

Alibaba Cloud

Elastic Compute Service Pricing

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Document conventions









Style	Description	Example
 Danger	A danger notice indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	 Danger: Resetting will result in the loss of user configuration data.
 Warning	A warning notice indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	 Warning: Restarting will cause business interruption. About 10 minutes are required to restart an instance.
 Notice	A caution notice indicates warning information, supplementary instructions, and other content that the user must understand.	 Notice: If the weight is set to 0, the server no longer receives new requests.
 Note	A note indicates supplemental instructions, best practices, tips, and other content.	 Note: You can use Ctrl + A to select all files.
>	Closing angle brackets are used to indicate a multi-level menu cascade.	Click Settings > Network > Set network type .
Bold	Bold formatting is used for buttons, menus, page names, and other UI elements.	Click OK .
Courier font	Courier font is used for commands	Run the <code>cd /d C:/window</code> command to enter the Windows system folder.
<i>Italic</i>	Italic formatting is used for parameters and variables.	<code>bae log list --instanceid</code> <i>Instance_ID</i>
[] or [a b]	This format is used for an optional value, where only one item can be selected.	<code>ipconfig [-all -t]</code>
{ } or {a b}	This format is used for a required value, where only one item can be selected.	<code>switch {active stand}</code>

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1. Billing overview


This topic describes items related to ECS billing, such as billable resources, billing methods, and payment methods.

The price of an ECS resource may vary by region. For more information about ECS resource prices, see [Pricing](#).

Billable resources

ECS comprises the following major components: instances, images, Block Storage devices, snapshots, security groups, and networks. For more information, see [What is ECS?](#)

The following table describes billable ECS resources.

Resource	Description
ECS instance	<p>You are billed based on the instance type that you choose. The instance type determines the number of vCPUs and the size of memory that you can use.</p> <div style="background-color: #e6f2ff; padding: 10px; border: 1px solid #d9e1f2;"> <p> Note If you select an instance type that is equipped with local disks, the price of the instance type includes the price of local disks.</p> </div>
Image	<p>Images are classified into the following types:</p> <ul style="list-style-type: none"> • Public image <ul style="list-style-type: none"> ◦ Windows Server: The price is subject to the instance type that you choose. For more information, see the buy page. ◦ Red Hat Enterprise Linux: You are charged for these images. For more information, see the buy page. ◦ Other images: free of charge. • Alibaba Cloud Marketplace image: Prices are determined by the image providers. • Custom image <ul style="list-style-type: none"> ◦ If a custom image is derived from a free public image or an Alibaba Cloud Marketplace image, you are charged for the snapshot used to create the custom image. Snapshots are charged based on storage space usage. ◦ If a custom image is obtained from a paid public image or an Alibaba Cloud Marketplace image, you are charged for the snapshot used to create the custom image. Snapshots are billed based on storage space usage. If you use a custom image to create an ECS instance, you are also charged for the image. • Shared image <ul style="list-style-type: none"> ◦ If a shared image is derived from a free public image or an Alibaba Cloud Marketplace image, the shared image is free of charge. ◦ If a shared image is derived from a paid public image or an Alibaba Cloud Marketplace image, you are also charged for the shared image when you use it to create an ECS instance. If you never use the image, you are not charged.

Resource	Description
Block Storage device	<p>Alibaba Cloud provides the following types of Block Storage devices:</p> <ul style="list-style-type: none"> • Cloud disks: Cloud disks are billed based on their storage capacity. You can use cloud disks as system disks or data disks. • Local disks: Local disks are billed based on their storage capacity. You can use local disks only as data disks. Local disks cannot be purchased separately. Local disks created together with an ECS instance have the same billing method as the ECS instance. <p>Instance families that are equipped with local disks include d1ne, d1, i2, i2g, i1, and gn5. For information about instance families, see Instance families.</p>
Public bandwidth	<p>An ECS instance can access the Internet through the following methods:</p> <ul style="list-style-type: none"> • Use the public IP address allocated by the system. You are not charged to retain public IP addresses. You are charged only for public bandwidth. For more information, see Billing methods of public bandwidth. • Use the elastic IP address (EIP). EIP is an independent service. For more information, see Billing overview. • Use the NAT gateway. NAT Gateway is an independent service. For more information, see Billing method.
Snapshot	<p>Snapshots are billed based on the storage space usage.</p>

Billing methods

ECS instances support the following billing methods: subscription and pay-as-you-go.

- **Subscription:** a billing method that allows you to pay for an instance upfront to use for the subscription period. The subscription billing method is suited for common services without traffic spikes, such as web services. For more information, see [Subscription](#).
- **Pay-as-you-go:** a billing method that allows you to use an instance and pay afterwards for the resources it uses. The pay-as-you-go billing method is suited for scenarios with traffic spikes, such as temporary scaling, interim testing, and scientific computing. For more information, see [Pay-as-you-go](#).

For more information about the difference between subscription and pay-as-you-go, see [Comparison of billing methods](#).

Resource	Billing method
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Resource	Billing method
ECS instance	<ul style="list-style-type: none"> • Subscription • Pay-as-you-go <p>If you plan to make a long-term commitment with pay-as-you-go ECS instances, you can purchase reserved instances to offset your bills. This method is more flexible and cost-effective. For more information, see Reserved instance overview. For the billing details of reserved instances, see Reserved instance billing.</p> <ul style="list-style-type: none"> • Preemptible instance <p>Preemptible instances are a type of on-demand instances that reduce overall ECS instance costs. Preemptible instances may be reclaimed. You can use auto provisioning groups to alleviate the instability caused by preemptible instances being reclaimed. For more information, see Auto Provisioning overview.</p>
Image	<ul style="list-style-type: none"> • Subscription • Pay-as-you-go <p>Images can be used only along with ECS instances. Windows reserved instances can be used to offset image bills.</p>
Disk	<ul style="list-style-type: none"> • Subscription • Pay-as-you-go <p>The billing methods of cloud disks depend on how they are created.</p> <ul style="list-style-type: none"> • Cloud disks created along with an ECS instance have the same billing method as the ECS instance. • Cloud disks created for a subscription ECS instance use the subscription billing method. • Cloud disks created on the Disks page of the ECS console support only pay-as-you-go. • Cloud disks created from snapshots support only pay-as-you-go. <p>You can change the billing methods of your cloud disks. For more information, see Change billing methods of disks.</p>

Resource	Billing method
Public bandwidth	<p>If your ECS instance accesses the Internet by using a public IP address, one of the following billing methods is used:</p> <ul style="list-style-type: none"> • Pay-by-bandwidth <p>Fees are calculated based on the bandwidth that you specified. You can select the pay-by-bandwidth billing method for ECS instances that use the following billing methods:</p> <ul style="list-style-type: none"> ◦ Subscription ◦ Pay-as-you-go • Pay-by-traffic <p>You are billed on an hourly basis based on the amount of traffic that your instance consumed.</p> <p>You can enable public bandwidth when you create an ECS instance, or enable public bandwidth by using the configuration upgrade or downgrade feature after you create an ECS instance. For more information, see Billing methods of public bandwidth.</p>
Snapshot	<p>Pay-as-you-go</p> <p>For more information, see Snapshot billing.</p>

Payment methods


You can use the following methods to pay for ECS resources:

- Bank card
- PayPal

Alibaba Cloud pre-authorizes your PayPal account after your pay-as-you-go resources start incurring fees.

- Paytm (India)

Only for users in India. Alibaba Cloud pre-authorizes your Paytm account after your pay-as-you-go resources start incurring fees.

 **Note** Coupons are used to pay for your resource usage before bills are issued. No actual payments are involved.

Before you purchase ECS resources, you must bind a bank card, PayPal account, or Paytm (India) account to your Alibaba Cloud account. For more information, see [Add a payment method](#) in *Account Management*.

If you want to purchase ECS resources in mainland China, you must complete real-name verification. For more information, see the *How can I complete real-name registration* section in [Real-name verification FAQ](#) in *Account Management*.

2. Comparison of billing methods

This topic compares the features and billing rules of subscription and pay-as-you-go instances.

billing method subscription pay-as-you-go billing rules

Feature comparison

Subscription ECS instances and pay-as-you-go ECS instances support different features. The following table lists the differences. For more information about the two billing methods, see [Subscription](#) and [Pay-as-you-go](#).

Feature	Subscription	Pay-as-you-go
Renew the instance	Supported. For more information, see Overview .	Not supported.
Release the instance at any time	Not supported. After an ECS instance expires, it is automatically released if it is not renewed within the specified period of time.	Supported. Release pay-as-you-go ECS instances that you no longer need as soon as possible. If you do not release them, the ECS resources are continuously charged until the instances are stopped and released due to overdue payments. For more information, see Release an instance .
Change instance types	Supported. For more information, see Upgrade configurations of subscription instances and Downgrade the instance types of subscription instances .	Supported. For more information, see Change the instance type of a pay-as-you-go instance .
Change bandwidth configurations	Supported. For more information, see Upgrade configurations of subscription instances and Downgrade instance configurations during renewal .	Supported. For more information, see Change the Internet bandwidth of a pay-as-you-go instance .
Change billing methods	Supported. For more information, see Change the billing method of instances from subscription to pay-as-you-go and Upgrade configurations of subscription instances .	Supported. For more information, see Switch the billing method from pay-as-you-go to subscription .

Feature	Subscription	Pay-as-you-go
Use a subscription image from Alibaba Cloud Marketplace	Supported. For more information, see the "FAQ about subscription Alibaba Cloud Marketplace images" section in Image FAQ .	Not supported.
Apply for ICP filings for websites that are deployed on ECS instances in mainland China	Supported. Only ECS instances that have a subscription period of at least three months can be used for ICP filings. For more information about ICP filings, see Prepare and check the instance and access information .	Not supported.
Create instances through calls to API operations	Supported. Payment by bank card or PayPal is not supported.	Supported.
Use Alibaba Cloud Security, Cloud Monitor, and SLB for free	Supported.	Supported.

Billing rule comparison

Billing rules for subscription and pay-as-you-go ECS resources have the following differences:

- Subscription resources can be used only after they are paid for. You must pay the bills of subscription resources to use them.
- Pay-as-you-go resources can be activated and used before they are paid for. The system generates a bill in each settlement cycle and deducts the corresponding fee from your account.

To view the payment records of ECS resources, log on to the [ECS console](#). In the top navigation bar, choose **Expenses > User Center**. Then, go to the **Bill Details** page to view the payment records within a specific month.

Bill Details

Paid Unpaid To be Billed Refund

Month(Updated:Aug 17, 2019, 13:00:00)
Aug 2019

Billing Method
All
Subscription
Pay-As-You-Go

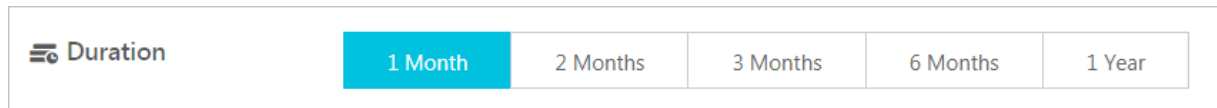
Paid(UTC+8)	Billing No	Billing M
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3.Subscription

Subscription is a billing method that allows you to use resources only after you pay for them. By using the subscription billing method, you can reserve resources in advance and reduce costs with discounted rates. This topic describes the billing rules for subscription ECS resources.

Overview

Before you use subscription resources, you must create a subscription ECS instance. The following figure shows the subscription duration options that you can choose for your ECS instance.



During instance creation, resources are billed separately to generate the total price. You can use subscription resources only after you pay the total price. For more information about how prices are calculated, see [Billing](#).

After a subscription ECS instance is created, you can change its configurations or resize subscription cloud disks attached to the instance. For more information, see [Overview of instance upgrade and downgrade](#) and [Overview](#).

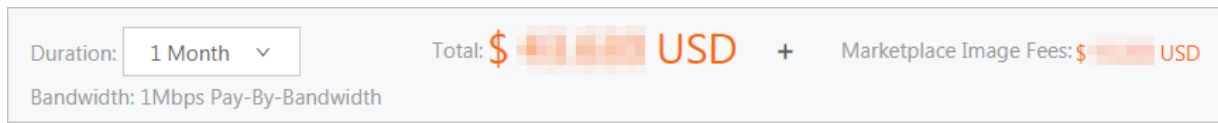
After a subscription period expires, you can renew your ECS instance to continue to use it. For more information, see [Overview](#).

Applicable resources

When you create an ECS instance, you must configure Elastic Block Storage (EBS), the image, and the network type. The following table describes the ECS resources that support the subscription billing method.

Resource	Description
ECS instance	When you create an ECS instance, you must specify whether to use the subscription billing method.
Image	The image that you selected when create a subscription instance also uses the subscription billing method.
Cloud disk	Cloud disks created along with subscription ECS instances also use the subscription billing method. After a subscription ECS instance is created, you can create subscription disks for the instance or attach pay-as-you-go disks that are separately created to the instance. For more information, see Create a subscription disk and Attach a data disk .
Public bandwidth (pay-by-bandwidth)	If you select pay-by-bandwidth as the billing method for network usage when you create a subscription ECS instance, the bandwidth is also billed on a subscription basis. For more information, see Billing methods of public bandwidth .

You can view the total price of the preceding resources in the lower-left part of the instance buy page, as shown in the following figure.



- **Total price is the price of the following resources:**
 - ECS instance
 - Cloud disk
 - Public bandwidth (pay-by-bandwidth)

? **Note** If you select pay-by-traffic as the billing method for network usage, the total price does not include the price for public bandwidth. For more information, see [Billing methods of public bandwidth](#).

- **Marketplace Image Fees** indicates that you selected a paid image.

You can use the ECS [TCO Calculator](#) to analyze your cloud migration costs.

Billing

The billing cycle of a subscription instance is the time commitment you made when you purchased the instance (based on UTC+8:00). The cycle starts from the time when the purchased subscription resource is activated or renewed (accurate to the second) and ends at 00:00:00 the next day after the expiration date.

Assume that you created a subscription ECS instance at 13:00:00 on August 9, 2019. Related resources include the ECS instance, image, and cloud disk (system disk). You select a subscription duration of one month and manually renew the instance with another one-month commitment. The following billing cycles apply:

- The first billing cycle is from 13:00:00 on August 9, 2019 to 00:00:00 on September 10, 2019.
- The second billing cycle is from 00:00:00 on September 10, 2019 to 00:00:00 on October 10, 2019.

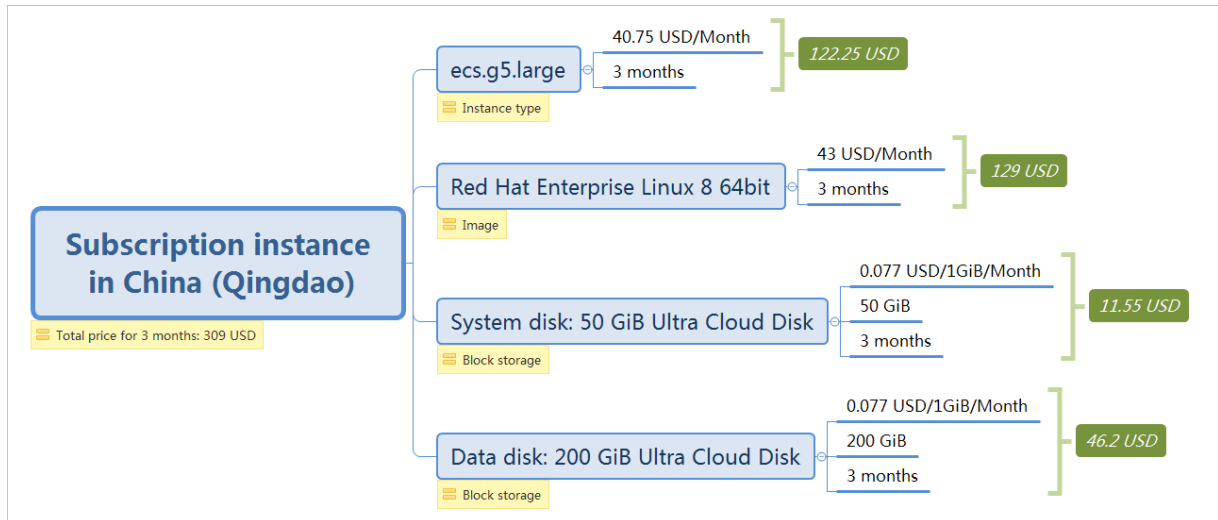
ECS resources are billed separately. You must pay these fees before you can use the resources. You can calculate the total price based on the configurations that you choose. The following table describes the formulas used to calculate the fee of each ECS resource.

Resource	Formula	Unit price
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Resource	Formula	Unit price
ECS instance	Unit price of an instance type × Subscription duration	<p>For more information, see the Instance tab on the ECS Pricing page.</p> <p>Note Local disks are tied to specific instance types. The prices of local disks are contained in the price of corresponding instance types.</p>
Image	Unit price of an image × Subscription duration	You can obtain the price on the buy page or in Alibaba Cloud Marketplace.
Cloud disk (system disk)	Unit price of a disk × Disk capacity × Subscription duration	<p>For more information, see the System Cloud Disk Fee section on the Storage tab of the ECS Pricing page.</p> <p>Note The price for a pay-as-you-go disk on the page is displayed in the USD/100 GiB/hour format. Divide it by 100 to obtain the unit price per GiB.</p>
Cloud disk (data disk)	Unit price of a disk × Disk capacity × Subscription duration	<p>For more information, see the Data Cloud Disk Fee section on the Storage tab of the ECS Pricing page.</p> <p>Note The price for a pay-as-you-go disk on the page is displayed in the USD/100 GiB/hour format. Divide it by 100 to obtain the unit price per GiB.</p>
Public bandwidth (pay-by-bandwidth)	Unit price of bandwidth × Bandwidth value × Subscription duration For more information, see Billing methods of public bandwidth .	A tiered billing model is used for bandwidth. You can select a bandwidth value on the buy page to view the changes in fees.

Assume that you created a subscription ECS instance in China (Qingdao) with a subscription duration of three months. The following figure shows the process for calculating the price of the subscription ECS instance.

Note The price is only for reference. For more information about the actual price, see the links in the preceding table.



Changes in resource status after expiration

Notice After an ECS instance expires, the instance may be stopped. The system may send you notifications for renewing the instance. In this case, renew your instance to ensure service availability. If you still have problems, [submit a ticket](#).

If the auto-renewal feature is not enabled for a subscription ECS instance, the instance stops providing services at some point from 00:00:00 on the expiration date to 00:00:00 on the next day.

Note You cannot enable the auto-renewal feature for an expired subscription ECS instance.

The following table describes the resource status of an ECS instance after expiration.


Resource	Within 15 days after expiration	More than 15 days after expiration
ECS instance	The ECS instance is retained but it cannot be used. Note After an ECS instance is stopped, you cannot connect to the instance or access websites deployed on the instance, and service errors may occur.	The ECS instance is released.
Image	The image is unavailable.	The image is unavailable.

Resource	Within 15 days after expiration	More than 15 days after expiration
EBS	<ul style="list-style-type: none"> Cloud disks and data on them are retained, but the cloud disks cannot be used. Local disks and data on them are retained, but the local disks cannot be used. 	<ul style="list-style-type: none"> Subscription disks are released and data on them cannot be restored. <div style="border: 1px solid #ccc; background-color: #e6f2ff; padding: 5px; margin: 5px 0;"> <p>? Note If you manually attach a pay-as-you-go cloud disk to a subscription instance and do not set the release mode to Release with Instance, the pay-as-you-go cloud disk stops to work.</p> </div> <ul style="list-style-type: none"> Local disks are released and data on them cannot be restored.
Public IP address	<ul style="list-style-type: none"> In the classic network: The public IP address is retained. In a VPC: <ul style="list-style-type: none"> The public IP address is retained. The EIP associated with the instance remains unchanged. 	<ul style="list-style-type: none"> In the classic network: The public IP address is released. In a VPC: <ul style="list-style-type: none"> The public IP address is released. The EIP is disassociated from the instance.

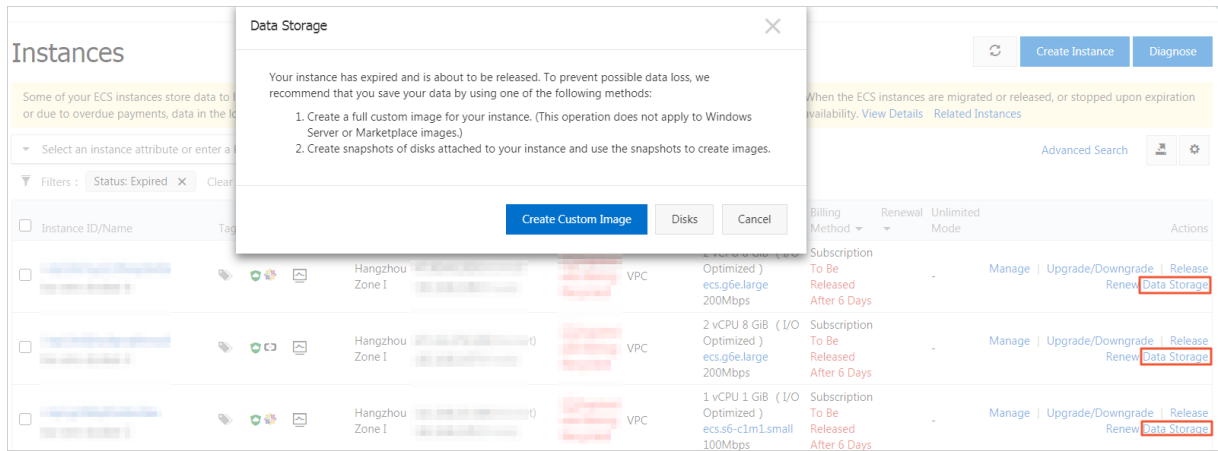
If the auto-renewal feature is enabled for a subscription ECS instance but the renewal fails, the instance automatically stops providing services at some point from 00:00:00 on the 15th day after expiration to 00:00:00 on the 16th day after expiration.

The following table describes the resource status of an ECS instance after expiration.

Resource	Within 15 days after expiration	More than 15 days after expiration	More than 30 days after expiration
ECS instance	<p>The ECS instance is retained and works properly.</p> <div style="border: 1px solid #ccc; background-color: #e6f2ff; padding: 5px; margin: 5px 0;"> <p>? Note When an ECS instance works properly, you can start or stop the instance, and connect to the instance by using management terminals or other connection methods.</p> </div>	<p>The ECS instance is retained but it cannot be used.</p> <div style="border: 1px solid #ccc; background-color: #e6f2ff; padding: 5px; margin: 5px 0;"> <p>? Note After an ECS instance is stopped, you cannot connect to the instance or access websites deployed on the instance, and service errors may occur.</p> </div>	<p>The ECS instance is released.</p>
Image	The image is available.	The image is unavailable.	The image is unavailable.

Resource	Within 15 days after expiration	More than 15 days after expiration	More than 30 days after expiration
EBS	<ul style="list-style-type: none"> Cloud disks and data on them are retained. The cloud disks can work properly. Local disks and data on them are retained. The local disks can work properly. 	<ul style="list-style-type: none"> Cloud disks and data on them are retained, but the cloud disks cannot be used. Local disks and data on them are retained, but the local disks cannot be used. 	<ul style="list-style-type: none"> Subscription disks are released and data on them cannot be restored. <div style="border: 1px solid #add8e6; padding: 5px; margin: 10px 0;"> <p> Note If you manually attach a pay-as-you-go cloud disk to a subscription instance and do not set the release mode to Release with Instance, the pay-as-you-go cloud disk stops to work.</p> </div> <ul style="list-style-type: none"> Local disks are released and data on them cannot be restored.
Public IP address	<ul style="list-style-type: none"> In the classic network: The public IP address is retained. In a VPC: <ul style="list-style-type: none"> The public IP address is retained. The EIP associated with the instance remains unchanged. 	<ul style="list-style-type: none"> In the classic network: The public IP address is retained. In a VPC: <ul style="list-style-type: none"> The public IP address is retained. The EIP associated with the instance remains unchanged. 	<ul style="list-style-type: none"> In the classic network: The public IP address is released. In a VPC: <ul style="list-style-type: none"> The public IP address is released. The EIP is disassociated from the instance.

After the instance expires, a **Data Storage** button is displayed in the **Actions** column of the **Instances** page. Before the instance is released, you can create a custom image from the instance or create snapshots to back up the data stored on the disks.



Overdue payments

If you have overdue payments in your account, subscription ECS resources can be used properly, but you cannot purchase, renew, or upgrade instances.

4. Pay-as-you-go

This topic describes the billing and settlement rules for pay-as-you-go ECS resources. Pay-as-you-go allows you to pay only for the amount of resources you actually use. You can purchase and release resources on demand and scale up as your business grows. Pay-as-you-go resources can help reduce costs by 30% to 80% compared to traditional hosts.

Overview


Pay-as-you-go resources are billed based on the billing cycle and paid each hour. If you have a quota agreement with Alibaba Cloud, fees are deducted when the cumulative consumption of your account exceeds the quota. You must complete the payment at least once a month.

After you create a pay-as-you-go ECS resource, you can change its configurations. For more information, see [Change the instance type of a pay-as-you-go instance](#) and [Change the Internet bandwidth of a pay-as-you-go instance](#).

You can change the billing method of your pay-as-you-go ECS resources. For more information, see [Switch the billing method from pay-as-you-go to subscription](#).

You can use one of the following methods to view your bills:

- To view the fee calculation method, see [Billing](#).
- To understand how ECS resource status affects the billing duration, see [Billing duration](#).

 **Note** If you stop an ECS instance but do not release related resources, you continue to be charged for the resources.


- For information about settlement, see [Settlement period](#).

Applicable resources

The pay-as-you-go billing method is available for the following ECS resources:



- ECS instances
- Images
- Cloud disks
- Public bandwidth (pay-by-bandwidth)
- Snapshots

In addition to the instance type, you must also configure the Block Storage, image, and network type when you create an instance. The images and the cloud disks created along with the pay-as-you-go ECS instance also use the pay-as-you-go billing method. However, you can select the billing method for network usage.


 **Note** After you create a pay-as-you-go ECS instance, you can attach a separately created pay-as-you-go cloud disk to the instance. For more information, see [Attach a data disk](#).

You are charged for created snapshots.

You can view the total price of the preceding resources in the lower-left part of the instance creation page.

Bandwidth: 1Mbps Pay-By-Bandwidth Total: \$  USD per Hour + Marketplace Image Fees: \$  USD per Hour



- Total price is the price of the following resources:
 - ECS instance
 - Cloud disk
 - Public bandwidth (pay-by-bandwidth)

 **Note** If you select pay-by-traffic as the billing method for network usage, the total price does not include the price for public bandwidth. For more information, see [Billing methods of public bandwidth](#).

- Marketplace Image Fees indicates that you selected a paid image.

Billing

You are charged for pay-as-you-go ECS resources after they are created. Resources are billed separately. You can calculate the total fee that you need to pay for a certain period of time based on the configurations you choose. The following table describes the billing cycle of each ECS resource and the formula used to calculate the fees.

Resource	Billing cycle	Formula	Unit price
ECS instance	Second	Unit price of an instance type × Billing duration	For more information, see the Instance tab on the ECS Pricing page.  Note Local disks attached to an instance are billed together with the instance.
Image	Second	Unit price of an image × Billing duration	You can view the price on the instance buy page and in Alibaba Cloud Marketplace.
Cloud disk (system disk)	Second	Unit price of a cloud disk × Disk capacity × Billing duration	For more information, see the System Cloud Disk Fee section on the Storage tab of the ECS Pricing page.  Note The price on the page is displayed in the USD/100 GiB/hour format. Divide it by 100 to obtain the unit price per GiB.

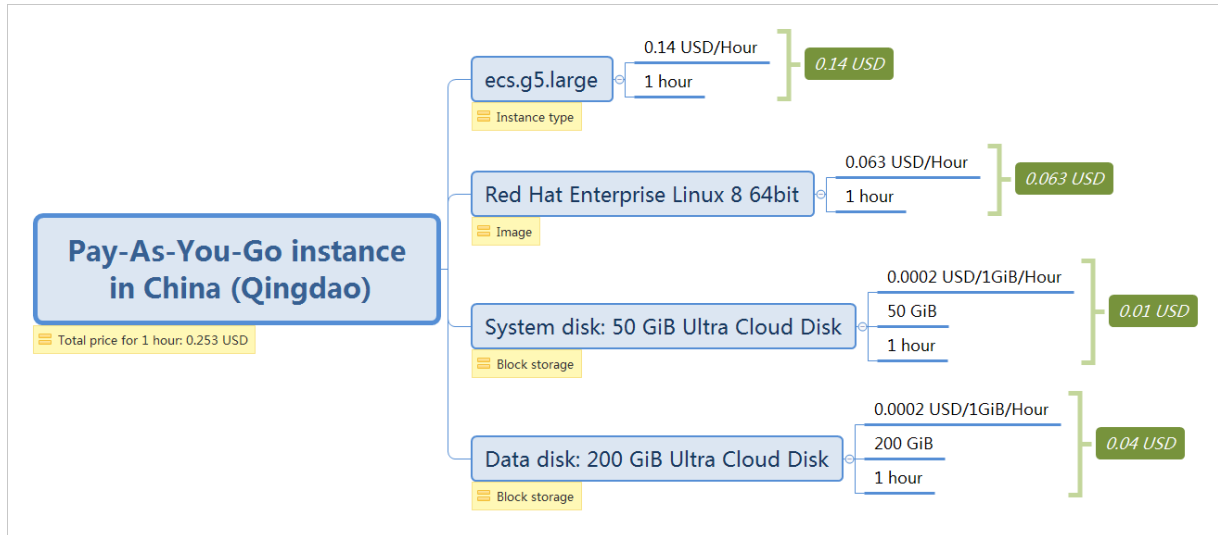
Resource	Billing cycle	Formula	Unit price
Cloud disk (data disk)	Second	Unit price of a cloud disk × Disk capacity × Billing duration	<p>For more information, see the Data Cloud Disk Fee section on the Storage tab of the ECS Pricing page.</p> <div style="border: 1px solid #ccc; background-color: #e6f2ff; padding: 5px; margin-top: 10px;"> <p>Note The price on the page is displayed in the USD/100 GiB/hour format. Divide it by 100 to obtain the unit price per GiB.</p> </div>
Public bandwidth (pay-by-bandwidth)	Second	<p>Unit price of bandwidth × Bandwidth value × Billing duration</p> <p>For more information, see Billing methods of public bandwidth.</p>	A tiered billing model is used for bandwidth. You can select a bandwidth value on the buy page to view the changes in fees.
Snapshot	Hour	<p>Unit price of a snapshot × Snapshot capacity × Billing duration</p> <p>For more information, see Snapshot billing.</p>	For more information, see the Snapshot tab on the ECS Pricing page.

Note

- If the billing cycle is one second, the fee generated each second is added on to the bill. If an hourly price is displayed, you can divide the price by 3,600 to obtain the price per second.
- If the billing cycle is one hour, the fee generated every hour is added on to the bill. A usage duration of less than an hour is calculated as an hour.

Assume that you created a pay-as-you-go ECS instance in the China (Qingdao) region and the resource was in use from 11:00:00 to 12:00:00 on August 8, 2019. The following figure shows the process for calculating the price of the instance.

Note The price is for reference only. For more information about the exact price, visit the links in the preceding table.




Billing duration

If a pay-as-you-go ECS instance is automatically stopped due to an overdue payment, the billing of its resources is suspended. The billing resumes after you settle the overdue payment and reactivate the instance.

The following table describes the billing duration of each resource type on the prerequisite that you have no overdue payments.

Resource	Billing duration
ECS instance	<p>The billing duration is affected by the network type of the instance.</p> <ul style="list-style-type: none"> For an ECS instance in the classic network, billing starts when the instance is created and stops when the instance is released. For an ECS instance in a VPC, the billing duration depends on whether the No Fees for Stopped Instances (VPC-Connected) feature is enabled. <ul style="list-style-type: none"> If this feature is not enabled, billing starts when the instance is created and stops when the instance is released. If this feature is enabled, billing starts when the instance is created or is restarted in the ECS console and stops when the instance is stopped in the ECS console or when the instance is released. For more information, see No Fees for Stopped Instances (VPC-Connected). <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p>Notice If you stop the instance by shutting down its operating system, you cannot benefit from the No Fees for Stopped Instances (VPC-Connected) feature.</p> </div> <p>You can purchase reserved instances to reduce your costs. For more information, see Reserved instance overview.</p>

Resource	Billing duration
Image	Billing starts when the instance is created and stops when the instance is released.
Cloud disk (system disk)	Billing starts when the instance is created and stops when the instance is released.
Cloud disk (data disk)	Billing starts when the data disk is created and stops when the data disk is released.
Public bandwidth (pay-by-bandwidth)	Billing starts when public bandwidth (pay-by-bandwidth) is enabled and stops when public bandwidth is disabled or when the ECS instance is released. For information about how to disable public bandwidth, see Change the Internet bandwidth of a pay-as-you-go instance .
Snapshot	Billing starts when the snapshot is created and stops when the snapshot is deleted.

 **Note** If a pay-as-you-go ECS instance incurs less than USD 0.01 in charges during its entire lifecycle, USD 0.01 is charged.

To avoid unexpected fees incurred when a pay-as-you-go instance is kept for longer than expected, we recommend that you enable the automatic release feature. If automatic release is enabled, billing stops when the resources are released. The automatic release time is accurate to the second.

Settlement period

The fees for pay-as-you-go resources are paid each hour. These fees are paid together with the fees incurred by subscription products in your account. If you have a quota agreement with Alibaba Cloud, fees are deducted when the cumulative consumption of your account exceeds the quota. If the cumulative monthly consumption of your account is less than the quota, fees are deducted on the first day of the following month.


- If your default payment method is bank card, the quota is USD 1,000.
- If your default payment method is PayPal or Paytm (India), the quota depends on your ECS resource usage.

Fee deduction is attempted three times: on the due date (T), T+7, and T+14. If fee deduction fails on the due date (T), the system will attempt to deduct fees again on the day T+7 and day T+14. If fee deduction fails for these three times, the instance is stopped on the day T+15 and the billing of its resources also stops.

The following changes occur to the resource status in the event of an overdue payment:

1. Within 15 days after the payment becomes overdue, you can use existing ECS resources but cannot purchase new ECS instances, upgrade instance configurations, or renew instances.
2. Within 15 days after the instance is stopped, you must submit a ticket to complete the overdue payment and then reactivate the instance. Otherwise, the instance will be released. For information about resource status, see [Resource status when an ECS instance](#)


is out of service.

 **Note** Reactivating and restarting an instance are different.


- *Reactivate* means that you resume a pay-as-you-go ECS instance that has entered the Expired or Expired and Being Recycled state due to an overdue payment. For more information, see [Reactivate an instance](#).
- *Restart* means that you restart an ECS instance that is in the Running state.

3. More than 15 days after the payment becomes overdue, pay-as-you-go instances are released.

Resource status when an ECS instance is out of service

 **Notice** If you have overdue payments in your account, your ECS instances may be stopped. The system will send you notifications about the overdue payments. We recommend that you settle the overdue payment in time to avoid impacts on your services. If you have any other questions, [submit a ticket](#).

If all three deductions fail, the ECS instance goes out of service. The following table describes the resource status after your instance is stopped due to an overdue payment.

Resource	Within 15 days after the instance is taken out of service	More than 15 days after the instance is taken out of service
ECS instance	<p>The ECS instance is retained but is stopped and taken out of service.</p> <p>When a pay-as-you-go ECS instance is automatically <i>stopped due to an overdue payment</i>, it enters the Expired state and the billing stops. After the instance stops providing services, you cannot connect to the instance or access websites deployed on the instance. Service errors may occur.</p>	<p>The ECS instance is released.</p> <div style="background-color: #e6f2ff; padding: 5px; margin-top: 10px;"> <p> Note If your ECS instance is released due to an overdue payment, Alibaba Cloud will send you an email notification.</p> </div>
Image	The image is unavailable.	The image is unavailable.

Resource	Within 15 days after the instance is taken out of service	More than 15 days after the instance is taken out of service
Block Storage	<ul style="list-style-type: none"> Cloud disks and data on them are retained, but the cloud disks cannot be used. Local disks and data on them are retained, but the local disks cannot be used. <p>Note After cloud disks or local disks become unusable, they cannot properly process I/O read and write requests. This affects the normal running of ECS instances to which these disks are attached, such as excessive time needed to perform operations and unpredictable power-off or restart failures for some operating systems.</p>	<ul style="list-style-type: none"> Cloud disks are released and data on them cannot be restored. <p>Note Cloud disks (data disks) created with pay-as-you-go ECS instances and pay-as-you-go cloud disks (data disks) created separately on the Disks page in the ECS console are released, regardless of whether they are attached to the instance.</p> <ul style="list-style-type: none"> Local disks are released and data on them cannot be restored.
IP address	<ul style="list-style-type: none"> In the classic network: The public IP address is retained. In a VPC: <ul style="list-style-type: none"> The public IP address is retained. <p>Notice If the No Fees for Stopped Instances (VPC-Connected) feature is enabled before the instance is stopped, the public IP address of the instance may be recycled after the instance is stopped due to an overdue payment. The public IP address may change when the instance is restarted.</p> <ul style="list-style-type: none"> The EIP associated with the instance remains unchanged. 	<ul style="list-style-type: none"> In the classic network: The public IP address is released. In a VPC: <ul style="list-style-type: none"> The public IP address is released. The EIP is disassociated from the instance.
Snapshot	All snapshots are retained but automatic snapshots cannot be created.	All snapshots are deleted except for those used to create cloud disks or custom images.

5.No Fees for Stopped Instances (VPC-Connected)

The No Fees for Stopped Instances (VPC-Connected) feature allows some ECS resources to be recycled while retaining ECS instances, reducing upkeep costs. It does not stop consumed resources from being billed.

pay-as-you-go No Fees for Stopped Instances (VPC-Connected) computing resource public IP address retain and bill stop mode

Prerequisites

The No Fees for Stopped Instances (VPC-Connected) feature is applicable to ECS instances that meet the following requirements:

- The network type of the instances is VPC.
- The instances are pay-as-you-go instances.

You can change the billing method of an instance from subscription to pay-as-you-go. For more information, see [Change the billing method of instances from subscription to pay-as-you-go](#).

- The instance family is not attached with local disks.

Instance families attached with local disks do not support No Fees for Stopped Instances (VPC-Connected). These instance families include d1, d1ne, i1, i2, i2g, and gn5. For more information, see the *Local storage (GiB)* column in [Instance families](#).

The No Fees for Stopped Instances (VPC-Connected) feature is disabled by default. For information about how to enable this feature, see the [Enable the No Fees for Stopped Instances \(VPC-Connected\) feature](#) section.

Applicable resources


This feature recycles some resources while retaining ECS instances to reduce the overall costs.

- The No Fees for Stopped Instances (VPC-Connected) feature is applicable to the following resources:
 - ECS instances (including vCPUs and memory)
 - Public IP addresses and bandwidth
- The No Fees for Stopped Instances (VPC-Connected) feature is not applicable to some ECS resources. The following list provides some examples of these resources:
 - System disks
 - Data disks attached to ECS instances
 - Elastic IP addresses (EIPs) and bandwidth
 - Images
 - Snapshots

Trigger conditions

After the No Fees for Stopped Instances (VPC-Connected) feature is enabled, it is triggered only when the instance is stopped due to one of the following reasons:

- Operations in the ECS console. For more information, see [Stop an instance](#).
- API requests initiated by using Alibaba Cloud CLI or SDKs. For more information, see [StopInstance](#).
- Overdue payments.


 **Notice** If you stop an ECS instance from within the operating system, the No Fees for Stopped Instances (VPC-Connected) feature is not triggered.

If an ECS instance is in the start period, the No Fees for Stopped Instances (VPC-Connected) feature cannot be triggered. The start period is the time it takes for a new instance that is started for the first time to enter the Running state from the Stopped state. For more information, see [ECS instance lifecycle](#).


Impacts

After the No Fees for Stopped Instances (VPC-Connected) feature is triggered for an ECS instance, the ECS instance (including vCPUs and memory) and its public IP address are recycled. You are no longer charged for these resources. However, the following risks exist:

- The stopped resources are recycled and the instance may fail to restart due to insufficient resources. In this case, you can try again later or switch to another instance type. For more information, see [Change the instance type of a pay-as-you-go instance](#).

 **Note** We recommend that you restart the instance in advance to ensure that resources are sufficient for the instance to start, avoiding service interruptions caused by instance start failures.

- Because the public IP address has been recycled, the public IP address may change after the instance is restarted. However, the private IP address remains unchanged.

 **Note** If your application depends on a specific public IP address, we recommend that you disable the No Fees for Stopped Instances (VPC-Connected) feature or convert the public IP address to an EIP. For more information, see [Disable the No Fees for Stopped Instances \(VPC-Connected\) feature](#) or [Convert the public IP address of a VPC-type instance to an Elastic IP address](#).


- For burstable instances, the current CPU credit balance is cleared and the instances stop earning CPU credits. After you restart the burstable instances, they begin to earn CPU credits again. For more information about CPU credits of burstable instances, see [Earn CPU credits](#).

In some cases, you may need to restart your instances multiple times within a short amount of time. We recommend that you disable the No Fees for Stopped Instances (VPC-Connected) feature to ensure that the instances can be started and run normally. You can disable this feature in the following scenarios:

- [Replace the system disk \(ReplaceSystemDisk\)](#)
- [Roll back a disk \(ResetDisk\)](#)
- [Reinitialize a system disk \(ReInitDisk\)](#)

For an instance that is stopped due to an overdue payment, if you clear the overdue payment within the specified time and reactivate the ECS instance, the retention of the public IP address is determined by the status of the No Fees for Stopped Instances (VPC-Connected) feature:

- When the feature is enabled: After the instance is stopped due to an overdue payment, it enters the No Fees for Stopped Instances state. Its vCPUs, memory, and public IP address are automatically released and the public IP address may change after the instance is reactivated.
- When the feature is disabled: After the instance is stopped due to an overdue payment, the billing of the instance is stopped. Its vCPUs and memory are automatically released. However, the public IP address is retained and does not change after the instance is reactivated.

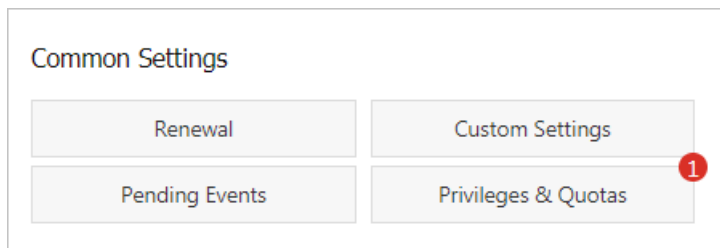
 **Note** ECS instances do not remain in the Stopped state after a payment becomes overdue in your account. For more information, see [Pay-as-you-go](#).

Enable the No Fees for Stopped Instances (VPC-Connected) feature

The No Fees for Stopped Instances (VPC-Connected) feature is disabled by default to avoid unexpected impacts on your applications. Enable the No Fees for Stopped Instances (VPC-Connected) feature after you make sure that it is suitable for your applications. For more information, see [Impacts](#).

This section describes how to enable the No Fees for Stopped Instances (VPC-Connected) feature for all applicable instances in your account. The instances will enter the No Fees for Stopped Instances state when they are stopped. For more information, see [Prerequisites](#).

1. Log on to the [ECS console](#).
2. In the Common Settings section of the Overview page, click Custom Settings.



3. Turn on the No Fees for Stopped Instances (VPC-Connected) switch.
4. In the message that appears, read the note and click OK.
5. In the Custom Settings dialog box, click OK.

Disable the No Fees for Stopped Instances (VPC-Connected) feature

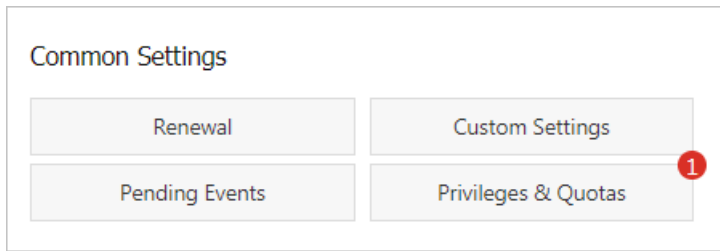
This section describes how to disable the No Fees for Stopped Instances (VPC-Connected) feature for all applicable instances in your account. The instances will not enter the No Fees for Stopped Instances state when they are stopped.

If an ECS instance is in the No Fees for Stopped Instances state, its vCPUs, memory, and public IP address are already recycled. Therefore, after the No Fees for Stopped Instances (VPC-Connected) feature is disabled, no fees are charged for the vCPUs and memory until these resources are reassigned after the instance is restarted. The status of the IP address is subject to the type of the IP address.

- If the instance uses a public IP address before it is stopped, a new public IP address is assigned to the instance.
- If the ECS instance is associated with an EIP before it is stopped, the EIP remains unchanged.

1. Log on to the [ECS console](#).

2. In the **Common Settings** section of the **Overview** page, click **Custom Settings**.



3. Turn off the **No Fees for Stopped Instances (VPC-Connected)** switch.

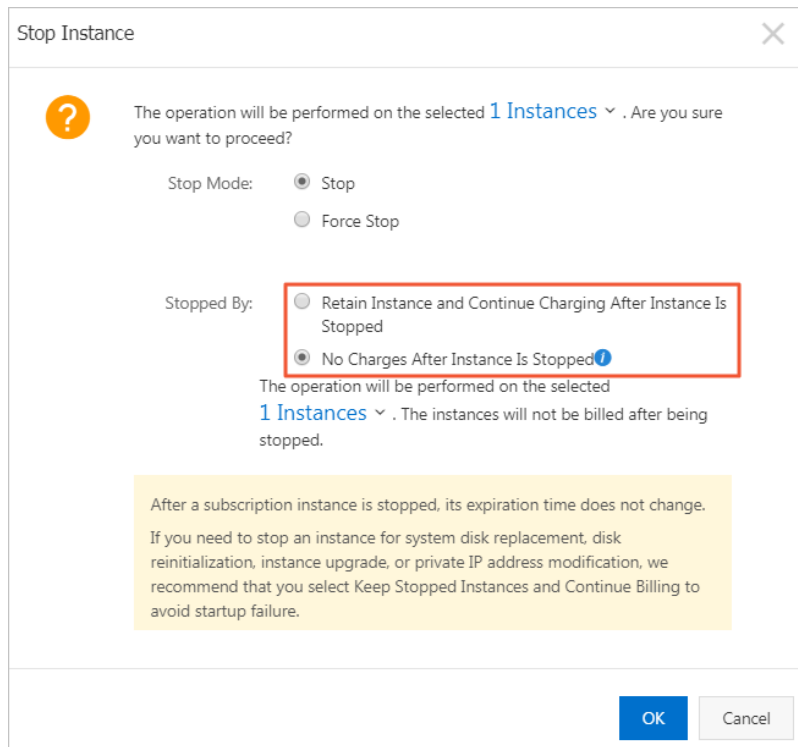
4. In the message that appears, read the note and click **OK**.

5. In the Custom Settings dialog box, click **OK**.

Configure a single instance to enter the **No Fees for Stopped Instances (VPC-Connected)** state when it is stopped

Regardless of whether the **No Fees for Stopped Instances (VPC-Connected)** feature is enabled, you can still configure the Stop mode when you stop a single instance. For more information, see [Stop an instance](#).

- If you select **Retain Instance and Continue Charging After Instance Is Stopped**, the instance enters the *Keep Stopped Instances and Continue Billing* state.
- If you select **No Charges After Instance Is Stopped**, the instance enters the *No Fees for Stopped Instances* state.



References

You can also use the scheduled startup and shutdown feature of Operation Orchestration Service (OOS) to automatically manage the startup and shutdown time of multiple ECS instances. You can combine this feature with the No Fees for Stopped Instances (VPC-Connected) feature to reduce costs. For more information, see [Scheduled startup and shutdown](#).

6. Billing methods of public bandwidth

This topic describes public bandwidth types, billing methods, and examples on how to calculate bandwidth fees.

subscription pay-as-you-go pay-by-bandwidth pay-by-traffic public IP address outbound bandwidth inbound bandwidth

Types of public IP addresses

An ECS instance can access the Internet by using the following types of public IP addresses:

- Fixed public IP address

To use an allocated public IP address to access the Internet, select **Assign Public IP Address** when you configure the public bandwidth during instance creation. For more information, see [Create an instance by using the provided wizard](#).

- Elastic IP address (EIP)

An EIP is a public IP address resource that you can purchase and use independently. It provides higher flexibility for Internet access. For more information about the differences between EIPs and fixed public IP addresses and the billing methods of EIPs, see [What is an EIP?](#).

To use an EIP to access the Internet, attach the purchased EIP to an ECS instance. When you configure the public bandwidth, you do not need to select **Assign Public IP Address** to purchase public bandwidth.

Public bandwidth types

After an ECS instance is assigned a fixed public IP address, you can use the instance to access the Internet and process requests from the Internet. Two types of public bandwidth are used.

Public bandwidth type	Charged	Description	Example
<i>Outbound bandwidth</i>	Yes	Bandwidth for outbound traffic from ECS instances	The FTP client downloads resources from ECS instances through public IP addresses.
<i>Inbound bandwidth</i>	No	Bandwidth for inbound traffic to ECS instances	The FTP client uploads resources to ECS instances through public IP addresses.

For more information about the limits on the public bandwidth of ECS instances, see [Limits](#).

Note Alibaba Cloud does not charge any fees for internal bandwidth usage. Within the same region, no fees are charged for traffic between ECS instances or between ECS instances and other Alibaba Cloud services. For example, communication between Alibaba Cloud services that belong to the same VPC is free. If an ECS instance communicates with other Alibaba Cloud services through the Internet, the outbound bandwidth will be billed. For example, you will be billed for communication between an instance from China (Hangzhou) and an instance from China (Shanghai).

Billing methods

Billing methods of public bandwidth include pay-by-bandwidth and pay-by-traffic. Pricing of network bandwidth varies among regions. For more information, see [Pricing](#).

Note You can also purchase a data transfer plan to offset the network traffic. For more information, see [Purchase a data transfer plan with one click](#).

- **Pay-by-bandwidth:** Fees are charged based on the bandwidth that you specify. Your actual outbound bandwidth will not exceed the specified bandwidth.
- **Pay-by-traffic:** Fees are charged based on your actual traffic usage in the unit of USD/GB. You can configure a bandwidth limit for outbound traffic to avoid unmanageable fees incurred by outbound traffic bursts.

Billing examples

The following table describes how public bandwidth is billed on a pay-by-traffic basis. This example uses the China (Hangzhou) region.

Note The unit price here is for reference only. Visit the Pricing page for price details.

Bandwidth billing method	Billing example	Fee (USD)
Pay-by-traffic	<p>This example assumes that the bandwidth is 0.5 Mbit/s.</p> <ul style="list-style-type: none"> • Usage period: 1 hour • Average bandwidth: 0.5 Mbit/s • Unit price: USD 0.1/GB 	<p>The volume of the outbound traffic is $(0.5 \times 60 \times 60) / 1024 / 8$ GB = 0.22 GB.</p> <p>Note In this formula, 1024 is used to convert Mbit into Gbit, and 8 is used to convert Gbit into GB.</p> <p>You must pay the following amount for the hourly traffic: $0.22 \text{ GB} \times 0.1 \text{ USD/GB} = \text{USD } 0.022$.</p>

View billing details

To view the volume of outbound Internet traffic for a pay-as-you-go ECS instance, you can go to the **Billing Management** console and click **Usage Records** to download the usage history of **Elastic Compute Service (ECS) - Pay-As-You-Go**.

Change billing methods

You must use different methods to change the billing method of public bandwidth based on how an ECS instance is billed.

Instance billing method	Conversion of the billing method	Method	Effective time
Subscription	From pay-by-traffic to pay-by-bandwidth	Upgrade configurations of subscription instances	Immediately
	From pay-by-bandwidth to pay-by-traffic	Downgrade the public bandwidths of subscription instances	Immediately
		Downgrade an instance during renewal	From the next billing cycle
Pay-as-you-go	From pay-by-traffic to pay-by-bandwidth	Change the Internet bandwidth of a pay-as-you-go instance	Immediately
	From pay-by-bandwidth to pay-by-traffic	Change the Internet bandwidth of a pay-as-you-go instance	Immediately

7. Snapshot billing

This topic describes the billing methods and billing rules of ECS snapshots, and how to deal with overdue payments. An example of how to calculate the snapshot fee is also provided.

Billing items of snapshots

A snapshot is a backup of the data on a disk at a specific point in time. snapshots are often used for disaster recovery and environment clone. The following table describes the billing items of snapshots.


Billing item		Description	Billing method
Snapshot type	Normal snapshot	Normal snapshots have strong disaster recovery capabilities and are stored in OSS buckets in the same region as the snapshots. An extended period of time is required to create a normal snapshot.	Pay-as-you-go
	Local snapshots	Local snapshots are stored in the same storage cluster as the disks for which the snapshots are created. Local snapshots can be used to perform data backup and disk rollback within seconds. Local snapshots can be created only for enhanced SSDs (ESSDs).	Pay-as-you-go
Snapshot service	Snapshot replication	When a normal snapshot is copied from one region to another, a copy of the normal snapshot is created in another region.	Pay-as-you-go

Billing method


ECS snapshots are billed based on their size and storage duration and use the pay-as-you-go billing method. Billing starts when a snapshot is created and stops when the snapshot is released. The snapshot fee is calculated by billing cycle (each hour). A bill is generated at the end of each settlement cycle, and the corresponding fee is deducted from your account.

Billing rules

Billing item	Billing rule
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Billing item	Billing rule
Storage fees for normal and local snapshots	<p>Snapshots are billed once an hour based on the storage capacity occupied by the snapshots.</p> <p>Snapshot fee = Snapshot unit price × Snapshot size × Billing duration. The following section describes the billing rules of each item in the formula:</p> <ul style="list-style-type: none"> • Snapshot unit price: The unit is USD/GiB/month. You can obtain the price per hour after conversion. For information about snapshot prices in different regions, see the Pricing tab on the Elastic Compute Service page. • Snapshot size: The unit is GiB. You have a free storage quota of 5 GiB each month. <p>The first snapshot of a disk is a full snapshot. Subsequent snapshots of the disk are incremental snapshots. Each incremental snapshot consists only of the data changes since the last snapshot. For more information, see Incremental snapshots.</p> <ul style="list-style-type: none"> • Billing duration: The unit is hours. Billing starts when a snapshot is created and stops when the snapshot is released. A storage duration of less than one hour is calculated as one hour.
Replication fee for snapshots	<p>Replication fee for snapshots = Unit price of snapshot replication × Snapshot size</p> <p>For information about the unit prices of snapshot replication in different regions, see the Pricing tab on the Elastic Compute Service page.</p> <div style="border: 1px solid #ccc; background-color: #e6f2ff; padding: 5px; margin-top: 10px;"> <p> Notice For information about the storage fees of snapshot copies, see the "Storage fees for normal snapshots" item in this table.</p> </div>

Examples of calculating normal snapshot fees

 **Note** The following example is for reference only. You can view your actual snapshot bills on the Bills page in the User Center.

For example, assume that you have three disks in the China (Hangzhou) region in your account. You created a snapshot for each disk at 10:20. The snapshots are 50 GiB, 220 GiB, and 40 GiB in size. If you do not delete these snapshots on the current day, the fees of the three snapshots are calculated in the following way:

- Billing conditions
 - Snapshot size: 50 GiB + 220 GiB + 40 GiB = 310 GiB.
 - If you have not used the 5 GiB free storage quota of this month, the billed snapshot size is 305 GiB.
 - Snapshot unit price: Assume that the pay-as-you-go price for snapshots in the China (Hangzhou) region is USD 0.0200/GiB/month, which is equivalent to USD 0.0000277778/GiB/hour.
 - Billing duration: The period from 10:20 to 11:00 is calculated as an hour. A total of 13 hours are calculated until 23:00 when a bill is generated.

- **Billing calculation**

Snapshot fee = Snapshot unit price × Snapshot size × Billing duration. That is, 305 GiB × USD 0.0000277778/GiB/hour × 13 = USD 0.008472.

- The actual payable amount shown on the billing page is USD 0.008.
- The generated bill records the amount of USD 0.0085.

Overdue payments

If your account balance in the current billing cycle is less than the payable amount of the previous billing cycle, the system sends an SMS or email notification to you.

The snapshot service is suspended 24 hours after your account payments become overdue. After your account has overdue payments:

- In the first 15 days, all existing snapshots are retained, and no automatic snapshots can be created. All automatic snapshots whose retention period is less than 15 days are deleted.
- After 15 days, all snapshots are deleted, except for those that have been used to create disks or custom images. The automatic snapshot policy is also deleted.

References

- [Snapshot overview](#)
- [Reduce snapshot fees](#)
- [Snapshot FAQ](#)

8. Reserved instance billing

Reserved instances are billed separately. This topic describes the payment options and billing details of reserved instances.

Payment options

The following table lists the payment options supported by reserved instances.

Item	All upfront	Partial upfront	No upfront
Qualification	No qualification limits. Anyone that has an Alibaba Cloud account can use this payment option to purchase reserved instances.	No qualification limits. Anyone that has an Alibaba Cloud account can use this payment option to purchase reserved instances.	The availability of this option depends on your ECS usage.
Payment option	Full payment is required upfront. No other fees are charged within the term.	Partial payment is required upfront. An hourly fee is charged within the term.	No upfront payment is required. An hourly fee is charged within the term.
Upfront payment	Deducted upon purchase. The specific amount is subject to the specifications selected on the buy page.	Deducted upon purchase. The specific amount is subject to the specifications selected on the buy page.	N/A.
Hourly fee	N/A.	Reserved instances are billed by second. Bills are generated by hour and paid by month. The specific hourly rate is subject to the specifications selected on the buy page. If the payable amount reaches USD 1,000, the amount is automatically deducted from your account. Any amount less than USD 1,000 is added to the monthly bill.	Reserved instances are billed by second. Bills are generated by hour and paid by month. The specific hourly rate is subject to the specifications selected on the buy page. If the payable amount reaches USD 1,000, the amount is automatically deducted from your account. Any amount less than USD 1,000 is added to the monthly bill.
Currency	USD.	USD.	USD.

Billing details

The term of a reserved instance starts immediately after it is purchased. You are charged based on the payment option that you selected regardless of whether the reserved instance is matched to pay-as-you-go instances. We recommend that you select All Upfront to maximize your savings.

A reserved instance takes effect and is billed starting on the hour of your purchase. The reserved instance expires at 24:00:00 of the term end date. For example, if you purchase a reserved instance with a one-year term at 22:45:00 on May 1, 2020, the reserved instance takes effect and is billed starting from 22:00:00 on May 1, 2020. The reserved instance expires at 24:00:00 on May 2, 2021. If you already have eligible pay-as-you-go instances when you purchase a reserved instance, the reserved instance is applied to offset the bills generated by the pay-as-you-go instances starting from the hour of 22:00 to 23:00 on May 1, 2020 until the reserved instance expires.

9. SCU billing methods

You can use Storage Capacity Units (SCUs) to offset bills of different storage resources, such as disks, Object Storage Service (OSS), Apsara File Storage NAS, and snapshots. SCUs use the subscription billing method. The all-upfront payment option is supported.

Alibaba Cloud SCU storage plan storage cost capacity unit

Billing methods

SCUs use the subscription billing method and are measured by their capacity. You can subscribe to an SCU for 1 month, 2 months, 3 months, 6 months, 12 months, 3 years, or 5 years.

Expiration

After an SCU expires, you cannot use it to offset the bills of pay-as-you-go storage resources. If you have no other SCUs in the same region, those pay-as-you-go resources will be billed on a pay-as-you-go basis.

10. Change the billing method of instances from subscription to pay-as-you-go

This topic describes how to change the billing method of an instance from subscription to pay-as-you-go. After you create a subscription instance, you can change its billing method to pay-as-you-go if you want to pay for only the actual usage of your resources. After the change, make sure that you have sufficient funds in your account. Otherwise, overdue payments will affect the running of your services.


Prerequisites

- The instance for which you want to change the billing method is in the **Running** or **Stopped** state.
- The availability of this feature is dynamically determined based on your ECS usage.

Context

The following content shows the billing methods of related resources after the change:

- The billing method of the following resources is changed to pay-as-you-go:
 - The instance
 - The system disk
 - Data disks attached to the instance
- The billing method for network usage remains unchanged.
- After the billing method is changed, the subscription duration that was offered for reasons such as the ICP filing, failure, or migration from on-premises data centers is automatically invalidated.

 **Note** If the **No Fees for Stopped Instances (VPC-Connected)** feature is enabled and the instance is in the **Stopped** state before the change, the instance will not automatically enter the **No Fees for Stopped Instances (VPC-Connected)** state after its billing method is changed to pay-as-you-go. You must manually restart the instance and then stop it for the instance to enter the **No Fees for Stopped Instances (VPC-Connected)** state.

The following content lists the refund rules for changing the billing method from subscription to pay-as-you-go:

- A refund generated from the billing method change will consume the refund quota. If your account has reached the refund quota, you cannot apply for another refund until the refund record is cleared on the first day of next month. For more information about the refund quota, see [Limits](#).

The refund amount resulting from the billing method change can be calculated based on the number of vCPUs and the remaining hours in the current billing cycle. Example: 1 refund unit =

1 vCPU × 1 hour .

Assume that you have purchased a subscription instance equipped with four vCPUs for six months. Four months later, you change the billing method to pay-as-you-go. In this case, the refund amount for this instance is calculated based on the following formula: $4 \text{ (vCPUs)} \times 60 \text{ (remaining days)} \times 24 \text{ (hours/day)} = 5760 \text{ (refund units)}$.

- If the instance involves renewal or upgrade orders that have not taken effect, a full refund is made. If the orders have already taken effect, only a partial refund is made.

Procedure

1. Log on to the [ECS console](#).
2. In the left-side navigation pane, choose **Instances & Images > Instances**.
3. In the top navigation bar, select a region.
4. Choose one of the following methods to change the billing method of an instance from subscription to pay-as-you-go:
 - Change the billing method of a single instance: Find the target instance, choose **More > Configuration Change > Switch to Pay-As-You-Go** in the **Actions** column.
 - Change the billing method of multiple instances: Select the instances and choose **More > Configuration Change > Switch to Pay-As-You-Go** in the lower part of the page.
5. Read the notes. Read and select *ECS Service Terms* and then click **Switch**.

Result

After the billing method is changed, you can go to the ECS console to view the billing method of the instance:

- On the **Instances** page, the billing method of the instance has been changed to **Pay-As-You-Go** in the **Billing Method** column.
- Click the instance ID to go to the **Instance Details** page. In the left-side navigation pane, click **Disks**. The billing method of the system disk and data disks (if any) is changed to **Pay-As-You-Go** in the **Billing Method** column.

What's next

You can set the auto-release time for the instance to automatically release when you no longer need the instance to stop it from incurring costs. For more information, see [Release an instance](#).

Related information

- [ModifyInstanceChargeType](#)

11. Switch the billing method from pay-as-you-go to subscription


This topic describes how to switch the billing method of your instance from pay-as-you-go to subscription in the ECS console. After you create a pay-as-you-go instance, you can convert its billing method to subscription to have resource reservation and a discounted rate.

subscription pay-as-you-go switch billing methods

Prerequisites

The ECS instance whose billing method you want to switch must meet the following requirements:

- The instance belongs to your account.
- The instance is of none of the following instance types:
 - Instance types in Generation I instance families: t1, s1, s2, s3, m1, m2, c1, and c2.
 - Instance types in the n1, n2, and e3 instance families.

 **Note** For more information about these instance types, see [Phased-out instance types](#).

- The instance cannot be a preemptible instance.
- You have no unpaid order to switch the billing method of the instance.

If you have an unpaid order to switch the billing method of the instance, you must cancel the unpaid order and then place another order to switch the billing method.

- Automatic release is not set for the instance.

If automatic release has been set for an instance, you must disable the automatic release configuration and then switch the billing method. For more information, see [Disable automatic release](#).

- The instance is in the **Running** or **Stopped** state.

Example: An order to switch the billing method has been placed when the ECS instance is in the **Running** or **Stopped** state. However, the instance status changed when the payment was attempted. The preceding requirement is not met. The order fails and the billing method does not change. You can go to the **Billing Management** console and pay for the order when the instance is in the **Running** or **Stopped** state again.

Context

You can switch the billing method of a maximum of 20 instances from pay-as-you-go to subscription at a time.

Procedure

1. Log on to the [ECS console](#).
2. In the left-side navigation pane, choose **Instances & Images > Instances**.
3. In the top navigation bar, select a region.

4. Select one or more pay-as-you-go instances. Click **Switch to Subscription** under the instance list.
5. On the **Switch to Subscription** page, click **Batch Change**.
6. In the dialog box that appears, configure the parameters including:
 - i. **Duration:** You can set the length of service time for the subscription instance. Instances whose billing methods are converted at the same time must have the same length of service time.
 - ii. **Data disk:** If pay-as-you-go data disks are attached to the selected instances, you can set whether to also switch the billing method of the disks to subscription.
7. Click **OK**.
8. Complete the payment as prompted.

12. Change the billing method of a subscription disk

You can use the downgrade feature to change the billing method of a disk from subscription to pay-as-you-go.

Prerequisites


- The billing method of a subscription disk can be changed to pay-as-you-go only when it is used as a data disk.
- The subscription instance to which the subscription disk is attached is in the **Running** or **Stopped** state.

Context

The downgrade feature has the following limits:

- Whether this feature is supported depends on your ECS usage.
- The configurations of only one subscription instance can be downgraded at a time.
- The interval between two consecutive downgrade operations must be at least 5 minutes.

A configuration downgrade may result in a refund. The refund amount is the calculation result of the following formula: Refund amount = Price of the new configurations - Remaining amount of the purchase price before the downgrade.

 **Note** A maximum of three refunds can be made for each instance, including refunds incurred when you downgrade the instance type, downgrade the public bandwidth, or convert subscription disks to pay-as-you-go disks.

Procedure

1. Log on to the [ECS console](#).
2. In the left-side navigation pane, choose **Instances & Images > Instances**.
3. In the top navigation bar, select a region.
4. Find the target instance and click **Upgrade/Downgrade** in the **Actions** column.
5. In the Upgrade/Downgrade Wizard dialog box, choose **Configuration Downgrade > Disk charge type to pay-as-you-go**, and click **Continue**.
6. Select a disk and confirm the refund amount.
7. Select *ECS Service Terms* and click **Downgrade Now**.

Result

By default, after the billing method of a disk is changed to pay-as-you-go, the disk is not released together when its attached instance is released. You can configure whether the disk is released with its attached instance in the ECS console. For more information, see [Release a disk](#).

Related information

- [ModifyDiskChargeType](#)

13. Renew instances

13.1. Overview

When a subscription instance expires, the services it provides may be affected. To continue using the instance, you must renew it within the designated period. Otherwise, instance resources such as vCPUs, memory, and disks are released and their stored data is lost permanently. This topic describes the renewal feature of ECS instances.

subscription renewal manual renewal auto-renewal renewal and configuration downgrade expiration date synchronization billing cycle

Overview

The renewal feature is only applicable to subscription instances. Pay-as-you-go instances do not need to be renewed, but you must make sure that your linked bank card, PayPal, or Paytm (India) account balance is sufficient to cover relevant costs.

If you renew the instance before it expires, the instance continues to work normally and retains all of its resources. For information about the status of a subscription instance after it expires, see [Subscription](#).

You cannot cancel a renewal order for a subscription instance after the payment is made. The following section describes features related to instance renewal:

- **Manual renewal:** You can manually renew the instance in the ECS console at any time before the instance is automatically released. For more information, see [Manually renew an instance](#).
- **Auto-renewal:** After the auto-renewal feature is enabled, the instance is automatically renewed before it expires. You can enable this feature to reduce management costs and prevent instances from being automatically released. For more information, see [Enable auto-renewal](#).
- **Renewal and configuration downgrade:** If current configurations of the ECS instance exceed your requirements, you can downgrade instance configurations when you renew the instance to minimize costs. New configurations take effect starting from the next billing cycle. For more information, see [Downgrade instance configurations during renewal](#).
- **Non-renewal:** You can choose not to renew an instance upon expiration. In this case, the instance is stopped upon expiration and you will receive an expiration notification only once. You can modify the renewal settings at any time before the instance is stopped.

The following table lists the differences among three renewal methods.

Renewal method	Configuration change	Renewal time
Manual renewal	Not supported.	Before the ECS instance is automatically released.

Renewal method	Configuration change	Renewal time
Auto-renewal	Not supported.	<p>From the third day before the instance expires.</p> <p>If automatic payment deduction fails on the first attempt, Alibaba Cloud will continue attempting to deduct the payment until either the deduction is successful or the instance expires. Alibaba Cloud will attempt to renew the instance on the following days:</p> <ul style="list-style-type: none"> • The day before expiration • The expiration day • The seventh day and fifteenth day after expiration
Renewal and configuration downgrade	Supported.	<ul style="list-style-type: none"> • Within the 15 days before the ECS instance expires. • After the instance expires but before the instance is automatically released. <p>For example, if you have a subscription instance that is set to expire on April 30, 2019, you are able to renew the instance and downgrade the instance configurations from April 16, 2019 to April 30, 2019. If you fail to renew the instance during this period, the instance enters the Expired and Being Recycled state upon expiration. You are still able to renew the instance and downgrade the instance configurations from May 1, 2019 to May 15, 2019. If you do not renew the instance during this period, it is automatically released on May 16, 2019.</p>

Manual renewal

When you manually renew an instance, only the base public bandwidth of the instance is renewed. The temporarily upgraded public bandwidth is not renewed. For information about how to upgrade the base public bandwidth, see [Upgrade configurations of subscription instances](#).

You can select one of the following renewal periods when you manually renew an instance:

- One month, two months, three months, four months, five months, six months, seven months, eight months, and nine months

- One year

The status of a subscription ECS instance after expiration depends on whether the auto-renewal feature is enabled. The following table describes the effect of manual renewal on instances in different states:

Auto-renewal	Time period after expiration	Instance state	Effect of manual renewal
Disabled	Within the 15 days after expiration	The instance is stopped.	<p>After the instance is manually renewed, its next billing cycle starts from the day that the instance is renewed.</p> <p>For example, if your instance was stopped at 00:00:00 on May 10, 2017 but you renewed it for one month at 08:09:35 on May 23, 2017, the new billing cycle of the instance is from 08:09:35 on May 23, 2017 to 00:00:00 on June 24, 2017.</p>
	15-29 days after expiration	The instance and its resources are released or unbound.	Manual renewal cannot be performed.
	30 days after expiration	The instance and its resources were released or unbound.	Manual renewal cannot be performed.
Enabled	Within the 15 days after expiration	The instance works properly.	<p>After the instance is manually renewed, its next billing cycle starts from the day that it expired.</p> <p>For example, if your instance is set to expire at 00:00:00 on April 25, 2017, but you renewed it for one month on May 9, 2017, the new billing cycle of the instance is from 00:00:00 on April 25, 2017 to 00:00:00 on May 25, 2017.</p>
	15-29 days after expiration	The instance is stopped.	<p>After the instance is manually renewed, its next billing cycle starts from the day that the instance is renewed.</p> <p>For example, if your instance was stopped at 00:00:00 on May 10, 2017 but you renewed it for one month at 08:09:35 on May 23, 2017, the new billing cycle of the instance is from 08:09:35 on May 23, 2017 to 00:00:00 on June 24, 2017.</p>

Auto-renewal	Time period after expiration	Instance state	Effect of manual renewal
	30 days after expiration	The instance and its resources are released or unbound.	Manual renewal cannot be performed.

Auto-renewal

You can enable auto-renewal on the Create Instance, Instances, or Renew page. Auto-renewal cannot be enabled for subscription ECS instances that are expired. A subscription instance will be automatically renewed for a specific period of time if auto-renewal is enabled for the instance on one of the following pages:

- When you enable auto-renewal on the Create Instance page:
 - If the instance subscription period is one month, two months, three months, or six months, ECS automatically renews the instance for one month whenever the subscription ends until you disable auto-renewal.
 - If the instance subscription period is one year, ECS automatically renews the instance for one year whenever the subscription ends until you disable auto-renewal.
- When you enable auto-renewal for existing instances on the Instances page, you can set the auto-renewal period to one month or one year. You can also modify the auto-renewal period for an existing instance on the Instances page.
- When you enable auto-renewal for existing instances on the Renew page, you can set the auto-renewal period to one month, two months, three months, six months, or one year. You can also modify the auto-renewal period for an existing ECS instance on the Renew page.

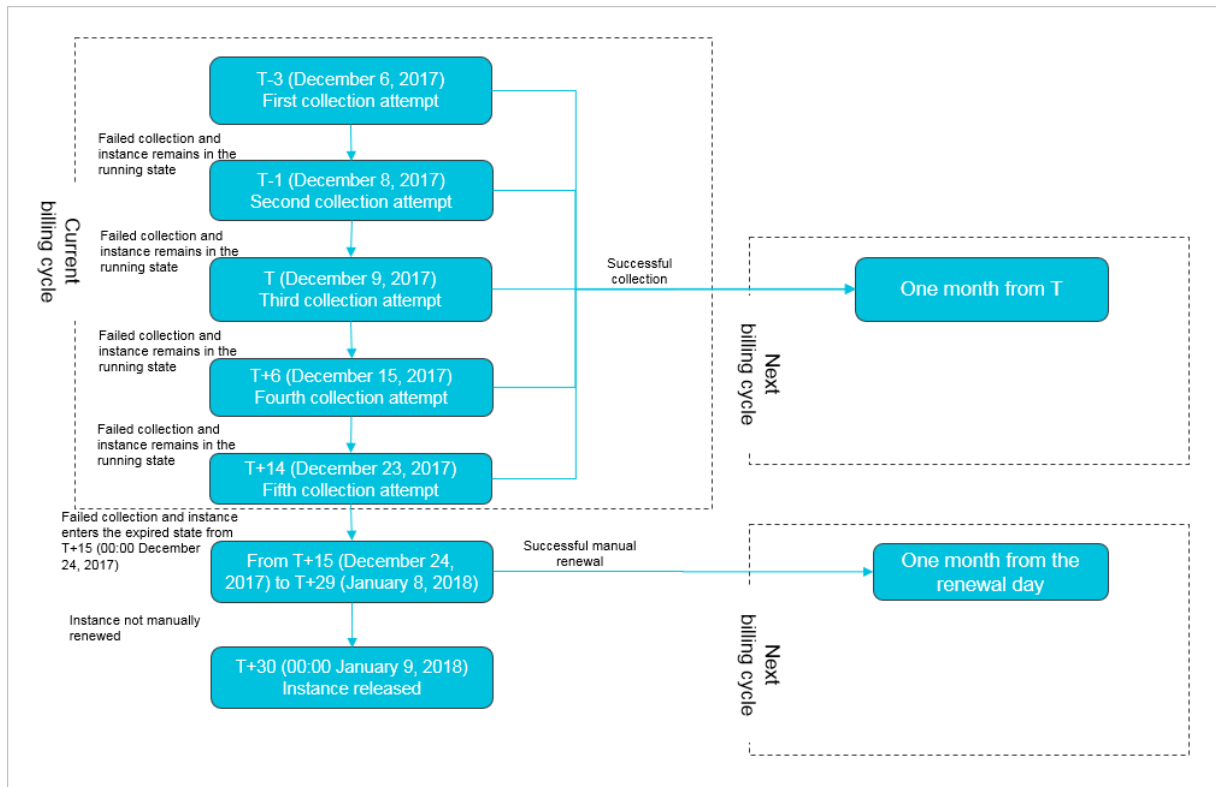
When the subscription period ends, ECS will renew the instance for the period that you selected until you disable auto-renewal. For example, if you select three months, ECS will renew the instance for three months each time before it expires until you disable auto-renewal.

After auto-renewal is enabled, the instance will be automatically renewed before it expires.

- Alibaba Cloud sends an email reminder on the seventh day before the instance expires (T-7).
- Alibaba Cloud deducts the payment for the next billing cycle from your bank card, PayPal, or Paytm (India) account on the third day before the instance expires (T-3). If the payment deduction fails, Alibaba Cloud will continue attempting to deduct the payment again up to four times on the following days until the deduction succeeds: the day before the instance expires (T-1), the day that the instance expires (T), the seventh day after the instance expires (T+6), and the fifteenth day after the instance expires (T+14).
 - Starting from 08:00:00 (UTC+8) on the deduction day, Alibaba Cloud performs auto-renewal in succession on all ECS instances that are set to expire. This means that the actual renewal time can be anytime between 08:00:00 (UTC+8) and 18:00:00 (UTC+8).
 - If the payment is deducted before T+14, the next billing cycle of the instance starts on the day the instance is expired.
 - If the instance fails to be renewed during the five preceding deduction attempts, the instance will enter the Stopped state on T+15. After the instance enters the Stopped state, you cannot log on to or connect to the instance. In this case, you must manually renew the instance. If the instance is not manually renewed within the 15 days after it enters the Stopped state, the instance is released and its data is lost permanently.

- If the auto-renewal payment deduction fails, Alibaba Cloud will send you an email reminder. To avoid instances from being unexpectedly stopped, check whether you have received a reminder.
- If you have completed manual renewal before the auto-renewal payment deduction is made, auto-renewal will not be performed for the current billing cycle.

Assume that you purchased an instance at 10:00:00 on November 8, 2017, with a subscription period of one month and auto-renewal enabled. The instance is set to expire at 00:00:00 on December 9, 2017. The following figure shows the actions performed in the first auto-renewal round. For information about status changes that occur after subscription resources expire, see [Subscription](#).



Renewal and configuration downgrade

You can use the renewal and configuration downgrade feature to complete the following tasks:

- Downgrade the instance type of a subscription instance.

Note If you perform the renewal and configuration downgrade operation after the instance expires but before the instance is automatically released, the instance type cannot be changed.

- Change the billing method of data disks from subscription to pay-as-you-go.
- Change the billing method for network usage.
- Adjust the public bandwidth.

You can select one of the following renewal periods when you renew an instance and downgrade its configurations:


- One month, two months, three months, four months, five months, six months, seven months,

eight months, and nine months

- One year

When you use the renewal and configuration downgrade feature, take note of the following items:

- After the instance is renewed and its configurations are downgraded, the new configurations will take effect starting from the next billing cycle. Current configurations continue until the end of the current billing cycle.
- If you perform the following operations when you renew an instance and downgrade its configurations, you must restart the instance within the first seven days of the next billing cycle for the new configurations to take effect. If you restart the instance on the seventh day of the new billing cycle, the instance will use the configurations before the downgrade for the first six days.

 **Notice** To restart an ECS instance, you must use the ECS console or call the `RebootInstance` operation. You cannot restart an instance from within the operating system.

- Change the instance type.
- Change the public bandwidth value of a classic network-type instance from 0 Mbit/s to a non-zero value for the first time.
- After you renew an instance and downgrade its configurations, you cannot perform the following operations within the remainder of the current billing cycle:
 - [Upgrade configurations of subscription instances](#)
 - [Resize disks](#)
 - [Resize partitions and file systems of Linux data disks](#)
 - [Resize disks online \(Windows\)](#)

13.2. Manually renew an instance

This topic describes how to manually renew a subscription instance. Before a subscription instance is automatically released, you can manually renew the instance to extend its service duration.

subscription renewal manual renewal billing cycle

Context

Manual renewal only renews the basic Internet bandwidth of an instance, but not its temporarily upgraded Internet bandwidth. For information about how to upgrade the basic Internet bandwidth, see [Upgrade configurations of subscription instances](#).

Options for renewal duration vary based on the number of instances that you select for renewal. For more information, see the purchase page.

Renew one instance

1. Log on to the [ECS console](#).
2. In the left-side navigation pane, choose **Instances & Images > Instances**.

3. In the top navigation bar, select a region.
4. Find the instance you want to renew and click **Renew** in the **Actions** column.
5. Select a value for the renewal duration.
6. Select *ECS Terms of Service* and click **Create Order**.
7. Follow the instructions to complete the payment.

Renew multiple instances

1. Log on to the [ECS console](#).
2. In the left-side navigation pane, choose **Instances & Images > Instances**.
3. In the top navigation bar, select a region.
4. Select multiple ECS instances you want to renew.
5. At the bottom of the page, click **Renew**.
6. On the page that appears, click **Batch Change**.
7. Select a renewal duration for the instances, and click **OK**.
8. Select *ECS Terms of Service* and click **Create Order**.
9. Follow the instructions to complete the payment.

Related information

- [RenewInstance](#)

13.3. Enable auto-renewal

Compared with manual renewal, auto-renewal helps minimize management costs and prevent service interruptions of ECS instances if you fail to renew the instances. This topic describes how to enable the auto-renewal feature.

subscription renew auto-renewal billing cycle

Context

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For more information about the fund deduction process of auto-renewal, see [Overview](#).

Enable auto-renewal on the Create Instance page

You can enable auto-renewal on the Create Instance page, as shown in the following figure. For more information about how to create an ECS instance, see [Create an instance by using the provided wizard](#).

Duration	<input checked="" type="radio"/> 1 Month	<input type="radio"/> 2 Months	<input type="radio"/> 3 Months	<input type="radio"/> 6 Months	<input type="radio"/> 1 Year
Auto-renewal	<input checked="" type="checkbox"/> Enable Auto-renewal ?				

Enable auto-renewal on the Instances page

On the Instances page, you can enable auto-renewal for one or more ECS instances or change the renewal period.

1. Log on to the [ECS console](#).
2. In the left-side navigation pane, choose **Instances & Images > Instances**.
3. In the top navigation bar, select a region.
4. Select a method to enable auto-renewal.
 - Enable auto-renewal for one ECS instance: Find the instance and choose **More > Instance Settings > Configure Auto-renewal** in the Actions column.
 - Enable auto-renewal for one or more ECS instances: Select the instances. In the lower part of the instances list, choose **More > Instance Settings > Configure Auto-renewal**.
5. In the Configure Auto-renewal dialog box that appears, turn on **Auto-renewal** and set **Renewal Duration**. Click **OK**.

Enable auto-renewal on the Renew page

On the Renew page, you can enable auto-renewal for one or more ECS instances or change the renewal period.

1. Log on to the [ECS console](#).
2. In the top navigation bar, choose **Billing > Renew**.
3. In the left-side navigation pane, click **Elastic Compute Service**.
4. Click the **Manual** tab. If the nonrenewal option is set for some instances, click the **Nonrenewal** tab to modify the configuration.
5. Select a method to enable auto-renewal.
 - Enable auto-renewal for one ECS instance: Find the instance and click **Enable Auto Renewal** in the Actions column.
 - Enable auto-renewal for one or more ECS instances: Select the instances. In the lower part of the instances list, click **Enable Auto Renew**.
6. Set **Unified Auto Renewal Cycle** and click **Auto Renew**.
Click the **Auto** tab. The previously selected instances are displayed in the list, indicating that auto-renewal is enabled.

13.4. View auto-renewal status

If the auto-renewal is enabled for a subscription instance, the instance is automatically renewed before it expires. This topic describes how to view the auto-renewal status of an ECS instance.



subscription renew auto-renewal billing cycle

View the auto-renewal status of an ECS instance on the Instances page

View the auto-renewal status of an ECS instance on the Instances page

1. Log on to the [ECS console](#).
2. In the left-side navigation pane, choose **Instances & Images > Instances**.
3. In the top navigation bar, select a region.
4. Find the ECS instance and view its auto-renewal status in the **Automatic Renewal** column.

If a renewal period (such as 1 month) is displayed in the **Automatic Renewal** column, auto-renewal is enabled for the instance.

 **Note** If the **Automatic Renewal** column is not displayed, click  in the upper-right corner, select **Automatic Renewal**, and click **OK**.

View the auto-renewal status of an ECS instance on the Billing Management page

1. Log on to the [ECS console](#).
2. In the top navigation bar, choose **Billing Management > Renew**.
3. In the left-side navigation pane, click **Elastic Compute Service**.
4. Click the **Auto-Renew** tab. If the ECS instance is listed on the **Auto-Renew** tab, the auto-renewal feature is enabled for the instance.

13.5. Disable auto-renewal

If you do not need the instance to be automatically renewed when its current billing cycle ends, we recommend that you disable the auto-renewal feature in advance. If auto-renewal is enabled, the system automatically attempts to deduct fees from your account from the third day before the instance expires. Disable auto-renewal before the fund deduction if needed.

subscription renew auto-renewal billing cycle

Context

When you disable auto-renewal, you can set the Nonrenewal function.

- If you do not select **Nonrenewal** for an instance, the instance is manually renewed through **Manual Renewal**.
- If you select **Nonrenewal** for an instance, the instance will not be renewed upon expiration. You can manually renew the ECS instance before it expires. However, the ECS instance is stopped immediately after it expires. Before that, you will be reminded only once to change your selection.

Disable auto-renewal on the Instances page

1. Log on to the [ECS console](#).
2. In the left-side navigation pane, choose **Instances & Images > Instances**.
3. In the top navigation bar, select a region.
4. Select a method to disable auto-renewal.
 - **Disable auto-renewal for one ECS instance:** Find the instance and choose **More > Instance**

Settings > Configure Auto-renewal in the **Actions** column.

- **Disable auto-renewal for one or more ECS instances:** Select the instances. In the lower part of the instances list, choose **More > Instance Settings > Configure Auto-renewal**.
5. In the **Configure Auto-renewal** dialog box that appears, turn off **Auto-renewal** and choose whether to select **Not Renew**. Click **OK**.

Enable manual renewal on the Renew page

1. Log on to the [ECS console](#).
2. In the top navigation bar, choose **Billing > Renew**.
3. In the left-side navigation pane, click **Elastic Compute Service**.
4. Click the **Auto-Renew** tab.
5. Select a method to enable manual renewal.
 - **Enable manual renewal for one ECS instance:** Find the instance and click **Modify Auto-Renew** in the **Actions** column.
 - **Enable manual renewal for one or more ECS instances:** Select the instances. In the lower part of the instances list, click **Edit Auto Renewal**.
6. Select **Disable Auto-Renew**. Click **OK**.

Click the **Manual** tab. The previously selected instances are displayed in the list, indicating that manual renewal is enabled.

13.6. Downgrade instance configurations during renewal

This topic describes how to downgrade the configurations of a subscription instance when you renew the instance. The new configurations take effect starting from the next billing cycle. The original configurations remain unchanged for the remainder of the current billing cycle.


Prerequisites

You can renew an instance and downgrade instance configurations during the following periods of time:

- Within the 15 days before the ECS instance expires.
- After the instance expires but before the instance is automatically released.


Context

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-  **Notice** To restart an ECS instance, you must use the ECS console or call the `RebootInstance` operation. You cannot restart an instance from within the operating system.
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 -
- ○ [Upgrade configurations of subscription instances](#)
 - [Overview](#)
 - [Resize partitions and file systems of Linux data disks](#)
 - [Resize disks online \(Windows\)](#)

Procedure

1. Log on to the [ECS console](#).
2. In the left-side navigation pane, choose **Instances & Images > Instances**.
3. In the top navigation bar, select a region.
4. Find the target subscription instance. In the **Actions** column, click **Upgrade/Downgrade**.
5. In the Upgrade/Downgrade Wizard dialog box that appears, select **Renewal and Downgrade** and click **Continue**.
6. On the Renewal and Downgrade page, complete the following operations:
 - i. Select an instance type. The instance types to which you can downgrade the target instance are displayed on the page.

 **Note** If the instance that you renew and downgrade is expired but not automatically released, you cannot change the instance type of the instance.

- ii. Set the restart time of the instance. This operation is required only when you change instance types. The restart time cannot be later than the seventh day of the next billing cycle. We recommend that you set the restart time to a point in time during off-peak hours.

iii. (Optional) Set the public bandwidth.

Current billing method	Supported operation
Pay-by-bandwidth	<ul style="list-style-type: none"> ▪ Reduce the bandwidth value. <p>Reducing the bandwidth value to 0 Mbit/s has the following impacts on public IP addresses:</p> <ul style="list-style-type: none"> ▪ For classic network-type ECS instances, public IP addresses will not be changed. ▪ For VPC-type ECS instances, public IP addresses will be released when the next billing cycle begins. <ul style="list-style-type: none"> ▪ Change the billing method to pay-by-traffic and set the peak bandwidth.
Pay-by-traffic	Set the peak bandwidth.

iv. (Optional) Change the billing method of data disks from subscription to pay-as-you-go. If you do not change the billing method, the data disks and the instance will have the same billing cycle starting on the next billing cycle.

v. Set the renewal duration.

7. Read and select *ECS Service Terms* and then click **Create Order**.

8. Complete the payment.

References

You can perform the following operations to change the configurations of resources in real time:

- Downgrade the instance type of a subscription instance. For more information, see [Downgrade the instance types of subscription instances](#).
- Downgrade the public bandwidth of a subscription instance. For more information, see [Downgrade the public bandwidths of subscription instances](#).
- Change the billing method of a created disk. For more information, see [Change billing methods of disks](#).
- VPC-type ECS instances are associated with Elastic IP addresses (EIPs) to access the Internet. You can use the Bandwidth Adjustment feature to change the peak bandwidth and billing method of an EIP. For more information, see [Modify the bandwidth of an Elastic IP address](#).

14. Billing FAQ

This topic provides answers to commonly asked questions about ECS billing.

pricing billing question commonly asked questions FAQ account instance image custom image commercial availability of Alibaba Cloud Marketplace images subscription Alibaba Cloud Marketplace image Block Storage snapshot network P2V Cloud Migration tool

- Account FAQ
 - [Why am I unable to purchase pay-as-you-go instances?](#)
 - [How are invoices issued for pay-as-you-go instances?](#)
- FAQ about refunds for instance configuration downgrades
 - [How is the refundable amount for an instance configuration downgrade calculated?](#)
 - [Why is the actual refundable amount for an instance configuration downgrade less than that I expected?](#)
- FAQ about instance billing
 - Billing of subscription instances
 - [What can I do if the billing method of an instance cannot be changed from subscription to pay-as-you-go?](#)
 - Billing of pay-as-you-go instances
 - [How is the billable time of a pay-as-you-go instance calculated? For example, if I create a pay-as-you-go ECS instance at 2019-12-12 01:30:00 and release it at 2019-12-12 02:00:00, is the instance billed for a period of half an hour or an hour?](#)
 - [Will I still be charged for a pay-as-you-go instance after it is stopped either manually or due to an overdue payment?](#)
 - [What can I do if an order to change the billing method of an instance from pay-as-you-go to subscription cannot be placed?](#)
 - [How long after an order is paid does it take to change the billing method of the corresponding instances from pay-as-you-go to subscription?](#)
 - [What can I do if the billing method of an instance cannot be changed from pay-as-you-go to subscription?](#)
 - [When I change the billing method of an instance from pay-as-you-go to subscription, will the billing method for network usage of the instance also change?](#)
 - [I have an unpaid order to change the billing method of an instance from pay-as-you-go to subscription. If I upgrade the configurations of the instance, will the order still be valid?](#)
 - [Why am I unable to change a pay-as-you-go instance into a subscription one?](#)

- **No Fees for Stopped Instances (VPC-Connected) feature**
 - **To which types of ECS instances is the No Fees for Stopped Instances (VPC-Connected) feature applicable?**
 - **Can I retain the compute and network resources of a stopped pay-as-you-go instance after I enable the No Fees for Stopped Instances (VPC-Connected) feature?**
 - **Can ECS instances that are stopped from within their operating systems enter the No Fees for Stopped Instances (VPC-Connected) state?**
 - **Can ECS instances that use local disks enter the No Fees for Stopped Instances (VPC-Connected) state?**
 - **When I attempted to start an instance immediately after it entered the No Fees for Stopped Instances (VPC-Connected) state, an OperationConflict error was reported. Why?**
 - **When I called the StartInstance operation to start an instance in the No Fees for Stopped Instances (VPC-Connected) state, an OperationDenied.NoStock error was reported. Why?**
 - **I set Stop Mode of an instance to No Charges After Instance Is Stopped. The instance was stopped and entered the No Fees for Stopped Instances (VPC-Connected) state. When I restarted this instance, its public IP address changed. How do I prevent the IP address from changing?**
- **Instance billing**
 - **Can I release ECS instances on my own?**
 - **When I try to change the billing method of a disk in an ECS instance, an error message is returned indicating that I have already changed the billing method of the disk three times. What does this mean?**
 - **Why has a pay-as-you-go bill been generated for my instance? What are the charges on the bill?**
 - **Why am I unable to change the billing method of an instance from pay-as-you-go to subscription?**
 - **Why am I unable to change the billing method of an instance from subscription to pay-as-you-go?**
- **FAQ about image billing**
 - **Billing of public images**
 - **Do I need to pay for Red Hat images when I use them to create ECS instances?**
 - **How are Windows licenses billed? Are they billed based on countries and the numbers of cores?**
 - **Billing of custom images**
 - **How am I charged when I copy a custom image?**
 - **I am creating an ECS instance. Why is the total instance cost displayed when I select a custom image higher than that displayed when I select a public image?**

- **Billing of Alibaba Cloud Marketplace images**
 - [Are Alibaba Cloud Marketplace images refundable?](#)
 - [After Alibaba Cloud Marketplace images become commercially available, are free Alibaba Cloud Marketplace images still available?](#)
 - [An instance was created from an Alibaba Cloud Marketplace image. When I renew the instance or upgrade its configurations, do I need to make further payments for the image?](#)
 - [After an instance created from an Alibaba Cloud Marketplace image is released, can I continue to use that image for free when I purchase a new ECS instance?](#)
 - [I created an ECS instance from an Alibaba Cloud Marketplace image and then created a custom image from the instance. Do I need to pay for the custom image when I use it to create an ECS instance?](#)
 - [If I copy a custom image derived from an Alibaba Cloud Marketplace image to another region to create an ECS instance, do I need to pay for the custom image?](#)
 - [If I share a custom image derived from an Alibaba Cloud Marketplace image to Account B, does Account B need to pay to use the custom image to create an ECS instance?](#)
 - [Will I be charged if I use an Alibaba Cloud Marketplace image or a custom image derived from an Alibaba Cloud Marketplace image to replace a system disk?](#)
 - [Will I be charged if I replace the system disk of an ECS instance that uses an Alibaba Cloud Marketplace image?](#)
- **Billing of subscription Alibaba Cloud Marketplace images**
 - [What are yearly, monthly, and weekly subscription Alibaba Cloud Marketplace images?](#)
 - [In what ECS instances can subscription images be used?](#)
 - [How do I purchase a subscription image? Can I purchase it separately?](#)
 - [How do I pay for a subscription image?](#)
 - [Can I use a subscription image after it expires? How do I continue to use an expired subscription image?](#)
 - [Can I request a refund if I no longer need a subscription image that I purchased?](#)
 - [How are fees settled after a refund is made?](#)
 - [Can a subscription image be converted to a pay-as-you-go image?](#)
 - [Can I replace a subscription image with an image of another type or vice versa? How are fees calculated?](#)
 - [Will I be charged when I use a custom image created based on a subscription image? How will the created custom image be affected if the subscription image expires?](#)
- **FAQ about Block Storage billing**
 - [How is an enhanced SSD \(ESSD\) billed?](#)
 - [How do I purchase a standard SSD? What are the pricing options for I/O optimized instances and standard SSDs?](#)
 - [How is a separately purchased pay-as-you-go data disk billed?](#)
- **FAQ about snapshot billing**
 - [The snapshots from which existing disks or custom images were created will be retained 15 days after a payment becomes overdue. Will I continue to be charged for these snapshots, which will cause the overdue amount to increase?](#)

- **FAQ about network usage billing**
 - **How is the network usage of ECS instances billed?**
 - **How is the inbound and outbound traffic of pay-as-you-go instances billed?**
 - **What is the difference between the pay-by-bandwidth and pay-by-traffic billing methods?**
 - **Can I adjust the specified peak bandwidth?**
 - **Will I be charged for the traffic generated by ECS instances under attack?**
 - **Pay-by-traffic billing for network usage of subscription instances**
 - **Can I select the pay-by-traffic billing method for network usage when I purchase a subscription instance?**
 - **How am I charged when I select the pay-by-traffic billing method for network usage?**
 - **Can I change the billing method for network usage of a subscription instance from pay-by-bandwidth to pay-by-traffic?**
 - **Can I adjust the peak traffic bandwidth for an ECS instance at any time?**
 - **If the pay-by-traffic billing method is used for a subscription instance, can the instance continue to use the public bandwidth service when a payment becomes overdue due to insufficient account balance?**
 - **If the pay-by-traffic billing method is used for a subscription instance, will I be notified when a payment becomes overdue in my account?**
 - **If the pay-by-traffic billing method is used for a subscription instance, can I upgrade the instance configurations after a payment becomes overdue in my account?**
 - **If the pay-by-traffic billing method is used for a subscription instance, does the public bandwidth service of the instance automatically resume after I settle overdue payments?**
 - **How is traffic priced after I change the billing method for network usage of a subscription instance from pay-by-bandwidth to pay-by-traffic?**

Why am I unable to purchase pay-as-you-go instances?

You may be unable to purchase pay-as-you-go instances due to one of the following reasons:

- You have not passed real-name verification. To purchase ECS instances in a region inside mainland China, you must pass [real-name verification](#).
- The number of vCPUs to be consumed by the selected pay-as-you-go instance type exceeds the relative remaining vCPU-based quota of your account.
- Resources of the selected instance type are not available for purchase within the selected region. Try again later or go to the [ECS Instance Types Available for Each Region](#) page to view instance types available in each region.

How are invoices issued for pay-as-you-go instances?

You can apply for invoices for your pay-as-you-go instances. A single invoice is provided based on your monthly statement. Go to the [Billing Management](#) console to apply for invoices.

How is the refundable amount for an instance configuration downgrade calculated?

Alibaba Cloud will determine how to calculate the refundable amount for an instance configuration downgrade based on the payment currency specified on your order to purchase the instance.

- If the payment currency is USD, the price difference-based method is used to calculate the refundable amount.
- If the payment currency is a currency other than USD, such as Malaysian ringgit (MYR) or Indian rupee (INR), the ratio-based method is used.

Remaining value: Alibaba Cloud linearly amortizes the value of each subscription ECS instance over its subscription duration. The value of each subscription instance diminishes over time. The value that a subscription instance has is its remaining value. If you cancel the subscription of an instance after it has been in use for a certain period of time, the remaining value of the instance can be refunded to you. For example, assume that you purchased a 30-day subscription instance at the price of USD 30. If you cancel the subscription of the instance after it has been in use for 10 days, the remaining value of the instance of USD 20 will be refunded to you.

When you used a currency other than USD to pay for the instance during purchase, the amount on the instance purchase order was converted to your payment currency at the prevailing exchange rate at the time of payment. Therefore, this exchange rate will be considered during the calculation of the instance remaining value. As opposed to the price difference-based method, the ratio-based method ensures that refunds will be made based on the exchange rate at the time of payment. This prevents the amount refunded for instance configuration downgrades from being affected by exchange rate fluctuations.

 Note

- Instance configuration downgrades do not change the lifecycles of instances.
- If you have used different currencies to purchase an instance and upgrade its configurations, the instance cannot have its configurations downgraded.

The following examples demonstrate how to use the price difference-based method to calculate the refundable amounts for instance configuration downgrades:

- Example 1: The configurations of a new instance are downgraded after it has been in use for some period of time.

Assume that on the first day of a calendar month, you purchased a 30-day subscription instance (Instance A) at the price of USD 1/day and paid USD 30 in total. On the 11th day of the calendar month, you initiate a configuration downgrade for the instance. The price of the new instance configurations is USD 0.5/day. The refundable amount for the downgrade is calculated in the following manner:

- Calculate the remaining value M of Instance A.

$$M = \text{USD } 30 \times (30 \text{ days} - 10 \text{ days}) / 30 \text{ days} = \text{USD } 20$$

- Calculate the value N of the new instance configurations.

The instance lifecycle remains unchanged before and after the downgrade. You can use the new instance configurations only for the remaining 20 days. The following formula is used to calculate N: $N = \text{USD } 0.5/\text{day} \times 20 \text{ days} = \text{USD } 10$.

- Calculate the refundable amount.

$$\text{Refundable amount} = M - N = \text{USD } 20 - \text{USD } 10 = \text{USD } 10$$

In this example, Alibaba Cloud will refund USD 10 for the instance configuration downgrade.

- Example 2: The configurations of a new instance have been upgraded after the instance was in use for some period of time, and are downgraded after another period of time.

Assume that on the first day of a calendar month, you purchased a 30-day subscription instance (Instance B) at the price of USD 1/day and paid USD 30 in total. On the 11th day of the calendar month, you upgraded the configurations of the instance. The price of the new instance configurations was USD 2/day. You paid the price difference P between the original and new instance configurations. The following formula is used to calculate P: $P = (\text{USD } 2/\text{day} - \text{USD } 1/\text{day}) \times (30 \text{ days} - 10 \text{ days}) = \text{USD } 20$. On the 21st day of the calendar month, you initiate a configuration downgrade for the instance. The price of the new instance configurations is USD 0.5/day. The refundable amount is calculated in the following manner:

- i. Calculate the remaining value M of Instance B.

The configurations of the instance have been upgraded. Therefore, the remaining value of the instance consists of the remaining value M1 from instance purchase and the remaining value M2 from the configuration upgrade. The following formulas are used to calculate M1 and M2:

- $M1 = \text{USD } 30 \times (30 \text{ days} - 20 \text{ days}) / 30 \text{ days} = \text{USD } 10$
- $M2 = \text{USD } 20 \times (20 \text{ days} - 10 \text{ days}) / 20 \text{ days} = \text{USD } 10$

$$M = M1 + M2 = \text{USD } 20$$

- ii. Calculate the value N of the new instance configurations.

The instance lifecycle remains unchanged before and after the downgrade. You can use the new instance configurations for the remaining 10 days. The following formula is used to calculate N: $N = \text{USD } 0.5/\text{day} \times 10 \text{ days} = \text{USD } 5$.

- iii. Calculate the refundable amount.

$$\text{Refundable amount} = M - N = \text{USD } 20 - \text{USD } 5 = \text{USD } 15$$

In this example, Alibaba Cloud will refund USD 15 for the instance configuration downgrade.

The following examples demonstrate how to use the ratio-based method to calculate the refundable amount in MYR for instance configuration downgrades:

- Example 1: The configurations of a new instance are downgraded after it has been in use for some period of time.

Assume that on the first day of a calendar month, you placed an order to purchase a 30-day subscription instance (Instance A) and the order amount was USD 30. The MYR to USD exchange rate was 1:10 at the time of your purchase, and you paid MYR 300 in total. On the 11th day of the calendar month, you initiate a configuration downgrade for the instance. The price of the new instance configurations is USD 0.5/day. The refundable amount for the downgrade is calculated in the following manner:

- i. Calculate the remaining value M of Instance A.

$$M = \text{MYR } 300 \times (30 \text{ days} - 10 \text{ days}) / 30 \text{ days} = \text{MYR } 200$$

- ii. Calculate the refund ratio R.

$$R = (\text{USD } 1/\text{day} - \text{USD } 0.5/\text{day}) / \text{USD } 1/\text{day} = 1/2$$

- iii. Calculate the refundable amount.

$$\text{Refundable amount} = M \times R = \text{MYR } 200 \times 1/2 = \text{MYR } 100$$

In this example, Alibaba Cloud will refund MYR 100 for the instance configuration downgrade.

- Example 2: The configurations of a new instance have been upgraded after the instance was in use for some period of time, and are downgraded after another period of time.

Assume that on the first day of a calendar month, you placed an order to purchase a 30-day subscription instance (Instance B) and the order amount was USD 30. The MYR to USD exchange rate was 1:10 at the time of your purchase. You paid MYR 300 in total. On the 11th day of the calendar month, you upgraded the configurations of instance. The price of the new instance configurations was USD 2/day. The MYR to USD exchange rate was 1:11 at the time of upgrade. You paid the price difference P between the original and new instance configurations. The following formula is used to calculate P: $P = (\text{USD } 2/\text{day} - \text{USD } 1/\text{day}) \times (30 \text{ days} - 10 \text{ days}) \times 11 = \text{MYR } 220$. On the 21st day of the calendar month, you initiate a configuration downgrade for the instance. The price of the new instance configurations is USD 0.5/day. The refundable amount is calculated in the following manner:

- i. Calculate the remaining value M of Instance B.

The configurations of the instance have been upgraded. Therefore, the remaining value of the instance consists of the remaining value M1 from instance purchase and the remaining value M2 from the configuration upgrade. The following formulas are used to calculate M1 and M2:

- $M1 = \text{USD } 30 \times (30 \text{ days} - 20 \text{ days}) / 30 \text{ days} \times 10 = \text{MYR } 100$
- $M2 = \text{USD } 20 \times (20 \text{ days} - 10 \text{ days}) / 20 \text{ days} \times 11 = \text{MYR } 110$

$$M = M1 + M2 = \text{MYR } 210$$

- ii. Calculate the refund ratio R.

$$R = (\text{USD } 2/\text{day} - \text{USD } 0.5/\text{day}) / \text{USD } 2/\text{day} = 3/4$$

- iii. Calculate the refundable amount.

$$\text{Refundable amount} = M \times R = M1 \times R + M2 \times R = \text{MYR } 100 \times 3/4 + \text{MYR } 110 \times 3/4 = \text{MYR } 157.5$$

In this example, Alibaba Cloud will refund MYR 157.5 for the instance configuration downgrade.

Why is the actual refundable amount for an instance configuration downgrade less than that I expected?

If you purchased the instance at a discounted rate or the instance price changed before the downgrade, the actual refundable amount may be less than that you expected.

For example, assume that you purchased a 30-day subscription instance at the price of USD 1/day, and that the MYR to USD exchange rate was 1:10 at the time of your purchase. You paid MYR 300 for the instance. 10 days later, you initiate a configuration downgrade for the instance, and the price of the new instance configurations is USD 0.5/day. The refundable amount is MYR 100 as calculated based on the original price of USD 1/day. However, if you purchased the instance at a discounted rate or if the instance price changes before the downgrade, the actual refundable amount is calculated based on the non-discounted or new price. For example, assume that the instance price has changed to USD 0.7/day before the downgrade. The refundable amount is calculated in the following manner:

1. Calculate the remaining value M of Instance A.

$$M = \text{MYR } 300 \times (30 \text{ days} - 10 \text{ days}) / 30 \text{ days} = \text{MYR } 200$$

2. Calculate the refund ratio R.

$$R = (\text{USD } 0.7/\text{day} - \text{USD } 0.5/\text{day}) / \text{USD } 1/\text{day} = 1/5$$

3. Calculate the refundable amount.

$$\text{Refundable amount} = M \times R = \text{MYR } 200 \times 1/5 = \text{MYR } 40$$

In this example, the actual refundable amount is MYR 40 instead of MYR 100.

What can I do if the billing method of an instance cannot be changed from subscription to pay-as-you-go?

You may be unable to change the billing method of an instance from subscription to pay-as-you-go due to one of the following reasons:

- The instance is in a state that does not support changes to the billing method. For example, the instance has an unpaid order.
- The instance is in the **Expired** state.
- The instance information has changed. For example, the bandwidth of the instance has been temporarily upgraded.

If one of the preceding errors is reported, adjust the instance accordingly. If the problem persists, [submit a ticket](#).

How is the billable time of a pay-as-you-go instance calculated? For example, if I create a pay-as-you-go ECS instance at 2019-12-12 01:30:00 and release it at 2019-12-12 02:00:00, is the instance billed for a period of half an hour or an hour?

Pay-as-you-go instances are billed at increments of one second. Payments are made at the top of each hour. The billable time of pay-as-you-go instances is automatically calculated. For example, if you create a pay-as-you-go instance at 2019-12-12 01:30:00 and release it at 2019-12-12 02:00:00, the hour from 01:00:00 to 02:00:00 is a billing cycle. The billable time is 1,800 seconds, which is calculated based on the following formula: (30 minutes) × 60 = 1800 seconds.

Will I still be charged for a pay-as-you-go instance after it is stopped either manually or due to an overdue payment?

Stopped due to an overdue payment: A pay-as-you-go instance will be automatically stopped when a payment becomes overdue for it, and stop incurring charges. Instances will not always stay in the Stopped state after they are stopped due to overdue payments. For more information, see [Pay-as-you-go](#).

Manually stopped: You can stop a running pay-as-you-go instance from the ECS console or by calling the StopInstance operation. When the instance is stopped, its state changes to Stopped. Billing of stopped pay-as-you-go instances depends on their network types.

- **VPC:** You can enable the No Fees for Stopped Instances (VPC-Connected) feature.
 - After the feature is enabled, billing of pay-as-you-go instances in VPCs will start when the instances are created, stop when the instances enter the Stopped state, and resume when the instances are started again. When a pay-as-you-go instance enters the Stopped state, the No Fees for Stopped Instances (VPC-Connected) feature stops only the vCPUs, memory, and public IP address of the instance from incurring charges. Other resources such as disks and EIP of the instance will continue to incur charges. For more information, [No Fees for Stopped Instances \(VPC-Connected\)](#).
 - If the No Fees for Stopped Instances (VPC-Connected) feature is disabled, pay-as-you-go instances continue to incur charges when they are stopped.

- Classic network: ECS instances in the classic network will be billed regardless of whether they are in the Stopped state.

What can I do if an order cannot be placed to change the billing method of an instance from pay-as-you-go to subscription?

You may be unable to place the order due to one of the following reasons:

- The instance is in a state that does not support changes to the billing method. For example, the instance has an unpaid order.
- Changes to the billing method are not allowed due to an upcoming scheduled automatic release.
- Changes to the billing method are not allowed because the instance information has changed.
- A previous order to change the billing method of the instance has not been paid.

If one of the preceding errors is reported, adjust the instance accordingly.

How long after an order is paid does it take to change the billing method of an instance from pay-as-you-go to subscription?

The billing method of your ECS instance will be changed after the order is paid. It can take up to four seconds to change the billing method of 20 instances. After the change is completed, you can see that the billing method of your instance has been changed to Subscription in the console.

What can I do if the billing method of an instance cannot be changed from pay-as-you-go to subscription?

[Submit a ticket.](#)

When I change the billing method of an instance from pay-as-you-go to subscription, will the billing method for network usage of the instance also change?

No, the billing method for network usage of the instance will not change. Only the billing method of instances and disks can be changed from pay-as-you-go to subscription. For information about how to change the billing method for network usage, see [Overview of instance upgrade and downgrade](#).


I have an unpaid order to change the billing method of an instance from pay-as-you-go to subscription. If I upgrade the configurations of the instance, will the order still be valid?

An order is created when you change the billing method of your instance from pay-as-you-go to subscription. You must pay for the order to complete the change. If you upgrade the configurations of the instance before the order is paid, the order payment cannot be completed because the instance components are different and the original order no longer matches. If you still want to change the billing method, you must cancel the unpaid order and place a new order.

Why am I unable to change a pay-as-you-go instance to a subscription one?

The ECS instance whose billing method you want to change must meet the following requirements:

- The instance belongs to your account.
- The instance is of none of the following instance types:
 - Instance types in Generation I instance families: t1, s1, s2, s3, m1, m2, c1, and c2.
 - Instance types in the n1, n2, and e3 instance families.

 **Note** For more information about these instance types, see [Phased-out instance types](#).

- The instance cannot be a preemptible instance.
- You have no unpaid order to switch the billing method of the instance.

If you have an unpaid order to switch the billing method of the instance, you must cancel the unpaid order and then place another order to switch the billing method.

- Automatic release is not set for the instance.

If automatic release has been set for an instance, you must disable the automatic release configuration and then switch the billing method. For more information, see [Disable automatic release](#).

- The instance is in the **Running** or **Stopped** state.

Example: An order to switch the billing method has been placed when the ECS instance is in the **Running** or **Stopped** state. However, the instance status changed when the payment was attempted. The preceding requirement is not met. The order fails and the billing method does not change. You can go to the Billing Management console and pay for the order when the instance is in the **Running** or **Stopped** state again.

To which types of ECS instances is the No Fees for Stopped Instances (VPC-Connected) feature applicable?

The No Fees for Stopped Instances (VPC-Connected) feature is applicable to the ECS instances that meet all of the following requirements:

- The network type of the instances is VPC.
- The instances use the pay-as-you-go billing method.
- The instances do not use local disks.

For more information, see [No Fees for Stopped Instances \(VPC-Connected\)](#).

Can I retain the compute and network resources of a stopped pay-as-you-go instance after I enable the No Fees for Stopped Instances (VPC-Connected) feature?

With the No Fees for Stopped Instances (VPC-Connected) feature enabled, you still can configure a pay-as-you-go instance to enter or not to enter the No Fees for Stopped Instances (VPC-Connected) state when you stop the instance. If you configure the instance not to enter the No Fees for Stopped Instances (VPC-Connected) state, its compute and network resources will be retained when it is stopped.

If you only need to stop an instance for a few minutes before it is restarted, we recommend that you perform one of the following operations to configure the instance not to enter the No Fees for Stopped Instances (VPC-Connected) state: Call the `StopInstance` operation with `StoppedMode` set to `KeepCharging`, or set `Stop Mode` to `Retain Instance and Continue Charging After Instance Is Stopped` when you stop the instance from the ECS console.

Can ECS instances that are stopped from within their operating systems enter the No Fees for Stopped Instances (VPC-Connected) state?

No, ECS instances that are stopped from within their operating systems cannot enter the No Fees for Stopped Instances (VPC-Connected) state. Only ECS instances that you stop by using one of the following methods can enter the No Fees for Stopped Instances (VPC-Connected) state:

- Using the ECS console.
- Using ECS API.

Can ECS instances that use local disks enter the No Fees for Stopped Instances (VPC-Connected) state?

No, ECS instances that use local disks cannot enter the No Fees for Stopped Instances (VPC-Connected) state.

When I attempted to start an instance immediately after it entered the No Fees for Stopped Instances (VPC-Connected) state, an `OperationConflict` error was reported. Why?

When an instance enters the No Fees for Stopped Instances (VPC-Connected) state, its compute resources (CPUs and memory) and public IP address are recycled. If you only need to stop an instance for a few minutes before it is restarted, we recommend that you set `StoppedMode` to `KeepCharging` to keep the instance from entering the No Fees for Stopped Instances (VPC-Connected) state.


When I called the `StartInstance` operation to start an instance in the No Fees for Stopped Instances (VPC-Connected) state, an `OperationDenied.NoStock` error was reported. Why?

When an instance enters the No Fees for Stopped Instances (VPC-Connected) state, its compute resources are recycled. If the inventory of resources is insufficient, an `OperationDenied.NoStock` error is reported when you attempt to start the instance. We recommend that you try again later.

I set Stop Mode of an instance to No Charges After Instance Is Stopped. The instance was stopped and entered the No Fees for Stopped Instances (VPC-Connected) state. When I restarted this instance, its public IP address changed. How do I prevent the IP address from changing?

When an instance enters the No Fees for Stopped Instances (VPC-Connected) state, its public IP address is released. When the instance is restarted, it is assigned a new public IP address.

To retain the original public IP address, you can convert this IP address to an Elastic IP address before you stop the instance. For more information, see [Convert the public IP address of a VPC-type instance to an Elastic IP address](#) and [ConvertNatPublicIpToEip](#).

 **Notice** After the IP address is converted to an Elastic IP address, you will be charged for the Elastic IP address while the instance is in the No Fees for Stopped Instances (VPC-Connected) state. For more information about how Elastic IP addresses are billed, see [Billing overview](#).

Can I release ECS instances on my own?

Yes, you can manually release or schedule the automatic release of pay-as-you-go instances. However, you cannot release subscription instances on your own.

If you have further questions, [submit a ticket](#).

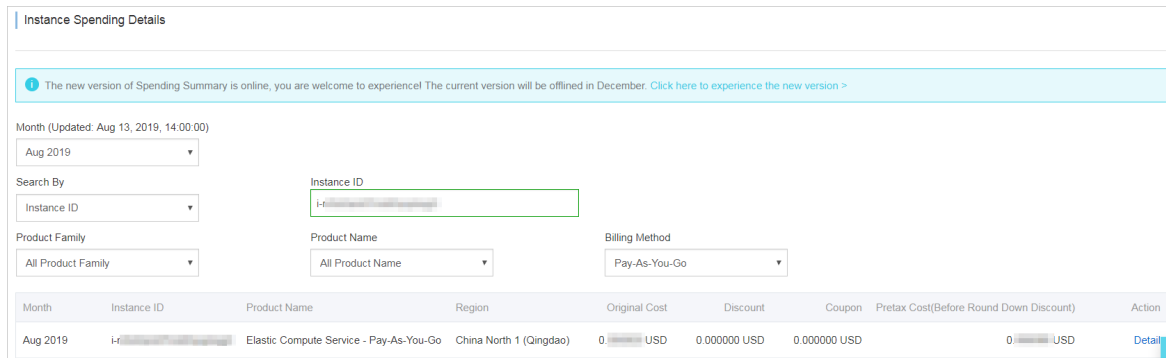
When I try to change the billing method of a disk in an ECS instance, an error message is returned indicating that I have already changed the billing method three times. What does this mean?

Each ECS instance can only be downgraded a maximum of three times. Downgrade operations include downgrades of instance specifications, bandwidth downgrades, and the change of the disk billing method from subscription to pay-as-you-go.

Why has a pay-as-you-go bill been generated for my instance? What are the charges on the bill?

You can copy your instance ID and perform the following steps to view the bill details:

1. Log on to the [ECS console](#).
2. In the top navigation bar, choose **Billing > User Center**.
3. In the left-side navigation pane, choose **Spending Summary > Instance Spending Detail**.
4. Set the search criteria and click Search.



Why am I unable to change the billing method of an instance from pay-as-you-go to subscription?

The billing method of instances of the following instance types cannot be changed from pay-as-you-go to subscription:

- Instance types of Generation One: t1, s1, s2, s3, m1, m2, c1, and c2
- Instance types in the n1, n2, and e3 instance families

Note For more information about the preceding instance types, see [Phased-out instance types](#).

If your pay-as-you-go instances are not of the preceding instance types, make sure that the instances meet the requirements to change their billing method to subscription. For more information, see [Switch the billing method from pay-as-you-go to subscription](#).

Why am I unable to change the billing method of an instance from subscription to pay-as-you-go?

Your ECS usage determines whether the billing method of your subscription instances can be changed to pay-as-you-go. Before you change the billing method of a subscription instance, make sure that the instance is in the **Running** or **Stopped** state.

Do I need to pay for Red Hat images when I use them to create ECS instances?

Yes, you must pay for Red Hat images when you use them to create ECS instances. Red Hat images are paid images. For pricing details, see the ECS pricing page.

How are Windows licenses billed? Are they billed based on countries and the numbers of cores?

Windows licenses are free of charge in regions inside mainland China but are charged in regions outside of mainland China. The prices of Windows licenses vary depending on countries, regions, and the number of vCPUs. For pricing details, see the ECS pricing page.

How am I charged when I copy a custom image?

You must perform the following operations to copy a custom image:

1. Copy the snapshot from which the custom image was created from the source region to the destination region.

2. Create a custom image from the snapshot in the destination region.

You may be charged the following fees for the preceding operations:

- Fees for traffic between the two regions. Alibaba Cloud does not charge you for cross-region traffic. For the latest billing details, see the official Alibaba Cloud website for announcements.
- The copied snapshot consumes snapshot capacity. Snapshot capacity is billed. For more information, see [Snapshot billing](#).

I am creating an ECS instance. Why is the total instance cost displayed when I select a custom image higher than that displayed when I select a public image?

This situation may occur in the following circumstances:

- The custom image contains data disk snapshots. When such an image is selected, the costs of the data disks cause the total cost of the instance to be higher than that of an instance created from a public image.
- The custom image was created based on a paid public image such as Windows Server or RHEL.

Are Alibaba Cloud Marketplace images refundable?

Alibaba Cloud Marketplace images support money-back guarantee within a certain period of time based on the Alibaba Cloud Marketplace rules. However, you will be ineligible for a refund in the following situations:

- You have deployed the purchased image to an ECS instance within the money-back guarantee period.
- You have deployed the purchased image to an ECS instance before your application for a refund for this image is approved.
- You can receive refunds only for images that have not been used.

Are any free Alibaba Cloud Marketplace images available after Alibaba Cloud Marketplace images are commercially available?

Free Alibaba Cloud Marketplace images are still available. However, you must purchase them at a price of USD 0.00 before you can use them.

I have an instance created from an Alibaba Cloud Marketplace image. Do I need to make further payments when I renew the instance or upgrade its configurations?

No, you do not need to make any further payments. You can use a purchased image to create as many instances as you like.

I have an ECS instance created from an Alibaba Cloud Marketplace image. After the instance is released, can I continue to use that image free of charge when I purchase a new ECS instance?

Yes, you can continue to use that image free of charge when you purchase a new ECS instance.

I created an ECS instance from an Alibaba Cloud Marketplace image and then created a custom image from the instance. Do I need to pay for the custom image when I use it to create an ECS instance?

Yes, you must pay the original price of the Alibaba Cloud Marketplace image.

If I copy an Alibaba Cloud Marketplace image that I bought to another region to create an ECS instance, do I need to pay for the image?

Yes, you must pay the original price of the Alibaba Cloud Marketplace image.

I created an ECS instance from an Alibaba Cloud Marketplace image and then created a custom image from that instance. If I share the custom image to Account B, does Account B need to pay for the custom image when it uses this image to create an ECS instance?

Yes, Account B must pay the original price of the Alibaba Cloud Marketplace image.

Is a fee charged if I replace a system disk by using an Alibaba Cloud Marketplace image or an image derived from an Alibaba Cloud Marketplace image?

It depends. If the current image of your ECS instance is a different version of the replacement image, no fees are charged. Otherwise, a fee is charged.

My ECS instance is using an Alibaba Cloud Marketplace image. Is a fee charged if I replace the system disk of the instance?

No, no fees are charged if you replace the system disk of the instance.

What are yearly, monthly, and weekly subscription Alibaba Cloud Marketplace images?

Yearly, monthly, or weekly subscription Alibaba Cloud Marketplace images are images that are purchased from Alibaba Cloud Marketplace and billed on a subscription basis. These images are developed and maintained by image providers, who are responsible for both pre-sales consultation and after-sales services. In this topic, these images are collectively referred to as subscription images.

On which ECS instances can I use a subscription image?


A subscription image can only be used on a subscription instance with the same subscription duration.

How do I purchase a subscription image? Can I purchase it separately?


No, you cannot purchase a subscription image separately.

You can use one of the following methods to purchase a subscription image:

- When you create an ECS instance, set Billing Method to Subscription, select an Alibaba Cloud Marketplace image, and then specify a subscription duration by setting Duration.

 **Note** In this case, you must pay for both the instance and image. The instance is created upon successful payment for both the image and instance.

- To use a subscription image on an existing subscription ECS instance, you can use this image to replace the operating system of the instance. In this case, you must select the image subscription duration based on the instance subscription duration. For more information, see [Replace the system disk \(non-public images\)](#).

 **Note** In this case, you only need to pay for the image.

How do I pay for subscription images?

Subscription images require payment upfront. The subscription duration of a subscription image must be the same as that of the subscription instance on which the image is used.

Image prices are set by the image providers.

Can I use a subscription image after it expires? How do I continue to use it?

When a subscription image expires, it cannot be used unless it is renewed in a timely manner.

You cannot renew a subscription image separately. If you want to continue using the image, you must renew the image together with the corresponding ECS instance. You can resume use of the image after it is renewed.

After I purchase a subscription image, can I request a refund if I no longer want to use it?

The image provider will determine whether to make a refund. You can consult the image provider before you purchase the image.

What can I expect when a refund is made?

If a refund is available, the image provider will make the refund based on your usage.

Can a subscription image be converted to a pay-as-you-go image?

Subscription images cannot be converted to pay-as-you-go images. This conversion function is currently under development for release in the future. Stay updated on the official Alibaba Cloud website.

Can I replace a subscription image with an image of another type or vice versa? How is the fee calculated?

Yes, you can replace images when you replace system disks of ECS instances. You can make the following replacements:

- Replace an image of another type (such as public image, custom image, or shared image) with a subscription image. After the image is replaced, the system will calculate the actual cost based on the image cost and the remaining subscription duration of the ECS instance.
- Replace a subscription image with an image of another type (such as public image, custom image, or shared image). If the image provider allows for refunds, a refund will be made based

on your actual usage.

- Replace Subscription Image A with Subscription Image B. If a refund is available after the image is replaced, the refund will be made based on the refund policy. The actual cost of Image B will be calculated based on the image price and the remaining subscription duration of the ECS instance.

Is a fee charged for a custom image derived from a subscription image? How will the custom image be affected if the subscription image expires?

When you use a custom image derived from a subscription image to create an instance or replace a system disk, you are re-ordering the subscription image on Alibaba Cloud Marketplace. The custom image will not be affected regardless of whether the original subscription image expires.

How are enhanced SSDs billed?

Enhanced SSDs support both subscription and pay-as-you-go billing methods. For more information, see the [Pricing](#) page.

How do I purchase a standard SSD? What are the pricing options for I/O optimized instances and standard SSDs?

For pricing details, see the [Pricing](#) page.

How is a separately purchased pay-as-you-go data disk billed?

A pay-as-you-go data disk is billed by the hour. Note that if your account balance is insufficient, the services of the data disk will be suspended.

The snapshots from which existing disks or custom images were created will be retained 15 days after a payment becomes overdue. Will I continue to be charged for these snapshots, which will cause the overdue amount to increase?

No, you will not continue to be charged for the snapshots.

For example, assume that you have an overdue payment of USD 0.1. After the 15-day retention period, the snapshots from which no existing disks or custom images were created will be deleted. The snapshots from which existing disks or custom images were created will be retained, and you will not continue to be charged for these snapshots. To use these retained snapshots, you must first settle the overdue payment but you do not have to pay for the snapshots again.

How is the network usage of ECS instances billed?

For more information, see [Billing methods of public bandwidth](#).

How is the inbound and outbound traffic of pay-as-you-go instances billed?

Traffic between ECS instances or between ECS instances and other Alibaba Cloud services within the same local area network (LAN) is free of charge. Traffic between ECS instances and the Internet is billed based on the following rules:

- Inbound Internet traffic is free of charge. Inbound Internet traffic refers to traffic from the Internet to ECS instances, such as traffic that is generated when you download resources from the Internet to your ECS instances or when your users upload resources to your ECS instances by using an FTP client.
- Outbound Internet traffic is billed. Outbound Internet traffic refers to traffic from ECS instances to the Internet, such as traffic that is generated when your ECS instances provide external access or when your users download internal resources from your ECS instances by using an FTP client.

For more information about bandwidth billing, see [Billing methods of public bandwidth](#).

What is the difference between the pay-by-bandwidth and pay-by-traffic billing methods?

If you select pay-by-bandwidth as the billing method for network usage, you are charged based on the specified bandwidth. Your actual outbound bandwidth will not exceed the specified bandwidth.

If you select pay-by-traffic as the billing method for network usage, you are charged based on the actual volume of generated traffic. To prevent out-of-control fees incurred from traffic bursts, you can set a peak bandwidth for outbound Internet traffic.

For more information, see [Billing methods of public bandwidth](#).

Can I adjust the specified peak bandwidth?

Yes, you can adjust the specified peak bandwidth. For more information, see [Overview of instance upgrade and downgrade](#).

Will I be charged for the traffic generated by ECS instances under attack?

You will not be charged for the inbound Internet traffic generated by ECS instances under attack, but will be charged for the outbound Internet traffic.

We recommend that you use Alibaba Cloud Security services such as Server Guard to reinforce the security of your ECS instances.

Can I select the pay-by-traffic billing method for network usage when I purchase a subscription instance?

Yes, you can select the pay-by-traffic billing method for network usage when you purchase a subscription instance. For more information, see [Create an instance by using the provided wizard](#).

For more information about the pay-by-traffic billing method, see the [ECS pricing](#) page.

How am I charged when I select the pay-by-traffic billing method for network usage?

Pay-by-traffic is a pay-as-you-go billing method in which fees are charged based on the actual volume of traffic. Payments are settled at the top of each hour. To keep services running properly, make sure that your account balance is sufficient. To prevent out-of-control fees incurred from traffic bursts, you can set a peak traffic bandwidth.

Can I change the billing method for network usage of a subscription instance from pay-by-bandwidth to pay-by-traffic?

Yes, you can change the billing method for network usage of a subscription instance from pay-by-bandwidth to pay-by-traffic by using the bandwidth downgrade feature. However, you can make this change only a limited number of times. For more information, see [Downgrade the public bandwidths of subscription instances](#).

You can also use the renewal and downgrade feature to change the billing method for network usage. The new configurations do not take effect until the next subscription duration starts. For more information, see [Downgrade instance configurations during renewal](#).

Can I adjust the peak traffic bandwidth for an ECS instance at any time?

Yes, you can adjust the peak traffic bandwidth for an ECS instance at any time by using the bandwidth downgrade feature. After you set the peak traffic bandwidth to a smaller value, the new value takes effect immediately. A maximum of three refunds can be made for each instance. Exercise caution when you downgrade the configurations of an instance.

If you downgraded the configurations of a subscription instance when you renewed it, you cannot upgrade or downgrade the instance configurations again until the new subscription duration starts.

If the pay-by-traffic billing method is used for a subscription instance, can the instance continue to use the public bandwidth service when a payment becomes overdue due to insufficient account balance?

Overdue payments do not affect the running of subscription instances, but do cause the pay-by-traffic public bandwidth service to be stopped, preventing the instances from accessing the Internet. You can continue to use the public bandwidth service only after you settle the overdue payment. To keep the service running properly, make sure that your account balance is sufficient.

If the pay-by-traffic billing method is used for a subscription instance, will I be notified when a payment becomes overdue in my account?

Yes, you will be notified by SMS. To keep services running properly, make sure that your account balance is sufficient.

If the pay-by-traffic billing method is used for a subscription instance, can I upgrade the instance configurations after a payment becomes overdue in my account?

No, you can upgrade the instance configurations only after you settle the overdue payment.

If the pay-by-traffic billing method is used for a subscription instance, does the public bandwidth service of the instance automatically resume after I settle overdue payments?

If the public bandwidth service was stopped due to an overdue payment, the service will automatically resume when the overdue payment is settled.

How is traffic priced after I change the billing method for network usage of a subscription instance from pay-by-bandwidth to pay-by-traffic?

When you change the billing method for network usage of your subscription instance from pay-by-bandwidth to pay-by-traffic, you are billed for network usage based on the actual volume of traffic. Payments are settled at the top of each hour. For pricing details, see the [ECS pricing](#) page.