

Alibaba Cloud Elastic IP Address

Best practices

Issue: 20190918

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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 .
<code>Courier font</code>	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 Associate multiple EIPs with an ENI in the NAT mode

This topic describes how to associate multiple Elastic IP Addresses (EIPs) with a secondary Elastic Network Interface (ENI) in the NAT mode. By associating multiple EIPs with a secondary ENI, you can improve the availability of the associated ECS instance.

Prerequisites

If you want to associate multiple EIPs with a secondary ENI in the NAT mode, the following requirements must be met:

- An ECS instance is created. For more information, see [#unique_4](#).
- A secondary ENI is created. For more information, see [#unique_5](#).

Step 1 Assign multiple secondary private IP addresses to the ENI

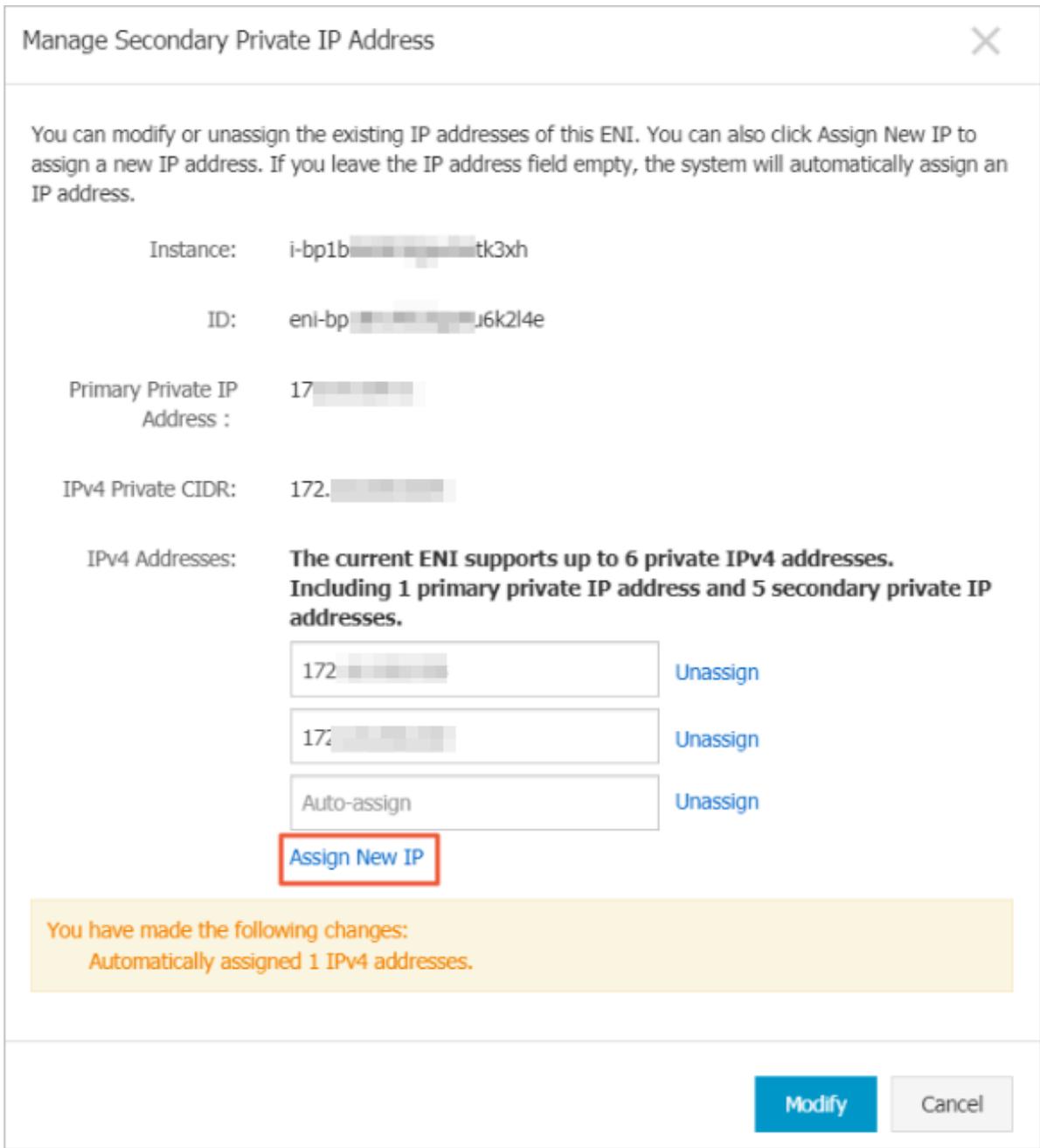
To assign multiple secondary private IP addresses to the ENI, follow these steps:

1. Log on to the [ECS console](#).
2. In the left-side navigation pane, choose Network & Security > ENI.
3. On the Network Interfaces page, select the region of the target ENI.
4. Find the target ENI and click Manage Secondary Private IP Address in the Actions column.
5. On the Manage Secondary Private IP Address page, click Assign New IP multiple times to assign multiple secondary private IP addresses to the ENI.



Note:

You can manually enter private IP addresses, which must fall into the IPv4 Private CIDR. If you do not enter any IP addresses, the system will automatically assign IP addresses from the IPv4 Private CIDR.



6. Click Modify.

Step 2 Associate EIPs with the secondary private IP addresses

To associate EIPs with the secondary private IP addresses of the ENI, follow these steps:

1. Log on to the [VPC console](#).
2. In the left-side navigation pane, click Elastic IP Addresses.

3. Select the region of the target EIP.
4. On the Elastic IP Addresses page, find the target EIP and click **Bind** in the Actions column.
5. On the Bind Elastic IP Address page, complete the following configurations, and then click **OK**.
 - **Instance Type:** Select Secondary ENI.
 - **Resource Group:** Select the resource group to which the EIP belongs.
 - **Mode:** Select NAT Mode.
 - **Secondary ENI:** Select the ENI to be associated with the EIP.
6. Repeat the preceding steps to associate multiple EIPs with the secondary private IP addresses of the secondary ENI.

Step 3 Associate the ENI with an ECS instance

After associating EIPs with the secondary private IP addresses of the ENI, you need to associate the ENI with an ECS instance. For more information, see [#unique_6/unique_6_Connect_42_section_bwf_mqs_lgb](#).

Step 4 Configure secondary private IP addresses

After associating the ENI with an ECS instance, you need to configure secondary private IP addresses for the ECS instance. For more information, see [#unique_7/unique_7_Connect_42_section_y4b_krk_ggb](#) and [#unique_7/unique_7_Connect_42_section_b2x_hlb_3gb](#).



Notice:

To configure secondary private IP addresses for an ECS instance, you must first obtain the gateway and subnet mask. For more information, see [#unique_8](#).

After configuring secondary private IP addresses, you can run the `ip address` command to view the configured secondary private IP addresses.

```

[root@iZgw8c53sucm5 ~]# ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq state UP group default qlen 1000
    link/ether 00:16:3e:00:15:42 brd ff:ff:ff:ff:ff:ff
    inet 192.168.0.113/24 brd 192.168.0.255 scope global dynamic eth0
        valid_lft 315359917sec preferred_lft 315359917sec
3: eth1: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq state UP group default qlen 1000
    link/ether 00:16:3e:00:38:81 brd ff:ff:ff:ff:ff:ff
    inet 192.168.0.114/24 brd 192.168.0.255 scope global eth1
        valid_lft forever preferred_lft forever
    inet 192.168.0.116/24 brd 192.168.0.255 scope global secondary eth1
        valid_lft forever preferred_lft forever
    inet 192.168.0.115/24 brd 192.168.0.255 scope global secondary eth1
        valid_lft forever preferred_lft forever

```

Step 5 Test the network connectivity

In this example, an ECS instance with the Linux operating system is created and static routing of the eth1 network interface is configured. To test the network connectivity of the ECS instance, follow these steps:

1. Log on to the ECS instance.

2. Run the following command to configure static routing for the eth1 network

```

interface: / sbin / iproute add < destination network >/< the
number of network bits > via < gateway of the secondary
private IP address > eth1 src < secondary private IP
address >.

```

3. Run the following command to check the network connectivity between the secondary private IP address and the destination network:

```

ping < destination network > -I < secondary private IP address >.

```

If the ping test succeeds, it indicates that the EIPs have been associated with the secondary private IP addresses of the ENI.

```

[root@iZb~]# ping 8.8.8 -I 192.168.0.116
PING 8.8.8 (8.8.8) from 192.168.252.20 : 56(84) bytes of data.
64 bytes from 8.8.8: icmp_seq=2 ttl=49 time=32.8 ms
64 bytes from 8.8.8: icmp_seq=3 ttl=49 time=32.7 ms
64 bytes from 8.8.8: icmp_seq=4 ttl=49 time=32.8 ms
64 bytes from 8.8.8: icmp_seq=5 ttl=49 time=32.7 ms
64 bytes from 8.8.8: icmp_seq=8 ttl=49 time=32.8 ms
64 bytes from 8.8.8: icmp_seq=9 ttl=49 time=32.7 ms
64 bytes from 8.8.8: icmp_seq=10 ttl=49 time=32.8 ms
64 bytes from 8.8.8: icmp_seq=11 ttl=49 time=32.7 ms
64 bytes from 8.8.8: icmp_seq=12 ttl=49 time=32.8 ms

```

2 Deploy an FTP server by using an EIP

You can use the EIP cut-through mode to associate an Elastic IP Address (EIP) with an FTP server to provide FTP services. This topic takes an FTP server deployed with a Windows system as an example.

Procedure

1. [#unique_10](#).
2. Associate the EIP with a secondary Elastic Network Interface (ENI) and select the EIP cut-through mode.



Note:

Make sure that the selected secondary ENI is not associated with any ECS instance.

For more information, see [#unique_11](#).

3. Purchase an ECS instance of the Windows Server 2016 system and deploy an FTP service.
4. On the page of EIP list, click the link of the associated ENI.
5. On the Network Interfaces page, find the ENI associated with the EIP and click Bind to Instance to associate the ENI with the ECS instance deployed with the FTP service.

Result

Use the EIP address associated with the ENI to access the FTP service.



Note:

Make sure that the security group rules of the ECS instance allow access from the Internet.