



# P Commands

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This chapter describes the Cisco NX-OS interface commands that begin with P.

# peer-switch

To enable the virtual port channel (vPC) switch pair to appear as a single Spanning Tree Protocol (STP) root in the Layer 2 topology, use the **peer-switch** command. To disable the peer switch vPC topology, use the **no** form of this command.

**peer-switch**

**no peer-switch**

<b>Syntax Description</b>	This command has no arguments or keywords.
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<b>Defaults</b>	Peer switch Layer 2 topology is disabled.
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<b>Command Modes</b>	vPC domain configuration mode
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<b>Supported User Roles</b>	network-admin
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Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

<b>Usage Guidelines</b>	This command does not require a license.
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<b>Examples</b>	This example shows how to enable the vPC switch pair to appear as a single STP root in the Layer 2 topology:
	<pre>switch(config)# vpc domain 5 switch(config-vpc-domain)# peer-switch 2013 Jan 30 14:44:44 switch %STP-2-VPC_PEERSWITCH_CONFIG_ENABLED: vPC peer-switch configuration is enabled. Please make sure to configure spanning tree "bridge" priority as per recommended guidelines to make vPC peer-switch operational.</pre>

Related Commands	Command	Description
	vpc domain	Creates a virtual port-channel (vPC) domain.

# port

To configure a unified port on a Cisco Nexus 5548UP switch or Cisco Nexus 5596UP switch, use the **port** command. To remove the unified port, use the **no** form of this command.

**port** *port-number* **type** {**ethernet** | **fc**}

**no port** *port-number* **type** {**ethernet** | **fc**}

## Syntax Description

<i>port-number</i>	Port number. The range is from 1 to 199.
<b>type</b>	Specifies the type of port to configure on a slot in a chassis.
<b>ethernet</b>	Specifies an Ethernet port.
<b>fc</b>	Specifies a Fibre Channel (FC) port.

## Command Default

None

## Command Modes

Slot configuration mode

## Command History

Release	Modification
6.0(2)N1(1)	This command was introduced.

## Usage Guidelines

Unified ports allow you to configure ports as Ethernet, native Fibre Channel or Fibre Channel over Ethernet (FCoE) ports. By default, the ports are Ethernet ports but you can change the port mode to Fibre Channel on the following unified ports:

- Any port on the Cisco Nexus 5548UP switch or the Cisco Nexus 5596UP switch.
- The ports on the Cisco N55-M16UP expansion module that is installed in a Cisco Nexus 5548P switch.

You must configure Ethernet ports and FC ports in a specified order:

- FC ports must be configured from the last port of the module.
- Ethernet ports must be configured from the first port of the module.

If the order is not followed, the following errors are displayed:

```
ERROR: Ethernet range starts from first port of the module
ERROR: FC range should end on last port of the module
```

On a Cisco Nexus 5548UP switch, the 32 ports of the main slot (slot1) are unified ports. The Ethernet ports start from port 1/1 to port 1/32. The FC ports start from port 1/32 backwards to port 1/1.

## Examples

This example shows how to configure a unified port on a Cisco Nexus 5548UP switch or Cisco Nexus 5596UP switch:

```
switch# configure terminal
```

```
switch(config)# slot 1
switch(config-slot)# port 32 type fc
switch(config-slot)# copy running-config startup-config
switch(config-slot)# reload
```

This example shows how to configure a unified port on a Cisco N55-M16UP expansion module:

```
switch# configure terminal
switch(config)# slot 2
switch(config-slot)# port 32 type fc
switch(config-slot)# copy running-config startup-config
switch(config-slot)# reload
```

This example shows how to configure 20 ports as Ethernet ports and 12 as FC ports:

```
switch# configure terminal
switch(config)# slot 1
switch(config-slot)# port 21-32 type fc
switch(config-slot)# copy running-config startup-config
switch(config-slot)# reload
```

#### Related Commands

Command	Description
<b>slot</b>	Enables preprovisioning of features or interfaces of a module on a slot in a chassis.
<b>reload</b>	Reloads the switch and all attached Fabric Extender chassis or a specific Fabric Extender.

# port-channel load-balance ethernet

To configure the load-balancing method among the interfaces in the channel-group bundle, use the **port-channel load-balance ethernet** command. To return the system priority to the default value, use the **no** form of this command.

**port-channel load-balance ethernet** *method*

**no port-channel load-balance ethernet** [*method*]

## Syntax Description

<i>method</i>	Load-balancing method. See the “Usage Guidelines” section for a list of valid values.
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## Command Default

Loads distribution on the source and destination MAC address.  
The default hash polynomial is CRC8a.

## Command Modes

Global configuration mode

## Command History

Release	Modification
6.0(2)N1(1)	This command was introduced.

## Usage Guidelines

The valid load-balancing *method* values are as follows:

- **destination-ip**—Loads distribution on the destination IP address.
- **destination-mac**—Loads distribution on the destination MAC address.
- **destination-port**—Loads distribution on the destination port.
- **source-destination-ip**—Loads distribution on the source and destination IP address.
- **source-destination-mac**—Loads distribution on the source and destination MAC address.
- **source-destination-port**—Loads distribution on the source and destination port.
- **source-ip**—Loads distribution on the source IP address.
- **source-mac**—Loads distribution on the source MAC address.
- **source-port**—Loads distribution on the source port.

Use the option that provides the balance criteria with the greatest variety in your configuration. For example, if the traffic on an EtherChannel is going only to a single MAC address and you use the destination MAC address as the basis of EtherChannel load balancing, the EtherChannel always chooses the same link in that EtherChannel; using source addresses or IP addresses might result in better load balancing.

## Examples

This example shows how to set the load-balancing method to use the source IP:

```
switch(config)# port-channel load-balance ethernet source-ip
```

Related Commands	Command	Description
	<b>show port-channel load-balance</b>	Displays information on EtherChannel load balancing.