

Alibaba Cloud Elastic IP Address

User Guide

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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.	 Note: 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>
{ } or {a b}	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 Create an EIP

You can create an Elastic IP Address (EIP), then bind it to an ECS or SLB instance of the VPC network, or a NAT Gateway. The EIP then acts as a public IP to provide the resource with Internet access.

Procedure

1. Log on to the [VPC console](#).
2. Click **Create EIP**.
3. Configure the EIP according to the following information, and then click **Buy Now** to complete the payment.

Configuration	Description
Region	Select the region of the EIP. Make sure that the EIP and the resource you want to bind it to are in the same region.
Max Bandwidth	Set a peak bandwidth for the EIP.
Quantity	Select the number of EIPs you want to create with the same configurations.

2 Bind EIP to cloud resources

You can bind an EIP to an ECS instance of the VPC network, an SLB instance of the VPC network, a NAT Gateway or an Elastic Network Interface, so that the resources can communicate with the Internet.

Procedure

1. Log on to the [VPC console](#).
2. In the left-side navigation pane, click **Elastic IP Addresses**.
3. Select the region of the EIP and find the target EIP.
4. Click **Bind** in the **Actions** column of the target EIP.
5. On the **Bind Elastic IP Address** page, complete the following configurations, and then click **OK**.

Configuration	Description
Instance Type	<p>Select the type of instance to bind:</p> <ul style="list-style-type: none"> • ECS Instance: After binding an EIP, the ECS instance can communicate with the Internet. <p>The ECS instance must meet the following requirements:</p> <ul style="list-style-type: none"> — The network type of the ECS instance must be VPC. — The ECS instance and the EIP must be in the same region. — The ECS instance must be in the running or stopped status. — The ECS instance does not have a public IP, nor is it bound to any EIP. — One ECS instance can only be bound to one EIP. <ul style="list-style-type: none"> • NAT Gateway: After binding an EIP, you can use the EIP to configure DNAT and SNAT entries. <p>The NAT Gateway must meet the following requirements:</p> <ul style="list-style-type: none"> — The NAT Gateway and the EIP must be in the same region. — Up to 10 EIPs can be bound to a NAT Gateway. <ul style="list-style-type: none"> • SLB Instance: After an EIP is bound to an SLB instance, the SLB instance can forward requests from the Internet. <p>The SLB instance must meet the following requirements:</p> <ul style="list-style-type: none"> — The network type of the SLB instance must be VPC.

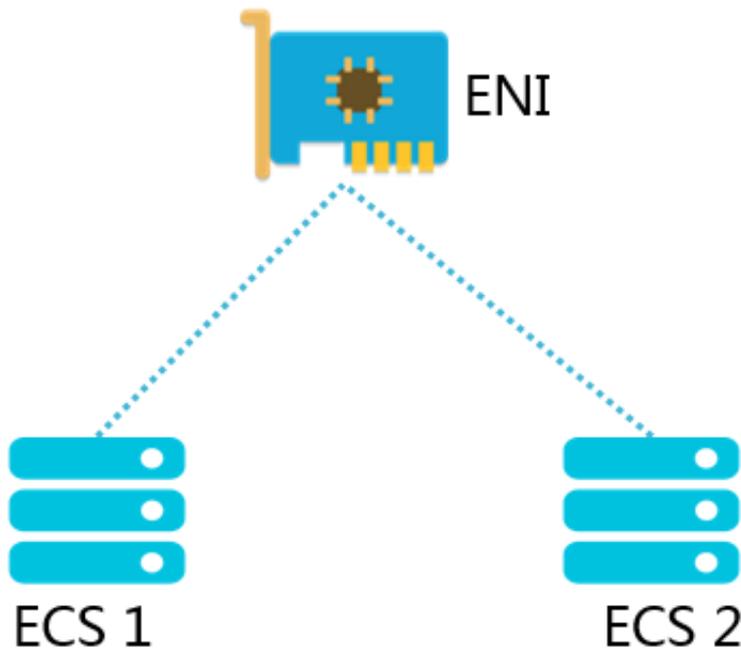
Configuration	Description
	<ul style="list-style-type: none">— The SLB instance and the EIP must be in the same region.— Each SLB instance can have only one EIP bound to it at a time.• Secondary ENI: After an EIP is bound to an ENI, the ECS instance attached with the ENI can access the Internet or provide external services. <p>For more information, see Bind to an ENI.</p>
NAT Gateway/ ECS Instance/SLB Instance	Select the instance to bind.

3 Bind to an ENI

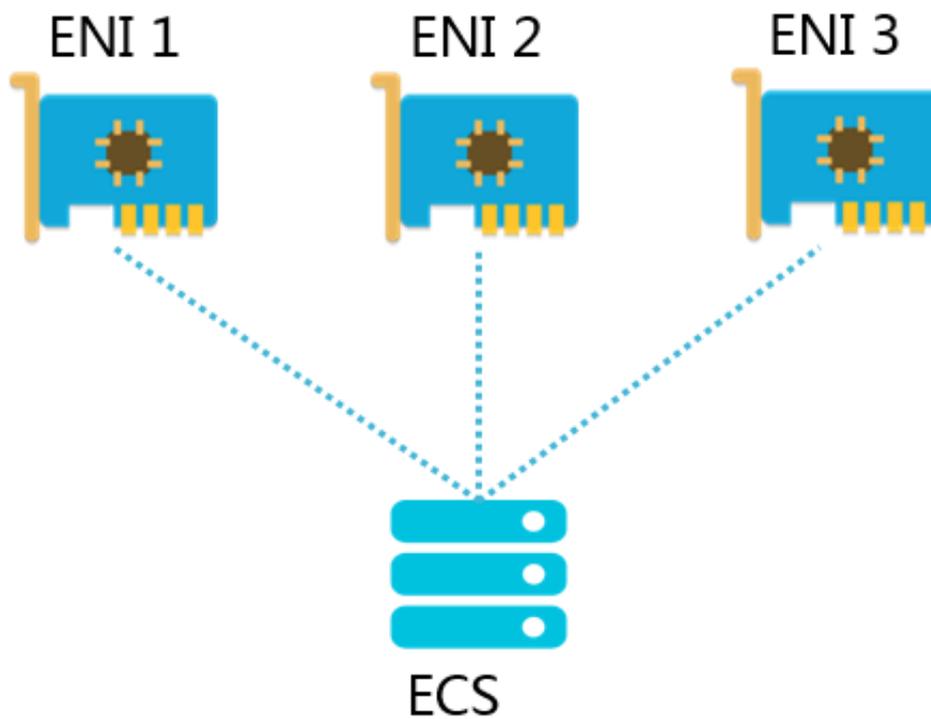
You can bind an EIP to an Elastic Network Interface (ENI). Binding an EIP to an ENI allows you to build a more robust, flexible and scalable IT solution and enable a single server to use multiple public IPs.

ENI overview

Elastic Network Interface (ENI) is an independent network interface instance. You can attach an ENI to an ECS instance, or detach the ENI from the ECS instance and then attach it to another ECS instance. After you move an ENI from one instance to another one, the network traffic is also directed to the new instance.



Besides, you can attach multiple ENIs to the same ECS instance, so that the instance can use multiple public IPs to provide external services.

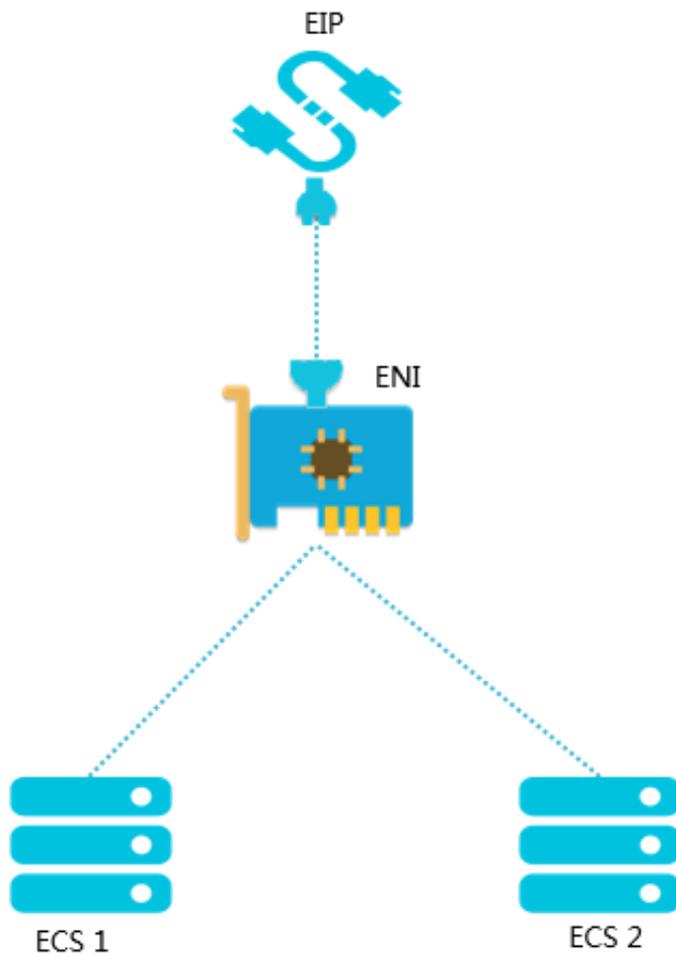


Scenarios

Binding EIP to ENI is applicable to the following scenarios:

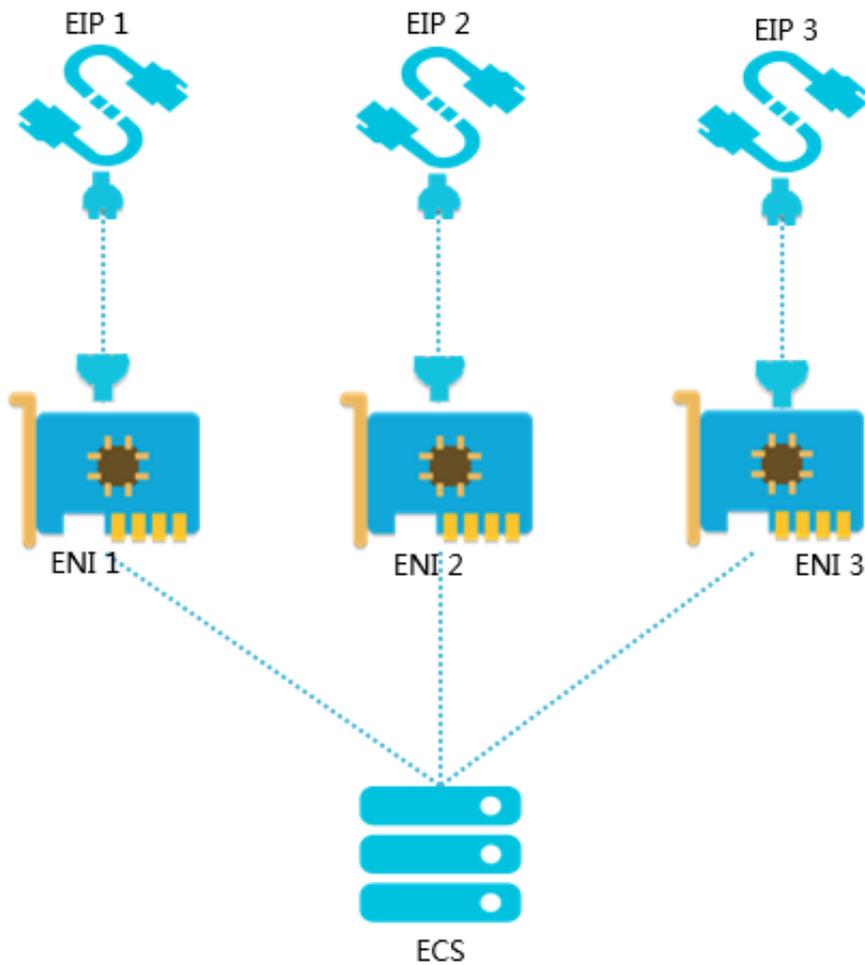
- Highly reliable IP migration

ENI provides a private IP itself. After an ENI is bound with an EIP, the ENI has both a private IP and a public IP. When moving an ENI bound with an EIP from an ECS instance to another instance, the public IP and private IP are also migrated. It provides a highly reliable and available IP migration solution for cloud servers that use both public IP and private IP.



- Use multiple public IPs to provide services

You can bind multiple ENIs to an ECS instance and bind an EIP to each ENI, thus the ECS instance has multiple public IPs. You can flexibly use these public IPs to provide external services with corresponding security group rules.



FAQ

Is the EIP instance fee charged after an EIP is bound to an ENI?

Yes.

An EIP is free from instance fee only when it is bound to an ECS instance.

How many EIPs can an ENI bind to?

One.

Is additional configuration required after an EIP is bound to an ENI that is attached to an ECS instance?

- If an application that provides external services is deployed on the ECS instance, such as a website, you do not need to configure additional routing in the ECS instance or in the VPC. You can directly use the EIP bound to the ENI to provide external service.
- If an application that requires the Internet access is deployed on the ECS instance, you must customize the default routing or add a new route. The default route is sent from the primary

NIC. You can adjust the route priority to allow packets to be sent out through ENI. You can also configure a route to distribute packets from multiple NICs in a load-sharing way or randomly distribute them from a NIC.

Bind an ENI

To bind an ENI, complete these steps:

1. Log on to the [VPC console](#).
2. In the left-side navigation pane, click **Elastic IP Addresses**.
3. On the **Elastic IP Addresses** page, select the region of the target EIP.
4. Locate the target EIP, and then click **Bind**.
5. On the **Bind Elastic IP Address** page, select the region of the ENI to bind and the ENI instance, and then click **OK**.

4 Unbind and release an EIP

You can unbind and release an Elastic IP Address (EIP) when Internet access is no longer required. After an EIP address is unbound, you still need to pay the retention fee. To avoid unnecessary cost, release the EIP after unbinding it.

Procedure

1. Log on to the [VPC console](#).
2. In the left-side navigation pane, click **Elastic IP Addresses**.
3. Select a region and find the target EIP.
4. Click **Unbind**, and then click **OK** in the displayed dialog.
5. After unbinding the EIP, click **More > Release**, and then click **OK** in the displayed dialog box to release the EIP.

5 Modify the bandwidth of an EIP address

You can change the bandwidth of an EIP instance.

Procedure

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 address.
4. Click **More > Modify Configuration**.
5. Change the bandwidth of the EIP.