Cloud Virtual Machine

Instances

Product Introduction





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Instances

Overview

什么是 CVM 实例?

云服务器实例 (Cloud Virtual

Machine , CVM)

为您提供安全可靠的弹性计算服务。在云端提供服务,来实现计算需求。随着业务需求的变化,可以实时扩展 或缩减计算资源,极大降低您的软硬件采购成本,简化 IT 运维工作。

不同的实例类型提供不同的计算和存储能力,适用于不同的应用场景,用户可以基于需要提供的服务规模而选 择实例的计算能力、存储空间和网络访问方式。更多实例类型与适用场景,请参阅 <u>CVM 实例配置</u> 与 <u>推荐选型</u> 。实例启动后用户即可像使用传统计算机一样使用它,用户对启动的实例有完全的控制权。

什么是镜像?

镜像 是一种云服务器软件配置(操作系统、预安装程序等)的模板。腾讯云镜像提供启动云服务器实例所需的 所有信息。要求用户通过镜像启动实例。镜像可以启动多个实例,供用户反复多次使用。通俗地说,镜像就是 云服务器的"装机盘"。

腾讯云提供的镜像包括以下几种:

- 公有镜像:所有用户均可使用,涵盖大部分主流操作系统;
- 服务市场镜像:所有用户均可使用,除操作系统外还集成了某些特定应用程序;
- 自定义镜像: 仅创建者和共享对象可以使用, 由现有运行的实例创建而来或由外部导入而来;
- 共享镜像:由其他用户共享而来的镜像,仅能用作创建实例。

更多镜像介绍详见 镜像概述 与镜像类型。

实例的存储

实例的存储类似普通计算机,分为系统盘和数据盘:

• 系统盘: 类似 Windows 系统下的 C 盘。系统盘中包含用于启动实例的镜像的完全副本, 以及实例运

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行环境。启动时必须选择大于使用镜像的系统盘大小。

数据盘:类似 Windows 系统下的其他 D 盘、E
盘。数据盘保存用户数据,支持自由地扩容、挂载和卸载。

系统盘和数据盘都可以使用腾讯云提供的不同存储类型。有关更多信息,请参阅存储概述。

实例的安全

• <u>策略控制</u>

:同一组云资源需要被多个不同账户控制时,用户可以使用策略控制管理对云资源的访问权限。

- 安全组:通过使用安全组允许受信任的地址访问实例来控制访问。
- 登录控制:尽量使用 <u>SSH 密钥</u> 方式登录用户的 Linux 类型实例,使用 <u>密码登录</u>的实例需要不定期修改密码。

Instance Types

Instance Types

When a Tencent Cloud CVM is created, the instance type specified by the user determines the host hardware configuration of the instance. Each instance type provides different computing, memory and storage functions. Uses can choose a proper instance type according to the scale of application to be deployed.

Related resources including CPU, memory, storage and network are specifically for this CVM. But resource sharing also happens between instances, such as <u>network sharing</u>.

Hardware Specification

For more information about hardware specifications of each instance type, please see <u>CVM Instance</u> <u>Configurations</u>.

To figure out the instance type that fits you the most, it is recommended that you start a charge-byquantity instance, and use your own benchmark test application. Since the fee is charged by the actually used quantity, you can try different types of instances conveniently and economically before making the decision.

After purchasing and using a type of instance, you still can adjust the size of the instance when your need changes. For more information, please see [Adjust CVM Hardware Configurations] (/doc/product/213/5730).

The following is introduction of various instance series and types: Please note that a CVM instance that has been created cannot be changed into other types. Please create a new instance type when needed.

Available Instance Types

Based on different underlying hardware, Tencent Cloud offers two series of instances - Series 1 and Series 2 (also referred to as last-generation instance and current-generation instance). They respectively provide the following instance types:

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Current-generation instance types: <u>Standard S2</u>, <u>High IO I2</u>, <u>Memory M2</u>, <u>Computational C2</u> Last-generation instance type: standard S1, High-I/O I1, memory type M1

To get optimum performance, you are recommended to create an instance using a currentgeneration instance type.

Current-generation instances

Last generation instances

Series 1 features Intel Xeon CPU and DDR3 memory.

Restrictions on Instances

Currently, Series 2 is only available in South China (Guangzhou) - Guangzhou Zone 1, and East China (Shanghai) - Shanghai Zone 1.

The total number of instances started in one zone is limited. For more information about the restrictions, please see <u>Restrictions on CVM Instance Purchase</u>

S2 Instances

Standard S2 instance is designed to provide general baseline performance, and is able to achieve the balance among compute, memory and network resources. It is a great choice for many applications, and is perfect for general workloads, such as medium- and small-sized Web applications and databases.

Standard S2 instance features 2.4 GHz Intel E5-Xeon Broadwell (v4) CPU processor and DDR4 RAM, and also offers the options of local disks, common cloud disks and SSD cloud disks for the data disks (The option may vary with different hardware specifications).

For the available configurations when you purchase a Standard M2 instance, refer to <u>CVM Instance</u> <u>Configurations</u>.

Hardware Specification

The hardware specifications of Standard S2 instances are as follows:

- 2.4 GHz Intel Xeon E5-2680 Broadwell (v4) processor, DDR4 memory
- CPU performance is 20% higher than Series 1 Standard S1
- Network Enhanced type is used by default (up to 300k pps)
- With the options of local disks, common cloud disks and SSD cloud disks for the storage
- Balance among compute, memory and network resources

Requirements for Standard S2 instances

The requirements for S2 instances are as follows:

- S2 instance can be used on the basis of <u>postpaid</u>, or as the production instance of standard host in dedicated hosts;
- Support S2 instance startup in basic network and Virtual Private Cloud;
- For the available configurations when you purchase an S2 instance, refer to <u>CVM Instance</u> <u>Configurations</u>. Please make sure that the size of S2 instance you choose can meet the minimum CPU memory requirements



I2 Instances

High IO I2 instances are optimized to provide tens of thousands of low-latency random I/O operations per second (IOPS) to applications, and are the ideal choice for high disk IO. They are well suited for the following situations:

- NoSQL database (e.g. MongoDB)
- Clustered database
- Online Transaction Processing (OLTP) System

and other I/O intensive applications that require low latency.

A high IO I2 machine features 2.4 GHz Intel E5-Xeon Broadwell (v4) CPU and DDR4 memory, and SSD local disks are adopted for all its system disks. It runs on a network boost mode and supports up to 300,000 packets per second (PPS).

For the available configurations when you purchase a high IO I2 instance, refer to <u>CVM Instance</u> <u>Configurations</u>.

Hardware Specification

The hardware specification for a high IO I2 instance is as follows:

- 2.4 GHz Intel Xeon E5-2680 Broadwell (v4) processor, DDR4 memory
- CPU performance is 20% higher than Series 1 High IO I1
- SSD is used for instance storage
 - High random IOPS, with up to 40,000 random read IOPS in typical scenarios (blocksize =4k, iodepth =32);
 - High throughput, with up to 300MB/s random read throughput in typical scenarios (blocksize =4k, iodepth =32);
- Network Enhanced type is used by default (up to 300k pps)

Features of high IO I2 instance



Here is a summary of I2 instance features:

- The storage of I2 instance data is based on SSD instance storage. The system and data disks of I2 instance only exist within the life cycle of the instance. When the instance expires or is terminated by you, the applications and data in the instance storage will be wiped out. We suggest that you back up or copy the data in the instance storage regularly.
- I2 instance is network boosted by default, which leads to significant increase in packets per second (PPS) and decrease in network jittering and latency.

Requirements for high IO I2 instance

Here are the requirements for I2 instance:

- An I2 instance can be used on the basis of <u>postpaid</u>, or as the production instance of high IO host in dedicated hosts;
- Support I2 instance startup in basic network and Virtual Private Cloud;
- For the available configurations when you purchase a high IO I2 instance, refer to <u>CVM</u> <u>Instance Configurations</u>.



M2 Instances

Memory M2 instance is designed to deliver high performance for the workload of large-sized datasets in process memory. It features a large memory, and a memory instance up to 384GB based on DDR4 is available. Its price is lower than any other memory instances with the same memory, which makes it the perfect choice for applications that need high memory computing. This type of instances is suitable for the following circumstances:

- Applications that need extensive memory operations, search, and computing, such as highperformance databases, and distributed memory caching.
- Users who build their own hadoop clusters or redis for like gene computing.

A Memory M2 instance features 2.4GHz Intel E5-Xeon Broadwell (v4) CPU processor and DDR4 memory. Its price is lower than any other memory instances with the same memory, which makes it the perfect choice for applications that need high memory computing. It also offers the options of local disks, common cloud disks and SSD cloud disks for the data disks (The option may vary with different hardware specifications).

For the available configurations when you purchase a Memory M2 instance, refer to <u>CVM Instance</u> <u>Configurations</u>.

Hardware Specification

The hardware specification of a Memory M2 instance is as follows:

- 2.4 GHz Intel Xeon E5-2680 Broadwell (v4) processor, DDR4 memory
- Memory instances up to 368GB based on DDR4 available
- CPU performance is 20% higher than Series 1 Memory M1
- Network Enhanced type is used by default (up to 300k pps)
- With the options of local disks, common cloud disks and SSD cloud disks for the storage

Requirements for Memory M2 instances

The requirements for M2 instances are as follows:

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- M2 instance can be used on the basis of <u>postpaid</u>, or as the production instance of memory host in dedicated hosts;
- Support I2 instance startup in basic network and Virtual Private Cloud;

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• For the available configurations when you purchase a Memory M2 instance, refer to <u>CVM</u> <u>Instance Configurations</u>.



C2 Instances

A Computational C2 instance can provide the highest-performance processor and the best cost performance among CVMs. It is an ideal choice for applications subject to compute such as high computing performance and high concurrent read and write, which is suitable for the following situations:

- Batch workloads
- High-traffic Web server, massively multiplayer online (MMO) game server
- High performance computing (HPC)

and other compute-intensive applications.

A computational C2 machine features 3.2 GHz Intel E5-2667 Broadwell (v4) processor and DDR4 memory, and offers the options of SSD local and cloud disks for the system and data disks. It supports network boost and up to 300,000 packets per second (PPS). Disk IO and network IO are specially optimized to deliver superior performance.

For the available configurations when you purchase a C2 computational instance, refer to <u>CVM</u> <u>Instance Configurations</u>.

Hardware Specification

The hardware specification for a computational C2 instance is as follows:

• Intel Xeon E5-2667 Broadwell (v4) processor on which C2 instances are based. The processor has a base frequency of 3.2GHz, and a clock frequency of 3.5GHz(max turbo frequency) can be achieved with the Intel Turbo Boost Technology.

Function	Specification
Processor No.	E5-2667 v4
Intel Smart Cache	25МВ
Instruction set	64-bit
Instruction set expansion	AVX 2.0
Processor base frequency	3.2GHz



Function	Specification
Max turbo frequency	3.5GHz
Intel Turbo Boost Technology	2.0

- CPU performance is 40% higher than Series 1 Standard S1
- Network Enhanced type is used by default (up to 300k pps)

Functions of Computational C2 instances

- Data storage of C2 instances can be based on SSD local storage and SSD cloud storage. If a C2 instance is based on SSD local storage, the system and data disks of the C2 instance only exist within the life cycle of the instance. When the instance expires or you terminate it, applications and data on the instace are cleared. It's recommended to backup your data periodically.
- Support network boost by default. The network boost provides you with significant increase in packets per second (PPS) and decrease in network jittering and latency.

Requirements for computational C2 instance

- A C2 instance can be used on the basis of <u>postpaid</u>, or as the production instance of computational host HC20 in dedicated hosts;
- Support C2 instance startup in basic network and Virtual Private Cloud;
- For the available configurations when you purchase a C2 computational instance, refer to <u>CVM Instance Configurations</u>.

GPU G2 Instance GPU G2 Overview

GPU G2 instance is applicable for general GPU computing applications. It is a rapid, stable and flexible computing service based on GPU, and is applicable to video encoding/decoding, deep learning, scientific computing, and other scenarios. You can managed G2 instances in the same way as with standard CVMs.

Application Scenarios

GN2 Instance is the best choice for server-side GPU computing workloads, which require excellent graphic processing and high-performance computing capacities.

- Deep Learning
- Graphic database
- High-performance database
- Computational fluid dynamics
- Computational finance
- Earthquake analysis
- Molecular modeling
- Genomics and others

Hardware Specification

- CPU: High-frequency Intel Xeon E5-2680 (Broadwell).
- GPU: NVIDIA Tesla M40 GPU.
- Memory: (DDR4).
- Storage: Both system disk and data disk are local SSD.
- Network: Network enhancement is available by default (free).

G2 instances are provided in two configurations:



Model	GPU	GPU Memory	vCPU	Memory	Data disk	Performance
	(Tesla M40)	(GDDR5)	(Xeon E5 v4)	(DDR4)	(local SSD)	Metric
G2.large	1	24 GB	28 cores	60 GB	1,650 GB	Peak
						computing
						capacity for
						single
						machine:
						7T Flops for
						single-
						precision
						floating point
						arithmetic.
						0.2T Flops
						for double-
						precision
						floating point
						arithmetic.
G2.2xlarge	2	48 GB	56 cores	120 GB	3,300 GB	Peak
						computing
						capacity for
						single
						machine:
						14 T Flops
						for single-
						precision
						floating point
						arithmetic.
						0.4 T Flops
						for double-
						precision
						floating point
						arithmetic.

Service Options



- It supports one billing methods: Postpaid.
- It can be launched in basic network and <u>VPC</u>.
- It can be accessed with <u>Load Balance</u> and other Tencent Cloud services, without additional management and OPS costs. Private network traffic is free of charge.

FPGA FX2 Instance FPGA FX2 Overview

FPGA FX2 instance is a FPGA-based (Field Programmable Gate Array) computing service that features high throughput, low latency and low power consumption. It accelerates the cloud computing in various seniors at the hardware level.

Note:

FPGA FX2 is now under internal trial. Meanwhile the public development image provided by Tencent Cloud is CentOS 7.2 (64-bit) driven by FPGA with hardware programming tools.

Application Scenarios

FPGA FX2 instances are applicable for massive repetitive tasks that requires concurrent computing and low latency.

- Machine learning computing
- Natural language processing and speech recognition
- Computational finance
- Real-time video processing
- Image compression
- Genomics research and computing

Hardware Specification

- Processor: Xilinx Kintex UltraScale KU115 FPGA.
- Memory: DDR4, with a particular PCle x8.
- Storage: SSD cloud disk.
- Network: Network enhancement (10-gigabit) is available by default.



FX2 instances are available in three configurations:

Instance	FPGA	DDR4 (GiB)	vCPU	Memory (GiB)	Data disk	Network
specification						
FX2.7xlarge6	1	2 * 8	14	60	SSD cloud	10-gigabit
0					disk	
FX2.14xlarge	2	4 * 8	28	120	SSD cloud	10-gigabit
120					disk	
FX2.28xlarge	4	8 * 8	56	240	SSD cloud	10-gigabit
240					disk	



Series 1 Instances

Series 1 features Intel Xeon CPU and DDR3 memory.

Standard S1

The Standard S1 of Series 1 is a type of virtual machines with CPUs ranging from low to high core count. It features moderate prices and flexible options of configurations to meet different needs of users. It also offers the options of local disks, common cloud disks and SSD cloud disks for the data disks (The option may vary with different hardware specifications).

It is recommended that the Standard be used for medium- and small-sized Web applications and databases.

Features:

- With CPUs ranging from low to high core count, offering users flexible options to configure the CVM
- With the options of local disks, common cloud disks and SSD cloud disks for the storage
- Balance among compute, memory and network resources, moderate price

High IO I1

High IO I1 of Series 1 is a virtual machine of which both the system disks and data disks are highperformance SSDs. It can satisfy high requirements for disk accessing and latency.

It is recommended that the product be applied in IO intensive business.

Features:

- The performance of the random IOPS of SSD local disks is nearly 10 times higher than that of local HDD and common cloud disks.
 - High random IOPS, with up to 40,000 random read IOPS in typical scenarios (blocksize =4k, iodepth =32);
 - High throughput, with up to 300MB/s random read throughput in typical scenarios



- (blocksize =4k, iodepth =32);
- Low latency, with the access latency in microseconds

Memory M1

The Memory M1 of Series 1 is a model of which the ratio of CPU to memory is 1:8, which is suitable for applications that need extensive memory operations, search, and computing.

Features:

- All with 10 gigabit underlying networks, providing a more powerful computing capacity and a wider range of memory.
- Intel Xeon E5-2670 v3 processor and DDR3 memory, providing larger-sized instances with stronger computing capacities.
- The Memory Intensive employs a golden ratio, able to satisfy large-scale business deployment.

Instance Lifecycle

Overview

The lifecycle of CVM instance refers to the period ranging from launching to termination.

The chart below shows the lifecycle of postpaid CVM instances. For more information about the billing types, please see <u>here</u>.



Status of CVM instances including:

- Launching
- Running
- Restarting
- Shutting down
- Shutdown
- Reinstalling
- Terminating
- Terminated
- (Optional) Reclaimed

Launching Instances

Once you launch a CVM, the instance status becomes Launching. The launch specifications are determined by the <u>instance type</u>. The system will use the specified image to launch the instance. It



may take a while for launching. When the instance is ready, its status becomes Running.

The instance will obtain a private IP address, with which other CVMs in the same regions and of the same network environment (VPC or basic network) are able to communicate with the instance. For instance with public bandwidth/traffic, a public IP address is assigned for accesses from Internet.

For more information, see <u>Purchase and Launch Instances</u>, <u>Log In to Windows Instance</u>, and <u>Log In to</u> <u>Linux Instance</u>.

Restarting Instances

It's suggested to restart instance on Console or via API, instead of running the rebooting command in the operating system.

Restarting an instance is similar to rebooting a computer. The public IP address, private IP address and all data on the disk are remained unchanged. It may take about several seconds to minutes to restart the instance, depending on the instance configuration.

For more information, see Restarting Instances.

Shutting down Instances

You can shut down instance to stop services on Console or via API.

Shutdown CVM instances are still visible on the console. For postpaid CVMs, the billing does not stop. It should be noted that users cannot connect to the instance that has been shut down.

You need to shut down the instance before certain operations, like adjusting configuration, resetting password, etc.. The public IP address, private IP address and all data on the disk are remained unchanged.

For more information, see <u>Shutting Down Instances</u>.



Terminating Instances

You can terminate unnecessary instances if required. Note:.

• For postpaid instances, users can terminate them manually on the Console or via API.

When terminating an instance, the system disks and data disks designated when purchasing will be terminated as well. But elastic cloud disks mounted on it will not be affected.

For more information, see <u>Terminating Instances</u>.

Purchase and Start Instances

Users can start a new instance as follows:

Purchase and start the instance via image

1) Log in to the Tencent Cloud official website, select "Products" - "Compute" - "Cloud Virtual Machine", then click "Buy Now" button, enter the <u>CVM purchase page</u>.

2) Select a region and availability zone. When you need more than one CVMs, it's recommended that you choose different availability zones so as to ensure disaster tolerance.

3) Select the model and configuration. Tencent Cloud provides three CVM models.

- Standard: With CPUs ranging from low to high core count, this is suitable for medium- and small-sized Web applications and databases.
- High IO: Both system and data disks are high-performance SSDs. This is suitable for I/O intensive applications with low latency.
- Memory: A CPU:memory ratio of 1:8, applicable to applications that need considerable memory operations, search, and compute.

For the comparison, see <u>here</u>.



Instances Product Introduction

1. Select th	he region and mo	del 2. Select	an image	3. Select storage	and network	4. Set inform	mation	
Billing Mode (i)	Postpaid							
Region	Guangzhou	Shanghai Beijing	Toronto					
	Cloud Services in differ downloading speed. V	ent regions cannot interwork v ïew My CVM Region ≌ De	with each other through tailed Comparison ⊠	the private network. Select t	the region nearest to your cu	stomer to reduce th	ne access latency and improve the)
Availability Zone	Guangzhou Zone	2 Guangzhou Zone	3 Guangzhou Zo	one 4 ^{NEW}				
Series (j)	Series 1	Series 2 Detailed Co	omparison ¹²					
Model	StandardS1	High IOI1						
	Model	VCPU 7	7	MEM Y	Support Cloue	d Disks (i)	Fee ‡ (i)	
	O StandardS1	1-core		1G	Yes		0.04 USD/ hours up	
	• StandardS1	1-core		2G	Yes		0.05 USD/ hours up	
	Next: Select an image	age The initial price cov	ers only the CPU and N	/IEM fees. The system disk,	data disk, image and bandwi	idth fees are NOT i	ncluded.	

4) Select the image

Those who have just started using Tencent Cloud products can select public images, which contain the vast majority of Linux systems and the legitimate Windows systems. You need to build subsequent operating environment on your own. Select an operating system and the version as needed.

1. Select th	ne region and mo	del	2. Select an	image	3. Select st	orage and ne	twork	4. Set informatio	n
Selected con	figuration								
Billing Mode	Postpaid								
Region	South China (Gua	ngzhou)							
Availability Zone	Guangzhou Zone	2							
Model	Series 1、Standar	rdS1、1-core C	PU, 2 G MEM						
(i) Operating	CentOS	CoreOS	Debian	FreeBSD	OpenSUSE	SUSE	Ubuntu	Windows Server	
system									
System version	Select the system ve	ersion	~						
	Back	t: Select storag	e and network						



- Linux image system provided by Tencent Cloud is an open source system that supports a variety of popular programming languages and databases like MySQL (need to be installed by user).
- Windows image system provided by Tencent Cloud contains legitimate activation key at no extra charge (except for certain overseas regions).

6) Select the type of hard disk and the size of data disk.

Tencent Cloud provides Cloud Block Storage and local hard disk.

- Cloud Block Storage: delivers high data reliability with the distributed three-copy mechanism.
- Local hard disk: a storage located on the physical machine where the CVM resides; it allows low latency but may cause single-point loss risk. For the comparison, see <u>here</u>.

Whichever type of disk you choose, a complimentary 20 GB system disk will be provided for each Linux CVM purchase by default, and you can adjust the capacity to 50 GB through the billing mode; a complimentary 50 GB system disk will be supplied with each Windows CVM purchase by default, and it cannot be adjusted at the moment. You can select the data disk size as needed when making the purchase.

7) Choose the type of network (basic network or VPC) and network billing mode (charge by fixed bandwidth or by traffic).

- Basic network: suitable for new users; CVM private networks of the same user are interconnected.
- Virtual Private Cloud: suitable for higher-level users; there is logic isolation between different VPCs.

NOTE: Windows CVM cannot be used as the <u>Public Network Gateway</u>. Users who need public network gateway can select the Linux image to create CVM.

• Bill by bandwidth: a fixed bandwidth is selected; exceeding this bandwidth will lead to packet



loss. Suitable for scenarios with a low level of network fluctuation.

• Bill by traffic: the fee will be charged by the actually consumed traffic. You may set a peak bandwidth limit to avoid any cost arising from unexpected traffic. Packet loss will happen when the instantaneous bandwidth exceeds that peak value.

8) Determine the number of servers and the length of purchase (only for CVMs with an annual and monthly plan).

9) Set host name and login method

You may choose the host naming method of "Name It Now" at the time of purchase, and fill in a meaningful name limited to 60 characters, such as

my-first-cvm

, or choose to "Name It after Creation". In the latter case, naming is not needed, and the name of the started CVM will be

Unnamed

Tencent Cloud supports multiple CVM login methods, from which users are free to choose:

- For CVMs with Linux images, three login methods are available.
 - Setting a password: users can set a password to log in to the CVM by following the instructions in the page.
 - Associating with the keys immediately: logging in with SSH keys is safer than logging in with passwords. Users need to choose available SSH keys, or create new SSH keys.
 For more information about SSH keys, please refer to <u>SSH Key</u>.
 - Automatically generated password: Tencent Cloud can generate a password automatically and send the initial password to you through internal message after the CVM is started.
- For CVMs with Windows images, two login methods are available.

- Setting a password: users can set a password to log in to the CVM by following the instructions in the page.
- Automatically generated password: Tencent Cloud can generate a password automatically and send the initial password to you through internal message after the CVM is started.

For more information about logging in to server, please refer to <u>Logging in to Windows Instance</u> and <u>Logging in to Linux Instance</u>

10) Choose a Security Group (Make sure the login ports 22 (Linux) or 3389 (Windows) are open. See <u>Security Group</u> for more information), click "Buy Now" button and complete the payment, and then you may enter <u>Console</u> to check and accept your CVM.

After the CVM is created, the user will get an internal message containing such information as instance name, Public IP address, Private IP address, login name, and initial login password (if you choose the method of automatically generated password). You may use the information to log in to and manage instances.

Start an instance which is the same as the current CVM

Tencent Cloud allows users to start an instance which is the same as the current CVM (operating system, application and configuration, etc.) by making a CVM custom image. The instance will get a new Private IP address and a new optional Public IP address.

1) Open the Tencent Cloud console, choose "Cloud Virtual Machine" tab.

2) After clicking the CVM instance for which an image will be made in the CVM list, choose "Operation" - "More" - "Make Image" buttons.

3) After an image is successfully made, the operation log at the upper right corner will display the completion status. Redirect to the image list through the completed image ID.

4) Click the "Create Cloud Virtual Machine" button after the image to redirect to the CVM purchase page. The operating system will select this image by default.

5) Make a purchase following the steps described in the "Purchase and Start an Instance via Image" above, and then you can create an instance that is the same as the current CVM.

Automatically mount data disks when using custom image and data disk snapshot to start a new instance

For instances started based on the method above, the data disks can only be used by CVM instances after being mounted or made online. See the Linux System Partitioning, Formatting, Mounting and File System Creation and Windows System Partitioning, Formatting and File System Creation for details. When starting new CVM instances, if a user specifies a custom image anddata disk snapshot, the Cloud Block Storage of Tencent Cloud can support automatic mounting after a CVM instance is started (which means reading and writing for data disks can be achieved directly without the need to perform a series of operations including adding, partitioning and formatting). Users need to perform several operations on the original instances according to the following instructions before making custom images and data disk snapshots:

How to set automatic mounting of data disks in Linux system

In a Linux system, if a user hopes that the Cloud Block Storage generated by a specified data disk snapshot can automatically mount new CVM instances, the specified custom image and data disk snapshot must meet the following requirements:

- The data disk should be formatted before a snapshot is made for it, namely it was successfully mounted to the original CVM.
- Before an image is made for the system disk, the following commands need to be added to the

/etc/rc.local

file so that data disk mount points are written in the file:

mkdir -p <mount-point> mount <device-id> <mount-point>



Note: Input the mount point of the file system in

<mount-point>

, such as

/mydata

, and input the actual location of file on the partition in

<device-id>

, such as

/dev/vdb (The device name without partitions and with a file system)

and

/dev/vdb1 (The device name with both a file system and partitions)

Only if the two requirements above are both satisfied can the new Linux CVM instance data disk be automatically recognized and mounted.

How to set automatic mounting of data disks in Windows system

In a Windows system, if a user hopes that the Cloud Block Storage generated by a specified data disk snapshot can automatically mount new CVM instances, the specified custom image and data disk snapshot must meet the following requirements:

• The SAN policy in the custom image is



onlineAll

. The Windows public images currently provided by Tencent Cloud have been configured accordingly by default, but users are recommended to check the configuration before making custom images.

• Data disks should be formatted into

ntfs

or

fat32

before snapshots are made.

Only if the two requirements above are both satisfied can the new Windows CVM instance data disk be automatically recognized and made online.



Restart Instances

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 <u>CVM console</u>.

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 <u>RestartInstances API</u>.

Shutdown Instances

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 <u>public IP</u>, <u>private IP</u>, <u>EIP</u> and <u>Classiclink</u>.
- If the instance belongs to a <u>Backend Server Cluster of a CLB Instance</u>, 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 <u>Health Check</u>.
- If the instance is in <u>Auto Scaling Group</u>, 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 <u>auto scaling documentation</u>.

Shutting Down Instances on Console

1) Log in to <u>CVM Console</u>.

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 <u>Adjust the Instance Configuration</u>.

To reset password, see Login Password.

To load keys, see SSH Key.

Reinstall System

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 <u>CVM Console</u>.



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 <u>Hard Disk Prices</u> for details

Terminate Instances

You can terminate unnecessary <u>postpaid instances</u> any time. (Note: you can not terminate prepaid instances manually. They will be terminated automatically after expiration). A terminated instance will not incur charges.

When a postpaid instance is terminated, the local disks and non-elastic Cloud Block Storage mounted to the instance will be terminated as well, and the data stored on them will be discarded. But the elastic Cloud Block Storage mounted to the instance will be kept, and the data will not be affected. When a postpaid instance is terminated, it is still visible on Console for a short period.

Terminate postpaid instances on Console

- 1) Open <u>CVM console</u>.
- 2) Only postpaid CVMs can be terminated.
- 3) To release one postpaid CVM instance, click "Terminate" on the action bar to the right side.

4) To release multiple postpaid CVM instances at once, check the desired CVMs, and click "More" -"Terminate" on the top of the list. Reasons will be given for CVM instances that cannot be terminated.

Terminate postpaid instances via API

Please refer to <u>Return Instance API</u>.

Instance Expires

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 <u>CVM Recycle Bin Console</u>, 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 <u>CVM Console</u>.

Batch Renew Instances

Open the <u>CVM Recycle Bin Console</u>, 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 <u>CVM Console</u>.

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 <u>CVM Recycle Bin Console</u>, 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 <u>CVM Recycle Bin Console</u>, 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.

Log into Windows Instances

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	Windows CVM instance without
	public IP	public IP
Windows	VNC Login	VNC Login
	Remote Desktop Connection	
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 <u>Tencent Cloud</u> <u>Console</u>, 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 <u>CVM Console</u> 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 <u>Security</u> <u>Group</u> to check the Port. If your CVM is in [Virtual Private Cloud/VPC], check related subnet <u>Network</u> <u>ACL</u> 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 <u>Here</u>.

1) Install rdesktop Run the

rdesktop

command to check if it is installed. If not, <u>download the latest installation package</u>, 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 <u>Security</u> <u>Group</u> to check the Port. If your CVM is in [Virtual Private Cloud/VPC], check related subnet <u>Network</u> <u>ACL</u> 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 <u>Security</u> <u>Group</u> to check the Port. If your CVM is in [Virtual Private Cloud/VPC], check related subnet <u>Network</u> <u>ACL</u> 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.

Tencent Cloud	preview Console Home Pro	ducts 🕶					time t	🔹 🛛 Billing Center 👻 📋 Ticket 👻 📔 🎒
Cloud Virtual Machine	Cloud Virtual Machin	e						CVM Usage Guide 12
	Guangzhou(0) Shanghai(0) E	Beijing(0) Toronto(1)						
Cloud Virtual Machine	+ New Start up Shutde	own Restart Renew	Reset password More a	ctions ~			Use ' ' to split more	than one keyword, and press 🔍 🕂 🔯 💷
Image	✓ ID/Name	Monitor/Status	Availability Zone	Model	Configuration	Primary IP	Project	Operation
Cloud Block Storage		, .h			1-core 2GB 1Mbps			
Snapshots 🗸		Running	Toronto Zone 1	S1 👬	System disk:Local disk Network: Basic Network		Default Project	Log In More V
SSH Key								
Security Groups								
EIP								
	Selected 1 items, Total 1 items						Lines	ber page: 50 ▼ K < 1/1 > X

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



Send CtrlAltDel	
Ctrl-Alt-Delete Ctrl-Alt-Backspace	ux 7 (Core) 0.0-514.21.1 _centos logi
Ctrl-Alt-F1	
Ctrl-Alt-F2	
Ctrl-Alt-F3	
Ctrl-Alt-F4	
Ctrl-Alt-F5	
Ctrl-Alt-F6	
Ctrl-Alt-F7	
Ctrl-Alt-F8	
Ctrl-Alt-F9	
Ctrl-Alt-F10	
Ctrl-Alt-F11	
Ctrl-Alt-F12	

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

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	Linux CVM instance without
	IP	public IP
Windows	VNC Login	VNC Login
	Remote Login Software	
	Key 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 <u>Tencent Cloud</u> <u>Console</u>, 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.

Dea	ar user,						
You	ur newly purchas	ed cloud serve	er (1 unit(s)) has bee	n allocated succe	ssfully,Thanks for yo	ur	
supp	port of Tencent	Cloud.					
Serv initia	ver operating sy al password is	stem is Ubunti	u Server 16.04.1 LTS	64位, the default	account is ubuntu, t	he	
	CVM name	CVM ID	Network ID	Private IP	Public IP		
	ccs_cls-	ins-	VDC-	10.	111.230.		
Rem	ninder:						
Rem	ninder:	sed data disks	it's recommended	to partition and f	ormat the server by	the	
Rem	n inder: If you've purcha time you log in	ised data disks to it. For detai	, it's recommended	to partition and f	ormat the server by	the	

 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 <u>Login</u> <u>Password</u>.

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 <u>SSH Key</u>.

Log in to <u>Tencent Cloud Console</u>, 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 <u>"Cloud Virtual Machine" page under Tencent</u> <u>Cloud Console</u>, 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 <u>Security</u> <u>Group</u> and <u>Network ACL</u> for details.)
- Connect type: select "SSH".

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



🕵 PuTTY Configuration		×			
Category:					
Session	Basic options for your PuTTY session				
	Specify the destination you want to connect to				
	Host Name (or IP address) Port	Т			
Bell	- 22				
Features	Connection type:				
i⊒∾Window	○ Raw ○ Telnet ○ Rlogir ● SSH ○ Serial				
Appearance Behaviour	Load, save or delete a stored session 2				
Translation	Saved Sessions				
···· Selection					
Colours	Default Settings Load				
Data	Save				
Proxy	3476				
Telnet	Delete				
In Riogin In SSH					
Serial	Class window on ovit:				
	Always Never Only on clean exit				
About	3 Open Cancel				

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.

PuTTY	
login as: root	A
root('s password:	

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



🕵 PuTTY Configurati	on	X				
Category:						
- Session	*	Basic options for your PuTTY session				
Logging		Specify the destination you want to connect to				
		Host Name (or IP address) Port				
Bell		22				
Features		Connection type:				
Appearance Behaviour Translation Selection	=	Load, save or delete a stored session Saved Sessions				
Colours		Default Settings Load				
Data Proxy		Save				
Telnet Rlogin		Delete				
⊡- SSH Kex ⊡- Auth 1		Close window on exit: Always Never Only on clean exit				
-X11	-					
About		Open Cancel				

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 <u>"Cloud Virtual Machine" page under Tencent Cloud</u> <u>Console</u>, 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 <u>Security</u> <u>Group</u> and <u>Network ACL</u> 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.



Real PuTTY Configuration	×
Category:	
	Basic options for your PuTTY session
	Specify the destination you want to connect to 1
Reyboard	Host Name (or IP address) Port
Features	22
	Connection type:
Appearance	🔘 Raw 🔘 Telnet 🔘 Rlogin 💿 SSH 🔘 Serial
Behaviour	Load, save or delete a stored session
	Saved Sessions
Colours	test 2
	Default Settings
Data	test S
Telnet	Save
Riogin	Delete
Serial	
	Close window on exit:
	Always Never Only on clean exit
	4
About	Open Cancel

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

For example:

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

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

Cloud Virtual Machin	ne					CVM Usage Guide 🛙
Guangzhou(4) Shang	hai(0) Beijing(1)	Hong Kong(0) Sin	gapore(0) Toronto(1)	Silicon Valley(0)	Frankfurt(0) Seoul(0)	
+ New Start up	Shutdown	Reset passw	ord More actions	✓ Use ' ' to spl	it more than one keyword, and pre	ess Q 🕹 🔯 🖳
ID/Name	Monitor/Status	Availability Zone	Model	Configuration	Primary IP	Operation
ins- ccs_cls- 696wkkse_node	II Running	Guangzhou Zone 2	s2 😋	1-core 1GB 1Mbps System disk:Cloud Block Storage Network: BestTest2	119. (Public) 🖵 10. (Private)	Log In More ∨
ins ccs_cls- pgl0q94s_node	II Running	Guangzhou Zone 2	S2 🧔	1-core 1GB 1Mbps System disk:Cloud Block Storage Network: test2	119. (Public) 🖵 10. (Private)	Log In More ∨

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



Send CtrlAltDel	
Ctrl-Alt-Delete	
Ctrl-Alt-Backspace	
Ctrl-Alt-F1	Press Ctrl + Alt + Delete To Log in
Ctrl-Alt-F2	
Ctrl-Alt-F3	
Ctrl-Alt-F4	
Ctrl-Alt-F5	
Ctrl-Alt-F6	
Ctrl-Alt-F7	
Ctrl-Alt-F8	
Ctrl-Alt-F9	
Ctrl-Alt-F10	
Ctrl-Alt-F11	
Ctrl-Alt-F12	

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.



Configure Instances

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.



Adjust configuratio	Adjust configuration					
You have selected 1 unitsCloud Virtual Machine , Learn More						
Current configuration 1-core 2GB 0.05 USD/hour						
New CPU cores	1-core 2-core 4-core 8-core 12-core 16-core 24-core					
New MEM	2GB 4GB 8GB 12GB					
Cost	0.10 USD/hr 🗊					
Important Note After configuration adjustment, the private IP of the CVM may change. After configuration adjustment, the amount-based charging starts from the first step in the stepwise price. Exercise caution when adjusting the configurationLearn More.						
OK Cancel						

Upgrading via API

You can use the ResizeInstance and ResizeInstanceHour APIs to upgrade the instance configuration. For details, see <u>Adjust Postpaid Instance Configuration API</u>.

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 <u>CVM Console</u>, 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.

Adjust configuration

 \times

You have selected 1 unitsCloud Virtual Machine , Learn More							
Current configuration	1-core 2GB 0.05 USD/hour						
New CPU cores	1-core 2-core	4-core	8-core	12-core	16-core	24-core	
New MEM	1GB 2GB 4GB						
Cost	0.04 USD/hr 🗊						
Important Note	•						

After configuration adjustment, the private IP of the CVM may change.

After configuration adjustment, the amount-based charging starts from the first step in the stepwise price.

Exercise caution when adjusting the configurationLearn More,

