

Alibaba Cloud Elastic IP Address

Product Introduction

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Generic conventions

Table -1: Style conventions

| Style | Description | Example |
|---|--|--|
|  | This warning information indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results. |  Danger: Resetting will result in the loss of user configuration data. |
|  | This warning information indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results. |  Warning: Restarting will cause business interruption. About 10 minutes are required to restore business. |
|  | This indicates warning information, supplementary instructions, and other content that the user must understand. |  Notice: Take the necessary precautions to save exported data containing sensitive information. |
| | This indicates supplemental instructions, best practices, tips, and other content that is good to know for the user. |  Note: You can use Ctrl + A to select all files. |
| > | Multi-level menu cascade. | Settings > Network > Set network type |
| Bold | It is used for buttons, menus, page names, and other UI elements. | Click OK. |
| Courier font | It is used for commands. | Run the <code>cd / d C :/ windows</code> command to enter the Windows system folder. |
| <i>Italics</i> | It is used for parameters and variables. | <code>bae log list --instanceid Instance_ID</code> |
| [] or [a b] | It indicates that it is an optional value, and only one item can be selected. | <code>ipconfig [-all -t]</code> |

| Style | Description | Example |
|--|--|------------------------------------|
| <code>{}</code> or <code>{a b}</code> | It indicates that it is a required value, and only one item can be selected. | <code>swich {stand slave}</code> |

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1 What are Elastic IP Addresses

An Elastic IP Address (EIP) is a public IP address resource that you can purchase and use independently. You can associate an EIP with an ECS instance of the VPC network, a private SLB instance of the VPC network, an ENI of the VPC network, and a NAT Gateway, or a HAVIP.

An EIP is also a type of NAT IP address that is located in the public network gateway of Alibaba Cloud, and is mapped to the associated cloud instance through NAT. After a cloud instance is associated with an EIP, the cloud instance can communicate over the Internet through the EIP.

The differences between an EIP and an ECS public IP address

The following table lists the differences between an EIP and an ECS public IP address.

| Item | EIP | ECS public IP address |
|---|---|---------------------------------|
| Supported networks | VPC | VPC and classic network |
| Can the IP address be independently used? | Yes | No |
| Can the IP address be associated with and disassociated from an ECS instance at any time? | Yes | No |
| Can the IP address be read on the NIC of an ECS instance? | The IP address can be read on the NIC in the Cut-Through Mode or Multi-EIP to ENI Mode. | Classic Network: Yes VPC: No |

Benefits

EIP has the following advantages:

- Purchase and use independently

You can purchase an EIP as an independent resource instead of purchasing it together with other computing or storage resources.

- Flexible association

When you need an instance to access the Internet, you can associate an EIP with the instance as needed. You can also disassociate and release the EIP at any time.

- **Configurable network capabilities**

You can adjust the bandwidth value of an EIP as needed. The bandwidth change takes effect immediately.

2 Limits

Before you use Elastic IP Address (EIP), note the following limits.

General limits

- Up to 20 EIPs can be created under one account. If you need more EIPs, open a ticket.
- You can associate an EIP with a cloud resource only when the EIP is available.
- The association of an EIP takes effect immediately.
- An EIP can be associated with only one resource at a time.
- An EIP that is locked because of security reasons cannot be associated with or disassociated from any cloud resource.

Limits on associating ECS instances

- The ECS instance must be in a VPC network.
- The ECS instance and the EIP must belong to the same region.
- The ECS instance must be in the Running or Stopped status.
- The ECS instance cannot have a public IP address or be associated with any EIP.
- Each ECS instance can be associated with only one EIP at a time.

Limits on associating NAT Gateways

- The account to which the NAT Gateway belongs cannot have a NAT bandwidth package that was purchased before January 26, 2018.
- The NAT Gateway and the EIP must belong to the same region.
- Up to 20 EIPs can be associated with a NAT Gateway. If you need to associate more EIPs, open a ticket.

Limits on associating SLB instances

- The Server Load Balancer (SLB) instance must be in a VPC network.
- The SLB instance and the EIP must belong to the same region.
- Each SLB instance can be associated with only one EIP at a time.

Limits on associating HaVips

- The High-Availability Virtual IP Address (HaVip) and the EIP must belong to the same region.

- The HaVip must be in the Available or Allocated status.
- An HaVip can be associated with only one EIP.

Limits on associating secondary ENIs

- The network type of the secondary Elastic Network Interface (ENI) must be VPC.
- The secondary ENI and the EIP must belong to the same region.
- Three modes are available when you associate an EIP with a secondary ENI: NAT mode, cut-through mode, and multi-EIP to ENI mode.
 - In the NAT mode, the number of EIPs that a secondary ENI can be associated with depends on the number of private IP addresses of the secondary ENI.
 - In the cut-through mode, a secondary ENI can only be associated with one EIP.
 - In the multi-EIP to ENI mode, a secondary ENI can be associated with 10 EIPs. If you need to associate more EIPs, open a ticket.