

# Virtual Private Cloud

Elastic IP Address

# Elastic IP Address

Elastic IP (EIP) is a public IP address resource that you can purchase and possess independently. It can be dynamically bound to a VPC ECS instance without restarting the ECS instance.

An Elastic IP address is a NAT IP. It is located in the public network gateway of the Alibaba Cloud, and mapped to the private network interface card (NIC) of the bound ECS instance in the way of NAT. Therefore, the ECS instance that has bound an EIP can communicate with the Internet without disclosing its EIP in the NIC.

**Note:** Currently only ECS instances support binding an Elastic IP address.

## EIP features

- Independently purchased and possessed
  - You can purchase an EIP independently instead of bundling with other computing resources or storage resources.
  - You can possess an EIP as an independent resource in your account.
- Flexible binding
  - You can bind an EIP to an ECS instance in any VPC as needed to make the instance accessible to the Internet, and release it whenever the Internet communication is not needed.
- Configurable network capabilities
  - You can adjust the bandwidth of an EIP according to your needs. The bandwidth changes take effect immediately.

## Differences between EIP and ECS public IP

The following table lists differences between Elastic IP addresses and ECS public IP addresses.

Comparing items	EIP	ECS public IP
Independently possessed	Yes	No
Dynamically binding and unbinding to and from ECS instances	Yes	No
Viewed on the NIC of ECS instances	No	Yes

# Pricing

## Price overview

Elastic IP address fees are collected according to the actual network traffic and are billed hourly.

## Billing method

Elastic IP supports the PayByTraffic billing, a post payment method.

## Billing model

Pricing cycle: 1 hour

Bill cycle: 1 hour.

Billing items:

Retention fee:

**Cost = price \* retention time**, each Elastic IP address is charged independently.

Price: refer to the price table.

Retention time: billed hourly, parts less than one hour are counted by one hour.

Traffic fee:

**Cost = price \* billing traffic**, each Elastic IP address is charged independently.

Price: refer to the price table.

Charged traffic: the cumulative value of the Elastic IP address's outbound traffic in an hour. Outbound traffic refer to data that is transferred from the Alibaba Cloud data center to the Internet, on the contrary is inbound traffic.

**Note:** Modifying the bandwidth limitation does not affect the unit price. Even though, it is recommended that you set the bandwidth based on your actual needs to avoid generating a lot of billing traffic due to malicious access.

The following table lists the price of Elastic IP addresses in different regions.

Region	Traffic Fee (USD/Gbps/Hour)	Retention Fee (USD/Hour)
East China 1 (Hangzhou)/North China 2 (Beijing) / South China 1 (Shenzhen) / East China 2 (Shanghai)	0.125	0.003
Hong Kong	0.1563	0.009
Singapore	0.117	0.006
Asia Pacific NE 1 (Japan)	0.12	0.005
Central Europe 1 (Frankfurt)	0.07	0.006
Middle East 1 (Dubai)	0.447	0.009
US East 1/US West 1	0.078	0.005

**Note:** The price may be changed, please refer to the Elastic IP address console for final price.

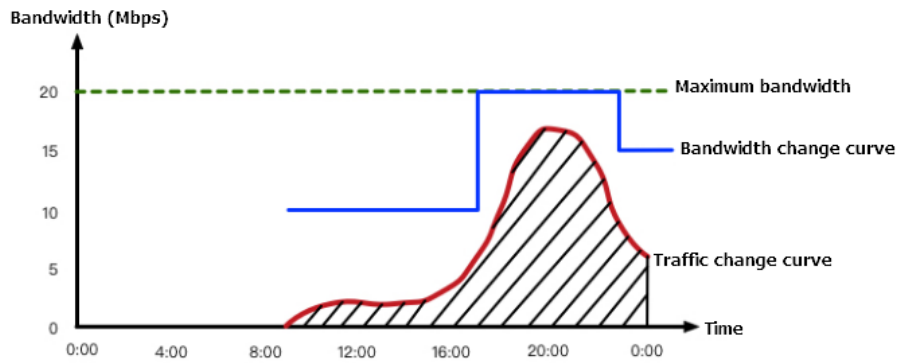
## Billing example

Assume that you purchased an Elastic IP address in the East China 1 region at 9:30 someday and set the bandwidth limits to 10 Mbps.

You bound this Elastic IP address to an ECS instance immediately and started your business.

You made two bandwidth changes that day:

- At 17:00, the bandwidth was changed from 10Mbps to 20Mbps.
- At 23:00, the bandwidth was changed from 20Mbps to 15Mbps.



According to the pricing model, the total cost of this Elastic IP address in that day is 7.5465 dollars (retention fee + traffic fee)

- Retention fee

- The Elastic IP address used a total of 14.5 hours, billing time is taken as 15 hours.
- The retention fee in the East China 1 region is 0.0031 dollar per hour.
- The total retention fee of the Elastic IP address is  $0.0031 * 15 = 0.0465$  dollar.

- Traffic fee

- The total traffic that the Elastic IP address consumed on that day is 60GB.
- The traffic fee in the East China 1 region is 0.125 dollar per GB.
- The total traffic fee is  $0.125 * 60 = 7.5$  dollars.

The account owner of the EIP resource will receive an email reminder when any Elastic IP Addresses are in arrears.

If a payment is overdue for 15 days or less, the EIP still functions normally.

After 15 days since the EIP is in arrears, the EIP service will be suspended and the account owner will receive another email reminder.

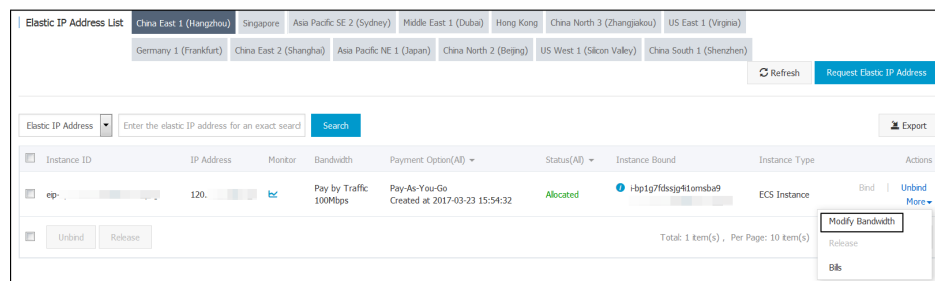
If the account owner is recharged within 15 days after the service is suspended, the service will automatically restart and resume. Otherwise, the EIP will be released and the account owner will receive an email reminder.

## Modify EIP bandwidth

Log on to the EIP console.

On the **Elastic IP Address List** page, click a region and find the EIP instance that you want to change the bandwidth of.

Click **More > Modify Bandwidth**.



In the **Configuration upgrade** section of the **Confirm order** page, adjust the bandwidth value and then click **Activate**.

You can bind an EIP to an ECS instance so that the ECS instance can communicate with the Internet, and unbind it when the Internet communication is not needed.

## Apply for an EIP

Go to the EIP console and click **Apply for Elastic IP**.

On the purchase page, select the region, bandwidth and purchase quantity for the EIP, and then click **Buy Now**.

Complete the payment.

## Bind an EIP

Before binding an EIP to an ECS instance, ensure that the following conditions are met:

The regions of the EIP and ECS instance to be bound are the same.

The ECS instance to be bound is not allocated any public IP address.

## Procedure

Log on to the **EIP** console.

On the **Elastic IP Address List** page, choose a region.

All the Elastic IP addresses under the selected region are displayed.

Click **Bind** next to the target EIP.

In the **Bind** dialog, select the ECS instance that you to bind. Click **OK**.

**Note:** You can bind an EIP to the ECS instance only in the Running or Stopped status.

On the **Elastic IP Address List** page, click **Refresh** on the upper-right corner.

When the status of the Elastic IP address is changed to **Allocated**, it indicates that the ECS instance bound with the EIP can communicate with the Internet.

## Unbind and release an EIP

Before releasing an EIP, you must unbind it firstly.

## Procedure

Log on to the **EIP** console.

On the **Elastic IP Address List** page, click the region of the Elastic IP address to be released.

Click **Unbind** next to the target EIP.

In the **Unbind Elastic IP Address** dialog, click **OK** to confirm your operation.

Click **Refresh** on the upper-right corner. When Elastic IP address status is changed to **Available**, click **More** > **Release**.

In the **Release Elastic IP Address** dialog, click **OK** to confirm your operation.

The released EIP will be deleted from the list.

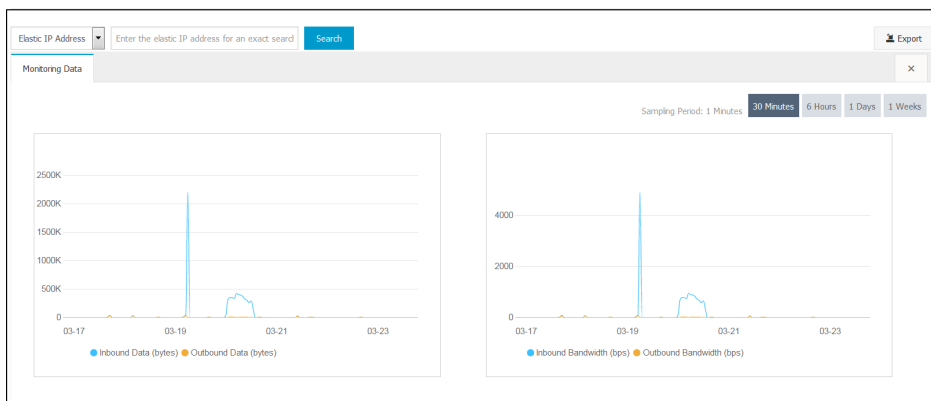
## Monitor EIP traffic

Log on to the EIP console.

On the **Elastic IP Address List** page, click a region. All the Elastic IP addresses under the selected region are displayed.

Click the monitor icon next to the target EIP.

On the **Monitoring Data** page, select a monitoring period to view the traffic data.



Only the ECS instances are supported to bind an EIP.

If an ECS instance already has a system allocated public IP, it cannot be bound with any EIP.

One ECS instance can be bound with only one EIP, and vice versa.

The EIP and the bound ECS instance must be in the same region.

A single account can possess a maximum of 20 EIPs. You can submit a ticket to apply for more EIPs.