-day single-AZ Standard storage of 0.1 GB data) = $0.03477 USD

Traffic Cost

Inbound Internet traffic and inbound/outbound intranet traffic are free, so the traffic cost in July is as follows:

Total traffic cost = Cost for outbound Internet traffic of 1 GB = $0.1180 USD

Restore Cost

Total restore cost = Cost for the traffic of restoring 0.1 GB data = $0.001 USD

Data Processing Cost

Total data processing cost = Cost for processing 1 GB of data = $0 USD

Request Cost

Total request cost = 0.0051 (for 2,000 upload requests) + 0.0002 (for 2,000 download requests) + 0.0050 (for 1,000 image processing requests) + 0.0051 (for 2,000 transition requests) + 0.0001 (for 100 restore requests) = $0.0155 USD

Total Cost

Total cost = 0.03477 (storage cost) + 0.1180 (traffic cost) + 0.001 (restore cost) + 0 (data processing cost) + 0.0155 (request cost) = $0.16927 USD

Example 2

> **NOTICE**
>
> The prices in the following examples are for reference only. For the actual prices, see **Pricing Details**.

- **Billing Scenario**

A company has a large amount of video and audio data to store in the Standard storage class (multi-AZ) in OBS. Suppose this company uploads 1 TB of data to OBS over the Internet. There are 1 million delete requests, 3 million write requests, and 12 million read requests each month, and the outbound Internet traffic is 100 GB every month. The following billing analysis is given to help the company choose a proper billing mode.

- **Billing Analysis**

The table below describes the details of pay-per-use billing and yearly/monthly billing.

Billing Mode	Formula	Payment Period	Cost
Pay-per-use	Storage cost: Unit price x Used space	Monthly	Storage cost: $0.0250 USD per GB-month x 1,024 GB = $25.6 USD per month
	Traffic cost: Unit price of outbound Internet traffic x Traffic volume		Traffic cost: $0.1080 USD per GB x 100 GB = $10.80 USD per month

Billing Mode	Formula	Payment Period	Cost
	Request cost: costs of all requests		Request cost: $0.0004 USD (per 1,000 delete requests) x 1 million delete requests + $0.0050 USD (per 1,000 write requests) x 3 million write requests + $0.0004 USD (per 1,000 read requests) x 12 million read requests = $20.2 USD per month
	Total		**$56.6 USD per month**
Yearly/ monthly	Storage cost: monthly cost of the storage package	Monthly. Suppose the company purchased a 12-month 1 TB storage package and a 12-month 100 GB outbound Internet traffic package.	Storage cost: $209.7 USD (price for the 12-month 1 TB storage package)/12 months = $17.475 USD per month
	Traffic cost: monthly cost of the outbound Internet traffic package		Traffic cost: $95.4 USD (price for the 12-month 100 GB traffic package)/12 months = $7.95 USD per month
	Request cost: costs of all requests		Request cost: $0.0004 USD (per 1,000 delete requests) x 1 million delete requests + $0.0050 USD (per 1,000 write requests) x 3 million write requests + $0.0004 USD (per 1,000 read requests) x 12 million read requests = $20.2 USD per month
	Total		**$45.625 USD per month**

You can see from the table above that yearly/monthly resource packages save you money. The longer the package subscription term is, the more money you save.

5 Billing Mode Changes

There are pay-per-use and yearly/monthly (resource package) billing modes available for OBS:

- If pay-per-use billing no longer meets your needs, you can purchase resource packages to use yearly/monthly billing. For details about the billed items that can be covered by packages, see **Resource Package Overview**. After you purchase resource packages, any billed item will be preferentially covered by a matched package.

- A package subscription cannot be cancelled. In the valid period of a resource package, all matched items will be covered by the package. If the package is used up or is not renewed after it expires, the system automatically bills these items on a pay-per-use basis.

6 Renewing Subscriptions

6.1 Overview

When to Renew Subscriptions

If a yearly/monthly package is about to expire but you want to continue using it, you need to renew the package within a specified period, or any subsequent operations on the matched bucket and the resources within will be billed on a pay-per-use basis. After the pay-per-use billing applies, if your account goes into arrears and after the grace period and retention period end, your buckets and the resources in them will be automatically released, and data will be lost and cannot be recovered.

Only resource packages can be renewed. If you use OBS on a pay-per-use basis, just ensure that your account has a valid payment method configured or a top-up account with a sufficient balance.

To extend the validity period of a resource package, you need to renew the package before it expires.

How to Renew Subscriptions

You can renew resource packages manually or automatically.

Table 6-1 Renewing a resource package

Method	Description
Manually renewing a resource package	You can renew a resource package on OBS Console anytime before it is automatically deleted.
Automatically renewing a resource package	You can enable auto-renewal to automatically renew a resource package 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 package based on the phase the package is currently in.

Figure 6-1 Selecting a renewal method based on package's current phase
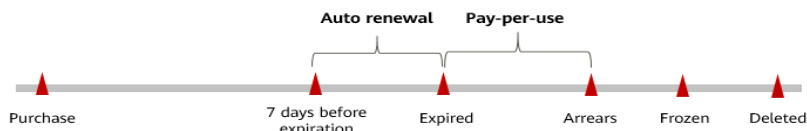
- A resource package is in effective after it is purchased. It can be used to cover the usage for matched buckets.

- When the package expires, the subsequent usage is billed on a pay-per-use basis.

- With pay-per-use billing, the costs will be deducted from your account balance. If your account balance is insufficient, your account will go into arrears.

- After your account goes into arrears, your OBS resources enter a grace period. If they are not renewed by the time the grace period expires, the resources 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**

  For details about the grace period and retention period, see **What Is a Grace Period of Huawei Cloud? How Long Is It?** and **What Is a Retention Period of Huawei Cloud? How Long Is It?**

You can enable auto-renewal anytime before a resource package 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.

For more information about renewing subscriptions, see **Renewal Management**.

How to View Expiration Time

On the **Renewals** page, filter resources that are about to expire by expiration time and view the detailed information in the **Validity Period** column.

Figure 6-2 Viewing expiration time
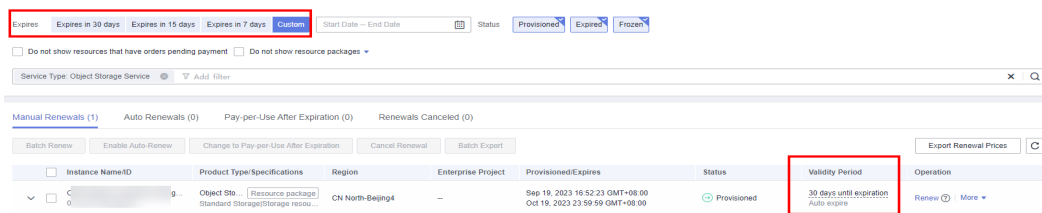
6.2 Manually Renewing a Resource Package

You can renew a resource package manually on OBS Console anytime before it expires.

For more information, see **Manual Renewal**.

Prerequisites

- You have completed real-name authentication.
- You have purchased at least one OBS resource package. For details, see **Resource Package Purchase**.
- Your account balance is sufficient.

Renewing a Subscription on OBS Console

Step 1 Log in to the management console.

Step 2 In the navigation pane, click ☰ and choose **Storage** > **Object Storage Service**.

Step 3 Choose **Resource Packages** from the navigation pane.

Step 4 In the resource package list, select the package to renew.

Step 5 Click **Renew** in the **Operation** column.

> 📖 **NOTE**
>
> OBS Console currently does not allow you to renew multiple resource packages at a time.

Figure 6-3 Manually renewing a resource package
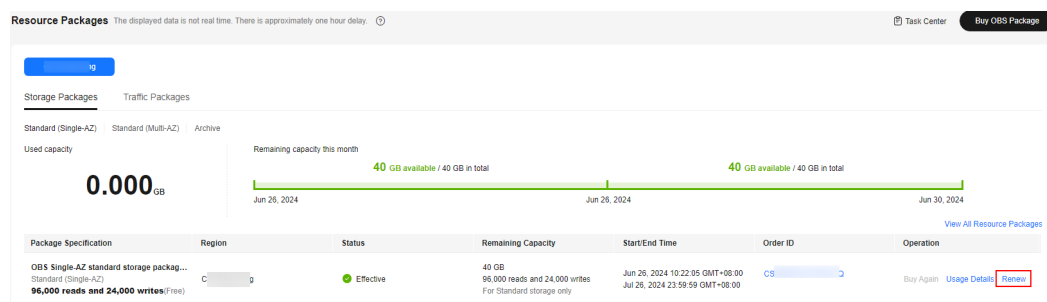

Step 6 Select a renewal duration and optionally select **Renew on the standard renewal date**. For details, see **Setting the Same Renewal Day for Resource Packages**. Confirm the price and click **Pay**.

Figure 6-4 Confirming renewal
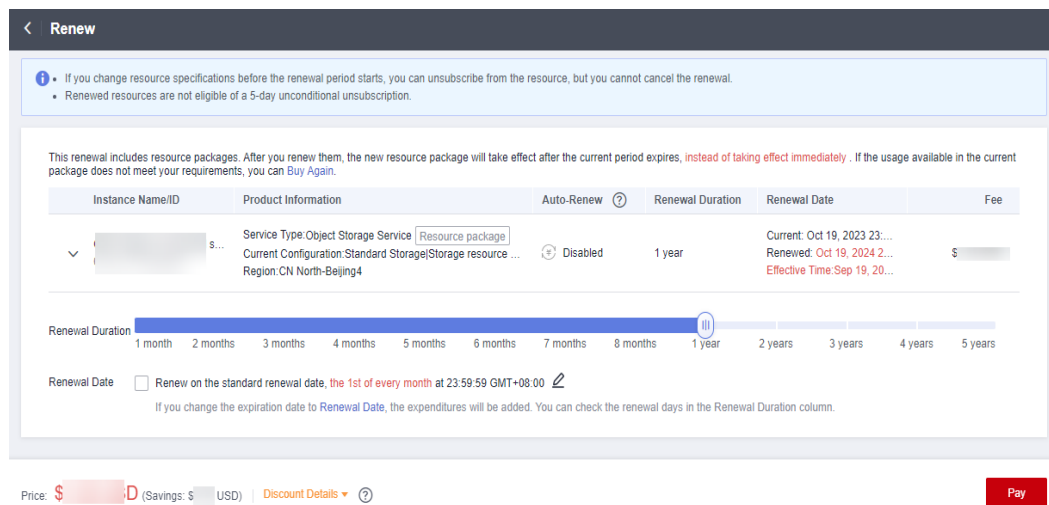
Step 7 Select a payment method and make your payment. Once the order is paid, the renewal is complete.

----End

Renewing a Subscription in Billing Center

Step 1 Log in to the management console.

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

The **Renewals** page is displayed.

Step 3 Set the search criteria. You can define it by specifying the expiration time, name/order number/ID, product type, region, and enterprise project.

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

Figure 6-5 Setting search criteria
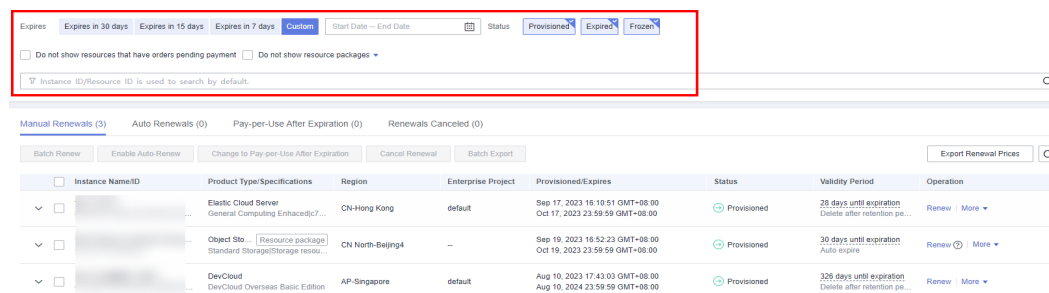
📖 **NOTE**

- If you have enabled enterprise project management, you can set the search criteria to select an enterprise project and query its resources that are to be renewed.

- If you select a single expiration criterion, for example, **Expires in** X **days**, the resources that will expire in X days and are in the **Provisioned** state will be displayed. If you select both **Expires in** A **days** and **Expires in** B **days** ($A > B$), the resources that will expire in A days will be displayed.

- The **Do not show resources that have orders pending payment** option is deselected by default. You can select it to hide resources with orders pending payment.

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

Step 4 Manually renew resources.

1. Individual renewal: Click **Renew** in the **Operation** column for the desired resource.

   Figure 6-6 Individual renewal
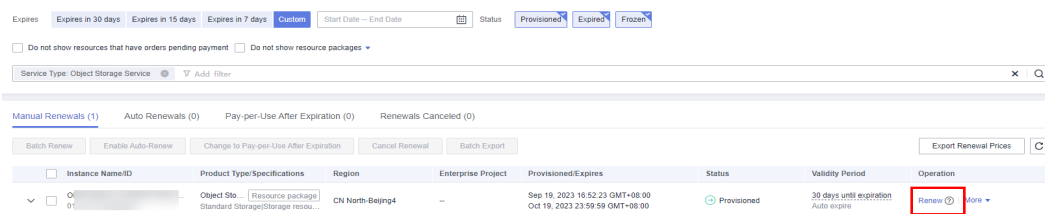
2. Batch renewal: Check the boxes for the desired resources, and click **Batch Renew** in the upper left corner.

   Figure 6-7 Batch renewal
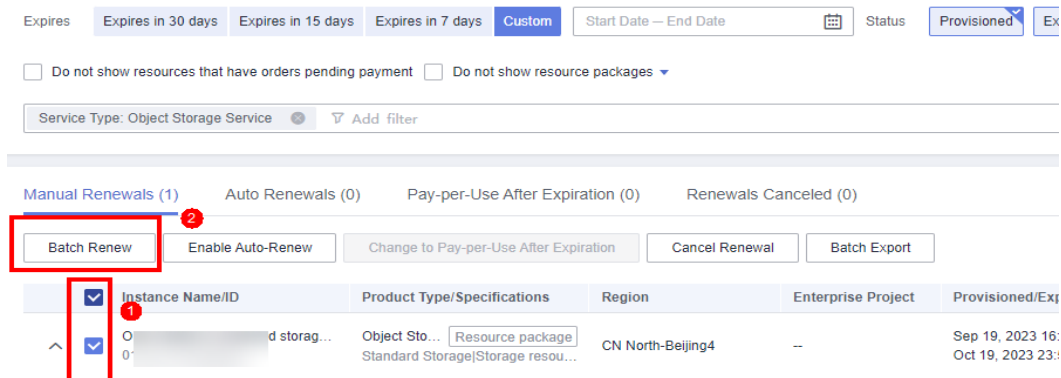
Step 5 Select a renewal duration and optionally select **Renew on the standard renewal date**. For details, see **Setting the Same Renewal Day for Resource Packages**. Confirm the price and click **Pay**.

Figure 6-8 Confirming renewal
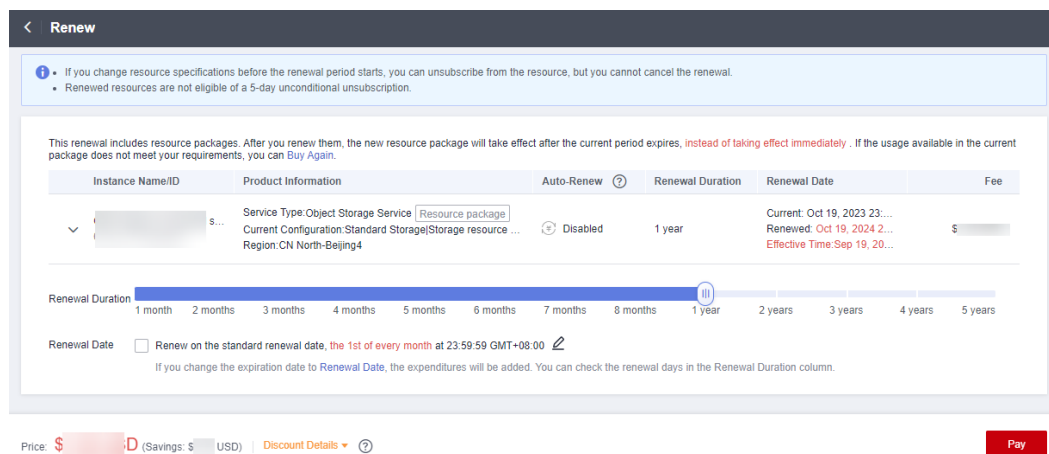
Step 6 Select a payment method and make your payment. Once the order is paid, the renewal is complete.

----End

Setting the Same Renewal Day for Resource Packages

If your resource packages 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 6-9**, a user sets the same renewal day for two resources that will expire at different dates.

Figure 6-9 Setting the same renewal day for resources with different expiry dates
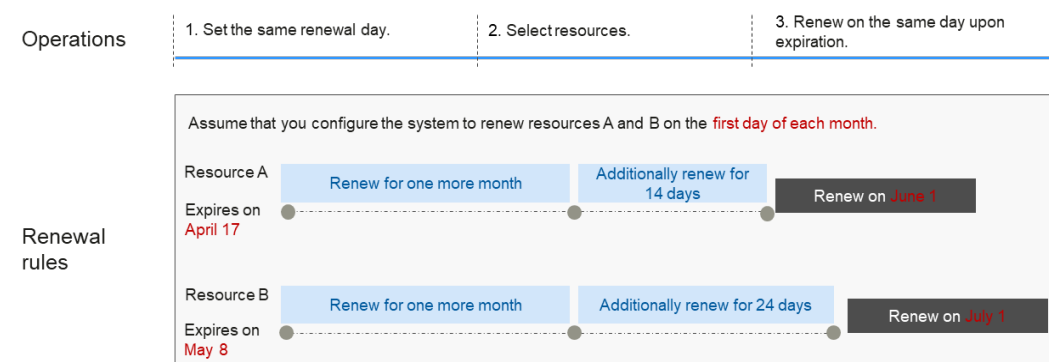
For more details, see **Setting a Renewal Date**.

6.3 Auto-renewing a Resource Package

Auto-renewal can prevent resources 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 resource package expires and the billing cycle.

- The auto-renewal period of a resource package depends on your choice. For example, if you select a 3-month renewal period, your package is automatically renewed for three months every time before it expires.

- You can enable auto-renewal anytime before a resource package 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 resource package 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

- You have completed real-name authentication.
- You have purchased at least one OBS resource package. For details, see **Resource Package Purchase**.
- The resource package is not expired.
- Your account balance is sufficient.

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 Set the search criteria. You can define it by specifying the expiration time, name/order number/ID, product type, region, and enterprise project.

- On the **Auto Renewals** page, you can view the resources with auto-renewal enabled.

- On the **Manual Renewals**, **Pay-per-Use After Expiration**, and **Renewals Canceled** pages, you can enable auto-renewal for resources.

Figure 6-10 Setting search criteria

📖 **NOTE**

- If you have enabled enterprise project management, you can set the search criteria to select an enterprise project and query its resources that are to be renewed.

- If you select a single expiration criterion, for example, **Expires in** *X* **days**, the resources that will expire in *X* days and are in the **Provisioned** state will be displayed. If you select both **Expires in** *A* **days** and **Expires in** *B* **days** (*A* > *B*), the resources that will expire in *A* days will be displayed.

- The **Do not show resources that have orders pending payment** option is deselected by default. You can select it to hide resources with orders pending payment.

**Step 4** Enable auto-renewal for resource packages.

- Enabling auto-renewal for a single package: Select the package for which you want to enable auto-renewal and click **Enable Auto-Renew** in the **Operation** column.

**Figure 6-11** Enabling auto-renewal for a single package
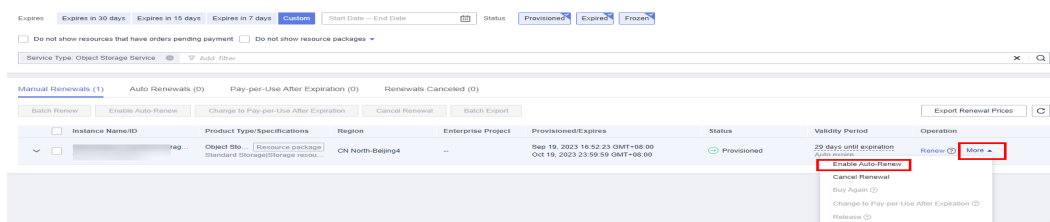
- Enabling auto-renewal for multiple packages at a time: Select the resource packages for which you want to enable auto-renewal and click **Enable Auto-Renew** above the list.

Figure 6-12 Enabling auto-renewal for multiple packages
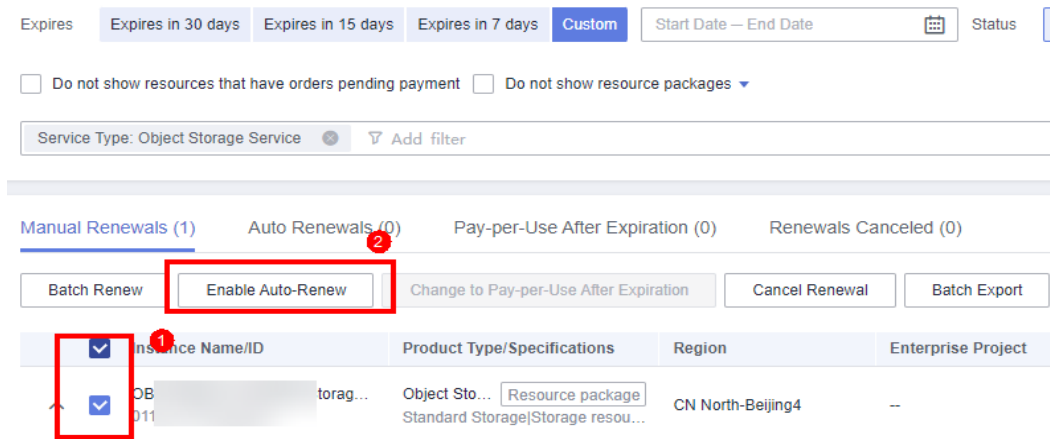
Step 5 Select a renewal period, specify the auto-renewal times, and click **Pay**.

Figure 6-13 Enabling auto-renewal
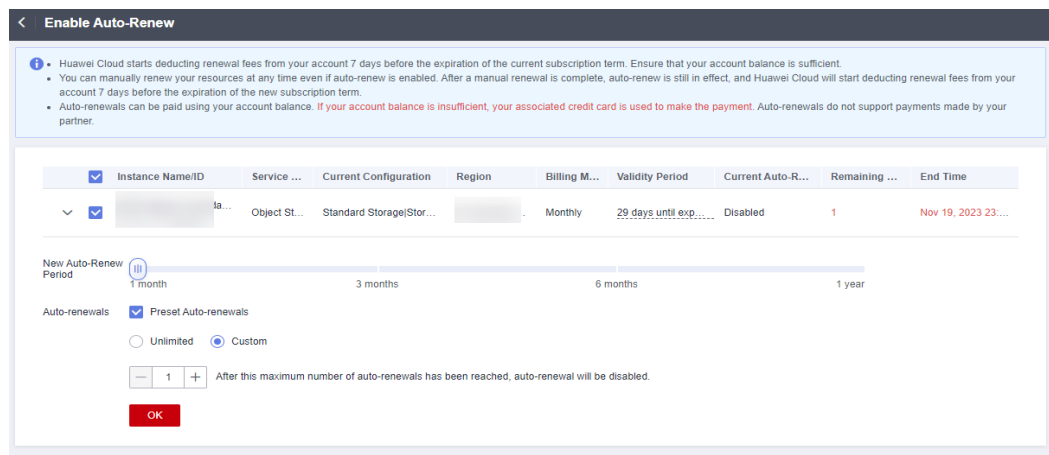
----**End**

Modifying Auto-Renewal

Step 1 Log in to the management console.

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

The **Renewals** page is displayed.

Step 3 Set the search criteria. You can define it by specifying the expiration time, name/ order number/ID, product type, region, and enterprise project.

Query the resources whose auto-renewal needs to be modified.

Figure 6-14 Setting search criteria
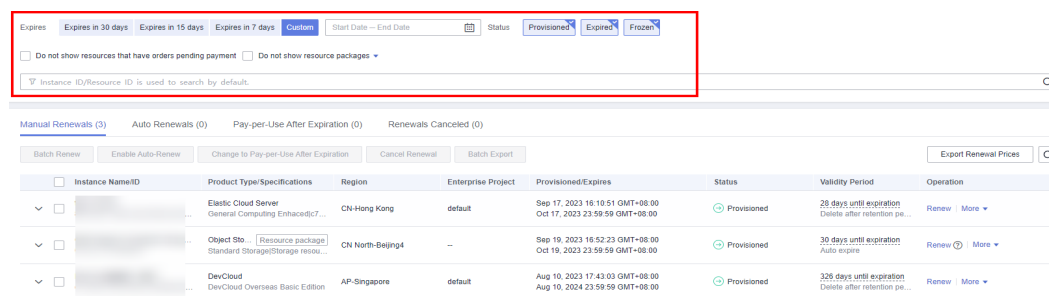

📖 **NOTE**

- If you have enabled enterprise project management, you can set the search criteria to select an enterprise project and query its resources that are to be renewed.

- If you select a single expiration criterion, for example, **Expires in** X **days**, the resources that will expire in X days and are in the **Provisioned** state will be displayed. If you select both **Expires in** A **days** and **Expires in** B **days** ($A > B$), the resources that will expire in A days will be displayed.

- The **Do not show resources that have orders pending payment** option is deselected by default. You can select it to hide resources with orders pending payment.

Step 4 Click the **Auto-Renewals** tab.

**Step 5** Modify auto-renewal for resource packages.

- Modifying auto-renewal for a single package: Select the package for which you want to modify auto-renewal and click **Modify Auto-Renew** in the **Operation** column.

**Figure 6-15** Modifying auto-renewal for a single package
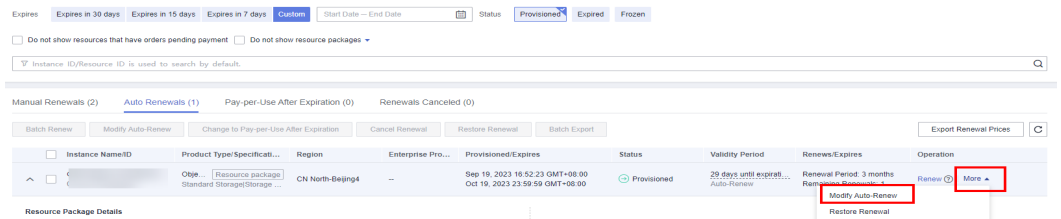
- Modifying auto-renewal for multiple packages at a time: Select the resource packages for which you want to modify auto-renewal and click **Modify Auto-Renew** above the list.

Figure 6-16 Modifying auto-renewal for multiple packages
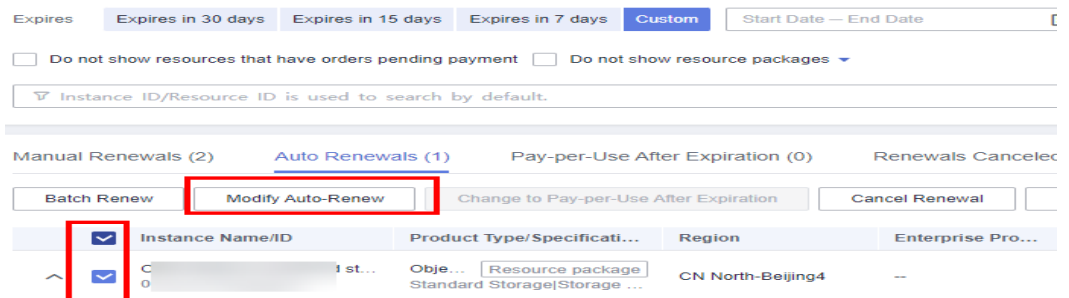
Step 6 Modify the renewal option, renewal period, and renewal times, and click **OK**.

Figure 6-17 Modifying auto-renewal items
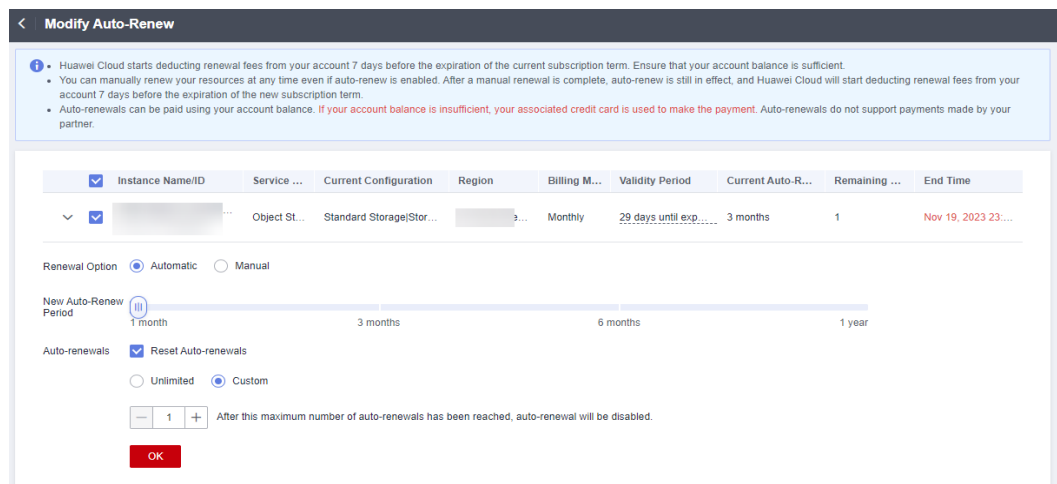
----End

7 Bills

You can view OBS billing details in the Billing Center. The bills cover all pay-per-use and yearly/monthly usage.

Bill Generation

Transaction records for resource package subscriptions are generated immediately after being paid for.

OBS usage is billed by the hour. You are not charged immediately after a record is generated.

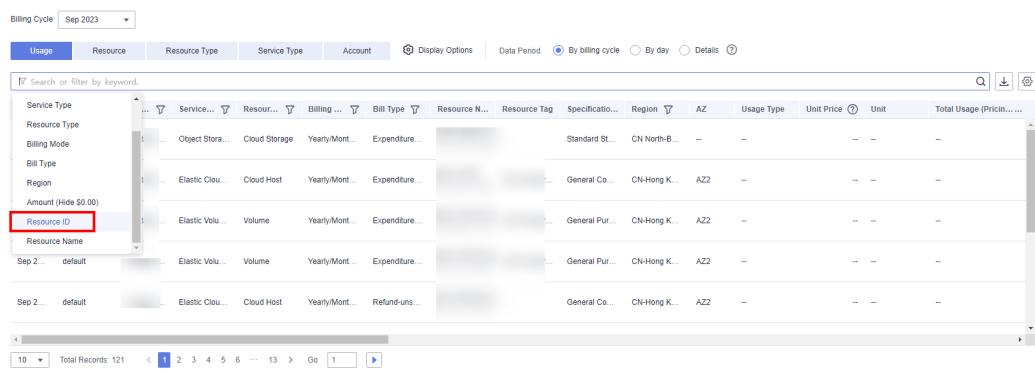## Viewing Bills of a Specific Resource

Step 1 In the navigation pane of **OBS Console**, choose **Object Storage**.

Step 2 In the bucket list, copy the name of the bucket whose bill you want to view.

Step 3 On the right of the top navigation bar, click **Billing & Costs**.

Step 4 In the navigation pane, choose **Billing** > **Expenditure Details**. On the page displayed, view all expenditure details.

Step 5 Choose a billing cycle and specify a display dimension (**Usage** by default).

Step 6 Select **Resource ID** as the search criteria, enter the bucket name copied in **Step 2**, and click the 🔍 icon.

Figure 7-1 Searching for a bill

You can also click ⬇ above the list to export the bill details.

----End

Mapping Between Usage Types and Billed Items

OBS usage types in the Billing Center are inconsistent with OBS billed items. **Table 7-1** explains the mapping between them, which can help you better understand the costs.

Table 7-1 Mapping between usage types and billed items

Usage Type	Usage Type Code	Billed Item	Description
Data processing size	data_process_size	Data processing	Size of the processed images
Get_Standard Storage	get	Requests	GET requests for Standard objects
Get_Infrequent Access Storage	get_warm	Requests	GET requests for Infrequent Access objects
get_cold	get_cold	Requests	Requests for downloading Archive objects from a bucket with direct reading enabled
Deep archive storage GET type requests	get_da	Requests	API calls for downloading Deep Archive objects
Put_Standard Storage	put	Requests	PUT requests for Standard objects
Put_Infrequent Access Storage	put_warm	Requests	PUT requests for Infrequent Access objects
put_cold	put_cold	Requests	PUT requests for Archive objects
PUT_deep_archive	put_da	Requests	PUT requests for Deep Archive objects
Delete_Standard Storage	delete	Requests	DELETE requests for Standard objects
Delete_Infrequent Access Storage	delete_warm	Requests	DELETE requests for Infrequent Access objects

Usage Type	Usage Type Code	Billed Item	Description
delete_cold	delete_cold	Requests	DELETE requests for Archive objects
DELETE_deep _archive	delete_da	Requests	DELETE requests for Deep Archive objects
pfs_get	pfs_get	Requests	GET requests for parallel file systems
pfs_put	pfs_put	Requests	PUT requests for parallel file systems
pfs_delete	pfs_delete	Requests	DELETE requests for parallel file systems
pfs_rename	pfs_rename	Requests	RENAME requests for parallel file systems
restore_api_ex _da	restore_api_ ex_da	Requests	Expedited restore requests generated for accessing Deep Archive objects
restore_api_sd _da	restore_api_ sd_da	Requests	Standard restore requests generated for accessing Deep Archive objects
restore_bk	restore_bk	Requests	Requests for batch restoring Archive objects
restore_sd	restore_sd	Requests	Requests for restoring Archive objects at a standard speed
restore_ex	restore_ex	Requests	Requests for restoring Archive objects at an expedited speed
transition warm	transition_w arm	Requests	Requests for transitioning objects from Standard to Infrequent Access based on a lifecycle rule. You are billed for the number of successfully transitioned objects. Specifically, if N objects are successfully transitioned, you are billed for N requests.
transition cold	transition_c old	Requests	Requests for transitioning objects to Archive based on a lifecycle rule. You are billed for the number of successfully transitioned objects. Specifically, if N objects are successfully transitioned, you are billed for N requests.

Usage Type	Usage Type Code	Billed Item	Description
transition deep archive	transition_da	Requests	Requests for transitioning objects to Deep Archive based on a lifecycle rule. You are billed for the number of successfully transitioned objects. Specifically, if N objects are successfully transitioned, you are billed for N requests.
download s3cold	download_s3cold	Data transfer	Traffic for transitioning objects to Archive based on a lifecycle rule
download_s3da	download_s3da	Data transfer	Traffic for transitioning objects to Deep Archive based on a lifecycle rule
cross region syn copy	cross_region_syn_copy	Requests and data transfer	You are billed for the number of successfully replicated objects. There will be traffic costs if objects are replicated over the Internet.
Download_Standard Storage	download	Data transfer	Outbound traffic generated when Standard objects are downloaded
Download cdn	download.cdn	Data transfer	Traffic generated when data is pulled by Huawei Cloud CDN from OBS 3.0 buckets.
Download_Standard Storage.External	download.external	Data transfer	Outbound traffic generated when Standard objects are downloaded or listed over the Internet
Download_Standard Storage.Internal	download.internal	Data transfer	Outbound traffic generated when Standard objects are downloaded from Huawei Cloud ECSs, CCE, or BMSs in the same region as OBS
Download_Infrequent Access Storage	download_warm	Data transfer	Outbound traffic when Infrequent Access objects are downloaded

Usage Type	Usage Type Code	Billed Item	Description
Download_Infrequent Access Storage.external	download_warm.external	Data transfer	Outbound traffic when Infrequent Access objects are downloaded. Such traffic cannot be covered by outbound Internet traffic packages.
Download_Infrequent Access Storage.internal	download_warm.internal	Data transfer	Outbound traffic when Infrequent Access objects are downloaded from Huawei Cloud ECSs, CCE, or BMSs in the same region as OBS
Download_Archive Storage	download_cold	Data transfer	Outbound traffic generated when Archive objects are downloaded
Download_Archive Storage.external	download_cold.external	Data transfer	Outbound traffic when the restored Archive objects are downloaded. Such traffic cannot be covered by outbound Internet traffic packages.
Download_Archive Storage.internal	download_cold.internal	Data transfer	Outbound traffic generated when Archive objects are downloaded from Huawei Cloud ECSs, CCE, or BMSs in the same region as OBS
download_da.external	download_da.external	Data transfer	Outbound traffic when the restored Deep Archive objects are downloaded. Such traffic cannot be covered by outbound Internet traffic packages.
Intranet outbound traffic of deep archive storage	download_da.internal	Data transfer	Outbound traffic generated when Deep Archive objects are downloaded from Huawei Cloud ECSs, CCE, or BMSs in the same region as OBS
download flow of cross region replication	download_crr	Data transfer	Outbound traffic generated when data is replicated from a source bucket in one region to a destination bucket in another region

Usage Type	Usage Type Code	Billed Item	Description
Upload	upload	Data transfer	Inbound traffic generated when data is uploaded to OBS and stored in the Standard storage class
Upload_Standard Storage.External	upload.external	Data transfer	Inbound traffic generated when data is uploaded to OBS over the Internet and stored in the Standard storage class
Upload_Standard Storage.Internal	upload.internal	Data transfer	Inbound traffic generated when data is uploaded to OBS over an intranet and stored in the Standard storage class
Upload_Infrequent Access Storage	upload_warm	Data transfer	Inbound traffic generated when data is uploaded to OBS and stored in the Infrequent Access storage class
Upload_Infrequent Access Storage.external	upload_warm.external	Data transfer	Inbound traffic generated when data is uploaded to OBS over the Internet and stored in the Infrequent Access storage class
Upload_Infrequent Access Storage.internal	upload_warm.internal	Data transfer	Inbound traffic generated when data is uploaded to OBS over an intranet and stored in the Infrequent Access storage class
Upload_Archive Storage	upload_cold	Data transfer	Inbound traffic generated when data is uploaded to OBS and stored in the Archive storage class
Upload_Archive Storage.external	upload_cold.external	Data transfer	Inbound traffic generated when data is uploaded to OBS over the Internet and stored in the Archive storage class
Upload_Archive Storage.internal	upload_cold.internal	Data transfer	Inbound traffic generated when data is uploaded to OBS over an intranet and stored in the Archive storage class
Internet inbound traffic of deep archive storage	upload_da.external	Data transfer	Inbound traffic generated when data is uploaded to OBS and stored in the Deep Archive storage class

Usage Type	Usage Type Code	Billed Item	Description
Intranet inbound traffic of deep archive storage	upload_da.internal	Data transfer	Inbound traffic generated when data is uploaded to OBS over an intranet and stored in the Deep Archive storage class
upload flow of cross region replication	upload_crr	Data transfer	Outbound traffic generated when data is replicated from a source bucket in one region to a destination bucket in another region
restore_size_bk	restore_size_bk	Data retrievals	Batch restore of Archive objects. The cost is based on the objects' size.
restore_size_sd	restore_size_sd	Data retrievals	Restore of Archive objects at a standard speed. The cost is based on the objects' size.
restore_size_ex	restore_size_ex	Data retrievals	Restore of Archive objects at an expedited speed. The cost is based on the objects' size.
restore_size_sd_da	restore_size_sd_da	Data retrievals	Restore of Deep Archive objects at a standard speed. The cost is based on the objects' size.
restore_size_ex_da	restore_size_ex_da	Data retrievals	Restore of Deep Archive objects at an expedited speed. The cost is based on the objects' size.
retrieval_size_cold	retrieval_size_cold	Data retrievals	Traffic for downloading and copying Archive objects from a bucket with direct reading enabled
retrieval size warm	retrieval_size_warm	Data retrievals	Retrievals for Infrequent Access objects. The cost is based on the size of objects retrieved.
Capacity	size	Storage space	Space occupied by data in Standard single-AZ storage
Capacity_Multiaz	size_3az	Storage space	Space occupied by data in Standard multi-AZ storage
Capacity_Infrequent Access Storage	size_warm	Storage space	Space occupied by data in Infrequent Access single-AZ storage

Usage Type	Usage Type Code	Billed Item	Description
Capacity_Infrequent Access Storage_Multiaz	size_warm_3az	Storage space	Space occupied by data in Infrequent Access multi-AZ storage
Capacity_Archive Storage	size_cold	Storage space	Space occupied by data in the Archive storage class
deep archive size	size_deep_archive	Storage space	Space occupied by data in the Deep Archive storage class
early deleted warm	early_deleted_warm	Storage space	If Infrequent Access objects are deleted or transitioned to another storage class before they have been stored for 30 days, you still need to pay for the remaining days. **NOTE** Overwriting Infrequent Access objects works the same as deleting and then uploading these objects, so the overwriting operation also incurs extra storage costs.
early_deleted_cold	early_deleted_cold	Storage space	If Archive objects are deleted or transitioned to another storage class before they have been stored for 90 days, you still need to pay for the remaining days. **NOTE** Overwriting Archive objects works the same as deleting and then uploading these objects, so the overwriting operation also incurs extra storage costs.
early_deleted_da	early_deleted_da	Storage space	If Deep Archive objects are deleted or transitioned to another storage class before they have been stored for 180 days, you still need to pay for the remaining days.
Single AZ temporary capacity of deep archive storage	size_temporary_da_1az	Storage space	Temporary storage of objects generated in the HDD pool when Deep Archive objects are restored from a tape cluster to a single-AZ bucket in an HDD pool. Such storage is billed when an SDR is created.

Usage Type	Usage Type Code	Billed Item	Description
File system size	pfs_size	Storage space	Space occupied by data in single-AZ parallel file systems
File system size	pfs_size_3az	Storage space	Space occupied by data in multi-AZ parallel file systems

Small Amount Accumulation

The minimum cost billed is $0.01 USD. If you spend less than $0.01 USD per hour, small-amount accumulation will be triggered. If the accumulated amount is still less than $0.01 USD at the end of the day, no cost is incurred. The amount accumulation continues the next day. If the accumulated amount is greater than or equal to $0.01 USD, the cost is directly deducted from your account. If no cost deduction records are found, the possible cause is that the cost has not been settled yet.

If a bill contains records of $0.01 USD, there may be small-amount accumulation. There is an SDR delay. Generally, pay-per-use expenditures can be settled in hours, days, or months. When the settlement period ends, bills are generated and costs are deducted from your account. If no cost deduction records are found, the possible cause is that the settlement period has not ended.

8 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.

Arrears Reason

- If the usage exceeds a package quota or the package cannot be used for a given bucket, you will be billed on a pay-per-use basis. If your configured payment method or top-up account cannot pay for this amount, your account will fall into arrears. For details, see **Why Am I Still Being Billed After I Purchased a Resource Package?** To avoid arrears, you can choose a suitable resource package or top up your account.
- If you do not have any resource packages, your account falls into arrears anytime once your configured payment method is unable to pay for the used resources on a pay-per-use basis.

Impacts of Arrears

If your account is insufficient to pay your amount due, your account goes into arrears, and your pay-per-use resources enter the grace period. You still need to pay for the expenditures already generated. The expenditures can be viewed on the **Billing Center** > **Overview** page.

If you do not pay off within the grace period, your resources will enter the retention period and be frozen. During the retention period, pay-per-use resources cannot be accessed or used, but data stored in OBS will be retained.

If you do not bring your account balance current before the retention period ends, data stored in OBS will be deleted and cannot be recovered.

Figure 8-1 Lifecycle of a pay-per-use OBS resource
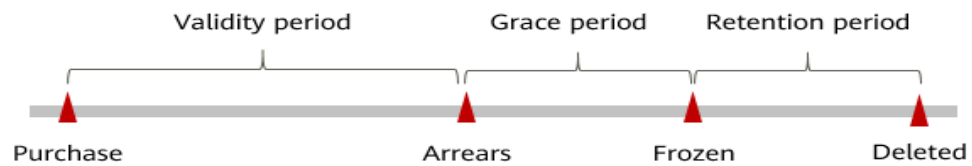
> 📖 **NOTE**
>
> For details about the grace period and retention period, see **What Is a Grace Period of Huawei Cloud? How Long Is It?** and **What Is a Retention Period of Huawei Cloud? How Long Is It?**

Avoiding and Handling Arrears

Make sure your account balance is sufficient or you have a valid payment method as soon as possible after your account is in arrears. For details, see **Top-Up and Repayment**.

If data stored in OBS is no longer used, you can delete it to avoid 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.

If your account is in arrears, address the issue in a timely manner. If the resource usage for your service is stable, you can purchase resource packages to save money. For details, see **Yearly/Monthly (Resource Packages)**.

9 Billing Termination

You can find a single bucket that is no longer needed from a bill on the Billing Center and then delete the bucket on OBS Console to terminate its billing.

Yearly/Monthly Resources (Resource Packages)

OBS resource package subscriptions cannot be cancelled. Using resource packages involves all matched buckets with different AZ redundancy policies or regions, so you are advised not to search for such a package from a bill and then delete it on OBS Console to stop billing.

Pay-per-Use Resources

If pay-per-use resources, for instance, Infrequent Access buckets, are no longer needed, delete them in a timely manner to stop billing.

> 📖 **NOTE**
>
> Billing termination based on a bill in the Billing Center applies only to a single bucket.
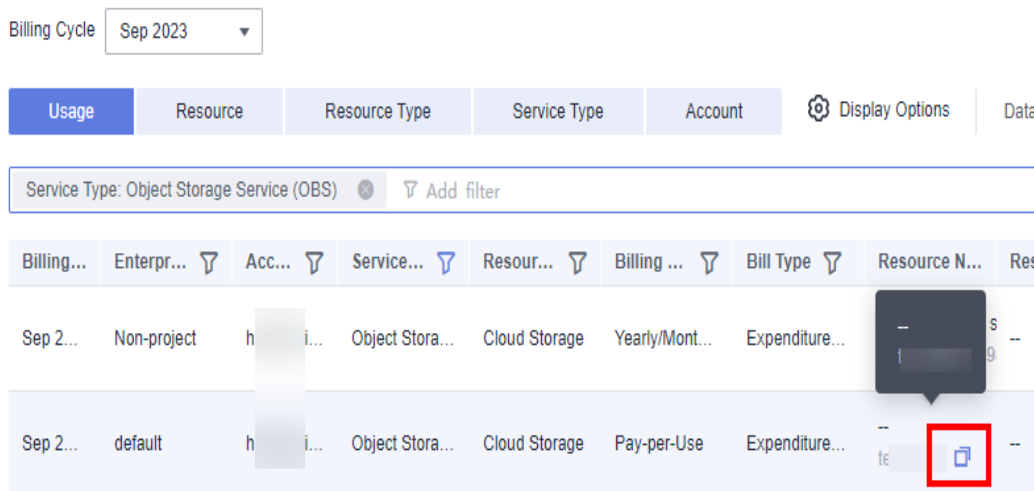
Searching for OBS Resources from Bills and Stopping Billing

Step 1 Log in to the management console. On the top menu bar, choose **Billing & Costs** > **Bills**.

The **Bills** page is displayed.

Step 2 In the navigation pane, choose **Expenditure Details**. Click the icon shown in the following figure to copy the required resource name.
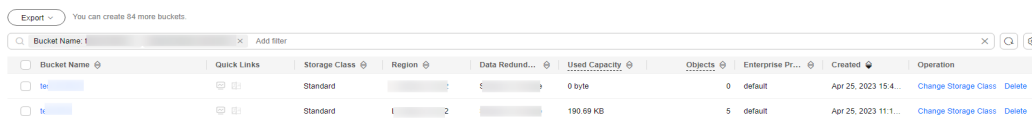
Figure 9-1 Copying the source name

Step 3 Go back to the service list and choose **Storage** > **Object Storage Service**.

The bucket list is displayed.

Step 4 In the search box above the bucket list, enter the resource name copied in **Step 2** and click the Q icon to find the resource.

Figure 9-2 Searching for the resource

If no bucket is found, the bucket has been deleted.

Step 5 Click **Delete** in the **Operation** column to delete the bucket. Ensure that the bucket does not exist in the list.

📖 **NOTE**

You are billed one hour after the resource usage is calculated, so a bill may still be generated after a pay-per-use resource is deleted. For instance, if you delete a pay-per-use resource (which is billed on an hourly basis) at 08:30, the expenditures for that hour from 08:00 to 09:00 are usually not billed until about 10:00.

----End

10 Billing FAQ

Resource Packages

- **Why Am I Still Billed for Pull Traffic Used by CDN Acceleration When I Already Have a Pull Traffic Package?**
- **Why Are There Still Pay-per-Use Bills After I Have Purchased Resource Packages?**
- **Do I Need to Purchase an Internet Outbound Traffic Package If I Already Have an Origin Pull Traffic Package?**
- **Do I Have to Purchase a Resource Package? Can I Apply a Package to a Specific Bucket?**
- **Can I Unsubscribe from or Modify a Resource Package?**
- **Do Parallel File Systems Support Resource Packages?**
- **Which Types of Resource Packages Will Reset Their Quota by Month and Which Types Will Not?**
- **Will the Remaining Package Quota in a Given Month Be Carried over to the Following Month?**
- **What Can I Do If My Resource Package Expires?**

Overdue Payment

Why Is OBS Still Unavailable Even Though My Account Is Topped Up and There Are No Outstanding Bills?

Others

- **Why Does My Bucket Generate Storage Fees Even Though There Are No Objects in It?**
- **Why Does My Bucket Generate Traffic When There Are No Objects in It?**
- **Can I Purchase Requests?**
- **Why Is There a Charge of $0.01 USD on My OBS Bill?**