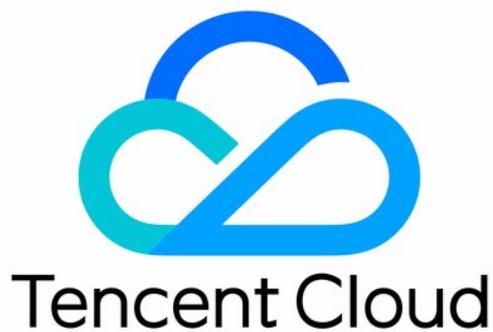


# Cloud Virtual Machine

## 操作指南

### Product Introduction



## Copyright Notice

©2013-2018 Tencent Cloud. All rights reserved.

Copyright in this document is exclusively owned by Tencent Cloud. You must not reproduce, modify, copy or distribute in any way, in whole or in part, the contents of this document without Tencent Cloud's the prior written consent.

## Trademark Notice



All trademarks associated with Tencent Cloud and its services are owned by Tencent Cloud Computing (Beijing) Company Limited and its affiliated companies. Trademarks of third parties referred to in this document are owned by their respective proprietors.

## Service Statement

This document is intended to provide users with general information about Tencent Cloud's products and services only and does not form part of Tencent Cloud's terms and conditions. Tencent Cloud's products or services are subject to change. Specific products and services and the standards applicable to them are exclusively provided for in Tencent Cloud's applicable terms and conditions.

# Contents

## 操作指南

### Instances

Change CVM Specifitaion

Restart Instances

Reinstall System

Shutdown Instances

Instance Expires

Renew Instances

Log into Windows Instances

Log into Linux Instances

Instance Metadata

Configure Instances

### Images

Create Custom Images

Copy Images

Share Custom Images

Cancel Image Sharing

Delete Custom Images

Import Images

### Monitoring and Alarms

Get Monitoring Statistics

Create Alarm Polices

# 操作指南

## Instances

# Change CVM Specifitaion

Last updated : 2017-12-08 17:45:21

### Note:

When the local disk is used as the data disk or system disk, hardware (CPU, memory) configuration upgrade/downgrade is unavailable.

When the cloud disk is used as the data disk or system disk, hardware (CPU, memory) configuration adjustment is available.

The configuration upgrade and downgrade mentioned below are in the case where the cloud disk is used as the system disk or data disk.

## 1. Configuration upgrade

When your need to upgrade the CVM hardware configuration as your business expands, you can adjust the configuration on console. For all CVM types, configuration upgrade becomes effective immediately. That is, when you upgrade the configuration and pay for the possible costs, the CVM runs immediately with the new configuration. Unlimited number of configuration upgrades.

For details, refer to [Adjust CVM Instance Configuration](#)

## 2. Configuration downgrade

When your need to downgrade the CVM hardware configuration as your business shrink, you can adjust the configuration on console. For different types of CVMs, specific downgrade modes vary:

### 2.1. Postpaid CVMs

Postpaid CVM instances can be degraded any time without limits.

For details, refer to [Adjust CVM Instance Configuration](#)

# Restart Instances

Last updated : 2017-09-29 00:04:44

Reboot is a necessary method to maintain CVM. Rebooting CVM instances is equivalent to restarting operating systems of local computers. It is recommended that users reboot instances using the reboot operation provided by Tencent Cloud rather than running reboot command in instances (such as restart command in Windows and Reboot command in Linux). Generally speaking, it takes only a few minutes to reboot your instances after the reboot operation is performed, but instances are unable to provide services during rebooting. Therefore, please make sure the CVM has stopped receiving service requests before rebooting.

Since the physical characteristics of instances are not changed after the reboot, the Public IP address and Private IP address of, and any data stored in the instances will not be altered.

Rebooting instances will not start a new billing period. The length of time for use of postpaid instance will be kept, which will not affect its price range.

## Use console to reboot instances

- 1) Open [CVM console](#).
- 2) To reboot a CVM instance running solely, click "Reboot" on the action bar to the right side.
- 3) To reboot CVM instances running in batch, check all the CVMs to be rebooted, and click "More" - "Reboot" on the top of the list. Reasons will be given for CVMs that cannot be rebooted.

## Use API to reboot instances

Please refer to [RestartInstances API](#).

# Reinstall System

Last updated : 2017-12-15 17:24:13

System reinstallation enables instances to recover to a newly started status. It is a recovery method when CVM instances are suffering software failures. CVM instances support reinstallation of different types of systems. Whether you choose to change to a Linux series system or a Windows series system, Tencent Cloud will offer various-sized system disks to you.

It should be noted that reinstalling the system will result in loss of all contents of **system disks**. Data in data disks will not be affected, but need to be re-recognized. Therefore, in case that system operation data need to be retained, it is strongly recommended that you [Create Custom Image] (/doc/product/213/4942) before reinstalling the system and decide whether to use the image for reinstallation.

## Sizes of system disks of different operating systems

- If the newly purchased Linux CVM comes with a cloud block storage, it can support a system disk of 20GB - 50GB.
- If the newly purchased Linux CVM comes with a local disk, it can support a system disk of 20GB.
- A newly purchased Windows CVM with any type of hard disk supports a system disk of 50GB.

## Charges for system disks

- For Linux instance system disks, the first 20GB of Tencent Cloud is free of charge. If the system disk supports capacity adjustment (i.e. if it is a Cloud Block Storage), the part beyond 20GB will be charged as per the charging standard of Cloud Block S
- For Windows instance system disks, the first 50GB of Tencent Cloud is free of charge. Since Windows instances do not support system disk capacity adjustment, no fees will be charged for system disks of Windows instances.

## Use console to reinstall system

- 1) Open [CVM Console](#).
- 2) For CVM instances that requires system reinstallation, click "More" - "Reinstall System" on the action bar to the right side.

3) In the pop-up box of system reinstallation, select the image used by the current machine or other images.

4) If other operating systems are needed, choose from the images provided by Tencent Cloud. Click "Reinstall System".

Note:

- Do not perform other operations during system disk reinstallation.
- The data in current system disks cannot be recovered after system disk reinstallation.
- The data in data disks will be retained and will not be affected after system disk reinstallation, which however need to be mounted manually before use.

## Questions about the switching between Windows system instances and Linux system instances

### **Can the system disk of an old user's Linux CVM that comes with a local disk be scaled out to 20GB?**

For a Linux CVM that comes with a local disk of 8GB, the system disk can be scaled out to 20GB by reinstalling the system.

### **A user has purchased a Linux CVM that comes with an over-20GB Cloud Block Storage. How the charges are calculated if the user reinstalls the operating system and changes it to Windows?**

If a user purchases a Linux CVM that comes with an over-20GB Cloud Block Storage, and then changes the operating system to Windows, the charges will be calculated based on the billing mode:

- If the CVM is based on an annual or monthly plan, a refund will be made (exclusive of the amount of voucher used in payment) or the price will be lowered according to the payment conditions.
- If the CVM is based on charge-by-quantity, the calculation of configuration charge for the part exceeding 20GB of the system disk will be stopped (i.e. the system disk will be free of charge afterwards) after the operating system is changed to Windows;

### **A user has purchased a Windows CVM that comes with a Cloud Block Storage. How the charges are calculated if the user reinstalls the operating system and changes it to Linux?**

Since the current system disk does not support capacity reduction, when a 50GB Windows Cloud Block Storage is changed to Linux, the capacity shall be kept and corresponding fees for the Cloud Block

Storage shall be paid. (The first 20GB is free of charge, and fees for another 30GB shall be paid). See [Hard Disk Prices](#) for details

# Shutdown Instances

Last updated : 2017-12-15 17:04:15

Shutdown instance is equivalent to the shutdown operation of local computers (such as shutdown command in Windows system and Linux system). The following instance attributes are modifiable only if the instance is in the shutdown state:

- Instance configuration (CPU, MEM)
- The size of Cloud Block Storage mounted on the instance
- Reset Password
- Load Key

When you shut down a CVM instance,

- the instance will be shut down with all services stopped. The state of instance will first change to shutting-down and then shutdown completed after it has been shut down.
- all the storage of the instance will remain connected to the instance, and all data are saved.
- data in memory will be lost while the instance is being shut down.
- all the services associated with the instance as well as their associated relationships are maintained, including [public IP](#), [private IP](#), [EIP](#) and [Classiclink](#).
- If the instance belongs to a [Backend Server Cluster of a CLB Instance](#), it will stop providing services. If a health check policy is configure for this CLB instance, this CVM instance will be blocked. If no health check policy is configured, the client may receive 502 error. For more information, please see [Health Check](#).
- If the instance is in [Auto Scaling Group](#), the Auto Scaling service will mark shutdown instance as poor performance, move the same out of Auto Scaling group and launch replacement instance. For more information, please see [auto scaling documentation](#).

## Shutting Down Instances on Console

- 1) Log in to [CVM Console](#).
- 2) To shut down one running CVM instance, click "Shutdown" on the action bar to the right side.
- 3) To shut down multiple running CVM instances, check all the CVMs to be shut down, and click **More - Shutdown** on the top of the list. Reasons will be given for CVMs that cannot be shut down.

## Shutting Down Instances via API

Please refer to [StopInstances API](#).

## Follow-up actions

To change the instance type, see [Adjust the Instance Configuration](#).

To reset password, see [Login Password](#).

To load keys, see [SSH Key](#).

# Instance Expires

Last updated : 2018-01-03 18:27:15

Different from postpaid instances, prepaid instance cannot be terminated by users. After a certain time following the its end of life cycle, it will be automatically terminated by the system. Prepaid CVM instances are shut down on the expiry date and automatically put into the Recycle Bin. It will be retained for 7 calendar days during which you can choose to renew. The instance will then be terminated if it is not renewed within 7 calendar days.

## Instance Recycle

Tencent Cloud Recycle Bin is a recovery mechanism and system for cloud services. Cloud services with an annual or monthly plan will be put into the **Recycle Bin** upon expiration and be kept for a certain time, during which users can find it in the Recycle Bin and renew it. In this way, users can avoid major risks such as loss of cloud service data cleared directly by the system.

If your CVM instance hasn't been renewed before the expiry date (including), the system will end its service (network outage and service shutdown with data saved only) from the expiry date. Within 7 workings days after it has been put into the Recycle Bin, you can still recover it by renewing it. If, during this period, the instance hasn't been renewed, the system will release the resources, and **data will be erased and cannot be recovered**.

- After putting into the Recycle Bin, CVM will be **forced to terminate** the mounting relationship with Cloud Load Balance, Elastic Public IP, elastic cloud disk, auxiliary ENI, and basic network interconnection. The mounting relationship **cannot be recovered** after renewal, you have to reset it.
- For sufficient account balance, the device with auto renewal setting will perform renewal automatically upon expiration.

For objects in the Recycle Bin, users can only **renew to recover** the recycled object before terminating.

## Recover instance

Within 7 days after the expiration of CVM, you can go to the Recycle Bin to recover the CVM by renewing it:

Open the [CVM Recycle Bin Console](#), locate the CVM that you want to recover in the list, and then select the resources that need to be restored, click on "Recovery". After you've paid for renewal, you can find the

recovered resources in the [CVM Console](#).

## Batch Renew Instances

Open the [CVM Recycle Bin Console](#), locate the CVM that you want to recover in the list, and then select the resources to be recovered, click on "Batch Recovery". After you've paid for renewal, you can find the recovered resources in the [CVM Console](#).

## Terminate an Instance

Within 7 days after the expiration of CVM, you can go to the Recycle Bin to terminate the CVM completely:

Open the [CVM Recycle Bin Console](#), select the the CVM that you want to terminate, and click "Terminate" and confirm the operation. The selected item will be **terminated and cannot be recovered**.

## Batch Terminate Instances

Open the [CVM Recycle Bin Console](#), select the the CVMs you want to terminate, and click "Batch Terminate" and confirm the operation. The selected items will be **terminated and cannot be recovered**.

Note:

- **Once terminated, all data will be cleared and cannot be recovered. Please back-up your data before the operation.**
- **EIPs and elastic cloud disks of the terminated machines are still available. Idle IPs will be charged. Release them in the resource management page if you don't need them any more.**

# Renew Instances

Last updated : 2017-10-30 15:30:38

It will be recycled by the system after a certain time following the expiration. You can renew the instance plan through manual or auto renewal at any time to avoid data loss or interruption of service due to instances being terminated by the system upon expiration.

## Instance Renewal

### Renew instance via the console

You can renew the instance plan before the expiry date to prevent services interruption due to shutdown when it expires:

- 1) Log in to [CVM Console](#).
- 2) For CVM instances plan to be renewed, click on "Renew" on the action bar to the right side.
- 3) In the pop-up box of host renewal, select the time for renewal and select whether or not to adjust the bandwidth, and then click "OK".
- 4) After making the payment, you can renew CVM instances.

### Renew instance via API

Users can use Renew Instance API to renew instances. For details, see [Renew Prepaid Instances API](#).

## Set up auto renewal

### Set up auto renewal via the console

At the same time, you can also set auto renewal for CVM instance with an annual or monthly plan to avoid the same manual operation of renewal every time when it is about to expire:

- 1) Log in to [Tencent Cloud Console](#), move the mouse pointer to the top right corner of your account name, and select "Renew" in the menu.
- 2) To renew prepaid CVM instances, click on "Set to Auto Renew" on the action bar to the right side.

3) Click "OK" in the pop-up box of auto renewal.

For instances with auto renewal setting, it will automatically deduct the charge for next billing period at the expiry date. If your account balance is sufficient, the instance will be automatically advanced to the next cycle.

## Set up auto renewal via API

Users can use Set Auto Renew API to automatically renew instances. For details, see [Set Auto Renewal for Instances via API](#).

## Renewal for same expiry date

Tencent Cloud provides the function of instance renewal for same expiry date. By specifying same expiry time for Cloud Services created by users at different time, users can be relieved from repetitive renewal operation for services with different expiry date and will be able to end all services at a specified date so as to save costs. For more information about renewal for same expiry date, see [Set Same Expiry Date](#).

# Log into Windows Instances

Last updated : 2017-12-08 17:21:38

Once you've started a Windows instance, you can connect to and log in to it. The login method depends on your local operating system and whether the CVM instance can be accessed by Internet. See the table below for details.

Local operating system	Windows CVM instance with public IP	Windows CVM instance without public IP
Windows	VNC Login Remote Desktop Connection	VNC Login
Linux	VNC Login rdesktop Login	
Mac OS	VNC Login rdesktop Login	

## Prerequisites

You need to use the administrator account ID and the corresponding password to log in to the CVM.

- Administrator account ID: it is **Administrator** for all Windows instances
- Password:
  - If you select "Auto Generate Password" when starting the instance, then the initial password will be randomly assigned by the system. You can log in to [Tencent Cloud Console](#), and click the "Internal Message" button on the right. In the "Check and accept the newly purchased server" page, the login account ID and initial password of administrator for CVM will be provided.
  - If you select "Custom Password" when starting the instance, then the password will be the one you specified when purchasing the CVM instance. To learn more about password, for example, what to do if I forget the login password, refer to [Login Password](#).

## Windows system: use Remote Desktop Connection to log in to Windows instance

On the local Windows machine, click "Start" - "Run", enter `mstsc` command to open the Remote Desktop Connection dialog box.

In the input box, input the public IP of Windows Server (Log in to [CVM Console](#) to check the public IP of CVM).

Click "Connect", and, in the screen that opens, enter the administrator account ID and corresponding password obtained from the Prerequisites step.

Click "OK" to log in to Windows CVM.

If the login fails, check if your CVM instance allows inbound traffic over port 3389. Refer to [Security Group](#) to check the Port. If your CVM is in [Virtual Private Cloud/VPC], check related subnet [Network ACL](#) as well.

## Linux system: Use rdesktop to log in to Windows instance

To log in to a remote Windows instance, you need to install an appropriate remote desktop connector, for which rdesktop is recommended. For more information about rdesktop, see [Here](#).

### 1) Install rdesktop

Run the `rdesktop` command to check if it is installed. If not, [download the latest installation package](#), and run the following command to extract and install it to the appropriate directory.

```
tar xvzf rdesktop-<x.x.x>.tar.gz ## Replace x.x.x with the downloaded version number.
cd rdesktop-1.8.3
./configure
make
make install
```

### 2) Connect to remote Windows instance

Run the command below (Replace parameters in the example with yours):

```
rdesktop -u Administrator -p <your-password> <hostname or ip address>
```

"-u" is followed by the username, which is `Administrator`, "-p" is followed by password you obtained from the Prerequisites step and is the public IP or custom domain name of your Windows instance.

If the login fails, check if your CVM instance allows inbound traffic over port 3389. Refer to [Security Group](#) to check the Port. If your CVM is in [Virtual Private Cloud/VPC], check related subnet [Network ACL](#) as well.

## Mac operating system: Use Microsoft Remote Desktop Connection Client for Mac to log in to Windows instance

Go to the Microsoft official website to download Remote Desktop Connection Client for Mac OS.

After the installation is completed, use the username and password you obtained from the Prerequisites step to log in to the remote Windows instance.

If the login fails, check if your CVM instance allows inbound traffic over port 3389. Refer to [Security Group](#) to check the Port. If your CVM is in [Virtual Private Cloud/VPC], check related subnet [Network ACL](#) as well.

## Use VNC to log in to instance

VNC login is a way Tencent Cloud provides for users to connect to their CVMs through Web browser. When the remote login client is not installed or cannot be used, you can connect to your CVM using VNC login and check the CVM status. This also allows you to perform basic CVM management operations with the CVM account.

VNC login scenarios include at least the following:

- Check the progress of a CVM startup
- Log in to the server with VNC when client SSH or mstsc login is not available

In the Action column of CVM list, click "Log In" button to connect to Windows CVM via VNC.

By clicking the Ctrl+Alt+Del command at the top left corner, enter the system login screen:

### Note:

- Ctrl + Alt + Delete is a shortcut key combination for you to log in to Windows or open task manager after the screen is locked.
- This terminal is exclusive, that is, only one user can log in using VNC at a time.
- To log in with VNC in the normal way, you need to use modern browsers such as Chrome, Firefox, IE10 or above.
- Copy and Paste are not supported at the moment.
- File upload and download are not supported at the moment.

# Log into Linux Instances

Last updated : 2018-02-02 18:56:22

Once you've purchased and started a Linux instance, you can connect to and log in to it. The login method depends on your local operating system and whether the CVM instance can be accessed by Internet. See the table below for details.

Local operating system	Linux CVM instance with public IP	Linux CVM instance without public IP
Windows	VNC Login Remote Login Software Key Login	VNC Login
Linux	VNC Login SSH Login Key Login	
Mac OS	VNC Login SSH Login Key Login	

## Prerequisites

With password login, you need to use the administrator account ID and the corresponding password to log in to the CVM. With key login, you need to create and download a private key to log in to the CVM.

### Prerequisites for login with remote login software and SSH

- Administrator account ID: the administrator account ID varies with the type of Linux instance. See the table below.

Instance Operating System	Administrator Account ID
SUSE/CentOS/Debian	root
Ubuntu	ubuntu

- Password:

- If you select "Auto Generate Password" when starting the instance, then the initial password will be randomly assigned by the system. You can log in to [Tencent Cloud Console](#), and click the "Internal Message" button on the right. In the "Check and accept the newly purchased server" page, the login account ID and initial password of administrator for CVM will be provided as shown below.
- If you select "Custom Password" when starting the instance, then the password will be the one you specified when purchasing the CVM instance. To learn more about password, for example, what to do if I forget the login password, refer to [Login Password](#).

### Prerequisites for login with key

To log in with an SSH key, first you need to create an SSH key, download the private key and bind it to Linux CVM. To learn more about key operations, refer to [SSH Key](#).

Log in to [Tencent Cloud Console](#), click "Cloud Virtual Machine" - "SSH Key" to enter the key window. Click "Create Key" button, and type a key name to create a new key. After the key is created, click "Download" button to download a private key.

Then right click on the newly created key ID, and select "Bind the Linux server to log in" to bind it. Key login is only available for CVM instances that have been bound with an SSH key.

## Windows system: use remote login software to log in to the Linux instance

On a Windows computer, you can log in to the Linux instance using remote login software. PUTTY is taken as an example in this case. There are also other types of login software for you to choose from.

### Install Windows remote login software

To log in to the Linux CVM from a local Windows computer, you need to use client software to establish a connection. Here PUTTY is taken as an example. Reference download link:

<http://www.putty.nl/download.html>

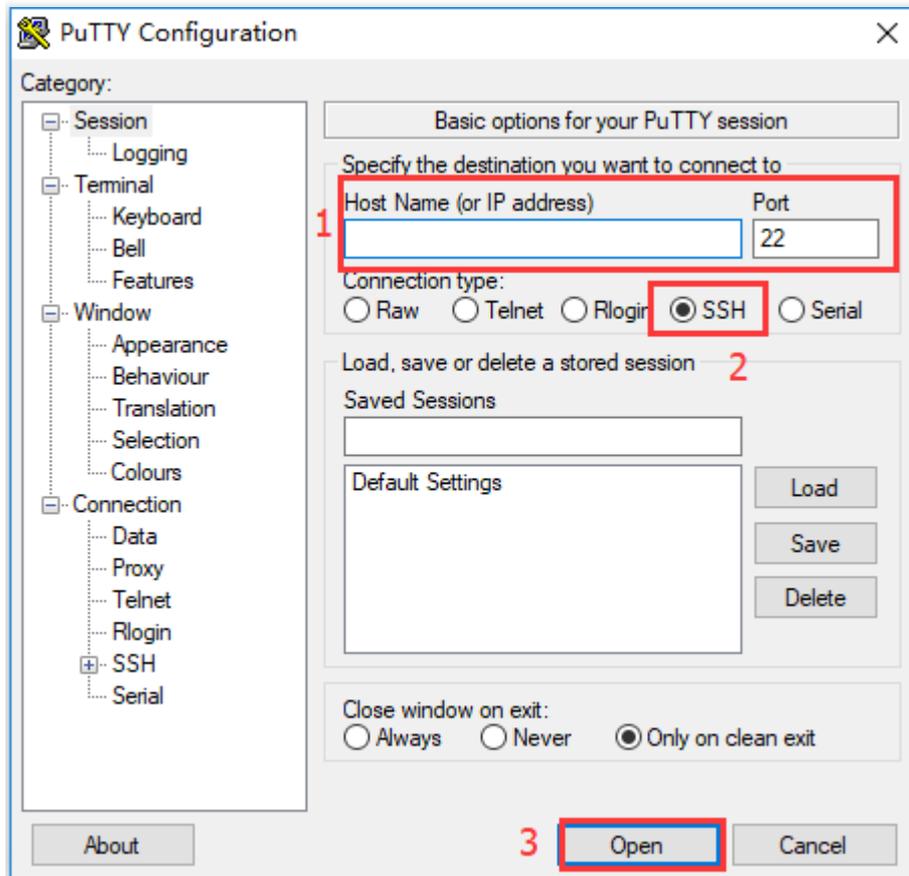
### Use PUTTY to connect to Linux CVM

Open the Putty client, enter the following information in the "PuTTY Configuration" window:

- Host Name: Public IP of the CVM (Go to the ["Cloud Virtual Machine" page under Tencent Cloud Console](#), and you can get the public IP of the CVM on the list and detail pages).
- Port: port of the CVM, which must be 22. (Make sure port 22 of the CVM is open. See [Security Group](#) and [Network ACL](#) for details.)

- Connect type: select "SSH".

When all the information is entered, click "Open" to create a new dialog.



In the Putty dialog window, enter the administrator account ID obtained from the "Prerequisites" step, and press Enter. Enter the login password obtained from the "Prerequisites" step, and press Enter to log in.

If the login fails, check if your CVM instance allows inbound traffic over port 22. Refer to [Security Group](#) to check the Port. If your CVM is in [Virtual Private Cloud/VPC], check related subnet [Network ACL](#) as well.

## Windows system: log in to the Linux instance with an SSH key

Likewise, you need to use remote login software to log in to the Linux instance from a Windows computer. PUTTY is taken as an example in this case. There are also other types of login software for you to choose from.

### Install Windows remote login software

To log in to the Linux CVM from a local Windows computer, you need to use client software to establish a connection. Here PUTTY is taken as an example. Reference download link:

<http://www.putty.nl/download.html>. **Download putty.exe and puttygen.exe.**

## Key format conversion

Open puttygen.exe, and click "Load" button. In the window that pops up, go to the path under which you store the private key downloaded in the Prerequisites step, and then select "All File (\*.\*)", select the downloaded private key (in this case it is file david, which is the name of the key), and click "Open".

Enter the key name in the key comment column, enter the password for the private key (optional), and click "Save private key". In the window that pops up, select directory where you store the key, then type key name + ".ppk" in the file name column, and click "Save".

## Log in to Remote Linux CVM

Open putty.exe, and enter into "Auth" configuration page.

Click the "Browse" button. In the window that pops up, go to the path where the key is stored, select the key, then click "Open" to return to the configuration page, and go to the "Session" configuration page.

Configure an IP address, port and connection type on the Session configuration page.

- IP: Public IP of the CVM. Go to the ["Cloud Virtual Machine" page under Tencent Cloud Console](#), and you can get the public IP of the CVM on the list and detail pages.
- Port: port of the CVM, which must be 22. (Make sure port 22 of the CVM is open. See [Security Group](#) and [Network ACL](#) for details.)

Enter a session name in the "Saved Sessions" input box (it is test in this case), then click the "Save" button, and double click the session name or click the "Open" button to issue a login request.

If the login fails, check if your CVM instance allows inbound traffic over port 22. Refer to [Security Group](#) to check the Port. If your CVM is in [Virtual Private Cloud/VPC], check related subnet [Network ACL](#) as well.

## Linux/Mac OS system: log in to the Linux instance with SSH

If you are a Mac OS user, open the Terminal that comes with the system and enter the following command. If you are a Linux user, run the following command directly:

```
ssh <username>@<hostname or ip address>
```

`username` is the administrator account ID obtained from the Prerequisites step, and is the public IP or custom domain name of your Linux instance.

Enter the password obtained from the Prerequisites step (Note that there is only input and no output displays at this time), then press Enter to log in.

If the login fails, check if your CVM instance allows inbound traffic over port 22. Refer to [Security Group](#) to check the Port. If your CVM is in [Virtual Private Cloud/VPC], check related subnet [Network ACL](#) as well.

## Linux/Mac operating system: log in to the Linux instance with key

If you are a Mac OS user, open the Terminal that comes with the system and enter the following command. If you are a Linux user, run the following command directly to set the private key file to readable only to you.

```
chmod 400 <The absolute path of the private key associated with the cloud server>
```

Run the following remote login command:

```
ssh -i "<The absolute path of the private key associated with the cloud server>" <username>@<hostname>
```

`username` is the administrator account ID obtained from the Prerequisites step, and is the public IP or custom domain name of your Linux instance.

For example:

```
ssh -i "Mac/Downloads/shawn_qcloud_stable" ubuntu@119.xxx.xxx.xxx
```

If the login fails, check if your CVM instance allows inbound traffic over port 22. Refer to [Security Group](#) to check the Port. If your CVM is in [Virtual Private Cloud/VPC], check related subnet [Network ACL](#) as well.

## Use VNC to log in to instance

VNC login is a way Tencent Cloud provides for users to connect to their CVMs through Web browser. When the remote login client is not installed or cannot be used, you can connect to your CVM using VNC

login and check the CVM status. This also allows you to perform basic CVM management operations with the CVM account.

VNC login scenarios include at least the following:

- Check the progress of a CVM startup
- Log in to the server with VNC when client SSH or mstsc login is not available

In the Action column of CVM list, click "Log In" button to connect to Windows CVM via VNC.

By clicking the Ctrl+Alt+Del command at the top left corner, enter the system login screen:

Note:

- Ctrl + Alt + Delete is a shortcut key combination for you to log in to Windows or open task manager after the screen is locked.
- This terminal is exclusive, that is, only one user can log in using VNC at a time.
- To log in with VNC in the normal way, you need to use modern browsers such as Chrome, Firefox, IE10 or above.
- Copy and Paste are not supported at the moment.
- File upload and download are not supported at the moment.

# Instance Metadata

Last updated : 2018-01-26 15:33:34

Instance metadata refers to the data of the instance that you operate on, and can be used to configure and manage running instances.

Note: Although instance metadata can only be accessed internally from the instance, the data has not been protected through encryption. Anyone who accesses the instance can view its metadata. Therefore, you should take proper precautions to protect sensitive data. For example, using permanent encryption key.

## Instance meta-data

Tencent Cloud provides the following meta-data information:

Data	Description	Introduced Version
instance-id	Instance ID	1.0
uuid	Instance ID	1.0
local-ipv4	Instance private IP	1.0
public-ipv4	Instance public IP	1.0
mac	MAC address of instance's eth0 device	1.0
placement/region	Information of the region in which the instance resides	1.1
placement/zone	Information of the availability zone in which the instance resides	1.1
network/network/macs/ <b>mac</b> /mac	The device address for the network interface of the instance	1.2
network/network/macs/ <b>mac</b> /primary-local-ipv4	The primary private IP for the network interface of the instance	1.2
network/network/macs/ <b>mac</b> /public-ipv4s	The public IP for the network interface of the instance	1.2

Data	Description	Introduced Version
network/network/macs/ <b>mac</b> /local-ipv4s/ <b>local-ipv4</b> /gateway	The gateway address for the network interface of the instance	1.2
network/network/macs/ <b>mac</b> /local-ipv4s/ <b>local-ipv4</b> /local-ipv4	The private IP for the network interface of the instance	1.2
network/network/macs/ <b>mac</b> /local-ipv4s/ <b>local-ipv4</b> /public-ipv4	The public IP for the network interface of the instance	1.2
network/network/macs/ <b>mac</b> /local-ipv4s/ <b>local-ipv4</b> /public-ipv4-mode	The public network mode for the network interface of the instance	1.2
network/network/macs/ <b>mac</b> /local-ipv4s/ <b>local-ipv4</b> /subnet-mask	The subnet mask for the network interface of the instance	1.2

Fields **mac** and **local-ipv4** in bold in the above table refer to the device address and private IP of the network interface specified for the instance, respectively.

The destination URL address of the request is case sensitive. You must construct the destination URL address of a new request according to the returned result of the request.

## Querying Instance Metadata

Operations on the instance metadata can only be performed **internally within the instance**. You first need to log in to the instance. For more information, please see [Log in to Windows Instance](#) and [Log in to Linux Instance](#).

### Querying All Available Meta-data Types

Command:

```
curl http://metadata.tencentyun.com/
```

The returned value is as follows

Command:

```
curl http://metadata.tencentyun.com/meta-data
```

The returned value is as follows

The placement field includes two types of data: region and zone.

Command:

```
curl http://metadata.tencentyun.com/meta-data/placement
```

The returned value is as follows

### Querying Instance Private IP

Command:

```
curl http://metadata.tencentyun.com/meta-data/local-ipv4
```

The returned value is as follows

### Querying Instance Public IP

Command:

```
curl http://metadata.tencentyun.com/meta-data/public-ipv4
```

The returned value is as follows

### Querying Instance ID

Command:

```
curl http://metadata.tencentyun.com/meta-data/instance-id
```

or

```
curl http://metadata.tencentyun.com/meta-data/uuid
```

The returned value is as follows

### Querying the Device Address of Instance eth0

Command:

```
curl http://metadata.tencentyun.com/meta-data/mac
```

The returned value is as follows

### Querying the Region of Instance

Command:

```
curl http://metadata.tencentyun.com/meta-data/placement/region
```

The returned value is as follows

### Querying the Availability Zone of Instance

Command:

```
curl http://metadata.tencentyun.com/meta-data/placement/zone
```

The returned value is as follows

### Querying the Network Interface of Instance

Command:

```
curl http://metadata.tencentyun.com/meta-data/network/
```

The returned value is as follows:

```
[root@UM_187_40_centos ~]# curl http://metadata.tencentyun.com/meta-data/network
interfaces/[root@UM_187_40_centos ~]# _
```

Command:

```
curl http://metadata.tencentyun.com/meta-data/network/interfaces/macs
```

The returned value is as follows:

```
[root@UM_187_40_centos ~]# curl http://metadata.tencentyun.com/meta-data/network/interfaces/macs
52:54:00:13:5C:6C/[root@UM_187_40_centos ~]#
```

## Querying the Details for the Network Interface of Instance

Command:

```
curl http://metadata.tencentyun.com/meta-data/network/interfaces/macs/52:54:00:13:5C:6C/
```

The returned value is as follows:

```
[root@UM_187_40_centos ~]# curl http://metadata.tencentyun.com/meta-data/network/interfaces/macs/52:54:00:13:5C:6C/
local-ipv4s/
mac
primary-local-ipv4
public-ipv4s[root@UM_187_40_centos ~]#
```

## Querying the List of Private IPs for the Network Interface of Instance

Command:

```
curl http://metadata.tencentyun.com/meta-data/network/interfaces/macs/52:54:00:13:5C:6C/local-ipv4s
```

The returned value is as follows:

```
[root@UM_187_40_centos ~]# curl http://metadata.tencentyun.com/meta-data/network/interfaces/macs/52:54:00:13:5C:6C/local-ipv4s
10.104.187.40/[root@UM_187_40_centos ~]#
```

## Querying the Device Address for the Network Interface of Instance

Command:

```
curl http://metadata.tencentyun.com/meta-data/network/interfaces/macs/52:54:00:13:5C:6C/mac
```

The returned value is as follows:

```
[root@UM_187_40_centos ~]# curl http://metadata.tencentyun.com/meta-data/network/interfaces/macs/52:54:00:13:5C:6C/mac52:54:00:13:5C:6C[root@UM_187_40_centos ~]#
```

## Querying the List of Private IPs for the Network Interface of Instance

Command:

```
curl http://metadata.tencentyun.com/meta-data/network/interfaces/macs/52:54:00:13:5C:6C/primary-local
```

The returned value is as follows:

```
[root@UM_187_40_centos ~]# curl http://metadata.tencentyun.com/meta-data/network/interfaces/macs/52:54:00:13:5C:6C/primary-local-ipv410.104.187.40[root@UM_187_40_centos ~]#
```

## Querying the List of Public IPs for the Network Interface of Instance

Command:

```
curl http://metadata.tencentyun.com/meta-data/network/interfaces/macs/52:54:00:13:5C:6C/public-ipv4
```

The returned value is as follows:

```
[root@UM_187_40_centos ~]# curl http://metadata.tencentyun.com/meta-data/network/interfaces/macs/52:54:00:13:5C:6C/public-ipv4s119.29.222.20[root@UM_187_40_centos ~]#
```

## Querying the Network Information for the Network Interface of Instance

Command:

```
curl http://metadata.tencentyun.com/meta-data/network/interfaces/macs/52:54:00:13:5C:6C/local-ipv4s/
```

The returned value is as follows:

```
[root@UM_187_40_centos ~]# curl http://metadata.tencentyun.com/meta-data/network/interfaces/macs/52:54:00:13:5C:6C/local-ipv4s/10.104.187.40gatewaylocal-ipv4public-ipv4public-ipv4-modesubnet-mask[root@UM_187_40_centos ~]#
```

## Querying the Gateway Address for the Network Interface of Instance

Command:

```
curl http://metadata.tencentyun.com/meta-data/network/interfaces/macs/52:54:00:13:5C:6C/local-ipv4s/
```

The returned value is as follows:

```
[root@UM_187_40_centos ~]# curl http://metadata.tencentyun.com/meta-data/network/interfaces/macs/52:54:00:13:5C:6C/local-ipv4s/1
0.104.187.40/gateway
10.104.187.1 [root@UM_187_40_centos ~]#
```

## Querying the Private IP for the Network Interface of Instance

Command:

```
curl http://metadata.tencentyun.com/meta-data/network/interfaces/macs/52:54:00:13:5C:6C/local-ipv4s/
```

The returned value is as follows:

```
[root@UM_187_40_centos ~]# curl http://metadata.tencentyun.com/meta-data/network/interfaces/macs/52:54:00:13:5C:6C/local-ipv4s/1
0.104.187.40/local-ipv4
10.104.187.40 [root@UM_187_40_centos ~]#
```

## Querying the Public IP for the Network Interface of Instance

Command:

```
curl http://metadata.tencentyun.com/meta-data/network/interfaces/macs/52:54:00:13:5C:6C/local-ipv4s/
```

The returned value is as follows:

```
[root@UM_187_40_centos ~]# curl http://metadata.tencentyun.com/meta-data/network/interfaces/macs/52:54:00:13:5C:6C/local-ipv4s/1
0.104.187.40/public-ipv4
119.29.222.20 [root@UM_187_40_centos ~]#
```

## Querying the Public Network Mode for the Network Interface of Instance

Command:

```
curl http://metadata.tencentyun.com/meta-data/network/interfaces/macs/52:54:00:13:5C:6C/local-ipv4s/
```

The returned value is as follows:

```
[root@UM_187_40_centos ~]# curl http://metadata.tencentyun.com/meta-data/network/interfaces/macs/52:54:00:13:5C:6C/local-ipv4s/1
0.104.187.40/public-ipv4-mode
NAT [root@UM_187_40_centos ~]#
```

Note:

- NAT: Network Address Translation, the network address translation.

- direct: Connect to the network directly. Access the public network directly through the public IP for the network interface of instance using a router.

## Querying the Subnet Mask for the Network Interface of Instance

Command:

```
curl http://metadata.tencentyun.com/meta-data/network/interfaces/macs/52:54:00:13:5C:6C/local-ipv4s/
```

The returned value is as follows:

```
root@UM_187_40_centos ~]# curl http://metadata.tencentyun.com/meta-data/network/interfaces/macs/52:54:00:13:5C:6C/local-ipv4s/1
0.104.187.40/subnet-mask
255.255.192.0root@UM_187_40_centos ~]#
```

# Configure Instances

Last updated : 2017-11-30 11:04:37

Specifications of CVM instances can be adjusted easily and quickly. In the initial stage of application when the request volume is low, you can choose low hardware configuration. As the application quickly expands and the request volume surges, you can quickly adjust the hardware configuration to process the services faster and better cater to your changing demand.

## Upgrading Configuration

### Upgrading on Console

This operation is only available to CVM instances which are **shut down** and **both the system and data disks of which are cloud disks**.

- 1) Select the desired CVM instance, and click **More - Adjust Configuration** to its right.
- 2) In the **Adjust Configuration** box that pops up, select the target configuration, and complete payment or confirm to adjust the CVM configuration instantly.



### Upgrading via API

You can use the `ResizeInstance` and `ResizeInstanceHour` APIs to upgrade the instance configuration. For details, see [Adjust Postpaid Instance Configuration API](#).

## Degrading Configuration

### Degrading Postpaid Instances

The adjustment can only be made to CVM instances that are **shut down** and **both the system and data disks of which are cloud disks**.

- 1) Log in to [CVM Console](#), and select **CVM** from the left.
- 2) Select the desired postpaid CVM instance, click **More - Adjust Configuration** to its right.

3) In the **Adjust Configuration** box popped up, select the target configuration, and click **OK** to degrade the CVM configuration instantly.



# Images

## Create Custom Images

Last updated : 2018-02-24 16:06:37

### General

You can launch an CVM using a public image or a service market image, and install and configure the software environment as needed. Then you can create an image to quickly launch more new instances with the same configurations.

It's recommended to shut down the CVM before creating the image.

If you want to reserve the data on the original instance data disk when starting a new instance, then you can first take a snapshot of the data disk. When starting the new instance, you can use this disk snapshot to create a new CBS disk.

### Creating Images on Console

- 1) Log in to [CVM Console](#).
- 2) Select the CVM instance from which you want to create an image, and click **Operation** -> **More** -> **Create Image**.
- 3) When the image is created successfully, the result is displayed near the operation log in the upper right corner. With the image ID, you can jump to the image list.

### Creating Images via API

You can use the [CreateImage](#) API to create custom images.

# Copy Images

Last updated : 2018-04-02 10:04:13

**Cross-region Copying** allows you to quickly deploy the same CVM instances in different regions.

Deploying the same CVM instance in different regions using image synchronization is a reliable way to improve application robustness.

## Synchronizing images to different regions on Console

- 1) Log in to [CVM Console](#).
- 2) Click **Image** in the navigation pane.
- 3) Check all images you want to copy, click the **Cross-region Copying** at the top.
- 4) Select the destination region, and click **OK**.
- 5) After successful synchronization, the image list status in the destination region is updated to 100%.

## Synchronize images to different regions via API

You can use the SyncCvmlImage API to synchronize images. For details, refer to [SyncCvmlImage API](#).

# Share Custom Images

Last updated : 2018-01-08 16:28:34

Shared image means that you share a custom image that you have created with others users. You can easily get shared images from other users, to get necessary components and then add custom contents.

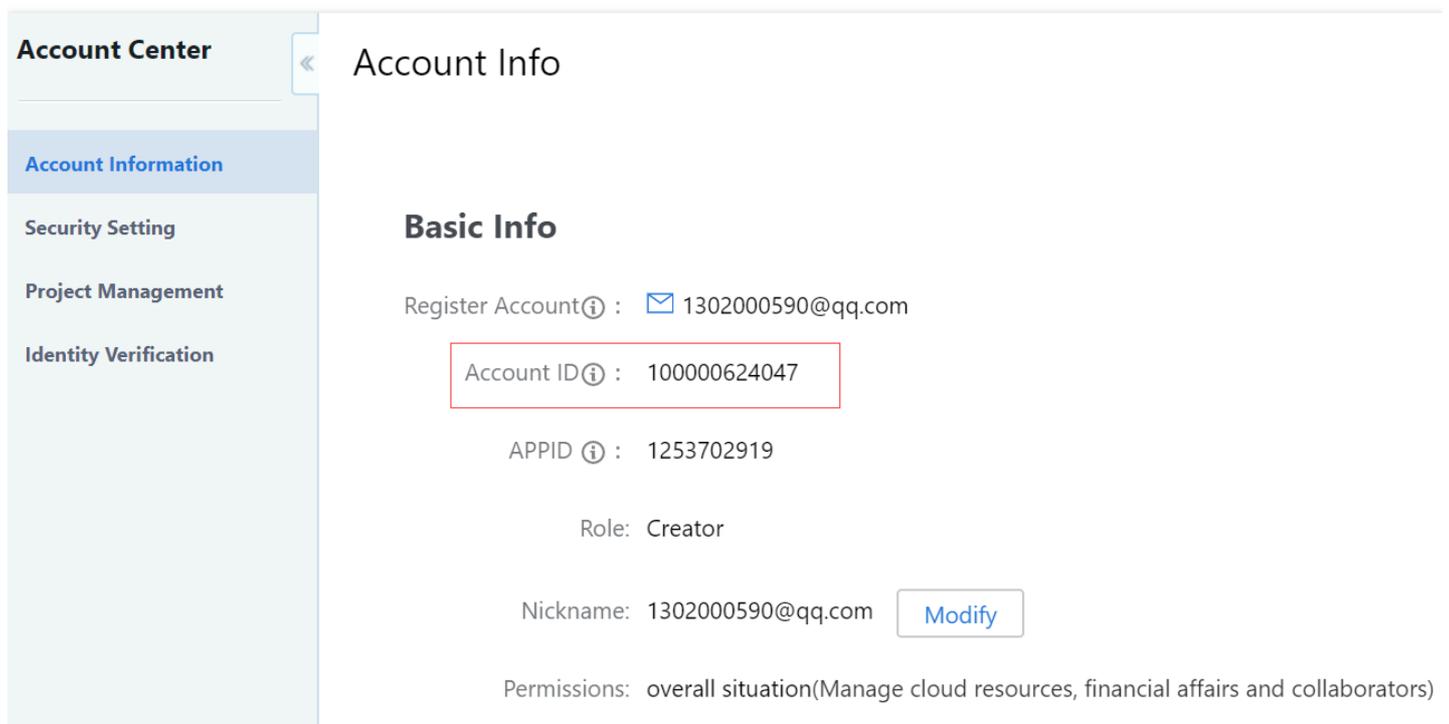
Note that Tencent Cloud cannot guarantee the integrity or security of the shared images from other users. Please use only shared images from reliable sources.

## Sharing Images

### Obtaining Account of the Counterpart

To share an image with another user, you need to obtain his/her unique account ID. You can inform him of obtaining your ID in this way:

- 1) Log in to Tencent Cloud console, and click the account name in the upper right corner.
- 2) View the account ID in your personal information.



The screenshot displays the 'Account Center' interface. On the left is a navigation menu with options: 'Account Center', 'Account Information', 'Security Setting', 'Project Management', and 'Identity Verification'. The main content area is titled 'Account Info' and contains a 'Basic Info' section. The 'Basic Info' section lists the following details: 'Register Account' (1302000590@qq.com), 'Account ID' (100000624047, highlighted with a red box), 'APPID' (1253702919), 'Role' (Creator), 'Nickname' (1302000590@qq.com) with a 'Modify' button, and 'Permissions' (overall situation(Manage cloud resources, financial affairs and collaborators)).

### Sharing Images on Console

- 1) Log in to [Tencent Cloud Console](#).

- 2) Click **CVM – Image** in the navigation pane.
- 3) Click the **Custom Images** tab, and select the custom image you want to share.
- 4) Click the **Share** button, enter the unique Tencent Cloud account ID of the counterpart, and click **OK**.
- 5) Inform him of logging in to [Tencent Cloud Console](#) and select "CVM" - "Image" - "Share Image", to view the image that you has shared with him.
- 6) To share this image with multiple users, repeat the above steps until you have added all users.

### Sharing Images via API

You can use the [ShareImage API](#) to share images.

## Using Shared Images

Shared images can only be used to launch CVM instances. For details, refer to [Purchase and Start Instances](#).

# Cancel Image Sharing

Last updated : 2017-08-28 21:11:46

You can at any time cancel the status of sharing images with others. This operation does not affect instances that other users have created using this shared image, but other users can no longer see the image or create more new instances using this image.

## Cancel image sharing on Console

- 1) Open [Tencent Cloud Console](#).
- 2) Click **CVM – Image** in the navigation pane.
- 3) Click the **Custom Images** tab. Find out the custom image you want to cancel sharing and click **More – Cancel Sharing**. Select the account you want to unshare, click the "Unshare" button and confirm the operation to unshare the image.

## Cancel image sharing via API

You can use the [CancelShareImage API](#) to cancel image sharing.

# Delete Custom Images

Last updated : 2017-08-28 21:22:07

After using the custom image, you can delete it. When you delete a custom image, you will not be able to use this image to [start a new CVM instance](#), but any instances that are already started will not be affected. If you want to remove all instances that were purchased and started from this image, you can refer to [Expiration of Prepaid Instances](#) or [Terminate Postpaid Instances](#).

- If you have already shared a custom image to others ([see here](#)), you cannot delete it. You need to cancel all of its sharing before deleting a custom image.
- You can only delete the custom image, but neither the common image nor the shared image.

## Deleting custom images on Console

- 1) Open [Tencent Cloud Console](#).
- 2) Click **CVM – Image** in the navigation pane.
- 3) Click the "Custom Images" tab, and select the custom image you want to share in the list.
- 4) Click the "Delete" button and confirm the operation, to delete all selected custom images. In case of failed deletion, the reasons will be prompted above the image.

## Deleting custom images via API

You can use the [DeleteImages API](#) to delete images. For details, refer to

# Import Images

Last updated : 2018-03-06 16:17:56

In addition to the [Create Custom Image](#) feature, Tencent Cloud also supports importing local or other platform system disk image files into CVM custom images with the import feature. After importing, you can use the imported image to create a CVM or reinstall the operating system of an existing CVM.

## Importable Linux images

The local Linux image to be imported needs to meet the following criteria:

Image property	Criteria
Operating system	CentOS, Redhat, Ubuntu, Debian, CoreOS, OpenSUSE, SUSE releases. Supports 32-bit and 64-bit
Image format	raw, vhd, qcow2, vmdk
File system type	ext3 or ext4 file systems using MBR partition (GPT partition not supported)
System disk size	Up to 50 GB. Supports only system disk images, but not data disk images
Network	Do not support multiple network APIs, but only eth0. Do not support IPv6 addresses. When you use the imported image to create a CVM, Tencent Cloud will create a network configuration file in the system and save it in <code>/etc/qcloud-network-config.ini</code> . This configuration file contains IP, subnet mask, gateway, DNS and other information. The user can log in to the CVM to configure the network after creating a CVM using this image.
Driver	The virtio driver for the KVM platform must be installed
Kernel restriction	Native kernel is preferred, for modifications may cause failed importing of virtual machines. The Red Hat Enterprise Linux (RHEL) image imported must have the BYOL license. You need to purchase the product serial number and service from the manufacturer.

## Importable Windows images

The local Windows image to be imported needs to meet the following criteria:

Image property	Criteria
Operating system	Microsoft Windows Server 2008 R2 (standard edition, datacenter edition, enterprise edition), Microsoft Windows Server 2012 R2 (standard edition), <b>Supports 64-bit systems only</b>
Image format	raw, vhd, qcow2, vmdk
File system type	NTFS file system with MBR partition (GPT partition not supported)
System disk size	Not more than 50 GB. Supports only system disk images, but not data disk images
Network	Do not support multiple network APIs, but only eth0. Do not support IPv6 addresses. When you use the imported image to create a CVM, Tencent Cloud will create a network configuration file in the system and save it in `C:\qcloud-network-config.ini`. This configuration file contains IP, subnet mask, gateway, DNS and other information. The user can log in to the CVM to configure the network after creating a CVM using this image.
Driver	The virtio driver for the KVM platform must be installed. However, the virtio driver is not installed on the Windows system by default. You can install the driver by using <a href="#">Tencent Cloud Software Package</a> on the original external platform machine and then export it as the local image.
Others	The imported Windows image DO NOT provide <a href="#">Windows Activation</a> services

## Import images via console

Please make sure your Tencent Cloud account has applied for the import permission. If not, please apply for it by submitting a ticket.

- 1) Log in to [CVM Console](#).
- 2) Click **Image** from the left panel.

- 3) Click **Custom Image** tab and select **Import Image**.
- 4) Activate Tencent Cloud COS as required, upload the image files that meet the requirements to the COS, and click **Next**.
- 5) Enter information required. Make sure the COS file URL you enter is accurate, and then click **Start Importing**.
- 6) The operation result is sent to your phone (SMS) or registered Email account.

# Monitoring and Alarms

## Get Monitoring Statistics

Last updated : 2017-09-12 21:58:55

Tencent Cloud provides cloud monitoring for all users by default, no need for the user to manually turn on. But the user must use Tencent Cloud products before cloud monitoring can begin to collect monitoring data; to view these monitoring data, there are several ways:

### Obtain monitoring data through the cloud product console's individual monitoring page

Some cloud products provide a separate monitoring data reading tab on their own console pages. CVM is used in this example

- 1) Open [Tencent Cloud Console](#), select "CVM".
- 2) Click the CVM Instance ID from the list of CVMs to view the monitoring data, and enter the CVM details page.
- 3) Click the "Monitor" tab; on this page, you can view the CPU, memory, network bandwidth, disk and monitoring data, etc. of the CVM instance. You can also freely adjust the time range.

Note: Tencent Cloud monitoring provides both 5 minute and 1 minute data acquisition modes; 5 minute data collection is the default. In different display modes, the indicator data displays will be different. For example, when monitoring charts are displayed for nearly an hour, the monitoring data is presented in the original 5-minute interval format. When monitoring charts are displayed for nearly a month, the monitoring data will show daily data averages in days.

### Obtain monitoring data from Console

On Cloud Monitoring console, you can view monitoring data for most of the products used. In this case, CVM is used as an example.

- 1) Open [Tencent Cloud Console](#), select "Cloud Products - Cloud Monitoring".
- 2) On the left navigation bar, select "Cloud Product Monitoring - CVM".
- 3) Click the CVM Instance ID from the list of CVMs displayed to view the monitoring data, and enter the monitoring details page.

4) On this page, you can view the CPU, memory, network bandwidth, disk and all monitoring data of the CVM instance. You can also freely adjust the time range.

## Obtain monitoring data through the API

Users can use the GetMonitorData API to obtain monitoring data for all products. For more information, please see [Reading Monitoring Data API](#).

# Create Alarm Polices

Last updated : 2017-12-08 16:54:05

You can create an alarm that triggers when there are status changes for Cloud products, and send the related messages. Alarms that are created will determine whether a notification needs to be triggered based on the metrics monitored at a certain interval, relative to a given threshold.

You can take the appropriate precautions or recovery actions immediately after an alarm triggers due to status changes. Therefore, reasonably creating alarms will help improve the robustness and reliability of your applications.

## Create an alarm strategy

- 1) Log in to [Tencent Cloud control platform](#), click "Cloud Monitor" - "My Alarms" tab, click "Alarm Strategy" menu.
  - 2) On the Alarm Strategy list page, click the "New Alarm Strategy" button.
  - 3) In the "New Alarm Strategy" pop-up box, enter the strategy name, select the strategy type (product to be used), and select the alarm triggering conditions.
- An alarm triggering condition is a semantic condition consisting of a metric, a comparison relation, a threshold, a statistical period and a duration. For example, the index for 'CPU utilization'; comparison relationship as '>'; threshold at '80%'; a '5 minute' statistical cycle; sustained cycle for '2 cycles'; this means that: every 5 minutes CPU utilization data will be collected; if a CVM's CPU utilization is greater than 80% continuously twice in a row, an alarm will be triggered.

## Related object

- 1) Log in to [Tencent Cloud Console](#), click "Cloud Monitor" - "My Alarms" tab, click "Alarm Strategy" menu.
- 2) On the Alarm Strategy List page, click on the alarm strategy policy you just created, then click the [Add Relation] button on the details page and select the cloud product you want to follow; finally, click on the "Apply" button.

## Set alarm receivers

- 1) Log in to [Tencent Cloud Console](#), click "Cloud Monitor" - "My Alarms" tab, click "Alarm Strategy" menu.

2) Click on an existing alarm strategy, and on the details page, click the "Manage alarm receiving group" button, and select user groups to notify.

Each alarm strategy is a set of alarm triggering conditions. An alarm triggering condition is an "OR" relationship. That is, when a condition is met, an alarm is sent. The alarm is sent to all users associated with the alarm strategy. After receiving the alarm, the user can view the information and take corresponding measures.