Alibaba Cloud
Global Acceleration

Quick Start

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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 `cd /d C:/windows` command to enter the Windows system folder.
Italics	It is used for parameters and variables.	`bae log list --instanceid` *`Instance_ID`*
[] or [a|b]	It indicates that it is a optional value, and only one item can be selected.	`ipconfig` *`[-all|-t]`*
{} or {a|b}	It indicates that it is a required value, and only one item can be selected.	`swich` *`{stand	slave}`*

Contents

1 Configure a dedicated-bandwidth Global Acceleration instance

This tutorial explains how to configure a dedicated-bandwidth Global Acceleration instance to accelerate services deployed on an ECS instance of a VPC network. A dedicated-bandwidth Global Acceleration instance provides a dedicated Internet bandwidth and a public IP for accelerating the Internet access for the added backend service.

Scenario

The ECS instance where the application is deployed is located in China (Beijing) and is bound to an EIP to provide external service. Service timeout usually occurs when users in the US (Silicon Valley) region access the service. Therefore, the quality and speed of their Internet access needs to be improved.

Configuration overview

To meet the demand for acceleration, a Global Acceleration instance with the following configurations must be created:

- Instance type: dedicated bandwidth

  For more information, see *Instance types*.

- Accelerated area: North America

  The area where the Internet access is to be accelerated. The US (Silicon Valley) region belongs to the accelerated area of North America.

- Region: US (Silicon Valley)

  The region of the Global Acceleration instance, which must be one region within the accelerated area.

- Service area: Mainland China

  The region where the backend service is deployed. Beijing belongs to the service area of Mainland China.
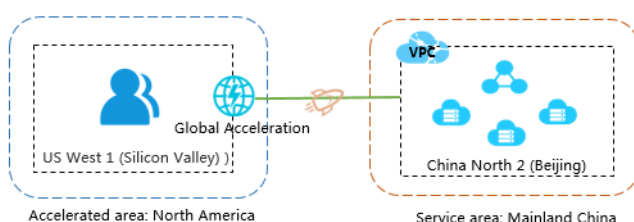
Step 1. Create a Global Acceleration instance

1. Log on to the *VPC console* .

2. In the left-side navigation pane, click **Global Acceleration**.

3. Click **Dedicated Bandwidth**, and then click **Create Instance**.

4. Configure the Global Acceleration instance according to the following information, and then click **Buy Now**.

Configuration	说明
Bandwidth Type	Select the bandwidth type: • **Dedicated Bandwidth**: A dedicated-bandwidth Global Acceleration instance provides a dedicated Internet bandwidth and a public IP for accelerating the Internet access for the added backend service. The bandwidth of a dedicated-bandwidth Global Acceleration instance is exclusively used by the instance itself. • **Shared Bandwidth**: A shared-bandwidth Global Acceleration instance only contains an Internet bandwidth and no public IP. You can add one or more Elastic IP Addresses (EIPs) to a shared-bandwidth instance. After adding, the EIPs can be used to accelerate the Internet access for the backend services. Additionally, the EIPs share the bandwidth of the shared-bandwidth instance and the Internet cost is reduced. The regions of the backend services that the EIPs are bound to must be the same. In this tutorial, select **Dedicated Bandwidth**. For more information, see *Instance types*.
Accelerated Area	Select the accelerated area of the Global Acceleration instance. An accelerated area is a collection of regions and each accelerated area contains one or more regions. The Global Acceleration instance can accelerate the Internet access for the backend service of users in the selected accelerated area. In this tutorial, select **North America**.
Region	Select the region to which the Global Acceleration instance belongs. The instance must be located in the selected accelerated area.

Configuration	说明
	In this tutorial, select **US (Silicon Valley)**. 📋 **Note:** The Global Acceleration instance and the backend service cannot be in the same region.
Service Area	Select the area to which the accelerated service belongs. An accelerated area is a collection of Alibaba Cloud regions. Each accelerated area contains one or more regions. You can bind ECS instances or SLB instances of the VPC network in the selected service area to accelerate the deployed backend services. In this tutorial, select **Mainland China**.
Billing Method	Global Acceleration is billed by bandwidth.
Bandwidth Peak	Select the peak bandwidth of the Global Acceleration instance. After an instance has been created, you can adjust the peak bandwidth at any time according to your business needs. In this tutorial, select **10 Mbps**.
Purchase Quantity	Select the quantity that you want to purchase. In this tutorial, select **1**.
Subscription Duration	Select the purchase duration. In this tutorial, select **1**.

Step 2. Bind a backend service

After a dedicated-bandwidth instance is created, you need to bind the backend service to be accelerated to the dedicated-bandwidth instance. Follow these steps to bind a backend service:

1. On the **Global Acceleration** page, click **Dedicated Bandwidth**.

2. Find the target instance and click **Bind Instance**.

3. On the **Backend Service Instance** page, configure the backend service and click **OK**.

   • **Backend Service Region**: Select the region of the backend service. The backend service region must belong to the selected service area.

     In this tutorial, select **China North 2 (Beijing)**.

   • **Instance Type**: Select the type of the instance where the backend service is deployed. Currently, Global Acceleration supports accelerating services deployed on ECS instances and SLB instances of the VPC network.

     In this tutorial, select **ECS Instance**.

- **Bind Instance**: Select the instance where the backend service to be accelerated is
  deployed.

  In this tutorial, the ECS instance where the external service is deployed is selected.

When the status of the Global Acceleration instance changes to **Allocated**, the binding is
successful. After the instance is successfully bound, the system automatically allocates a backend
service address to the backend server.

Step 3. Activate the backend service

After the backend service is bound, you need to add a NIC sub interface to the bound ECS
instance. The IP address of the sub interface is the backend service address allocated by the
system. After the backend service is bound to the Global Acceleration instance, the acceleration
link is always active as long as the sub interface in the backend server is correctly configured.

> **Note:**
>
> Activation is required only when the backend service is an ECS instance.

This tutorial takes the Linux system as an example:

1. On the **Global Acceleration** page, find the target instance and view the backend service
   address.

   You can also click **Service Activation** to view the backend service address.

2. Run the following command to open the NIC configuration file.

```
sudo vi /etc/sysconfig/network-scripts/ifcfg-eth0:1
```

3. Add the following information in the configuration file.

```
DEVICE=eth0:1
 IPADDR=172.xx.xx. 135
 NETMASK=255.255.255.255
 ONBOOT=yes
```

4. Run the following command to make the configuration take effect.

```
ifup eth0:1
```

Step 4. Verification

After the backend service is bound, you can ping the EIP of the Global Acceleration instance to verify if the configuration takes effect. You can also ping the public IP of the backend server and the EIP of the Global Acceleration instance respectively to compare the latency and packet loss.

2 Configure a shared-bandwidth Global Accelerati on instance

This tutorial explains how to configure a shared-bandwidth Global Acceleration instance to accelerate services deployed on ECS instances of the VPC network. A shared-bandwidth Global Acceleration instance contains only an Internet bandwidth and no public IP. It accelerates the backend services through the added EIPs.

Scenario

The ECS instance where the application is deployed is located in China (Beijing) and is bound with an EIP to provide external service. Service timeout usually occurs when users in the US (Silicon Valley) region access the service. Therefore, the quality and speed of their Internet access needs to be improved.

Configuration overview

To meet the demand for acceleration, a Global Acceleration instance with the following configurations must be created:

- Instance type: shared bandwidth

  For more information, see *Instance types*.

- Accelerated area: North America

  The area where the Internet access is to be accelerated. The US (Silicon Valley) region belongs to the accelerated area of North America.

- Region: US (Silicon Valley)

  The region of the Global Acceleration instance to accelerate the Internet access.

- Service area: Mainland China

  The region where the backend service is deployed. Beijing belongs to the service area of Mainland China.
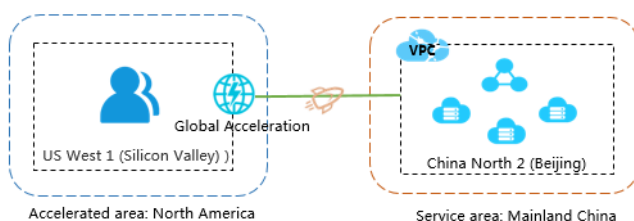
Prerequisites

- An application is deployed on the ECS instance and a secondary ENI is created for the ECS
  instance.

Step 1. Create a Global Acceleration instance

1. Log on to the *VPC console* .

2. In the left-side navigation pane, click **Global Acceleration**.

3. Click **Shared Bandwidth**, and then click **Create Instance**.

4. Configure the Global Acceleration instance according to the following information, and then
   click **Buy Now**.

Configuration	Description
Bandwidth Type	Select the bandwidth type: • **Dedicated Bandwidth**: A dedicated-bandwidth Global Acceleration instance provides a dedicated Internet bandwidth and a public IP for accelerating the Internet access for the added backend service. The bandwidth of a dedicated-bandwidth Global Acceleration instance is exclusively used by the instance itself. • **Shared Bandwidth**: A shared-bandwidth Global Acceleration instance only contains an Internet bandwidth and no public IP. You can add one or more Elastic IP Addresses (EIPs) to a shared-bandwidth instance. After adding, the EIPs can be used to accelerate the Internet access for the backend services. Additionally, the EIPs share the bandwidth of the shared-bandwidth instance and the Internet cost is reduced. The regions of the backend services that the EIPs are bound to must be the same. In this tutorial, select **Shared Bandwidth**. For more information, see *Instance types*.
Accelerated Area	Select the accelerated area of the Global Acceleration instance. An accelerated area is a collection of regions and each accelerated area contains one or more regions. The Global Acceleration instance

Configuration	Description
	can accelerate the Internet access for the backend service of users in the selected accelerated area. In this tutorial, select **North America**.
Region	Select the region to which the Global Acceleration instance belongs. The instance must be located in the selected accelerated area. In this tutorial, select **US (Silicon Valley)**. 📋 **Note:** The Global Acceleration instance and the backend service cannot be in the same region.
Service area	Select the area to which the accelerated service belongs. An accelerated area is a collection of Alibaba Cloud regions. Each accelerated area contains one or more regions. You can bind ECS instances or SLB instances of the VPC network in the selected service area to accelerate the deployed backend services. In this tutorial, select **Mainland China**.
Billing method	Global Acceleration is billed by bandwidth.
Bandwidth peak	Select the peak bandwidth of the Global Acceleration instance. After an instance has been created, you can adjust the peak bandwidth at any time according to your business needs. In this tutorial, select **10 Mbps**.
Purchase Quantity	Select the quantity that you want to purchase. In this tutorial, select **1**.
Subscription Duration	Select the purchase duration. In this tutorial, select **1**.

Step 2. Add EIPs

After creating a shared-bandwidth instance, you must add at least one EIP to accelerate the Internet access. After the EIP is added to the instance:

• The added EIP shares the bandwidth of the Global Acceleration instance and the original bandwidth of the EIP is disabled.

• The original billing of the EIP is also disabled. The EIP becomes a public IP and no additional traffic or bandwidth fee is charged.

To add an EIP, follow these steps:

1. On the **Global Acceleration** page, click **Shared Bandwidth**.

2. Click **Add IP Address** in the **Actions** column of the target instance.

3. On the **Add IP Address** page, complete these steps:

   - If there is no unused EIP in your account, click **Buy EIP and add to Global Acceleration**, enter the number of EIPs to buy and click **OK**.

     After the EIP is created, it is automatically added to the shared-bandwidth instance.

   - If there is an unused EIP under your account, click **Select from EIP list**, select the EIP to bind and click **OK**.

   > **Note:**
   >
   > The EIP instance and the Global Acceleration instance must be in the same region.

Step 3. Bind backend services

A shared-bandwidth instance accelerates Internet access through EIPs. After adding an EIP, you need to bind the EIP to the backend service that you want to accelerate. Up to 50 EIPs can be bound to a shared-bandwidth Global Acceleration instance.

Follow these steps to bind a backend service:

1. On the **Global Acceleration** page, find the target instance and click the added EIP.

2. On the **Global Acceleration IP Addresses** page, click the **Bind** option of the target EIP.

3. In the displayed dialog box, configure the backend service according to the following information:

   - **Region**: Select the region of the backend service. In this tutorial, select **China North 2**.
   - **Instance Type**: Select the type of the instance. Shared-bandwidth Global Acceleration instances support binding ECS ENIs and SLB instances of the VPC network. In this tutorial, select **Secondary ENI**.

- **Bind Instance**: Select the instance to bind. In this tutorial, select the created ECS ENI.

Step 4. Verification

After the backend service is bound, you can ping the EIP of the Global Acceleration instance to verify if the configuration takes effect. You can also ping the public IP of the backend server and the EIP of the Global Acceleration instance respectively to compare the latency and packet loss.