

Alibaba Cloud Express Connect

Peering connections

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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 <i>Instance_ID</i></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 is a peering connection?

You can establish a peering connection between two VPCs or between a VPC and a Virtual Border Router (VBR).

Initiator and acceptor

When you establish a peering connection, one end (VPC or VBR) of the connection is the initiator, and the other end is the acceptor. Only the initiator can initiate a connection. The acceptor can only wait for the initiator to initiate a connection. The initiator and the acceptor are only used to control the process of connection establishment. After the connection is established, the communication link is bidirectional and there is no difference between the initiator and the acceptor.

For interconnections between VPCs under the same account, Express Connect provides an option to create the initiator and the acceptor at the same time. You do not need to manually initiate the connection. The system will automatically initiate and establish the connection. For interconnections between VPCs under different accounts, you must manually initiate a connection.

The following table compares the initiator and acceptor.

| Item | Initiator | Acceptor |
|---|-----------|----------|
| Is this end charged when VPCs are interconnected in the same region? | No | No |
| Is this end charged when VPCs are interconnected between different regions ? | Yes | No |
| Is it required to configure peer information before initiating a connection? | Yes | Yes |
| Can this end initiate a connection? | Yes | No |
| Can this end send messages to the peer end after a connection is established? | Yes | Yes |

Connection process and status

In the peering connection process, the initiator initiates a connection. The acceptor then receives the connection, after which the connection is established successfully.

During different stages of the connection process, the status of a peering connection is also different, as shown in the following table.



Note:

If you choose to create both ends at the same time when establishing a peering connection, the system automatically initiates and establishes a connection. In this case, the initiator and the acceptor become activated after being created.

| Connection process | Initiator status | Acceptor status |
|---------------------------------------|------------------|-----------------|
| The initiator initiates a connection. | Connecting | Accepting |
| The connection is established. | Activated | Activated |
| The connection is suspended. | Suspending | Suspending |
| The connection is broken. | Suspended | Suspended |
| A connection is re-initiated. | Activating | Activating |
| The connection is established. | Activated | Activated |

2 Interconnect two VPCs

You can interconnect two VPCs by creating a peering connection between them.

Context



Note:

If this is the first time that you use Express Connect to interconnect two VPCs, we recommend that you use Cloud Enterprise Network (CEN). For more information, see [Tutorial overview](#).

Procedure

1. Log on to the [Express Connect](#) console.
2. In the left-side navigation pane, click VPC Peering Connections > VPC-to-VPC.
3. Click Create Peering Connection.
4. Configure the peering connection.

| Configuration | Description |
|---------------|--|
| Account type | <p>Select whether the VPCs you want to connect belong to the same account.</p> <ul style="list-style-type: none">· Same as Peer's: If the VPCs to be connected belong to the same account, the system creates an initiator instance and an acceptor instance at the same time, and automatically establishes a connection between them.· Different from Peer's: If the VPCs to be connected belong to different accounts, you must create an initiator instance and an acceptor instance separately before initiating the connection from the initiator instance. |

| Configuration | Description |
|-------------------|--|
| Connection Type | <p>Select the peering connection type.</p> <ul style="list-style-type: none"> · VPC-to-VPC: Establish a peering connection between two VPCs. · VBR-to-VPC: Establish a peering connection between a VPC and a VBR. For more information, see #unique_6. <p>In this example, select VPC-to-VPC.</p> |
| Routers to Create | <p>Select the instances to be created.</p> <ul style="list-style-type: none"> · Initiator and Acceptor: Both an initiator instance and an acceptor instance are created. After the creation, the initiator instance automatically connects to the acceptor instance. <p>This option applies only to connections under the same account.</p> <ul style="list-style-type: none"> · Create Initiator: An initiator instance is created and the initiator instance can initiate the connection actively. <p>The initiator router type can be VPC or VBR. If VBR-to-VPC is selected for the peering connection type, only VBR is available for the initiator router type.</p> <p>This option applies only to connections between different accounts.</p> <ul style="list-style-type: none"> · Acceptor Only: An acceptor instance is created. <p>Only VPC is available for the acceptor router type.</p> <p>This option applies only to connections between different accounts.</p> <div style="background-color: #f0f0f0; padding: 10px; margin-top: 10px;">  Note: Only Pay-As-You-Go billing supports creating an acceptor separately. The acceptor instance is free of charge. </div> |
| Local VPC ID | Select the ID of the local VPC (the initiator or the acceptor of the connection). |
| Local Region | Select the region of the local VPC. |

| Configuration | Description |
|----------------------|--|
| Peer VPC ID | Select the ID of the peer VPC (the initiator or the acceptor of the connection). |
| Peer Region | Select the region of the peer VPC. |
| Bandwidth | Select a bandwidth value for the connection. Use the default bandwidth for the acceptor instance. |
| Validity | Select a validity period for your subscription. If you want the subscription to automatically renew when it expires, select the Auto Renew check box. |

3 Interconnect a VPC and a VBR

You can fulfill intercommunication between a VPC and a Virtual Border Router (VBR) by creating a peering connection.

Procedure

1. Log on to the [Express Connect](#) console.
2. In the left-side navigation pane, click **VPC Peering Connections > VBR-to-VPC**.
3. Click **Create Peering Connection**.
4. Configure the peering connection.

| Configuration | Description |
|-----------------|---|
| Account | <p>Select whether the VPC and the VBR you want to connect belong to the same account. Select a validity period for your subscription.</p> <ul style="list-style-type: none"> · Same as Peer's: If the VPC and VBR to be connected belong to the same account, the system creates an initiator instance and an acceptor instance at the same time, and automatically establishes a connection between them. · Different from Peer's: If the VPC and VBR to be connected belong to different accounts, you need to create an initiator instance and an acceptor instance respectively before initiating the connection from the initiator instance. |
| Connection Type | <p>Select the peering connection type:</p> <ul style="list-style-type: none"> · VPC-to-VPC: Establish a peering connection between two VPCs. · VBR-to-VPC: Establish a peering connection between a VPC and a VBR. <p>In this example, select VBR-to-VPC.</p> |

| Configuration | Description |
|--------------------|---|
| Routers to Create | <p>Select the instances to be created:</p> <ul style="list-style-type: none"> · Initiator and Acceptor: Both an initiator instance and an acceptor instance are created. After the creation, the initiator instance automatically connects to the acceptor instance. This option applies only to connection under the same account. · Initiator Only: The initiator instance is created and the initiator instance can initiate the connection actively. If VBR-to-VPC is selected for the connection type, only VBR is available for the route type of the initiator. This option applies only to connection between different accounts. · Acceptor Only: An acceptor instance is created. Only VPC is available for the acceptor router type. This option applies only to connection between different accounts. |
| Local Region | Select the region of the VBR. |
| Local Access Point | Select the access point to which the VBR connects. |
| Local VBR ID | Select the VBR to which you want to establish the connection · |
| Peer Region | Select the region of the peer VPC. |
| Peer VPC ID | Select the ID of the peer VPC. |
| Bandwidth | Select a bandwidth for the connection. Use the default bandwidth for the acceptor instance. |
| Validity | Select a validity period for your subscription. If you want the subscription to automatically renew when it expires, select the Auto Renew check box. |

4 Manage Subscription instances

You can change the bandwidths of your Subscription instances and pay for the change.

Procedure

1. Log on to the [Express Connect](#) console.
2. In the left-side navigation pane, choose VPC Peering Connections > VPC-to-VPC or VPC Peering Connections > VBR-to-VPC.
3. Select the region where your instance is located and find your target instance.
4. Click and select the operation you want to perform:
 - **Renew:** When the initiator instance is overdue for more than 24 hours, the physical connection interface stops forwarding data and is locked. To avoid affecting your business, we recommend that you renew your account in a timely manner.
 - **Renew and Upgrade/Downgrade:** Change the bandwidth while you renew your account. The change takes effect in the next billing cycle.
 - **Upgrade:** Increase the bandwidth of the initiator instance.
 - **Suspend Initiator/Acceptor:** Suspend the activated instance. Data is no longer forwarded after the suspension.
 - **Activate Initiator/Acceptor:** Activate the suspended instance. Data forwarding is restored after the activation.

5 Delete a peering connection

Before you can delete a peering connection, you must delete the route entries of its initiator and acceptor.

Step 1: Delete route entries

To delete the custom route entries, follow these steps:

1. Log on to the [Express Connect](#) console.
2. In the left-side navigation pane, choose VPC Peering Connections > VPC-to-VPC.
3. Select a region and find your target peering connection.
4. Click the VPC ID of the initiator. On the VPC Details page, click the VPC ID again.
5. In the Network Resources section, click the route table link. On the displayed Route Tables page, click the route table ID.
6. Find the custom route entry destined for the on-premises data center and then click Delete.
7. In the displayed dialog box, click OK.
8. Repeat the preceding steps to delete the route entries of the acceptor.

Step 2: Delete the peering connection

To delete the peering connection, follow these steps:

1. Log on to the [Express Connect](#) console.
2. In the left-side navigation pane, choose VPC Peering Connections > VPC-to-VPC.
3. Select a region and find your target peering connection.
4. Choose > Suspend Initiator. In the displayed dialog box, click Confirm.
5. Choose > Suspend Acceptor. In the displayed dialog box, click Confirm.
6. Click > Delete. In the displayed dialog box, click Confirm.