Managing Virtual Port Channels

This chapter contains the following sections:

About vPCs

A virtual port channel (vPC) allows links that are physically connected to two different Cisco network devices to appear as a single port channel to a third device, such as a Fabric Extender, a switch, server, or any other networking device. A vPC can provide Layer 2 multipathing, which allows you to create redundancy by increasing bandwidth, enabling multiple parallel paths between nodes and load-balancing traffic where alternative paths exist.

In Cisco UCS Director, you can manage vPCs on the following Cisco network devices:

- Cisco Nexus 3000 Series switches
- Cisco Nexus 5000, 5500, and 5672 Series switches
- Cisco Nexus 9300 and 9500 Series switches

Note   For more detailed information about vPCs and configuration guidelines for vPCs, see the Cisco NX-OS Software Configuration Guides.

Configuring a vPC Domain

Step 1   Choose **Physical** > **Network**.

Step 2   On the **Network** page, choose the pod.

Step 3   Expand the pod, and select the network device to be configured.

Step 4   Click **VPC Info**.

Step 5   Click **Configure VPC Domain**.

Step 6   In the **Configure vPC Domain** screen, complete the required fields, including the following:

Name	Description
Domain ID field	The virtual port channel (vPC) domain ID used to create a vPC domain.
Source Management IP Address field	The IP address for source management.
Destination Management IP Address field	The IP address for destination management.
Role Priority field	The role priority within the valid range for this vPC switch. The default value is 32667. The switch with a lower priority is elected as the vPC primary switch. If the peer link fails, vPC peer detects whether the peer switch is alive through the vPC peer keepalive link. If the vPC primary switch is alive, the vPC secondary switch suspends its vPC member ports to prevent potential looping while the vPC primary switch keeps all its vPC member ports active.
System Priority field	The system priority within the valid range for the specified vPC domain. The default value is 32667. You should manually configure the vPC system priority when you are running the Link Aggregation Control Protocol (LACP) to help ensure that the vPC peer devices are the primary devices on LACP. When you manually configure the system priority, make sure that you configure the same priority value on both vPC peer devices. If these values do not match, then the vPC is not activated.
Delay Restore field	Specify the time (in number of seconds) to delay bringing up the restored vPC peer device. The range is from 1 to 3600.
Peer Gateway check box	Check this box to enable Layer 3 forwarding for packets destined to the gateway MAC address of the virtual Port Channel (vPC).
Auto Recovery check box	Check this box to enable virtual Port Channel (vPC) auto-recovery feature on the network device.
Copy Running configuration to Startup configuration check box	Check the check box to copy the running configuration to the startup configuration.

Step 7   Click **Submit**.

Configuring a vPC Port Channel

Step 1   Choose **Physical** > **Network**.

Step 2   On the **Network** page, choose the pod.

Step 3   Expand the pod, and select the network device to be configured.

Step 4   Click **VPC Info**.

Step 5   From the **More Actions** drop-down list, choose **Configure VPC Port Channel**.

Step 6   In the **Configure vPC Port Channel** screen, complete the required fields, including the following:

Name	Description
Select Port Channel Name field	Click **Select**. In the **Select** dialog box, choose the port channel and click **Select**.
VPC Peer Link check box	Check the check box if you want to configure the port channel as a vPC peer link for this device.
Copy Running configuration to Startup configuration check box	Check the check box to copy the running configuration to the startup configuration.

Step 7   Click **Submit**.

Removing a vPC

Step 1   Choose **Physical** > **Network**.

Step 2   On the **Network** page, choose the pod.

Step 3   Expand the pod, and select the network device to be configured.

Step 4   Click **VPC Info**.

Step 5   Click **Remove VPC Port Channel**.

Step 6   In the **Remove VPC Port Channel** screen, complete the required fields, including the following:

Name	Description
Select Port Channel Name field	Click **Select**. In the **Select** dialog box, choose the virtual Port Channel (vPC) and click **Select**.
Copy Running configuration to Startup configuration check box	Check the check box to copy the running configuration to the startup configuration.

Step 7   Click **Submit**.