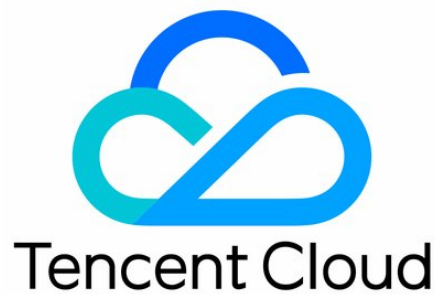


# **Cloud Block Storage**

## **Purchase Guide**

### **Product Documentation**



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# Purchase Guide

## Billing Overview

Last updated : 2019-10-16 20:32:34

### CBS billing overview

#### Billing Mode

Billing mode	Pay as you go
Payment method	Freezes an hour's fees during purchase, payment settled once an hour
Billing unit	USD/GB*hour
Minimum use duration	Hourly settlement, can be purchased or released at any time
Use cases	Applicable where the demand for devices fluctuates dramatically, such as during flash sales on e-commerce sites

#### Billing Standard

Billing standard varies by regions and disk types. For more information, see [Price Overview](#).

### Snapshot billing overview

Snapshots was **commercialized** on January 22, 2019. After commercialization, all stored snapshots and newly generated snapshots will be billed based on their use of the storage capacity.

**Note :**

[Images](#) uses the CBS snapshot service for data storage. As a result, retaining custom images will occupy a certain portion of your snapshot capacity, and will incur associated costs.

#### Billing Mode

Fees are charged according to the total storage capacity of your snapshots. Each region is charged separately. CBS is **pay-as-you-go** on an hourly billing cycle.

For example, you purchase a 100GB cloud disk and write 10GB of data, and there are no other snapshots in the current region. If a snapshot is created at this time, and no other snapshots are created or deleted in the unit of an hour, the snapshot of this hour in this region will be charged as 10GB of storage.

#### Billing Standard

Billing standard for snapshots varies by regions. For more information, see [Price Overview](#).

## Complimentary Quota

After snapshot commercialization, Tencent Cloud will still provide users with a certain amount of free tier in major regions in China. The free tier policy is as follows:

- The free tier covers mainland China and Hong Kong, China. Overseas regions do not currently have free tier for snapshots.
- When users in one of the regions mentioned above have cloud disks in normal operating status (not in to be repossessed or terminated status), Tencent Cloud provides a 50GB snapshot free tier in this region.
- Time limit of the free tier is 1 year, and we plan to cancel this free tier policy by February 2020.

The following table describes snapshot billing circumstances under different use scenarios of snapshots and cloud disks:

Region	Total snapshot capacity	Cloud disk quantity and status	Snapshot billing circumstances
North China (Beijing)	100GB	1 cloud disk **To be repossessed** status	<ul style="list-style-type: none"> <li>• Complimentary snapshot quota is not available currently. Total snapshot capacity of 100GB is pay-as-you-go on an hourly billing cycle.</li> <li>• After the cloud disk is renewed or a new cloud disk is purchased, complimentary quota can be obtained again, and snapshot capacity is pay-as-you-go on an hourly billing cycle as (100GB - 50GB = 50GB).</li> </ul>
Southeast Asia (Hong Kong, China)	60GB	1 cloud disk **Mounted** status	Currently has the complimentary snapshot quota, total

			snapshot capacity is pay-as-you-go on an hourly billing cycle as (60GB - 50GB = 10GB).
Southeast Asia (Singapore)	40GB	1 cloud disk **Mounted** status	Does not have a complimentary snapshot quota, total snapshot capacity is pay-as-you-go on an hourly billing cycle as 40GB.

### Freezing Policy

Once your Tencent Cloud account goes into arrears, snapshot-related operations are immediately suspended, including creation, rollback, cross-region replication, and scheduled snapshot policies. After the account has been in arrears for 30 days, all snapshots will be deleted.

# Pricing List

Last updated : 2019-08-15 22:38:59

## Price Overview

### Price Overview of CBS

Price Overview of CBS	Price for Postpaid CBS (in \$USD/GB*hour)		
	HDD Cloud Storage	Premium Cloud Storage	SSD Cloud Storage
South China (Guangzhou)	0.0001	0.0002	0.0003
East China (Shanghai)	0.0001	0.0002	0.0003
North China (Beijing)	0.0001	0.0002	0.0003
Southwest (Chengdu)	0.0001	0.0002	0.0003
China (Hong Kong)	0.0001	0.0002	0.0004
North America (Toronto)	0.0001	0.0002	0.0004
Southeast Asia (Singapore)	0.0001	0.0002	0.0004
Western U.S. (Silicon Valley)	0.0001	0.0002	0.0004
Europe (Frankfurt)	0.0001	0.0002	0.0003
Asia Pacific (Seoul)	0.0001	0.0003	0.0005
Asia Pacific (India)	0.0001	0.0001	0.0003
Eastern U.S. (Virginia)	0.0001	0.0001	0.0003
Southeast	0.0001	0.0001	0.0003

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Asia (Bangkok)			
East Europe (Moscow)	0.0001	0.0001	0.0003
East Asia (Tokyo)	0.0001	0.0001	0.0003

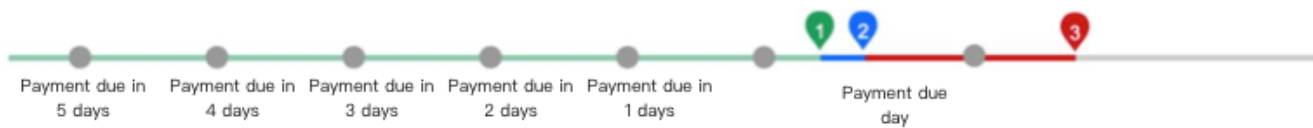


# Arrears Information

Last updated : 2019-10-17 16:32:48

## Pay-as-you-go cloud disks

- When you no longer use pay-as-you-go resources, **terminate them as soon as possible** to avoid further fee deduction.
- Since your actual resource consumption changes from time to time, deviation may exist for the stated balance.



## Balance Alert

The system estimates the number of days it takes your account balance to become negative based on the past 24 hours usage and current balance. If it's less than 5 days, the system will send a balance alert to your Tencent Cloud account creator and all collaborators via the Message Center, email, and SMS.

## Arrears Alert

For pay-as-you-go resources, fees are deducted on the hour. When your account balance becomes negative (Point 1 in the figure above), we will notify the Tencent Cloud account creator and all collaborators via email, text message, and the Message Center.

## Arrears Processing

- You can continue to use your Pay-as-You-Go cloud disk for 2 hours from the moment your account becomes negative. We will also continue to bill you for this period. When your account is in arrears for 2 hours (Point 2 in the figure above), your cloud disk will automatically shut down. The cloud disk will be unavailable and can only store data. We will also stop billing you for service.
- If your Tencent Cloud account is topped up to a positive balance within 24 hours after automatic shutdown, the cloud disk will be restored and billing continues.
- If your account remains negative for 26 hours after shutdown, (total time inclusive of 2 hours normal usage and 24 hours service suspension, Point 3 in the figure above), the Pay-as-You-Go disk will be repossessed, and all data will be deleted and **cannot be recovered**. We will notify the Tencent Cloud account creator and all the collaborators via email, SMS and the Message Center when the cloud disk is repossessed.

# Purchase Instructions

Last updated : 2019-10-16 20:33:33

## Cloud disk purchase channels

Tencent Cloud provides two ways for you to purchase cloud disks, either through the console or via API.

### Purchasing directly through the console

1. Log in to [CBS console](#) and click **Create**.
2. Configure the cloud disk type and capacity.
3. Select a billing method.
4. Confirm the order and then pay.
5. The cloud disk is created immediately after the order payment. Cloud disk can be used after being mounted and initialized.

### Using snapshots to purchase through the console

If you want to save the snapshot data of a data disk to a new disk by default, you can use snapshot to create a cloud disk in the [Snapshot List](#). You can also configure the **Snapshot** parameter to specify the target snapshot for creating a disk when you [purchase it separately through the console](#).

1. Go to [Snapshot List](#) on the console.
2. In the row of the target snapshot, select **More>Create new disk**.
3. Configure the cloud disk type and capacity.

When you use snapshot to create a cloud disk, the capacity size must not be smaller than the snapshot size. If you do not specify the cloud disk capacity, the capacity will be the same as that of the snapshot by default.

4. Select a billing method.
5. Confirm the order and then pay.
6. The cloud disk is created immediately after the order payment. Cloud disk can be used after being mounted and initialized.

### Purchasing along with a CVM

- You can purchase an elastic cloud disk by setting the **Data Disk** parameter when purchasing a CVM. For more information, see [Creating Instances](#).

### Purchasing through an API

You can use the `CreateDisks` API to create a cloud disk. For more information, see [Creating cloud disks](#).

## Purchase channels for local disks

Currently, local disks can only be purchased when you purchase a CVM. Standalone purchase is not supported. For more information, see [Creating Instances](#).

# Fee descriptions for cloud disk type adjustment

Last updated : 2019-10-16 20:53:09

Tencent Cloud's Cloud Block Storage (CBS) supports the adjustment of storage disk types while business is in operating status. By adjusting the cloud disk type, you can respond flexibly to business requirements for storage performance at different times. For more information on preconditions, precautions, and specific operations of adjusting cloud disk types, see [Adjusting cloud disk types](#).

Currently, adjustment of cloud disk types only supports upgrading elastic cloud disks. It does not support downgrading. Details are as follows:

- A HDD cloud disk can be adjusted to premium cloud storage or SSD cloud disk.
- A premium cloud storage can only be adjusted to SSD cloud disk.
- A SSD cloud disk cannot be upgraded currently.
- After you adjust pay-as-you-go cloud disk types, pricing will be based on the new configuration.

# Adjusting Disk Configuration

Last updated : 2019-08-08 11:00:07

Cloud disk is an expandable storage device on cloud. When a cloud disk is created, you can expand its capacity at any time to increase its storage space without losing any data on it. To expand and use the expanded capacity, you need to expand both the physical cloud disk and the file system on it to identify the newly available space.

If the maximum capacity of a cloud disk (4 TB) cannot meet your needs, you can use RAID to create a logically large space across multiple physical disks. For more information, please see [Configure RAID Group of Cloud Disk](#).

## Prerequisites

- For postpaid CVMs, you can only change the configuration when both the system disk and data disk are **cloud disks**.
- You can only expand the server system disks of cloud disks by reinstalling OS.
- For a cloud disk not mounted on a CVM, you can expand its capacity directly. If it has been mounted on a CVM, you need to shut down the CVM first before the expansion, or unmount the cloud disk before the expansion, and remount it on the original CVM after the expansion.
- After disk expansion, you need to manually modify the file system configuration to make use of the newly expanded capacity. For more information, please see [Expanding Linux File System](#) and [Expanding Windows File System](#).
- To ensure user data security, the disk capacity can only be expanded but cannot be reduced.

## Expanding Elastic Cloud Disk

### Expanding an Elastic Cloud Disk via the Console

- 1) Log in to the [CVM Console](#).
- 2) Click **Cloud Block Storage** in the navigation pane.
- 3) Only the cloud disk in the status of **Unmounted** and **Support Mounting/Unmounting** can be expanded (i.e., the elastic cloud disk in the status of **Unmounted**). Click **More** -> **Expand** to select the desired size (it must be larger than or equal to the current size), and complete the payment to finish the capacity expansion of physical disks.

### Expanding Elastic Cloud Disk via API

For more information, please see [API ResizeCbsStorage](#).

## Expanding Non-elastic Cloud Disk

### Expanding Non-elastic Cloud Disk via the Console

- 1) Log in to the [CVM Console](#).

2) Click **Cloud Virtual Machine** in the navigation pane.

3) Only the instance which is in the status of **Shutdown** and whose system disk and data disk are cloud disks can be expanded. Click **More** -> **CVM Settings** -> **Adjust Cloud Disk** and select the new required size (it must be larger than or equal to the current size), and complete payment to finish the capacity expansion of physical disk.

For a running instance, you need to perform [Instance Shutdown](#) before expansion. Please ensure that both system disk and data disk are cloud disks before doing so.

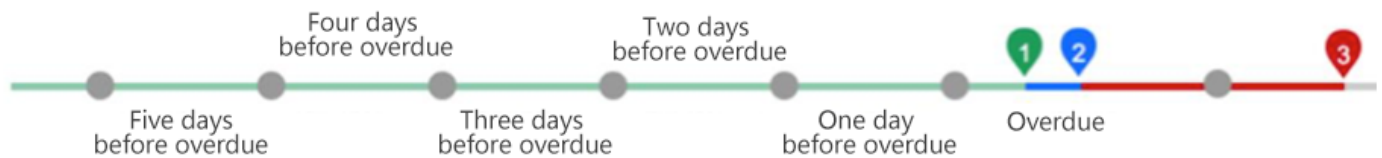
### Expanding Non-elastic Cloud Disk via API

Please see [API ResizeInstance](#) and [API ResizeInstanceHour](#).

# Arrears Reminder

Last updated : 2019-03-25 11:12:43

## Arrears Reminder for Postpaid Cloud Disks



### Balance Reminder

We will estimate the number of days it takes your account balance to become negative based on the past 24 hours usage and current balance. If it's less than 5 days, we will send you a reminder message. The reminder message will be sent to the Tencent Cloud account creator and all the collaborators via email and SMS.

### Arrears Reminder

For postpaid resources, fees are deducted on the hour. When your account balance is in negative (Point 1 in the figure above), we will notify the Tencent Cloud account creator and all the collaborators via email and SMS.

### Arrears Processing

When your account is in arrears for 2 hours (Point 2 in the figure above), your CBS service will be stopped. We will also stop billing you for service.

Within 24 hours after automatic shutdown, if your account is not topped up to a positive balance, you cannot perform read/write operations; If your balance is positive, the billing continues, and you can perform read/write operations.

If your account remains negative for 24 hours after shutdown, (Point 3 in the figure above), the postpaid CBS will be repossessed, and all data will be deleted and **cannot be recovered**.

We will notify the Tencent Cloud account creator and all the collaborators via email and SMS when the postpaid CBS is repossessed.

#### Note:

- When you do not use postpaid resources any longer, **terminate them as soon as possible** to avoid further fee deduction.
- After the resource is terminated or repossessed, the data will be deleted and cannot be recovered.
- Since your actual resource consumption changes from time to time, some deviation may exist for the stated balance.