

# **Cloud Load Balance**

## **CLB Instances**

### **Product Introduction**



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# CLB Instances

## Public Network CLB Instance

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### Public Network Load Balancer Instances

Public network load balancer instances get requests from the client over the Internet, and allocates these requests to the backend CVMs bound with listeners. After a public network load balancer is created, Tencent Cloud assigns a public network domain name (traditional) and a VIP address to the load balancer. At the same time, DNS server resolves the domain name and VIP address. A public network load balancer also supports binding CNAME and A Record, and mapping them to user-readable custom domain names. Each public network load balancer instance is assigned a fixed BGP public IP and can receive the HTTP, HTTPS, TCP, and UDP requests forwarded from the client. Such instances also support all Tencent Cloud Load Balance services such as session persistence and health check. For more information on the use limits of public network load balancer instances, please see [Use Limits](#).

You can add multiple [load balancer listeners](#) to a public network load balancer instance to forward different requests.

#### Public network DNS domain name

Each traditional public network load balancer instance is assigned a fixed domain name with the following format by default:

```
<name>.<region>.<number>.clb.myqcloud.com
```

<name> and <number> are system-generated strings, and <region> is the ID of the region where the load balancer instance resides.

#### Application scenarios

- When a server cluster is used to provide services to the public network, a single entry needs to be provided, and public network user requests need to be properly allocated to the server cluster;
- When fault tolerance and fault recovery are needed for the server cluster;
- When connecting the users of different ISPs to the networks closest to them to improve the network access speed;

In the above cases, it is recommended to use public network load balancers with a fixed IP.

## Billing

- A traditional or application-based public network load balancer instance costs 0.003 USD/hour.
- Any public network bandwidth/traffic generated with this service is charged to the bill for backend CVMs. For more information, please see [Purchase Network Bandwidth](#).

## Create a public network load balancer instance

For more information on how to create a public network load balancer instance, please see [Creating a Load Balancer Instance](#).

# Private Network Load Balancer Instances

Private network load balancers can only be accessed from within Tencent Cloud, and cannot be accessed over the Internet (No public network domain name or public IP is available). A private network load balancer properly allocates the requests that are sent from private network client to CVMs to the CVM cluster via the corresponding VIP.

A private network load balancer routes the traffic to the backend CVMs in the same region by using [private IP](#), and this is how an internal CVM cluster is formed. If the application has a multi-layered architecture (such as Web servers that can communicate with the Internet and database servers that can only communicate with each other via private networks but cannot communicate with the Internet), you can design an architecture with both private network and public network load balancer instances. You can connect all the Web servers to the public network load balancer instance, and connect the database servers to the private network one. The public network load balancer instance receives requests from the Internet and sends them to the backend Web servers. After processing, the requests for databases are sent to the private network load balancer, which then routes the requests to the database servers.

## Application scenarios

The client and server of private network load balancer are both inside Tencent Cloud and can be accessed via the private network of Tencent Cloud. The main scenarios are as follows:

- When Tencent Cloud has more than one internal servers and the requests from client need to be allocated to the servers properly;
- When fault tolerance and fault recovery are needed for the internal server cluster;
- When the service provider wants to block its own physical IP address and provide transparent services to the client;

In the above cases, it is recommended to use private network load balancer.

## Billing

Private network load balancers are free of charge.

### Create a private network load balancer instance

For more information on how to create a private network load balancer instance, please see [Creating a Load Balancer Instance](#).

# Create CLB Instances

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After creating a cloud load balancer, the user can enter the [Cloud Load Balance Console](#) to configure [Cloud Load Balance Listener](#) and [Back-end CVM Instance](#). The connection protocols and ports that are respectively connected to the front-end (client-to-load balancer) and the back-end (load balancer to back-end instance) are assigned to configure a cloud load balancer listener. You can configure multiple listeners for the cloud load balancer. Determine the destination for routing requests by specifying the back-end server, please refer to [Adding, Modifying, and Unbinding Back-end Cloud Server](#) for specific configuration procedures.

## Creating a Cloud Load Balancer Instance from the Purchase Page

### 1. Select the region where the cloud load balancer instance resides

The load balancer only supports shunting within the same region. Please select the same region as that of the CVM instance to be bound.

### 2. Select Instance Types

Tencent Cloud provides three different cloud load balancer instances, namely: public network with fixed IP, public network without fixed IP and private network. [Here](#) are the characteristics of each network. Please select the cloud load balancer instance type according to your needs.

### 3. Select your network

Select the network of CVM to be bound to the cloud load balancer instance. The network types of Tencent Cloud are classified as basic network and private network.

### 4. Purchase

Select the number of instances to purchase. The cloud load balancer instance is charged monthly on the basis of the number of days used.

## API Purchase

Please refer to [CreateLoadBalancer API](#).

# Configure Domain Name

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## Domain Name Registration

You can open the [Domain Registration Page](#) to query and register domain names.

For more information, please see [How to Register a Domain](#).

## Adding CNAME Record

### Enter Domain Name Resolution Page

Log in to Tencent Cloud **Console** -> **Cloud Products** -> **Domain Name Management** -> **Resolution**. The main domain name of the example is `qcloudtest.com`.



域名	域名状态	到期日期	操作
qcloudtest.com	正常	2017-03-29	<a href="#">解析</a>   <a href="#">续费</a>   <a href="#">管理</a>

### Add CNAME Record

Click **Add** in **Resolution** page to add CNAME record. Instructions are shown below:

1) Enter the server record as required.

A server record is domain name prefix. Common records are as follows:

- `www`: The resolved domain name is `www.qcloudtest.com`
- `@`: Directly resolve the main domain name `qcloudtest.com`
- `:` Pan resolution, matching all other domain names ``qcloudtest.com``

2) Record type. It is recommended to choose `CNAME Record`.

Each record type is shown below:

- A Record: Address record, which is used to specify IPv4 address of the domain name (e.g. 8.8.8.8). If you need to direct the domain name to an IP address, A Record must be added.
- CNAME: You need to add CNAME Record if the domain name is required to point to another domain name which provides IP address.
- TXT: You can enter anything here. Length limit: 255. Most TXT records are used as SPF records (anti-spam).
- NS: Domain name server record. This is required if you need to deliver the sub-domain name to other DNS service providers for resolution.
- AAAA: Used to specify the IPv6 address (such as ff06:0:0:0:0:0:c3) record corresponding to the server name (or domain name).
- MX: This is required if you need to set up an e-mail to receive mails.
- Explicit URL: Explicit URL record is required when an address with status code 301 is redirected to another address (Note: Currently DNSPod only supports 301 redirection).
- Implicit URL: Similar to explicit URL. The difference is that implicit URL does not change the domain name in the address bar.
- SRV: Records which services are provided by certain computers. Format: service name + dot + protocol type. For example: `_xmpp-server._tcp`.

3) Line is used to direct users on specific lines to access this domain.

Choose [Default] if the domain provider only provides one IP address or domain name.

Common line configuration:

- Default: Must be added, otherwise your website can only be accessed by specified lines. It is recommended to enter [China Telecom IP] as [Default]\* for dual-line resolution.
- China Unicom: Specify server IP for [China Unicom Users]. Other users still access the [Default] one.
- Search engines: Specify a server IP for web crawlers to capture

4) For CNAME record, enter the domain name provided by your domain name provider (i.e. the domain name you just purchased).

Common record values for different types are shown below:

- A Record: Enter your server IP. Please ask your domain provider.
- CNAME Record: Enter the domain name provided by your domain provider. **For example: Domain name of the LB instance, `1b16c9-0.ap-guangzhou.12345678.clb.myqcloud.com`.**
- MX Record: Enter the IP address of your e-mail server or the domain name provided by enterprise e-mail provider. If you are not sure about this, ask your e-mail service provider for help.

- TXT Record: Usually used in anti-spam configurations of enterprise e-mails (such as Google, QQ and so on)
- Explicit URL Record: Enter the URL to be redirected to, for example: <http://cloud.tencent.com>
- Implicit URL Record: Enter the URL whose content is to be referenced, for example: <http://cloud.tencent.com>
- AAAA: Not commonly used. The address resolved to IPv6.
- NS Record: Not commonly used. Do not modify the two NS records provided by the system by default. It is used for NS downward authorization. Enter the DNS domain name, such as f1g1ns1.dnspod.net.
- SRV Record: Not commonly used. Format: priority + space + weight + space + port + space + server name. Once the record is generated, a "." is appended to the end of the server name. For example: 50 5269 xmpp-server.l.google.com.

Other values can be configured as default values. After entering the values, click **OK**.

## Viewing CNAME records

You can view, modify and manage the added CNAME records in **Resolution** page.

## Testing Resolution Result

To test whether the domain is resolved normally, you can directly access the bound CNAME domain name (such as [www.qcloudtest.com](http://www.qcloudtest.com) mentioned in the example). Note: It takes about 10 minutes for the resolution to take effect.

# Delete CLB Instance

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After you confirm that a load balancer instance has no traffic and it is no longer needed, you can delete the instance via the Load Balance console or API.

After the instance is deleted, it will be completely terminated and cannot be restored. It is strongly recommend to unbind all the backend CVMs and wait for a period of time before deleting any instance.

## Deleting a Load Balancer Instance Through the Console

1. Log in to [CLB Console](#).
2. Find the load balancer instance you want to delete and click **Delete** in the right operation column.

计费模式	公网带宽	操作
按量计费 2018-01-02创建	-	<a href="#">删除</a>
按量计费 2018-01-02创建	-	<a href="#">删除</a>
按量计费 2017-12-13创建	-	<a href="#">删除</a>
按量计费 2017-12-13创建	-	<a href="#">删除</a>

3. A dialog box pops up for you to confirm the operation. After verifying that the operation safety alert is normal, click **Confirm** to delete the instance.

The confirmation dialog box is shown in the figure below. Be sure to confirm that the number of CVMs

is **0**, the CVM is **None**, and the operation safety alert is **Green** before the deletion.

确认 ×

确认要删除以下负载均衡？

ID	绑定云主机个数	绑定云主机	操作安全提示
lb-l2qf5l47	0	无	🟢

确定 取消

**Note:**

Prepaid instances cannot be deleted. You can choose not to renew the instance after it expires.

## Deleting a Load Balancer Instance Through the API

For more information on the steps, please see [Delete Load Balancer](#).

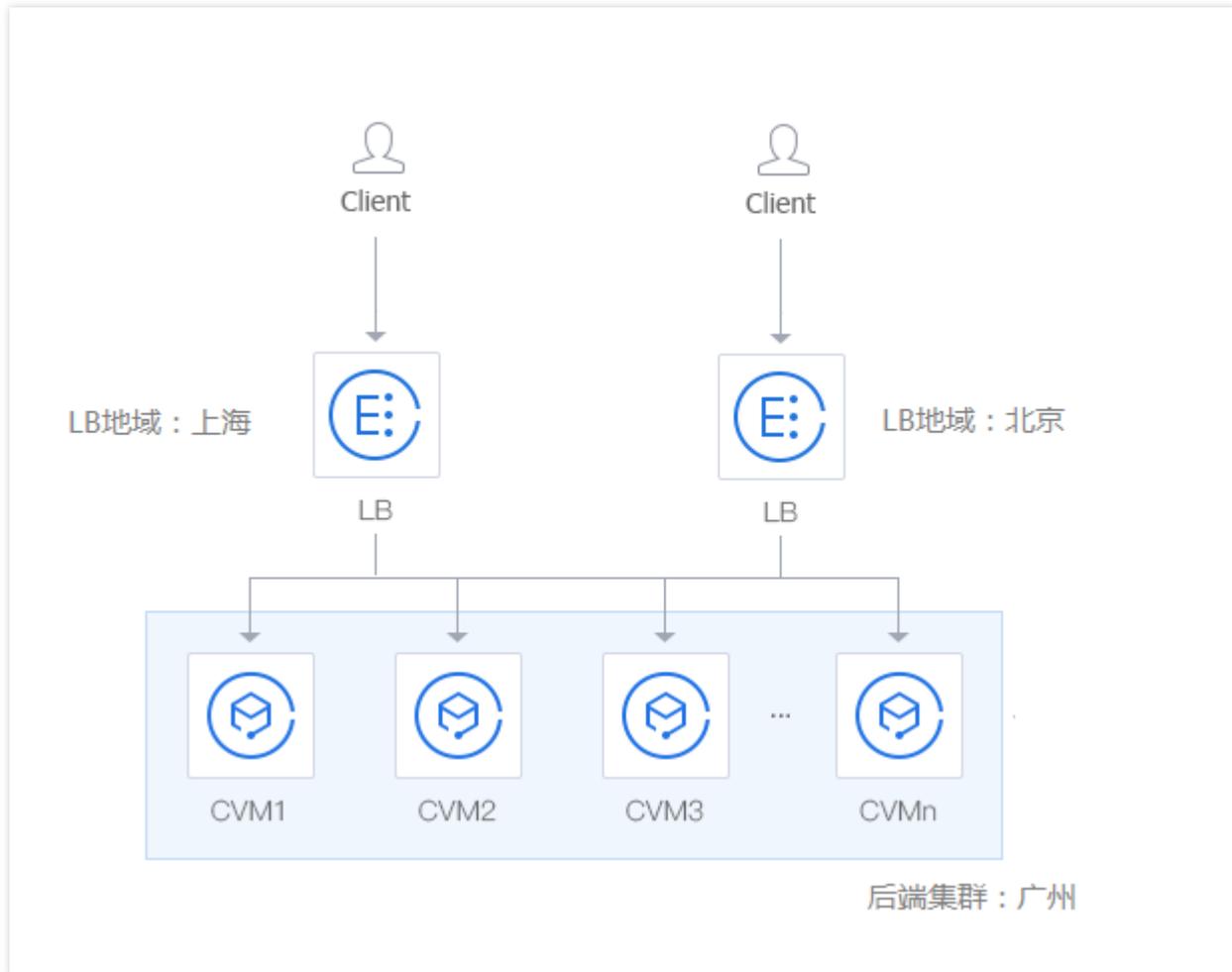
# Binding Cross-region CLBs

Last updated : 2018-06-13 10:42:33

**The public network application-based LB** supports cross-region binding of CVMs, allowing you to select the region of real servers to realize cross-VPC and cross-region binding of backend instances. CLB's cross-region binding feature allows you to modify the region attribute of your backend CVM. This feature is in beta test and you can submit a [Ticket](#) to apply for a trial.

## Application Scenarios

1. It is applicable to scenarios where one server is shared across the globe in P2P and other game businesses. With the backend service cluster deployed in Guangzhou, you can create LBs in Shanghai, Beijing and other cities, and bind these LBs to the same backend service cluster in Guangzhou, which facilitates game acceleration and traffic convergence, thus ensuring the quality of data transmission with low latency.
2. In financial business payment, order payment, and other scenarios, the transmission quality and consistency of key business data can be effectively guaranteed.



## Operation Example

After purchasing public network application-based load balancer, you can view the region attribute of the backend CVM on the instance details page. The region attribute of backend CVM is the same with that of the load balancer by default.

If the application-based LB is bound to a CVM in the same region, you need to unbind the LB from the CVM before switching it to another region.

腾讯云 总览 云产品 常用服务 English 备案 Qcloud

## 负载均衡

< 返回 | 59e2e9d2-0 详情

基本信息 监听器管理 重定向配置 监控

ID	lb-cbgrrgi3
实例类型	公网应用型
地域	华南地区 (广州)
所属项目	默认项目
所属网络	Default-VPC( )
VIP	
创建时间	2017-10-15 12:53:36
日志访问	<input type="checkbox"/> ×

**后端云主机** [编辑](#)

地域	东南亚地区 (香港)
所属网络	Default-VPC( )

You can click **Edit** to modify the region and network attributes of the backend CVM. The bandwidth cost generated by cross-region binding is billed by bandwidth on a daily basis. After the modification is completed, you can select the CVM of the corresponding backend region on the CVM binding page for cross-region binding. **Only backend CVMs in the same region are allowed to be bound.**

