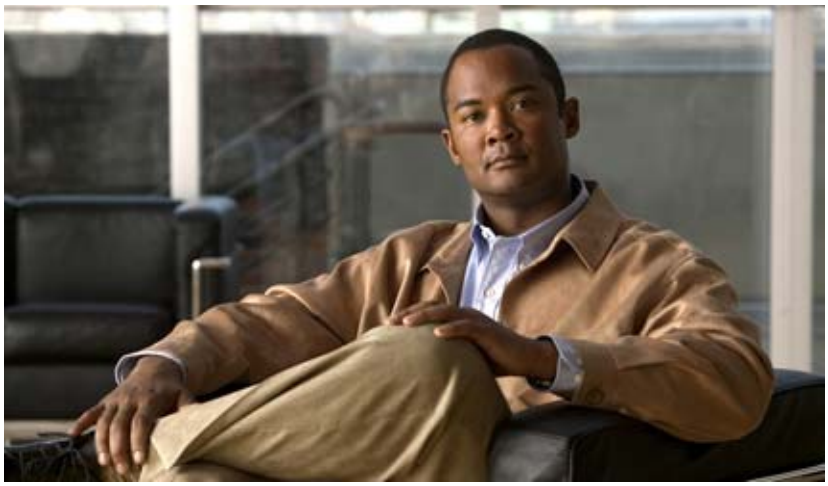
Send comments to nexus5k-docfeedback@cisco.com



Cisco Nexus 5000 Series NX-OS Virtual Port Channel Command Reference

Cisco NX-OS Releases 4.x, 5.x

First Published: October 2008
Last Modified: July 2012

Americas Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
http://www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 527-0883

Text Part Number: OL-25840-01

Cisco Nexus 5000 Series NX-OS Virtual Port Channel Command Reference

CONTENTS

Preface

This preface describes the audience, organization, and conventions of the *Cisco Nexus 5000 Series NX-OS Virtual Port Channel Command Reference*. It also provides information on how to obtain related documentation.

This preface includes the following sections:

Audience

This publication is for experienced users who configure and maintain Cisco NX-OS devices.

Supported Switches

This section includes the following topics:

Cisco Nexus 5000 Platform Switches

Table 1 lists the Cisco switches supported in the Cisco Nexus 5000 Platform.

Note For more information on these switches, see the *Cisco Nexus 5500 Platform and Cisco Nexus 5000 Platform Hardware Installation Guide* available at the following URL: http://www.cisco.com/en/US/products/ps9670/tsd_products_support_series_home.html

Table 1 Supported Cisco Nexus 5000 Platform Switches

Switch	Description
Cisco Nexus 5010 Switch	The Cisco Nexus 5010 is a 1 rack unit (RU) switch. It delivers 500 Gbps of wire-speed switching capacity designed for traditional, virtualized, unified, and high-performance computing (HPC) environments.
Cisco Nexus 5020 Switch	The Cisco Nexus 5020 is a 2 rack unit (RU) switch. It delivers 1+ Tbps of wire-speed switching capacity designed for traditional, virtualized, unified, and HPC environments.

Note The Cisco Nexus 5000 Platform switches only supports Internet Group Management Protocol (IGMP) snooping.
IGMP, Protocol Independent Multicast (PIM), and Multicast Source Discovery Protocol (MSDP) are not supported on the Cisco Nexus 5000 Platform switches.

Cisco Nexus 5500 Platform Switches

Table 2 lists the Cisco switches supported in the Cisco Nexus 5500 Platform.

Note For more information on these switches, see the *Cisco Nexus 5500 Platform and Cisco Nexus 5000 Platform Hardware Installation Guide* available at the following URL:
http://www.cisco.com/en/US/products/ps9670/tsd_products_support_series_home.html

Table 2 Supported Cisco Nexus 5500 Platform Switches

Switch	Description
Cisco Nexus 5548P Switch	The Cisco Nexus 5548P switch is the first switch in the Cisco Nexus 5500 Platform. It is a one-rack-unit (1 RU), 10-Gigabit Ethernet and Fibre Channel over Ethernet (FCoE) switch that offers up to 960-Gbps throughput and up to 48 ports.
Cisco Nexus 5596P Switch	The Cisco Nexus 5596P switch is a top-of-rack, 10-Gigabit Ethernet and FCoE switch offering up to 1920-Gigabit throughput and up to 96 ports.

Organization

This document is organized as follows:

Chapter Title	Description
New and Changed Information	Describes the new and changed information for the new Cisco NX-OS software releases.
A Commands	Describes the Cisco NX-OS virtual port channel (vPC) commands that begin with A.
B Commands	Describes the Cisco NX-OS virtual port channel (vPC) commands that begin with B.
C Commands	Describes the Cisco NX-OS virtual port channel (vPC) commands that begin with C.
D Commands	Describes the Cisco NX-OS virtual port channel (vPC) commands that begin with D.
F Commands	Describes the Cisco NX-OS virtual port channel (vPC) commands that begin with F.
G Commands	Describes the Cisco NX-OS virtual port channel (vPC) commands that begin with G.
I Commands	Describes the Cisco NX-OS virtual port channel (vPC) commands that begin with I.
P Commands	Describes the Cisco NX-OS virtual port channel (vPC) commands that begin with P.
R Commands	Describes the Cisco NX-OS virtual port channel (vPC) commands that begin with R.
S Commands	Describes the Cisco NX-OS virtual port channel (vPC) commands that begin with S.
Show Commands	Describes the Cisco NX-OS virtual port channel (vPC) **show** commands.
V Commands	Describes the Cisco NX-OS virtual port channel (vPC) commands that begin with V.

Document Conventions

Command descriptions use these conventions:

Convention	Description
boldface font	Commands and keywords are in boldface.
italic font	Arguments for which you supply values are in italics.
[ ]	Elements in square brackets are optional.
{x | y | z}	Alternative keywords are grouped in braces and separated by vertical bars.
[x | y | z]	Optional alternative keywords are grouped in brackets and separated by vertical bars.
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.

Screen examples use these conventions:

`screen font`	Terminal sessions and information that the switch displays are in screen font.
`boldface screen font`	Information you must enter is in boldface screen font.
`italic screen font`	Arguments for which you supply values are in italic screen font.
< >	Nonprinting characters, such as passwords, are in angle brackets.
[ ]	Default responses to system prompts are in square brackets.
!, #	An exclamation point (!) or a pound sign (#) at the beginning of a line of code indicates a comment line.

This document uses the following conventions:

Note Means reader *take note*. Notes contain helpful suggestions or references to material not covered in the manual.

Caution Means reader *be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

Related Documentation

Documentation for Cisco Nexus 5000 Series Switches and Cisco Nexus 2000 Series Fabric Extender is available at the following URL:

http://www.cisco.com/en/US/products/ps9670/tsd_products_support_series_home.html

The following are related Cisco Nexus 5000 Series and Cisco Nexus 2000 Series Fabric Extender documents:

Release Notes

Cisco Nexus 5000 Series and Cisco Nexus 2000 Series Release Notes

Cisco Nexus 5000 Series Switch Release Notes

Configuration Guides

Cisco Nexus 5000 Series Configuration Limits for Cisco NX-OS Release 5.0(2)N1(1)

Cisco Nexus 5000 Series Configuration Limits for Cisco NX-OS Release 4.2(1)N1(1) and Release 4.2(1)N2(1)

Cisco Nexus 5000 Series NX-OS Fibre Channel over Ethernet Configuration Guide

Cisco Nexus 5000 Series NX-OS Layer 2 Switching Configuration Guide

Cisco Nexus 5000 Series NX-OS Multicast Routing Configuration Guide

Cisco Nexus 5000 Series NX-OS Quality of Service Configuration Guide

Send comments to nexus5k-docfeedback@cisco.com

Cisco Nexus 5000 Series NX-OS SAN Switching Configuration Guide

Cisco Nexus 5000 Series NX-OS Security Configuration Guide

Cisco Nexus 5000 Series NX-OS System Management Configuration Guide

Cisco Nexus 5000 Series NX-OS Unicast Routing Configuration Guide

Cisco Nexus 5000 Series Switch NX-OS Software Configuration Guide

Cisco Nexus 5000 Series Fabric Manager Configuration Guide, Release 3.4(1a)

Cisco Nexus 7000 Series NX-OS Fundamentals Configuration Guide, Release 6.x

Cisco Nexus 2000 Series Fabric Extender Software Configuration Guide

Maintain and Operate Guides

Cisco Nexus 5000 Series NX-OS Operations Guide

Installation and Upgrade Guides

Cisco Nexus 5000 Series and Cisco Nexus 5500 Platform Hardware Installation Guide

Cisco Nexus 2000 Series Hardware Installation Guide

Cisco Nexus 5000 Series NX-OS Software Upgrade and Downgrade Guide, Release 4.2(1)N1(1)

Regulatory Compliance and Safety Information for the Cisco Nexus 5000 Series Switches and Cisco Nexus 2000 Series Fabric Extenders

Licensing Guide

Cisco NX-OS Licensing Guide

Command References

Cisco Nexus 5000 Series NX-OS FabricPath Command Reference

Cisco Nexus 5000 Series NX-OS Fabric Extender Command Reference

Cisco Nexus 5000 Series NX-OS Fibre Channel Command Reference

Cisco Nexus 5000 Series NX-OS Fundamentals Command Reference

Cisco Nexus 5000 Series NX-OS Layer 2 Interfaces Command Reference

Cisco Nexus 5000 Series NX-OS Multicast Routing Command Reference

Cisco Nexus 5000 Series NX-OS QoS Command Reference

Cisco Nexus 5000 Series NX-OS Security Command Reference

Cisco Nexus 5000 Series NX-OS System Management Command Reference

Cisco Nexus 5000 Series NX-OS TrustSec Command Reference

Cisco Nexus 5000 Series NX-OS Unicast Routing Command Reference

Cisco Nexus 5000 Series NX-OS vPC Command Reference

Technical References

Cisco Nexus 5000 Series and Cisco Nexus 2000 Series Fabric Extender MIBs Reference

Error and System Messages

Cisco NX-OS System Messages Reference

Troubleshooting Guide

Cisco Nexus 5000 Troubleshooting Guide

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html

Subscribe to the *What's New in Cisco Product Documentation* as an RSS feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service. Cisco currently supports RSS Version 2.0.

New and Changed Information

This chapter provides release-specific information for each new and changed feature in the *Cisco Nexus 5000 Series NX-OS Virtual Port Channel Command Reference*. The latest version of this document is available at the following Cisco website:

http://www.cisco.com/en/US/products/ps9670/prod_command_reference_list.html

To check for additional information about this Cisco NX-OS Release, see the *Cisco Nexus 5000 Series Switch Release Notes* available at the following Cisco website:

http://www.cisco.com/en/US/products/ps9670/prod_release_notes_list.html

New and Changed Information for Cisco NX-OS Releases

This section includes the following topics:

New and Changed Information for Cisco NX-OS Release 5.2(1)N1(1)

There are no new or changed features in this release.

New and Changed Information for Cisco NX-OS Release 5.1(3)N1(1)

Table 1 summarizes the new and changed features for Cisco NX-OS Release 5.1(3)N1(1) and tells you where they are documented.

Table 1 New and Changed Information for Release 5.1(3)N1(1)

Feature	Description	Where Documented
Virtual Port Channel (vPC) enhancements	The following commands were updated: • **delay restore** • **inherit port-profile** • **port-profile**	delay restore inherit port-profile port-profile
IP Address Resolution Protocol (ARP) synchornization	The following commands were introduced: • **ip arp synchronize** • **show ip arp vpc-statistics**	ip arp synchronize show ip arp vpc-statistics

New and Changed Information for Cisco NX-OS Release 5.0(3)N2(1)

There are no new and changed features for Cisco NX-OS Release 5.0(3)N2(1).

New and Changed Information for Cisco NX-OS Release 5.0(3)N1(1)

Table 2 summarizes the new and changed features for Cisco NX-OS Release 5.0(3)N1(1) and tells you where they are documented.

Table 2 New and Changed Information for Release 5.0(3)N1(1)

Feature	Description	Where Documented
Virtual Port Channel (vPC) enhancements	The following vPC commands were introduced: • **delay restore** • **dual-active exclude interface-vlan** • **peer-gateway** • **vpc bind-vrf**	delay restore dual-active exclude interface-vlan peer-gateway vpc bind-vrf

New and Changed Information for Cisco NX-OS Release 5.0(2)N2(1)

Table 3 summarizes the new and changed features for Cisco NX-OS Release 5.0(2)N2(1) and tells you where they are documented.

Table 3 New and Changed Information for Release 5.0(2)N2(1)

Feature	Description	Where Documented
Support for automatic recovery of a vPC peer link and Graceful Type-1 Consistency check	You can configure the time to restore the vPC peer links, or enable the Graceful Type-1 Consistency on a vPC domain.	auto-recovery graceful consistency-check import running-config show vpc consistency-parameters

New and Changed Information for Cisco NX-OS Release 5.0(2)N1(1)

Table 4 summarizes the new and changed features for Cisco NX-OS Release 5.0(2)N1(1) and tells you where they are documented.

Table 4 New and Changed Information for Release 5.0(2)N1(1)

Feature	Description	Where Documented
Automatic recovery of a virtual port channel (vPC) peer link	You can configure the time to restore the vPC peer links.	reload restore
Support for configuration synchronization, port profile, and switch profile in a virtual port channel (vPC) domain	You can enable configuration synchronization to synchronize the configuration between a switch and its peer switches. You can also configure a switch profile on a local and peer switch, and configure port profiles that includes a batch of repetitive interface commands to apply to a range of interfaces on the switch.	abort (switch profile) buffer-delete buffer-move command (port profile) command (switch profile) commit (switch profile) config sync description (port profile) import interface import running-config inherit port-profile port-profile state enabled switch-profile sync-peers destination verify Show Commands

New and Changed Information for Cisco NX-OS Release 4.2(1)N1(1)

Table 5 summarizes the new and changed features for Cisco NX-OS Release 4.2(1)N1(1) and tells you where they are documented.

Table 5 New and Changed Information for Release 4.2(1)N1(1)

Feature	Description	Where Documented
Support to configure Virtual Port Channel (vPC) domains	You can configure vPC domains and vPC peer links.	peer-config-check-bypass peer-keepalive role system-mac system-priority vpc Show Commands
Support to configure interfaces for Virtual Port Channel (vPC) devices	You can configure port channels to connect to the downstream switches.	vpc domain vpc peer-link Show Commands

New and Changed Information for Cisco NX-OS Release 4.1(3)N1(1)

Table 6 summarizes the new and changed features for Cisco NX-OS Release 4.1(3)N1(1) and tells you where they are documented.

Table 6 New and Changed Information for Release 4.1(3)N1(1)

Feature	Description	Where Documented
Virtual Port Channel (vPC)	This feature was introduced.	F Commands Show Commands

A Commands

This chapter describes the Cisco NX-OS virtual port channel (vPC) commands that begin with A.

abort (switch profile)

To discard the current switch profile configuration, use the **abort** command.

abort

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Switch profile configuration mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Usage Guidelines

Use this command when you want to discard the configuration that is imported to a switch profile.

Examples

This example shows how to discard a configuration on a switch profile named s5010 on switch 1 of the peer:

```
switch# config sync
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config-sync)# switch-profile s5010
Switch-Profile started, Profile ID is 1
switch(config-sync-sp)# import running-config
switch(config-sync-sp-import)# exit
switch(config-sync-sp)# abort
switch(config-sync-sp)#
```

Related Commands

Command	Description
commit	Commits a switch profile configuration.
copy running-config startup-config	Copies the running configuration to the startup configuration.

Command	Description
import	Imports a configuration to the switch profile.
show switch-profile buffer	Displays information about the switch profile buffer.
show running-config switch-profile	Displays the running configuration for a switch profile.
verify	Verifies a switch profile configuration.

auto-recovery

To configure the time to restore the virtual port channel (vPC) peer links, use the **auto-recovery** command. To revert to the default delay value, use the **no** form of this command.

auto-recovery [**reload-delay** *delay_value*]

no auto-recovery [**reload-delay** *delay_value*]

Syntax Description

reload-delay	(Optional) Specifies the time to wait before assuming that the vPC peer is dead and to restore the vPC links.
delay_value	Time (in seconds) for restoring the vPC links. The range is from 240 to 3600, and the default is 240.

Command Default

240 seconds

Command Modes

vPC domain configuration mode

Command History

Release	Modification
5.0(2)N2(1)	This command was introduced.

Examples

This example shows how to enable the automatic recovery interval for 240 seconds (the default value) in vPC domain 100:

```
switch# configuration terminal
switch(config)# vpc domain 100
switch(config-vpc-domain)# auto-recovery
Warning:
 Enables restoring of vPCs in a peer-detached state after reload, will wait for
240 seconds (by default) to determine if peer is un-reachable
switch(config-vpc-domain)#
```

This example shows how to set the automatic recovery delay period for 300 seconds in vPC domain 200:

```
switch# configuration terminal
switch(config)# vpc domain 200
switch(config-vpc-domain)# auto-recovery reload-delay 300
Warning:
 Enables restoring of vPCs in a peer-detached state after reload, will wait for
```

```
240 seconds (by default) to determine if peer is un-reachable
switch(config-vpc-domain)#
```

Related Commands

Command	Description
vpc domain	Configures a vPC domain.
show running-config vpc	Displays the running configuration information for vPCs.

B Commands

This chapter describes the Cisco NX-OS virtual port channel (vPC) commands that begin with B.

buffer-delete

To delete commands from a switch profile buffer, use the **buffer-delete** command.

buffer-delete {*sequence-no* | **all**}

Syntax Description

sequence-no	ID of the command to be deleted. You can use the hyphen (-) to separate a range of IDs; for example, 10-14.
all	Specifies that all buffered commands be deleted.

Command Default

None

Command Modes

Switch profile configuration mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Usage Guidelines

Use this command if you want to correct the wrong configuration made to the switch profile or you do not want certain configuration commands to be synchronized with the peer after a software upgrade.

Examples

This example shows how to delete buffered commands from the switch profile named s5010 on switch 2 of the peer:

```
switch# config sync
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config-sync)# switch-profile s5010
Switch-Profile started, Profile ID is 1
switch(config-sync-sp)# show switch-profile s5010 buffer
-------------------------------------------------------------
Seq-no  Command
-------------------------------------------------------------
1       interface ethernet 1/1
1.1       switchport mode trunk
1.2       speed 1000
2       interface port-channel 102
2.1       vpc 1
2.2       switchport mode trunk

switch(config-sync-sp)# buffer-delete 2-2.2
switch(config-sync-sp)# show switch-profile s5010 buffer
-------------------------------------------------------------
Seq-no  Command
-------------------------------------------------------------
1       interface ethernet 1/1
1.1       switchport mode trunk
1.2       speed 1000
```

```
switch(config-sync-sp)#
```

Related Commands

Command	Description
buffer-move	Corrects the order of commands in the switch profile buffer.
commit	Applies the commands to the switch configuration.
copy running-config startup-config	Copies the running configuration to the startup configuration.
show switch-profile buffer	Displays information about the switch profile buffer.
verify	Verifies the commands in the switch profile.

buffer-move

To change the order of commands in the switch profile buffer, use the **buffer-move** command.

buffer-move *from-sequence-no to-sequence-no*

Syntax Description

from-sequence-no	ID of the command to be moved from its current location in the buffer. You can use the hyphen (-) to separate a range of IDs; for example, 10-14.
to-sequence-no	ID of the location where the command is to be moved. You can use the hyphen (-) to separate a range of IDs; for example, 10-14.

Command Default

None

Command Modes

Switch profile configuration mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Usage Guidelines

Use this command if you want to change the order and precedence of the configuration commands in the switch profile buffer.

Examples

This example shows how to change the order of buffered commands for the switch profile named s5010 on switch 2 of the peer:

```
switch# config sync
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config-sync)# switch-profile s5010
Switch-Profile started, Profile ID is 1
switch(config-sync-sp)# show switch-profile s5010 buffer
------------------------------------------------------------
Seq-no  Command
------------------------------------------------------------
1       interface ethernet 1/1
1.1       switchport mode trunk
1.2       speed 1000
2       interface port-channel 102
2.1       vpc 1
2.2       switchport mode trunk

switch(config-sync-sp)# buffer-move 2 1
switch(config-sync-sp)# show switch-profile s5010 buffer
------------------------------------------------------------
Seq-no  Command
------------------------------------------------------------
1       interface port-channel 102
1.1       vpc 1
1.2       switchport mode trunk
```

```
2       interface ethernet 1/1
2.1       switchport mode trunk
2.2       speed 1000

switch(config-sync-sp)#
```

Related Commands

Command	Description
buffer-delete	Deletes commands from the switch profile buffer.
commit	Applies the commands to the switch configuration.
copy running-config startup-config	Copies the running configuration to the startup configuration.
show switch-profile buffer	Displays information about the switch profile buffer.
verify	Verifies the commands in the switch profile.

C Commands

This chapter describes the Cisco NX-OS virtual port channel (vPC) commands that begin with C.

command (port profile)

To add or modify commands in a port profile, use any command that is supported in the port profile. To remove a command from the switch profile, use the **no** form of the supported command.

command argument

no *command argument*

Syntax Description

command	Command supported in a port profile.
argument	Argument for the supported command.

Command Default

None

Command Modes

Port profile configuration mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Usage Guidelines

Use this command to configure interface commands (in batch mode) for Ethernet, VLAN, or EtherChannel interfaces.

A command that is included in a port profile can be configured outside of the port profile. If the new configuration in the port profile conflicts with the configurations that exist outside the port profile, the commands configured for an interface in the configuration terminal mode have higher priority than the commands in the port profile. If any changes are made to the interface configuration after a port profile is attached to it, and the configuration conflicts with the configuration in the port profile, the configurations in the interface are given priority.

You can remove commands from a port profile using the **no** form of the command. When you remove a command from the port profile, the corresponding command is removed from the interface that is atached to the port profile.

Examples

This example shows how to add the interface commands to the port profile named ppEth that is configured for Ethernet interfaces:

```
switch# configure terminal
switch(config)# port-profile ppEth
switch(config-port-prof)# switchport mode trunk
switch(config-port-prof)# switchport trunk allowed vlan 300-400
switch(config-port-prof)# flowcontrol receive on
switch(config-port-prof)# speed 10000
switch(config-port-prof)#
```

This example shows how to remove commands from the port profile named ppEth that is configured for Ethernet interfaces:

```
switch# configure terminal
switch(config)# port-profile ppEth
switch(config-port-prof)# switchport mode trunk
switch(config-port-prof)# switchport trunk allowed vlan 300-400
switch(config-port-prof)# flowcontrol receive on
switch(config-port-prof)# no speed 10000
switch(config-port-prof)#
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
inherit	Attaches a port profile to an interface.
show port-profile name	Displays information about a specific port profile.
show running-config port-profile	Displays the running configuration for the port profile.
state enabled	Enables a port profile.

command (switch profile)

To add or modify commands in a switch profile, use any command that is supported in the switch profile. To remove a command from the switch profile, use the **no** form of the supported command.

command argument

no *command argument*

Syntax Description

command	Command supported in a switch profile.
argument	Arguments for the supported command.

Command Default

None

Command Modes

Switch profile configuration mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Usage Guidelines

After you configure a switch profile on each peer, you can add the interface configuration, quality of service (QoS), and virtual port channel (vPC) commands to the switch profile.

Note In this release of Cisco NX-OS, FCoE commands are not supported on a switch profile.

The commands that you add or modify are stored in the switch profile buffer until you apply them to the switch configuration using the **commit** command. Alternatively, you may verify the commands in the buffer (using the **verify** command) before applying them to the switch configuration. After you commit the configuration, you can continue to add commands to, or remove commands from, a switch profile configuration. When you commit the configuration again, the updated commands are verified and applied to the switch profile configuration, and the configuration is synchronized between the peers.

Commands are executed in the same order in which they are buffered. You can delete commands from the switch profile buffer using the **buffer-delete** command, or change their order of precedence in the switch profile buffer using the **buffer-move** command.

Examples

This example shows how to add the interface commands to a switch profile named s5010 on switch 1 of the peer:

Peer A

```
switch# config sync
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config-sync)# switch-profile s5010
switch(config-sync-sp)# interface ethernet 1/1
```

```
switch(config-sync-sp-if)# switchport mode trunk
switch(config-sync-sp-if)# speed 1000
switch(config-sync-sp-if)# exit
switch(config-sync-sp)#
```

This example shows how to add commands to the switch profile named s5010 on switch 2 of the peer:

Peer B

```
switch# config sync
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config-sync)# switch-profile s5010
Switch-Profile started, Profile ID is 1
switch(config-sync-sp)# interface ethernet 1/1
switch(config-sync-sp-if)# switchport mode trunk
switch(config-sync-sp-if)# speed 1000
switch(config-sync-sp-if)# interface port-channel 102
switch(config-sync-sp-if)# vpc 1
switch(config-sync-sp-if)# switchport mode trunk
switch(config-sync-sp-if)# exit
switch(config-sync-sp)#
```

This example shows how to remove commands from the switch profile named s5010 on switch 2 of the peer:

Peer B

```
switch# config sync
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config-sync)# switch-profile s5010
Switch-Profile started, Profile ID is 1
switch(config-sync-sp)# interface ethernet 1/1
switch(config-sync-sp-if)# switchport mode trunk
switch(config-sync-sp-if)# speed 1000
switch(config-sync-sp-if)# interface port-channel 102
switch(config-sync-sp-if)# vpc 1
switch(config-sync-sp-if)# no switchport mode trunk <-- command removed from configuration
switch(config-sync-sp-if)# exit
switch(config-sync-sp)#
```

Related Commands

Command	Description
buffer-delete	Deletes commands from the switch profile buffer.
buffer-move	Corrects the order of commands in the switch profile buffer.
commit	Applies the commands to the switch configuration.
copy running-config startup-config	Copies the running configuration to the startup configuration.
show switch-profile buffer	Displays information about the switch profile buffer.
show switch-profile status	Displays the switch profile status.
verify	Verifies the commands in the switch profile.

commit (switch profile)

To commit the commands in the switch profile buffer and save the configuration in the switch, use the **commit** command.

commit

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Switch profile configuration mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Usage Guidelines

Use this command to save the switch profile configuration and synchronize the configuration with the peer switch. If the commit fails, you must manually correct the configuration commands and then commit the configuration again.

When you commit a configuration, the following operations are performed to ensure that the configuration is applied uniformly on the peer switch:

- Verifies the commands for mutual exclusion checks (mutex-check) on both switches if the peer switch is reachable; otherwise, the mutex-check is performed locally.

  Note A command that is included in a switch profile cannot be configured outside of the switch profile or on a peer switch. Ensure that the new configuration in the switch profile does not conflict with the configurations that may exist outside the switch profile or inside another switch profile. This feature is called mutual exclusion (mutex) check.

- Creates a checkpoint with a rollback infrastructure.
- Applies the configuration on the local switch and the peer switch.

  If there is a commit failure on any of the switches, the configuration is rolled back on both switches.
- Deletes the checkpoint.

During commit, the configuration revision of the switch profile is used to determine the synchronization of the configuration in the peer switch as follows:

- If the revision number of the local switch profile is the same as the peer, and there is a locally applied configuration that needs to be synchronized, the configuration is synchronized in the peer.
- If the revision number is the same in both switches, and there is no locally applied configuration that needs to be synchronized with the peer, the synchronization session is terminated immediately.

- If the revision number in the local switch does not match that of the peer switch, the configuration is synchronized in the peer.

After you commit a switch profile configuration, you can continue to add or remove commands from the switch profile. When you commit the configuration again, only the updated commands are used for verification and the configuration is then applied to the switch profile and synchronized with the peer switch.

Examples

This example shows how to apply the changes made to the switch profile named s5010 on switch 1 of the peer:

```
switch# config sync
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config-sync)# switch-profile s5010
Switch-Profile started, Profile ID is 1
switch(config-sync-sp)# interface ethernet 1/1
switch(config-sync-sp-if)# switchport mode trunk
switch(config-sync-sp-if)# speed 1000
switch(config-sync-sp-if)# exit
switch(config-sync-sp)# commit
switch(config-sync-sp)#
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
show switch-profile	Displays information about the switch profile and the configuration revision.
show switch-profile buffer	Displays information about the switch profile buffer.
show running-config switch-profile	Displays the running configuration for a switch profile.
verify	Verifies the commands in the switch profile.

config sync

To enter the configuration synchronization mode to create switch profiles, use the **config sync** command.

config sync

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Usage Guidelines

Use the **config sync** command on the local and the peer switch that you want to synchronize.

Before you synchronize the configuration on the switches, you must ensure the following:

- Identify the peer switches.
- Enable Cisco Fabric Services (CFS) distribution over IPv4 on the management interface (mgmt0) of the peer switches.

When you use the configuration synchronization feature, the configurations made on one switch is synchronized and made available on the peer switch.

After using the **config sync** command, you can create or configure switch profiles on the peer switches.

Examples

This example shows how to enable CFS over IPv4 on a switch in peer configuration, and then enter the configuration synchronization mode on the switch:

```
switch# configure terminal
switch(config)# cfs ipv4 distribute
switch(config)# exit
switch# config sync
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config-sync)#
```

Related Commands

Command	Description
cfs ipv4 distribute	Enables CFS distribution over IPv4 on the switch.
switch-profile	Creates or configures switch profiles.

copy running-config startup-config

To save the running configuration to the startup configuration file so that all current configuration details are available after a reboot, use the **copy running-config startup-config** command.

copy running-config startup-config

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Usage Guidelines

To view the changes to the configuration that you have made, use the **show startup-config** command.

Note Once you enter the **copy running-config startup-config** command, the running and the startup copies of the configuration are identical.

Examples

This example shows how to save the running configuration to the startup configuration:

```
switch# copy running-config startup-config
[########################################] 100%
switch#
```

Related Commands

Command	Description
show running-config	Displays the currently running configuration.
show startup-config	Displays the startup configuration file.

D Commands

This chapter describes the Cisco NX-OS virtual port channel (vPC) commands that begin with D.

delay restore

To delay the virtual port channel (vPC) from coming up on the restored vPC peer device after a reload when the peer adjacency is already established, use the **delay restore** command. To revert to the default delay value, use the **no** form of this command.

delay restore {*time* | **interface-vlan** *time*}

no delay restore [**interface-vlan**]

Syntax Description

time	Number of seconds to delay bringing up the restored vPC peer device. The range is from 1 to 3600.
interface-vlan	Specifies the delay in bringing up the interface VLAN.

Command Default

30 seconds

Command Modes

vPC domain configuration mode

Command History

Release	Modification
5.0(3)N1(1)	This command was introduced.
5.1(3)N1(1)	The **interface-vlan** keyword was added.

Usage Guidelines

Use the **delay restore** command to avoid upstream traffic from the access device to the core from being dropped when you restore the vPC peer devices.

This command does not require a license.

Examples

This example shows how to configure the delay reload time for a vPC link:

```
switch(config)# vpc domain 1
switch(config-vpc-domain)# delay restore 10
switch(config-vpc-domain)#
```

This example shows how to configure the delay reload time for an interface VLAN:

```
switch(config)# vpc domain 1
switch(config-vpc-domain)# delay restore interface-vlan 100
switch(config-vpc-domain)#
```

Related Commands

Command	Description
show vpc	Displays the vPC configuration information.

description (port profile)

To enter a summary of the purpose of a port profile, use the **description** command. To remove the summary description for the port profile, use the **no** form of this command.

description *text*

no description

Syntax Description

text	Summary of the purpose of the port profile. The summary text can be a maximum of 80 characters and can include spaces.

Command Default

None

Command Modes

Port profile configuration mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Examples

This example shows how to enter a description for a port profile named ppEth to identify the purpose of the port profile:

```
switch# configure terminal
switch(config)# port-profile ppEth
switch(config-port-prof)# description Port profile to configure batch commands for
Ethernet interfaces
switch(config-port-prof)#
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
show port-profile	Displays information about a port profile.
show port-profile brief	Displays brief information about the port profile.
show port-profile name	Displays information about a specific port profile.
show running-config port-profile	Displays the running configuration for the port profile.

dual-active exclude interface-vlan

To ensure that certain VLAN interfaces are not shut down on the virtual port-channel (vPC) secondary peer device when the vPC peer link fails for those VLANs carried on the vPC peer link but not on the vPC configuration itself, use the **dual-active exclude interface-vlan** command. To return to the default value, use the **no** form of this command.

dual-active exclude interface-vlan {*range*}

no dual-active exclude interface-vlan {*range*}

Syntax Description

range	Range of VLAN interfaces that you want to exclude from shutting down. The range is from 1 to 4094.

Command Default

None

Command Modes

vPC domain configuration mode

Command History

Release	Modification
5.0(3)N1(1)	This command was introduced.

Usage Guidelines

The VLAN interfaces must have already been configured.

This command does not require a license.

Examples

This example shows how to configure the device to keep the VLAN interfaces up on the vPC peer devices if the peer link fails:

```
switch# configure terminal
switch(config)# vpc domain 5
switch(config-vpc-domain)# dual-active exclude interface-vlan 10
switch(config-vpc-domain)#
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
show vpc	Displays vPC configuration information.

F Commands

This chapter describes the Cisco NX-OS virtual port channel (vPC) commands that begin with F.

feature vpc

To enable a virtual port channel (vPC), which allows links that are physically connected to two different Cisco Nexus 5000 Series devices to appear as a single port channel to a third device, use the **feature vpc** command. To disable vPC on the switch, use the **no** form of this command.

feature vpc

no feature vpc

Syntax Description

This command has no arguments or keywords.

Command Default

Disabled

Command Modes

Global configuration mode

Command History

Release	Modification
4.1(3)N1(1)	This command was introduced.

Usage Guidelines

In a vPC configuration, the third device can be a Cisco Nexus 2000 Series Fabric Extender, switch, server, or any other networking device.

Examples

This example shows how to enable vPC on the switch:

```
switch(config)# feature vpc
```

Related Commands

Command	Description
show vpc	Displays the vPC configuration status.
show feature	Displays whether or not vPC is enabled on the switch.

G Commands

This chapter describes the Cisco NX-OS virtual port channel (vPC) commands that begin with G.

graceful consistency-check

To enable the Graceful Type-1 Consistency feature in a virtual port channel (vPC) domain, use the **graceful consistency-check** command. To disable the Graceful Type-1 Consistency feature, use the **no** form of this command.

graceful consistency-check

no graceful consistency-check

Syntax Description

This command has no arguments or keywords.

Command Default

Enabled

Command Modes

vPC domain configuration mode

Command History

Release	Modification
5.0(2)N2(1)	This command was introduced.

Examples

This example shows how to enable the Graceful Type-1 Consistency feature in vPC domain 100:

```
switch# configuration terminal
switch(config)# vpc domain 100
switch(config-vpc-domain)# graceful consistency-check
switch(config-vpc-domain)#
```

Related Commands

Command	Description
vpc domain	Configures a vPC domain.
show vpc brief	Displays information about vPCs. If the vPC feature is not enabled, the system displays an error when you enter this command.

I Commands

This chapter describes the Cisco NX-OS virtual port channel (vPC) commands that begin with I.

import interface

To import an interface configuration to a switch profile, use the **import interface** command.

import interface {**ethernet** *slot/port* | **port-channel** *channel-no*}

Syntax Description

ethernet	Specifies the Ethernet interface configuration to import to the switch profile.
slot/port	Chassis or slot number and the port or slot number. The slot can be from 1 to 255 and the port can be from 1 to 128.
port-channel	Specifies the EtherChannel interface configuration to import to the switch profile.
channel-no	EtherChannel number. The range is from 1 to 4096.

Command Default

None

Command Modes

Switch profile configuration mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Usage Guidelines

When no option is specified with the **import** command, an empty switch profile is created. You can then selectively add the configuration that is needed to be synchronized with the peer switch.

You can import a switch profile based on the set of commands that you want to import. The following three ways can be used to import commands that were added using the configuration terminal mode:

1. Add selected commands to the switch profile.
2. Add supported commands that were specified for an interface.
3. Add supported system-level commands.

When you import commands to a switch profile, the switch profile buffer must be empty.

Use the **commit** command to complete the import process and move the configuration into the switch profile. Because configuration changes are not supported during the import process, if new commands are added before entering the **commit** command, the switch profile remains unsaved and the switch remains in the switch profile import mode (config-sync-sp-import). You can remove the added commands or use the **abort** command to stop the import. Unsaved configurations are lost if the process is aborted. New commands can be added to the switch profile after the import is complete.

Examples

This example shows how to import the Ethernet interface configuration to a switch profile named s5010 on switch 1 of the peer:

```
switch# config sync
```

```
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config-sync)# switch-profile s5010
Switch-Profile started, Profile ID is 1
switch(config-sync-sp)# show switch-profile s5010 buffer

switch-profile  : s5010
----------------------------------------------------------
Seq-no  Command
----------------------------------------------------------

switch(config-sync-sp)# import interface ethernet 1/1
switch(config-sync-sp)# show switch-profile buffer

switch-profile  : s5010
----------------------------------------------------------
Seq-no  Command
----------------------------------------------------------
1       interface Ethernet1/1

switch(config-sync-sp-import)# commit
Verification successful...
Proceeding to apply configuration. This might take a while depending on amount o
f configuration in buffer.
Please avoid other configuration changes during this time.
Commit Successful
switch(config-sync)#
```

This example shows how to create an empty switch profile named sp100 on switch 1 of the peer and then add the configuration commands:

```
switch# config sync
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config-sync)# switch-profile sp100
Switch-Profile started, Profile ID is 1
switch(config-sync-sp)# show switch-profile sp100 buffer

switch-profile  : sp100
----------------------------------------------------------
Seq-no  Command
----------------------------------------------------------

switch(config-sync-sp)# import
switch(config-sync-sp-import)# interface port-channel 100
switch(config-sync-sp-import-if)# switchport mode trunk
switch(config-sync-sp-import-if)# vpc peer-link
switch(config-sync-sp-import-if)# exit
switch(config-sync-sp-import)# commit
Verification successful...
Proceeding to apply configuration. This might take a while depending on amount o
f configuration in buffer.
Please avoid other configuration changes during this time.
Commit Successful
switch(config-sync)#
```

Related Commands

Command	Description
abort	Discards the current switch profile configuration.
commit	Commits a switch profile configuration.

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
show switch-profile buffer	Displays information about the switch profile buffer.
show running-config switch-profile	Displays the running configuration for a switch profile.

import running-config

To import the running configuration to a switch profile, use the **import running-config** command.

import running-config [**exclude interface ethernet**]

Syntax Description

exclude	(Optional) Specifies the configurations to exclude while importing the current running configuration to a switch profile.
interface	(Optional) Specifies that interface configurations be excluded during the import operation.
ethernet	(Optional) Specifies that all Ethernet interface configurations be excluded from the running configuration during the import operation.

Command Default

None

Command Modes

Switch profile configuration mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.
5.0(2)N2(1)	The **exclude interface ethernet** keywords were added.

Usage Guidelines

The **import running-config exclude interface ethernet** command discards all physical interface commands in the running configuration during the import operation.

When no option is specified with the **import** command, an empty switch profile is created. You can then selectively add the configuration that is needed to be synchronized with the peer switch.

You can import a switch profile based on the set of commands that you want to import. The following three ways can be used to import commands that were added using the configuration terminal mode:

1. Add selected commands to the switch profile.
2. Add supported commands that were specified for an interface.
3. Add supported system-level commands.

When you import commands to a switch profile, the switch profile buffer must be empty.

Use the **commit** command to complete the import process and move the configuration into the switch profile. Because configuration changes are not supported during the import process, if new commands are added before entering the **commit** command, the switch profile remains unsaved and the switch remains in the switch profile import mode (config-sync-sp-import). You can remove the added commands or use the **abort** command to stop the import. Unsaved configurations are lost if the process is aborted. New commands can be added to the switch profile after the import is complete.

Examples

This example shows how to import the running configuration to a switch profile named s5010 on switch 1 of the peer:

```
switch# config sync
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config-sync)# switch-profile s5010
Switch-Profile started, Profile ID is 1
switch(config-sync-sp)# show switch-profile buffer

switch-profile  : s5010
----------------------------------------------------------
Seq-no  Command
----------------------------------------------------------

switch(config-sync-sp)# import running-config exclude interface ethernet
switch(config-sync-sp-import)# show switch-profile buffer

switch-profile  : s5010
----------------------------------------------------------
Seq-no  Command
----------------------------------------------------------
2       interface port-channel1
2.1       vpc 1
2.2       speed 10000
3       interface port-channel100
3.1       vpc peer-link
3.2       spanning-tree port type network
3.3       speed 10000

switch(config-sync-sp-import)# commit
Verification successful...
Proceeding to apply configuration. This might take a while depending on amount o
f configuration in buffer.
Please avoid other configuration changes during this time.
Commit Successful
switch(config-sync)#
```

Related Commands

Command	Description
abort	Discards the current switch profile configuration.
commit	Commits a switch profile configuration.
copy running-config startup-config	Copies the running configuration to the startup configuration.
show switch-profile buffer	Displays information about the switch profile buffer.
show running-config switch-profile	Displays the running configuration for a switch profile.

inherit port-profile

To inherit a port profile into an existing profile or to apply a port profile configuration to an interface, use the **inherit port-profile** command. To remove the inheritance, use the **no** form of this command.

inherit port-profile *port-profile-name*

no inherit port-profile *port-profile-name*

Syntax Description

port-profile-name	Name of the port profile. The name is case sensitive, can be a maximum of 80 alphanumeric characters and can include an underscore and hyphen. The name cannot contain spaces or special characters.

Command Default

None

Command Modes

Port profile configuration mode
Interface configuration mode
Virtual Ethernet interface configuration mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.
5.1(3)N1(1)	Support for virtual Ethernet interface was added.

Usage Guidelines

You inherit the port profile when you attach the port profile to an interface or range of interfaces. When you attach, or inherit, a port profile to an interface or range of interfaces, the switch applies all the commands in that port profile to the interfaces. A port profile configured for an interface type can be applied only to that type of interface. For example, a port profile created for VLAN interfaces must be attached onto a VLAN interface. If you delete a port profile after you attach the port profile to an interface, the port profile configuration is removed from the interface.

To apply the port profile configurations to the interfaces, you must enable the specific port profile.

Examples

This example shows how to inherit a port profile named ppEth that is configured for Ethernet interfaces into an existing port profile named test:

```
switch# configure terminal
switch(config)# port-profile test
switch(config-port-prof)# inherit port-profile ppEth
switch(config-port-prof)#
```

This example shows how to assign a port profile named ppEth that is configured for Ethernet interfaces to a range of Ethernet interfaces:

```
switch# configure terminal
switch(config)# interface ethernet 1/2-5
switch(config-if)# inherit port-profile ppEth
```

```
switch(config-if)#
```

This example shows how to assign a port profile named ppVEth that is configured for virtual Ethernet interfaces to a virtual Ethernet interface:

```
switch# configure terminal
switch(config)# interface ethernet 10
switch(config-if)# inherit port-profile ppVEth
switch(config-if)#
```

This example shows how to remove an inherited port profile named ppEth from an existing port profile named test:

```
switch# configure terminal
switch(config)# port-profile test
switch(config-port-prof)# no inherit port-profile ppEth
switch(config-port-prof)#
```

Related Commands

Command	Description
command (port profile)	Adds commands to a port profile.
copy running-config startup-config	Copies the running configuration to the startup configuration.
interface vethernet	Configures a virtual Ethernet (vEth) interface.
show port-profile name	Displays information about a specific port profile.
show running-config interface	Displays the running configuration for interfaces.
show running-config port-profile	Displays the running configuration for a port profile.
state enabled	Enables a port profile.

ip arp synchronize

To enable Address Resolution Protocol (ARP) synchronization between the virtual port channel (vPC) peers, use the **ip arp synchronize** comand. To disable ARP synchronization, use the **no** form of this command.

ip arp synchronize

no ip arp synchronize

Syntax Description

This command ahs no arguments or keywords.

Command Default

Disabled

Command Modes

vPC domain configuration mode

Command History

Release	Modification
5.1(3)N1(1)	This command was introduced.

Usage Guidelines

The ARP table sync feature overcomes the delay involved in ARP table restoration that can be triggered when one of the switches in the vPC domain goes offline and comes back online and also when there are peer-link port channel flaps. Enabling ARP on a vPC domain improves convergence times for unicast traffic.

This command does not require a license.

Examples

This example shows how to enable ARP synchronization on a vPC domain:

```
switch# configure terminal
switch(config)# vpc domain 1
switch(config-vpc-domain)# ip arp synchronize
switch(config-vpc-domain)#
```

This example shows how to disable ARP synchronization on a vPC domain:

```
switch# configure terminal
switch(config)# vpc domain 1
switch(config-vpc-domain)# no ip arp synchronize
switch(config-vpc-domain)#
```

Related Commands

Command	Description
show ip arp vpc-statistics	Displays the global ARP statistics for vPCs.
show running-config vpc	Displays the running configuration information for vPCs.

ip igmp snooping mrouter vpc-peer-link

To configure a static connection to a virtual port channel (vPC) peer link, use the **ip igmp snooping mrouter vpc-peer-link** command. To remove the static connection, use the **no** form of this command.

ip igmp snooping mrouter vpc-peer-link

no ip igmp snooping mrouter vpc-peer-link

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Global configuration mode

Command History

Release	Modification
5.0(3)N1(1)	This command was introduced.

Usage Guidelines

By default, a vPC Peer-link is considered an IGMP snooping mrouter port. The multicast traffic is sent over to a peer-link for the source VLAN and for each receiving VLAN. If you use the **no ip igmp snooping mrouter vpc-peer-link** command, the multicast traffic is not sent over to a peer-link for the source VLAN and receiver VLAN unless there are orphan ports in the VLAN.

Note In Cisco NX-OS Release 5.0(3)N1(1), the **no ip igmp snooping mrouter vpc-peer-link** command is not supported in topologies where there is a dual-homed Cisco Nexus 2000 Series Fabric Extender attached to a Cisco Nexus 5000 Series switch.

This command does not require a license.

Examples

This example shows how to configure a static connection to a vPC peer link:

```
switch(config)# ip igmp snooping mrouter vpc-peer-link
switch(config)#
```

This example shows how to remove a static connection to a vPC peer link:

```
switch(config)# no ip igmp snooping mrouter vpc-peer-link
Warning: IGMP Snooping mrouter vpc-peer-link should be globally disabled on peer
 VPC switch as well.
switch(config)#
```

Related Commands

Command	Description
show ip igmp snooping	Displays IGMP snooping information.

P Commands

This chapter describes the Cisco NX-OS virtual port channel (vPC) commands that begin with P.

peer-config-check-bypass

To ignore type checks on the primary vPC device when the multichassis EtherChannel trunk (MCT) is down, use the **peer-config-check-bypass** command. To stop ignoring type checks, use the **no** form of this command.

peer-config-check-bypass

no peer-config-check-bypass

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

vPC domain configuration mode

Command History

Release	Modification
4.2(1)N1(1)	This command was introduced.

Usage Guidelines

The peer link, also known as the multichassis EtherChannel trunk (MCT), connects the vPC peer switches. The peer link is always forwarding. The bridge protocol data units (BPDUs) or Link Aggregation Control Protocol (LACP) packets that are received by the secondary vPC peer on a vPC port are forwarded to the primary vPC peer through the peer link for processing.

The peer link is used to synchronize the MAC addresses of the vPC peer switches to provide the necessary transport for multicast traffic. It is also used for forwarding traffic that originates at, or is destined for, orphan ports (that is, a non-vPC port).

Examples

This example shows how to configure the primary vPC device to ignore type checks when the MCT is down:

```
switch(config-vpc-domain)# peer-config-check-bypass
switch(config-vpc-domain)#
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
show running-config vpc	Displays the running configuration information for vPCs.
show vpc brief	Displays brief information about each vPC domain.

Command	Description
show vpc peer-keepalive	Displays the status of the peer-keepalive link.
show vpc statistics	Displays information about the configuration for the keepalive messages.

peer-gateway

To enable Layer 3 forwarding for packets destined to the gateway MAC address of the virtual Port Channel (vPC), use the **peer-gateway** command. To disable Layer 3 forwarding packets, use the **no** form of this command.

peer-gateway

no peer-gateway

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

vPC domain configuration mode

Command History

Release	Modification
5.0(3)N1(1)	This command was introduced.

Usage Guidelines

The vPC peer-gateway functionality allows a vPC switch to act as the active gateway for packets that are addressed to the router MAC address of the vPC peer. This feature enables local forwarding of such packets without the need to cross the vPC peer-link. In this scenario, the feature optimizes use of the peer-link and avoids potential traffic loss.

You must configure the peer-gateway functionality on both vPC peer switches.

Note This command is applicable to a Cisco Nexus 5548 switch and Cisco Nexus 5596 switch.

This command does not require a license.

Examples

This example shows how to enable the vPC peer gateway:

```
switch(config)# vpc domain 20
switch(config-vpc-domain)# peer-gateway
switch(config-vpc-domain)#
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
show vpc	Displays information about the vPCs.

peer-keepalive

To configure the IPv4 address for the remote end of the vPC peer keepalive link that carries the keepalive messages, use the **peer-keepalive** command. To disassociate the peer keepalive link, use the **no** form of this command.

peer-keepalive destination *ipv4_address* [**hold-timeout** *holdtime_seconds* | **interval** *mseconds* {**timeout** *seconds*} | {**precedence** {*prec_value* | **critical** | **flash** | **flash-override** | **immediate** | **internet** | **network** | **priority** | **routine**}} | **source** *ipv4_address* | **tos** {*tos_value* | **max-reliability** | **max-throughput** | **min-delay** | **min-monetary-cost** | **normal**} | **tos-byte** *tos_byte_value* | **udp-port** *udp_port* | **vrf** {*vrf_name* | **management**}]

no peer-keepalive destination *ipv4_address* [**hold-timeout** *holdtime_seconds* | **interval** *mseconds* {**timeout** *seconds*} | {**precedence** {*prec_value* | **critical** | **flash** | **flash-override** | **immediate** | **internet** | **network** | **priority** | **routine**}} | **source** *ipv4_address* | **tos** {*tos_value* | **max-reliability** | **max-throughput** | **min-delay** | **min-monetary-cost** | **normal**} | **tos-byte** *tos_byte_value* | **udp-port** *udp_port* | **vrf** {*vrf_name* | **management**}]

Syntax Description

destination	Specifies the remote (secondary) vPC device interface.
ipv4_address	IPv4 address of the vPC device in the *A.B.C.D* format.
hold-timeout *holdtime_seconds*	(Optional) Specifies the hold-timeout period (in seconds) for the secondary vPC peer device to ignore vPC peer-keepalive messages. The range is from 3 to 10. The default hold-timeout value is 3 seconds.
interval *mseconds*	(Optional) Specifies the time interval (in milliseconds) at which the vPC device receives peer-keepalive messages. The range is from 400 to 10000. The default interval time for the vPC peer-keepalive message is 1 second.
timeout *seconds*	(Optional) Specifies the timeout (in seconds) between retransmissions to the remote (secondary) vPC device. The range is from 3 to 20. The default timeout value is 5 seconds.
precedence	(Optional) Classifies the vPC peer-keepalive interface traffic based on the precedence value in the type of service (ToS) byte field of the IP header. The precedence value can be one of the following: • *prec_value*—IP precedence value. The range is from 0 to 7. The default precedence value is 6. • **critical**—Critical precedence (5) • **flash**—Flash precedence (3) • **flash-override**—Flash-override precedence (4) • **immediate**—Immediate precedence (2) • **internet**—Internet precedence (6) • **network**—Network precedence (7) • **priority**—Priority precedence (1) • **routine**—Routine precedence (0)
source	(Optional) Specifies the source (primary) vPC device interface.

tos	(Optional) Specifies the type of service (ToS) value. The ToS value can be one of the following: • *tos_value*—A 4-bit TOS value. The range is from 0 to 15. • **max-reliability**—Max-reliability (2) • **max-throughput**—Max-throughput (4) • **min-delay**—Min-delay (8) • **min-monetary-cost**—Min-monetary-cost (1) • **normal**—Normal (0)
tos-byte *tos_byte_value*	(Optional) Specifies a 8-bit TOS value. The range is from 0 to 255.
udp-port *udp_port*	(Optional) Specifies the UDP port number to be used for the peer keepalive link. The range is from 1024 to 65000.
vrf *vrf_name*	(Optional) Specifies the Virtual Routing and Forwarding (VRF) name to be used for the peer keepalive link. The name is case sensitive and can be a maximum of 32 alphanumeric characters.
management	Specifies the management VRF. This is the default VRF.

Command Default

Management port and VRF

Command Modes

vPC domain configuration mode

Command History

Release	Modification
4.2(1)N1(1)	This command was introduced.

Usage Guidelines

You must configure the vPC peer-keepalive link before the system can form the vPC peer link. Ensure that both the source and destination IP addresses used for the peer-keepalive message are unique in your network and these IP addresses are reachable from the Virtual Routing and Forwarding (VRF) associated with the vPC peer-keepalive link.

The Cisco NX-OS software uses the peer-keepalive link between the vPC peers to transmit periodic, configurable keepalive messages. You must have Layer 3 connectivity between the peer devices to transmit these messages. The system cannot bring up the vPC peer link unless the peer-keepalive link is already up and running.

Note We recommend that you configure a separate VRF instance and put a Layer 3 port from each vPC peer device into that VRF for the vPC peer-keepalive link. Do not use the peer link itself to send vPC peer-keepalive messages.

Examples

This example shows how to set up the peer keepalive link connection between the primary and secondary vPC device:

```
switch(config)# vpc domain 100
```

```
switch(config-vpc-domain)# peer-keepalive destination 192.168.2.2 source 192.168.2.1
Note:
 --------:: Management VRF will be used as the default VRF ::--------
switch(config-vpc-domain)#
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
vpc peer-link	Creates the vPC peer link between the vPC peer devices.
show running-config vpc	Displays the running configuration information for vPCs.
show vpc peer-keepalive	Displays the status of the peer-keepalive link.
show vpc statistics	Displays information about the configuration for the keepalive messages.

port-profile

To create or configure a port profile, use the **port-profile** command. To delete a port profile, use the **no** form of this command.

port-profile {*port-profile-name* | **type** {**ethernet** | **interface-vlan** | **port-channel** | **vethernet**} *port-profile-name*}

no port-profile {*port-profile-name* | **type** {**ethernet** | **interface-vlan** | **port-channel** | **vethernet**} *port-profile-name*}

Syntax Description

port-profile-name	Name of the port profile. The name is case sensitive, can be a maximum of 80 alphanumeric characters and can include an underscore and hyphen. The name cannot contain spaces or special characters.
type	Specifies the type of port profile to configure.
ethernet	Specifies that the port profile is to be applied to an Ethernet interface.
interface-vlan	Specifies that the port profile is to be applied to a VLAN interface.
port-channel	Specifies that the port profile is to be applied to a port channel.
vethernet	Specifies that the port profile is to be applied to a virtual Ethernet (vEth) interface.

Command Default

Ethernet type port profile

Command Modes

Global configuration mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.
5.1(3)N1(1)	The **vethernet** keyword was added.

Usage Guidelines

Note

- You must enable virtual interfaces on the switch by using the **feature-set virtualization** command to see the **vethernet** keyword.
- You must enable interface VLANs by using the **feature interface-vlan** command to see the **interface-vlan** keyword.

You can create a port profile that contains a batch of repetitive interface commands and apply that port profile to a range of interfaces on the switch. You can configure and apply port profiles to the following interface types:

- Ethernet

- VLAN interface
- Port channel
- Virtual Ethernet (vEth) interface

The port profile is configured for an interface so that the commands that are applicable to one interface do not show up when you configure a port profile for another interface. For example, the commands that are applicable to port channel interfaces do not show up when you configure a port profile that is attached to an Ethernet interface.

Each port profile must have a unique name across the interface types.

When you delete a port profile, the commands that are configured within the port profile are removed from the interfaces that have inherited the port profile. If you want to delete a port profile that has been inherited by other port profiles, you must remove the inheritance before you can delete the port profile.

Examples

This example shows how to create a port profile named ppEth for Ethernet interfaces:

```
switch# configure terminal
switch(config)# port-profile type Ethernet ppEth
switch(config-port-prof)#
```

This example shows how to create a port profile named ppVEth for virtual Ethernet interfaces:

```
switch# configure terminal
switch(config)# port-profile type vethernet ppVEth
switch(config-port-prof)#
```

This example shows how to delete an Ethernet type port profile named ppEth:

```
switch# configure terminal
switch(config)# no port-profile type Ethernet ppEth
switch(config)#
```

Related Commands

Command	Description
command (port profile)	Adds commands to a port profile.
copy running-config startup-config	Copies the running configuration to the startup configuration.
description	Adds a description for a port profile.
feature-set virtualization	Enables the Cisco virtual machine features on the switch.
feature interface-vlan	Enables VLAN interfaces.
inherit port-profile	Inherits a port profile.
interface vethernet	Configures a virtual Ethernet (vEth) interface.
show port-profile	Displays information about a port profile.
show running-config port-profile	Displays the running configuration information for a port profile.

R Commands

This chapter describes the Cisco NX-OS virtual port channel (vPC) commands that begin with R.

reload restore

To configure the time to restore the virtual port channel (vPC) peer links, use the **reload restore** command. To revert to the default delay value, use the **no** form of this command.

reload restore [**delay** *delay_value*]

no reload restore

Syntax Description

delay	(Optional) Specifies the time to wait before assuming that the vPC peer is dead and to restore the vPC links.
delay_value	Time (in seconds) for restoring the vPC links. The range is from 240 to 3600, and the default is 240.

Command Default

240 seconds

Command Modes

vPC domain configuration mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.
5.0(2)N2(1)	This command was deprecated and replaced with the **auto-recovery** command. For backward compatibility, it will be maintained for a number of releases.

Examples

This example shows how to enable the reload-restore interval for 240 seconds (the default value) in vPC domain 100:

```
switch# configuration terminal
switch(config)# vpc domain 100
switch(config-vpc-domain)# reload restore
Warning:
Enables restoring of vPCs in a peer-detached state after reload, will wait for 240 seconds
(by default) to determine if peer is un-reachable
switch(config-vpc-domain)#
```

This example shows how to set the delay period for 300 seconds in vPC domain 200:

```
switch# configuration terminal
switch(config)# vpc domain 200
switch(config-vpc-domain)# reload restore delay 300
Warning:
Enables restoring of vPCs in a peer-detached state after reload, will wait for 240 seconds
(by default) to determine if peer is un-reachable
switch(config-vpc-domain)#
```

Related Commands

Command	Description
vpc domain	Configures a vPC domain.
show running-config vpc	Displays the running configuration information for vPCs.

role

To manually assign a primary or secondary role to a virtual Port Channel (vPC) device, use the **role** command. To restore the default role priority, use the **no** form of this command.

role priority *priority_value*

no role priority *priority_value*

Syntax Description

priority	Specifies the priority to define primary or secondary roles in the vPC configuration.
priority_value	Priority value for the vPC device. The range is from 1 to 65535.

Command Default

None

Command Modes

vPC domain configuration mode

Command History

Release	Modification
4.2(1)N1(1)	This command was introduced.

Usage Guidelines

By default, the Cisco NX-OS software elects a primary and secondary vPC peer device after you configure the vPC domain and both sides of the vPC peer link. However, you may want to elect a specific vPC peer device as the primary device for the vPC. Then, you would manually configure the role value for the vPC peer device that you want as the primary device to be lower than the other vPC peer device.

A vPC does not support role preemption. If the primary vPC peer device fails, the secondary vPC peer device takes over to become operationally the vPC primary device. However, the original operational roles are not restored if the formerly primary vPC comes up again.

Examples

This example shows how to configure the role priority of a vPC device:

```
switch(config-vpc-domain)# role priority 100
switch(config-vpc-domain)#
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
show running-config vpc	Displays the running configuration information for vPCs.
show vpc role	Displays the vPC system priority.

S Commands

This chapter describes the Cisco NX-OS virtual port channel (vPC) commands that begin with S.

state enabled

To enable a port profile, use the **state enabled** command. To disable a port profile, use the **no** form of this command.

state enabled

no state enabled

Syntax Description

This command has no arguments or keywords.

Command Default

Disabled

Command Modes

Port profile configuration mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Usage Guidelines

Use this command to enable a port profile to apply the port profile configurations to the interfaces. You can configure and inherit a port profile onto a range of interfaces before you enable that port profile. You must then enable that port profile for the configurations to take effect on the specified interfaces.

Examples

This example shows how to enable a port profile named ppEth that is configured for Ethernet interfaces:

```
switch# configure terminal
switch(config)# port-profile ppEth
switch(config-port-prof)# state enabled
switch(config-port-prof)#
```

This example shows how to disable a port profile named ppEth that is configured for Ethernet interfaces:

```
switch# configure terminal
switch(config)# port-profile ppEth
switch(config-port-prof)# no state enabled
switch(config-port-prof)#
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
inherit	Attaches a port profile to an interface.

Command	Description
show port-profile	Displays information about all port profiles.
show running-config port-profile	Displays the running configuration for the port profile.

switch-profile

To create or configure a switch profile, use the **switch-profile** command. To delete a switch profile, use the **no** form of this command.

switch-profile *sw-profile-name*

no switch-profile *sw-profile-name* {**all-config** | **local-config**}

Syntax Description

sw-profile-name	Name of the switch profile. The name is case sensitive, can be a maximum of 64 alphanumeric characters and can include an underscore and hyphen. The name cannot contain spaces or special characters.
all-config	Specifies that the switch profile be deleted with all local and peer configurations.
local-config	Specifies that the switch profile and all local configurations be deleted.

Command Default

None

Command Modes

Configuration synchronization mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Usage Guidelines

Use this command to create a switch profile on each of the peer switches. You must use the same profile name on both the switches in the Cisco Fabric Services (CFS) peer configuration.

Note In this release of Cisco NX-OS, only a pair of switches can be configured as a peer.

You can configure only one active switch profile on each peer switch. If you create or configure a second switch profile, you see the following error message:

```
Error: Another switch profile already exists. Cannot configure more than one
switch-profile.
```

The configuration that is made locally on the switch is synchronized and made available on the peer switch only after the connectivity is established between the peer switches and the configuration is verified and committed on the local switch.

You can configure a switch profile to include the interface configuration, quality of service (QoS), and virtual port channel (vPC) commands. FCoE commands are not supported on a switch profile.

When you delete a switch profile, you can choose to delete the local switch profile with the local configurations on the switch, or delete the switch profile with the local configurations and configuration information in the peer. The peer becomes unreachable.

Examples

This example shows how to create a switch profile named s5010 on switch 1 of the peer:

Peer A

```
switch# configure terminal
switch(config)# cfs ipv4 distribute
switch(config)# exit
switch# config sync
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config-sync)# switch-profile s5010
Switch-Profile started, Profile ID is 1
switch(config-sync-sp)#
```

This example shows how to create a switch profile named s5010 on switch 2 of the peer:

Peer B

```
switch# configure terminal
switch(config)# cfs ipv4 distribute
switch(config)# exit
switch# config sync
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config-sync)# switch-profile s5010
Switch-Profile started, Profile ID is 1
switch(config-sync-sp)#
```

This example shows how to delete a switch profile named s5010 and its local configuration on switch 1 of the peer:

Peer A

```
switch# config sync
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config-sync)# no switch-profile s5010 local-config
switch(config-sync)#
```

Related Commands

Command	Description
config sync	Enters configuration synchronization mode.
show switch-profile	Displays the switch profile created on the switch and its configuration revision.
sync-peers destination	Configures the peer switch for configuration synchronization.

sync-peers destination

To add a peer switch to a switch profile, use the **sync-peers destination** command. To remove a peer from the switch profile, use the **no** form of this command.

sync-peers destination *ipv4-address*

no sync-peers destination *ipv4-address*

Syntax Description

destination	Specifies the destination IPv4 address of the peer switch.
ipv4-address	Destination IPv4 address of the peer switch in the format *A.B.C.D*.

Command Default

None

Command Modes

Switch profile configuration mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Usage Guidelines

Use this command to add the peer switch that will be included in the synchronization. You must have the IPv4 address of the peer switch. You can ensure that configuration synchronization is enabled on the peer switch by using the **config sync** command.

After you add a peer to a switch profile, you can add commands to the switch profile.

Peers maintain a configuration revision of their local configuration as well as the revision. After a network outage, when connectivity is established between the peer switches and the peers are reachable, each peer determines if any configuration in the switch needs to be synchronized with the other peer. Changed configurations will then be synchronized between the peers.

When you remove a peer from the switch profile, all configuration information about the peer is deleted from the local switch.

Examples

This example shows how to add a peer switch with IPv4 address 192.168.1.37 to a switch profile named s5010 on switch 1 of the peer:

Peer A

```
switch# config sync
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config-sync)# switch-profile s5010
Switch-Profile started, Profile ID is 1
switch(config-sync-sp)# sync-peers destination 192.168.1.37
switch(config-sync-sp)#
```

This example shows how to add a peer switch with IPv4 address 192.168.120.3 to a switch profile named s5010 on switch 2 of the peer:

Peer B

```
switch# config sync
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config-sync)# switch-profile s5010
Switch-Profile started, Profile ID is 1
switch(config-sync-sp)# sync-peers destination 192.168.120.3
switch(config-sync-sp)#
```

This example shows how to delete a peer with IPv4 address 192.168.1.37 from a switch profile named s5010 on switch 1 of the peer:

Peer A

```
switch# config sync
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config-sync)# switch-profile s5010
switch(config-sync-sp)# no sync-peers destination 192.168.1.37
switch(config-sync-sp)#
```

Related Commands

Command	Description
command	Adds, modifies, or removes commands from a switch profile.
copy running-config startup-config	Copies the running configuration to the startup configuration.
import	Imports the commands from the running configuration to the switch profile.
show switch-profile	Displays the switch profile created on the switch and its configuration revision.
show switch-profile status	Displays the switch profile status.
switch-profile	Configures a switch profile.

system-mac

To manually configure the virtual port channel (vPC) domain MAC address, use the **system-mac** command. To restore the default vPC system MAC address, use the **no** form of this command.

system-mac *mac_address*

no system-mac *mac_address*

Syntax Description

mac_address	MAC address that you want for the specified vPC domain in the following format aaaa.bbbb.cccc.

Command Default

None

Command Modes

vPC domain configuration mode

Command History

Release	Modification
4.2(1)N1(1)	This command was introduced.

Usage Guidelines

When you create a vPC domain, the Cisco NX-OS software automatically creates a vPC system MAC address, which is used for operations that are confined to the link-scope, such as the Link Aggregation Control Protocol (LACP). However, you may choose to configure the vPC domain MAC address manually.

Examples

This example shows how to configure the MAC address for the vPC domain:

```
switch(config-vpc-domain)# system-mac 23fb.4ab5.4c4e
switch(config-vpc-domain)#
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
show vpc peer-keepalive	Displays the status of the peer-keepalive link.
show running-config vpc	Displays the running configuration information for vPCs.
show vpc role	Displays the vPC system priority.
show vpc statistics	Displays information about the configuration for the keepalive messages.

system-priority

To manually configure a system priority for the virtual port channel (vPC) domain, use the **system-priority** command. To restore the default system priority, use the **no** form of this command.

system-priority *priority_value*

no system-priority *priority_value*

Syntax Description

priority_value	System priority that you want for the specified vPC domain. The range is from 1 to 65535, and the default value is 32667.

Command Default

The default for the system priority is 32667.

Command Modes

vPC domain configuration mode

Command History

Release	Modification
4.2(1)N1(1)	This command was introduced.

Usage Guidelines

We recommend that you manually configure the vPC system priority when you are running Link Aggregation Control Protocol (LACP) to ensure that the vPC peer devices are the primary devices on LACP. When you manually configure the system priority, ensure that you configure the same priority value on both vPC peer devices. If these values do not match, vPC will not come up.

Examples

This example shows how to configure the system priority for the vPC domain:

```
switch(config-vpc-domain)# system-priority 3000
switch(config-vpc-domain)#
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
show running-config vpc	Displays the running configuration information for vPCs.
show vpc role	Displays the vPC system priority.

Show Commands

This chapter describes the Cisco NX-OS virtual port channel (vPC) **show** commands.

show ip arp vpc-statistics

To display the global statistics for the Address Resolution Protocol (ARP) on a virtual port channel (vPC), use the **show ip arp vpc-statistics** command.

show ip arp vpc-statistics

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
5.1(3)N1(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to display the global ARP statistics on vPCs:

```
switch# show ip arp vpc-statistics
ARP sync Enabled

ARP vPC global statistics
MCECM api failed while processing CFS payload : 2980
switch#
```

Related Commands

Command	Description
ip arp synchronize	Enables ARP synchronization on a vPC domain.
show running-config vpc	Displays the running configuration information for vPCs.

show port-profile

To display the port profiles configured on a switch, use the **show port-profile** command.

show port-profile

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Usage Guidelines

Use this command to view the configuration information of the port profiles configured on the switch and the interfaces that inherited the port profiles.

Examples

This example shows how to display the port profiles configured on the switch:

```
switch# show port-profile

port-profile p1
 type: Ethernet
 description:
 status: enabled
 max-ports: 512
 inherit:
 config attributes:
  ip port access-group denyv4 in
 evaluated config attributes:
  ip port access-group denyv4 in
 assigned interfaces:

port-profile ppEth
 type: Ethernet
 description: Port profile to configure batch commands for Ethernet interfaces
 status: enabled
 max-ports: 512
 inherit:
  pp
 config attributes:
 evaluated config attributes:
  switchport mode trunk
  switchport trunk allowed vlan 300-800
  flowcontrol receive on
 assigned interfaces:
  Ethernet198/1/11
```

```
switch#
```

Table 1 describes the fields shown in the display.

Table 1 show port-profile Field Descriptions

Field	Description
type	The type of interface that the port profile represents. The value can be Ethernet, Interface-vlan, or Port-channel.
description	The summary purpose of the port profile.
status	The state of the port profile, enabled or disabled.
max-ports	The maximum number of ports on which this profile can be inherited. The default is 512.
inherit	The name of the port profile that this port profile inherited. This field is blank if the port profile does not inherit another port profile.
config attributes	The configuration commands of the port profile.
evaluated config attributes	The verified configuration commands of this port profile and the inherited commands from the other port profile.
assigned interfaces	The interfaces that inherits this port profile.

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
inherit	Attaches a port profile to an interface.
show port-profile name	Displays information about the specific port profile.
show running-config port-profile	Displays the running configuration for the port profile.

show port-profile brief

To display brief information about the port profiles configured on a switch, use the **show port-profile brief** command.

show port-profile brief

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Usage Guidelines

Use this command to view the number of interfaces that inherited the port profile, the number of child port profiles, and the number of commands configured in, or inherited to, a port profile.

Examples

This example shows how to display brief information about the port profiles configured on the switch:

```
switch# show port-profile brief
------------------------------------------------------------
Port                Profile  Conf   Eval   Assigned  Child
Profile              State   Items  Items  Intfs     Profs
------------------------------------------------------------
ppEth               1        3      3      1         1
p1                  1        1      1      0         0
switch#
```

Table 2 describes the fields shown in the display:

Table 2 show port-profile brief Field Descriptions

Field	Description
Port Profile	The name of the port profile.
Profile State	The state of the port profile. The value 1 represents the profile is enabled, and 0 represents a disabled state.
Conf Items	The number of commands configured in the port profile.
Eval Items	The number of commands configured in the port profile or inherited from another port profile.
Assigned Intfs	The interfaces assigned to the port profile.
Child Profs	The number of port profiles inherited by this port profile.

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
show port-profile	Displays information about all configured port profiles.
show port-profile name	Displays information about a specific port profile.
show running-config port-profile	Displays the running configuration for the port profile.

show port-profile expand-interface

To display the active port profile configurations that are applied to an interface, use the **show port-profile expand-interface** command.

show port-profile expand-interface [*pp-profile-name*]

Syntax Description

pp-profile-name	(Optional) Name of the port profile. The name can be a maximum of 80 alphanumeric characters and can include an underscore and hyphen. The name cannot contain spaces or special characters.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Usage Guidelines

Use this command to view the port profile configuration that is applied to an interface.

Examples

This example shows how to display the port profile configurations applied to the assigned interfaces:

```
switch# show port-profile expand-interface

port-profile ppEth
 Ethernet198/1/11
  switchport mode trunk
  switchport trunk allowed vlan 300-800
  flowcontrol receive on

port-profile p1

port-profile pp

switch#
```

This example shows how to display a specific port profile configuration assigned to an interface:

```
switch# show port-profile expand-interface name ppEth

port-profile ppEth
 Ethernet198/1/11
  switchport mode trunk
  switchport trunk allowed vlan 300-800
  flowcontrol receive on

switch#
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
show port-profile	Displays information about all configured port profiles.
show running-config port-profile	Displays the running configuration for the port profile.

show port-profile name

To display the configuration information of specific port profiles, use the **show port-profile name** command.

show port-profile name *pp-profile-name*

Syntax Description

pp-profile-name	Name of the port profile. The name can be a maximum of 80 alphanumeric characters and can include an underscore and hyphen. The name cannot contain spaces or special characters.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Examples

This example shows how to display the configuration information of a port profile named ppEth:

```
switch# show port-profile name ppEth

port-profile ppEth
 type: Ethernet
 description: Port profile to configure batch commands for Ethernet interfaces
 status: enabled
 max-ports: 512
 inherit:
  pp
 config attributes:
 evaluated config attributes:
  switchport mode trunk
  switchport trunk allowed vlan 300-800
  flowcontrol receive on
 assigned interfaces:
  Ethernet198/1/11

switch#
```

Table 3 describes the fields shown in the display:

Table 3 show port-profile Field Descriptions

Field	Description
type	The type of interface that the port profile represents. The value can be Ethernet, Interface-vlan, or Port-channel.
description	The summary purpose of the port profile.

Table 3 show port-profile Field Descriptions (continued)

Field	Description
status	The state of the port profile, enabled or disabled.
max-ports	The maximum number of ports on which this profile can be inherited. The default is 512.
inherit	The name of the port profile that this port profile inherited. This field is blank if the port profile does not inherit another port profile.
config attributes	The configuration commands of the port profile.
evaluated config attributes	The verified configuration commands of this port profile and the inherited commands from the other port profile.
assigned interfaces	The interfaces that inherits this port profile.

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
inherit	Attaches a port profile to an interface.
show port-profile	Displays information about all port profiles.
show running-config port-profile	Displays the running configuration for the port profile.

show port-profile usage

To display the list of interfaces that inherited a port profile, use the **show port-profile usage** command.

show port-profile usage [*pp-profile-name*]

Syntax Description

pp-profile-name	(Optional) Name of the port profile. The name can be a maximum of 80 alphanumeric characters and can include an underscore and hyphen. The name cannot contain spaces or special characters.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Examples

This example shows how to display the assigned interfaces for port profiles configured on the switch:

```
switch# show port-profile usage

port-profile eth
 Ethernet198/1/11

port-profile p1

port-profile pp

switch#
```

This example shows how to display the interfaces attached to a port profile named ppEth:

```
switch# show port-profile usage name ppEth

port-profile ppEth
 Ethernet198/1/11

switch#
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
show port-profile	Displays information about all configured port profiles.

Command	Description
show running-config port-profile	Displays the running configuration for port profiles.
show startup-config port-profile	Displays the startup configuration for port profiles.

show running-config expand-port-profile

To display the detailed running configuration for a port profile, use the **show running-config expand expand-port-profile** command.

show running-config expand-port-profile

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Examples

This example shows how to display the running configuration for an expanded port profile:

```
switch# show running-config expand-port-profile

!Command: show running-config expand-port-profile
!Time: Wed Sep  8 09:19:41 2010

version 5.0(2)N1(1)
feature fcoe

feature telnet
feature tacacs+
cfs ipv4 distribute
cfs eth distribute
feature udld
feature interface-vlan
feature lacp
feature dhcp
feature vpc
feature lldp
feature vtp
feature fex

username admin password 5 $1$wmFN7Wly$/pjqx1DfAkCCAg/KyxbUz/  role network-admin
username install password 5 !  role network-admin
username praveena password 5 !  role network-operator
no password strength-check
ip domain-lookup
ip domain-lookup
tacacs-server host 192.0.131.54 key 7 "wawy1234"
tacacs-server host 192.0.131.37
tacacs-server host 192.0.131.37 test username user1
:
<--Snip-->
:
```

```
vpc domain 1000
  role priority 65534
  system-mac 00:23:04:ee:c1:e8
  peer-keepalive destination 192.0.10.2 source 192.0.10.3 vrf default
port-profile type interface-vlan ppVlan
  bandwidth 30000000
  mtu 3000
  description Sample port-profile for VLAN interfaces
port-profile type ethernet eth
  switchport mode trunk
  switchport trunk allowed vlan 300-800
  flowcontrol receive on
  state enabled
port-profile type port-channel ppPO
  delay 5000000
  load-interval counter 1 30
  switchport mode trunk
  description Sample port profile for Port Channel interface
  state enabled
port-profile type ethernet ppEth
  inherit port-profile eth
  switchport mode trunk
  switchport trunk allowed vlan 300-400
  speed 10000
  bandwidth 1000000
  description Sample port profile for Ethernet interfaces
  state enabled


interface Vlan1

:
<--snip-->
:
mac address-table notification threshold limit 99 interval 60
interface fc2/1
interface fc2/2
interface fc2/3
interface fc2/4
logging server 192.0.20.101
logging server 192.0.20.102
logging timestamp milliseconds
no logging console


switch#
```

Related Commands

Command	Description
port-profile	Configures a port profile.
show port-profile	Displays the port profile information.
show running-config port-profile	Displays the running configuration with port profile configurations.

show running-config port-profile

To display the running configuration of a port profile, use the **show running-config port-profile** command.

show running-config port-profile [*pp-profile-name*]

Syntax Description

pp-profile-name	Name of the port profile. The name can be a maximum of 80 alphanumeric characters and can include an underscore and hyphen. The name cannot contain spaces or special characters.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Examples

This example shows how to display the running configuration of all port profiles that are configured on the switch:

```
switch# show running-config port-profile

!Command: show running-config port-profile
!Time: Mon Sep  6 07:31:24 2010

version 5.0(2)N1(1)
port-profile type interface-vlan ppVlan
  bandwidth 30000000
  mtu 3000
  description Sample port-profile for VLAN interfaces
port-profile type ethernet eth
  switchport mode trunk
  switchport trunk allowed vlan 300-800
  flowcontrol receive on
  state enabled
port-profile type port-channel ppPO
  delay 5000000
  load-interval counter 1 30
  switchport mode trunk
  description Sample port profile for Port Channel interface
  state enabled
port-profile type ethernet ppEth
  inherit port-profile eth
  switchport mode trunk
  switchport trunk allowed vlan 300-400
  speed 10000
  bandwidth 1000000
  description Sample port profile for Ethernet interfaces
  state enabled
```

```
switch#
```

This example shows how to display the running configuration of a port profile named ppEth that is configured on the switch:

```
switch# show running-config port-profile ppEth

!Command: show running-config port-profile ppEth
!Time: Mon Sep  6 07:32:10 2010

version 5.0(2)N1(1)
port-profile type ethernet ppEth
  inherit port-profile eth
  switchport mode trunk
  switchport trunk allowed vlan 300-400
  speed 10000
  bandwidth 1000000
  description Sample port profile for Ethernet interfaces
  state enabled


switch#
```

Related Commands

Command	Description
port-profile	Configures a port profile.
show port-profile	Displays the configuration information of port profiles.
show startup-config switch-profile	Displays the startup configuration information for the switch profile.

show running-config switch-profile

To display the running configuration of a switch profile, use the **show running-config switch-profile** command.

show running-config switch-profile

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Examples

This example shows how to display the running configuration of a switch profile named s5010 configured on switch 1 of the peer:

```
switch# show running-config switch-profile
switch-profile s5010
  sync-peers destination 192.0.120.3
  interface Ethernet1/1
    switchport mode trunk
    speed 1000

switch#
```

Related Commands

Command	Description
switch-profile	Configures a switch profile.
show startup-config switch-profile	Displays the startup configuration information for the switch profile.

show running-config vpc

To display the running configuration information for virtual port channels (vPCs), use the **show running-config vpc** command.

show running-config vpc [**all**]

Syntax Description[

all	(Optional) Displays configured and default information.

Command Default

None

Command Modes

Any command mode

Command History

Release	Modification
4.1(3)N1(1)	This command was introduced.

Examples

This example shows how to display the running configuration for a vPC on a switch that runs Cisco NX-OS Release 4.1(2):

```
switch (config)# show running-config vpc
version 4.1(2)
feature vpc
vpc domain 2
  role priority 1
  system-priority 32667
  peer-keepalive destination 192.0.76.52 source 192.0.76.51 udp-port 3200 vrf ma
engagement interval 1000 timeout 5


interface port-channel10
  vpc 20

interface port-channel101
  vpc 101

interface port-channel200
  vpc peer-link

interface port-channel201
  vpc 201
```

This example shows how to display the running configuration for a vPC on a switch that runs Cisco NX-OS Release 4.2(1):

```
switch# show running-config vpc

!Command: show running-config vpc
!Time: Wed Mar 31 06:11:52 2010

version 4.2(1)N1(1)
```

```
feature vpc

vpc domain 1000
  role priority 2000
  peer-keepalive destination 192.0.183.52 source 192.0.76.51 vrf management
  peer-config-check-bypass


interface port-channel1
  vpc peer-link

interface port-channel3
  vpc 4096

interface port-channel5
  vpc 4001

interface port-channel12
  vpc 4000

interface port-channel24
  vpc 2000

interface port-channel41
  vpc 41

interface port-channel48
  vpc 48

--More--
switch#
```

This example shows how to display the vPC reload configuration on a switch that runs Cisco NX-OS Release 5.0(2)N1(1):

```
switch# show running-config vpc


!Command: show running-config vpc
!Time: Wed Oct 27 21:24:24 2010

version 5.0(2)N1(1)
feature vpc

vpc domain 10
  peer-keepalive destination 192.0.1.48
  reload restore

--More--
<--output truncated>
switch#
```

This example shows how to display the vPC automatic recovery configuration on a switch that runs Cisco NX-OS Release 5.0(2)N2(1):

```
switch# show running-config vpc

!Command: show running-config vpc
!Time: Fri Dec 10 04:13:57 2010

version 5.0(2)N2(1)
feature vpc
```

```
vpc domain 100
  peer-keepalive destination 192.0.51.138
  auto-recovery reload-delay 300

interface port-channel1
  vpc 1

interface port-channel100
  vpc peer-link

switch#
```

Related Commands

Command	Description
show vpc brief	Displays information about vPCs. If the feature is not enabled, this command returns an error.

show startup-config interface

To display interface configuration information in the startup configuration, use the **show startup-config interface** command.

show startup-config interface [**ethernet** *slot/port* | **expand-port-profile** | **loopback** *number* | **mgmt 0** | **port-channel** {*channel-number*} [**membership**] | **tunnel** *number* | {**vlan** *vlan-id*}

Syntax Description

ethernet *slot/port*	(Optional) Displays the number of the module and port number. The *slot* number is from 1 to 255, and the *port* number is from 1 to 128.
expand-port-profile	Displays the port profiles.
loopback *number*	Displays the number of the loopback interface. The range of values is from 1 to 4096.
mgmt 0	Displays the configuration information of the management interface.
port-channel *channel-number*	Displays the number of the port-channel group. The range of values is from 0 to 1023.
membership	(Optional) Displays the membership of the specified port channel.
tunnel *number*	Displays the number of the tunnel interface. The range of values is from 0 to 65535.
vlan *vlan-id*	Displays the number of the VLAN. The range of values is from 1 to 4096.

Command Default

None

Command Modes

Any command mode

Command History

Release	Modification
4.1(3)N1(1)	This command was introduced.

Examples

This example shows how to display the information in the startup configuration for the interface Ethernet 7/1:

```
switch(config)# show startup-config interface ethernet 7/1
version 4.1(2)

interface Ethernet7/1
  ip pim sparse-mode
switch(config)#
```

Related Commands

Command	Description
show interface	Displays information about the specified interface.

show startup-config port-profile

To display the startup configuration of port profiles, use the **show startup-config port-profile** command.

show startup-config switch-profile [*pp-profile-name*]

Syntax Description

pp-profile-name	(Optional) Name of the port profile. The name can be a maximum of 80 alphanumeric characters and can include an underscore and hyphen. The name cannot contain spaces or special characters.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Examples

This example shows how to display the configuration information of all port profiles stored in the startup configuration file:

```
switch# show startup-config switch-profile

!Command: show startup-config port-profile
!Time: Mon Sep  6 07:32:48 2010
!Startup config saved at: Mon Sep  6 07:29:19 2010

version 5.0(2)N1(1)
port-profile type interface-vlan ppVlan
  bandwidth 30000000
  mtu 3000
  description Sample port-profile for VLAN interfaces
port-profile type ethernet eth
  switchport mode trunk
  switchport trunk allowed vlan 300-800
  flowcontrol receive on
  state enabled
port-profile type port-channel ppPO
  delay 5000000
  load-interval counter 1 30
  switchport mode trunk
  description Sample port profile for Port Channel interface
  state enabled
port-profile type ethernet ppEth
  inherit port-profile eth
  switchport mode trunk
  switchport trunk allowed vlan 300-400
  speed 10000
  bandwidth 1000000
  description Sample port profile for Ethernet interfaces
```

```
  state enabled


switch#
```

This example shows how to display the startup configuration of a port profile named ppPO that is configured for port channel interfaces on the switch:

```
switch# show startup-config port-profile ppPO

!Command: show startup-config port-profile ppPO
!Time: Mon Sep  6 07:34:31 2010
!Startup config saved at: Mon Sep  6 07:29:19 2010

version 5.0(2)N1(1)
port-profile type port-channel ppPO
  delay 5000000
  load-interval counter 1 30
  switchport mode trunk
  description Sample port profile for Port Channel interface
  state enabled


switch#
```

This example shows how to display the startup configuration of a port profile named ppEth that is configured for Ethernet interfaces on the switch:

```
switch# show startup-config port-profile ppEth

!Command: show startup-config port-profile ppEth
!Time: Mon Sep  6 07:35:44 2010
!Startup config saved at: Mon Sep  6 07:29:19 2010

version 5.0(2)N1(1)
port-profile type ethernet ppEth
  inherit port-profile eth
  switchport mode trunk
  switchport trunk allowed vlan 300-400
  speed 10000
  bandwidth 1000000
  description Sample port profile for Ethernet interfaces
  state enabled


switch#
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
show running-config switch-profile	Displays the running configuration information for a switch profile.

show startup-config switch-profile

To display the startup configuration of a switch profile, use the **show startup-config switch-profile** command.

show startup-config switch-profile

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Examples

This example shows how to display the startup configuration of a switch profile named s5010 that is configured on switch 1 of the peer:

```
switch# show running-config switch-profile
switch-profile s5010
  sync-peers destination 192.0.120.3

  interface Ethernet101/1/35
    switchport mode trunk
    switchport trunk native vlan 300
    switchport trunk allowed vlan 300-800
switch#
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
switch-profile	Configures a switch profile.
show running-config switch-profile	Displays the running configuration information for a switch profile.

show startup-config vpc

To display virtual port channel (vPC) configuration information in the startup configuration, use the **show startup-config vpc** command.

show startup-config vpc [**all**]

Syntax Description

all	(Optional) Displays startup-configuration information for all vPCs.

Command Default

None

Command Modes

Any command mode

Command History

Release	Modification
4.1(3)N1(1)	This command was introduced.

Examples

This example shows how to display the vPC information in the startup configuration:

```
switch(config)# show startup-config vpc
version 4.1(2)
feature vpc
vpc domain 1


interface port-channel10
  vpc peer-link

interface port-channel20
  vpc 100
switch(config)#
```

Related Commands

Command	Description
show vpc brief	Displays information about vPCs. If the feature is not enabled, the system displays an error when you enter this command.

show switch-profile

To display the switch profile configured on the switch, use the **show switch-profile** command.

show switch-profile

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Examples

This example shows how to display the switch profile that is configured on switch 1 of the peer:

```
switch# show switch-profile
-----------------------------------------------------
Profile-name                          Config-revision
-----------------------------------------------------
s5010                                               1

switch#
```

Table 4 describes the fields shown in the display:

Table 4 show switch-profile Field Descriptions

Field	Description
Profile-name	The name of the switch profile.
Config-revision	The revision of the switch profile configuration. The revision number is used to synchronize the configuration in the peer switch. See the **commit** command for more information.

Related Commands

Command	Description
commit	Commits a switch profile configuration.
switch-profile	Configures a switch profile.
show switch-profile status	Displays the status of the switch profile.

show switch-profile buffer

To display the switch profile buffer, use the **show switch-profile buffer** command.

show switch-profile *sw-profile-name* **buffer**

Syntax Description

sw-profile-name	Name of the switch profile. The name is case sensitive, can be a maximum of 64 alphanumeric characters and can include an underscore, and hyphen. The name cannot contain spaces or special characters.

Command Default

None

Command Modes

Any command mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Examples

This example shows how to display the buffer for the switch profile named s5010:

```
switch# show switch-profile s5010 buffer
----------------------------------------------------------
Seq-no  Command
----------------------------------------------------------
1       interface ethernet 1/1
1.1       switchport mode trunk
1.2       speed 1000
2       interface port-channel 102
2.1       vpc 1
2.2       switchport mode trunk

switch#
```

Table 5 describes the fields shown in the display:

Table 5 show switch-profile buffer Field Descriptions

Field	Description
Seq-no	The sequence number or order of entry of the command in the switch profile buffer.
Command	The command used for configuring the switch profile.

Related Commands

Command	Description
command (switch profile)	Adds commands to a switch profile.
import	Imports commands to a switch profile.

Command	Description
switch-profile	Configures a switch profile.
show switch-profile status	Displays the status of the switch profile.

show switch-profile peer

To display information about the destination peer switch in a switch profile configuration, use the **show switch-profile peer** command.

show switch-profile *sw-profile-name* **peer** *ip-address*

Syntax Description

sw-profile-name	Name of the switch profile. The name is case sensitive, can be a maximum of 64 alphanumeric characters and can include an underscore and hyphen. The name cannot contain spaces or special characters.
ip-address	IPv4 address of the destination peer switch in the format *A.B.C.D*.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Examples

This example shows how to display the information about a destination peer switch with IPv4 address 192.168.120.3 added to the switch profile named s5010 on switch 1 of the peer:

```
switch# show switch-profile s5010 peer 192.168.120.3
Peer-sync-status           : Not yet merged. pending-merge:1 received_merge:0
Peer-status                : Peer not reachable
Peer-error(s)              :
switch#
```

This example shows how to display the successful commit information about a destination peer switch with IPv4 address 192.168.120.3 for the switch profile named s5010 on switch 1 of the peer:

```
switch1# show switch-profile sp peer 192.168.120.3
Peer-sync-status : In Sync.
Peer-status : Commit Success
Peer-error(s) :
switch1#
```

Table 6 describes the fields shown in the display.

Table 6 show switch-profile peer Field Descriptions

Field	Description
Peer-sync-status	The status of the synchronized configuration in the peer switch as follows: • In Sync—The configuration on both switches are synchronized. • Not yet merged. pending-merge:1 received_merge:0—The configuration in the local switch is not yet merged with the peer switch.
Peer-status	The status of the peer switch during a configuration synchronization, whether reachable or not reachable, successfully verified or committed.
Peer-error(s)	The reason for the failure in connecting to the peer switch.

Related Commands

Command	Description
show switch-profile status	Displays the status of the switch profile.
switch-profile	Configures a switch profile.
sync-peers destination	Configures the peer switch for configuration synchronization.

show switch-profile session-history

To display the session history of the switch profile configuration, use the **show switch-profile session-history** command.

show switch-profile *sw-profile-name* **session-history**

Syntax Description

sw-profile-name	Name of the switch profile. The name is case sensitive, can be a maximum of 64 alphanumeric characters and can include an underscore and hyphen. The name cannot contain spaces or special characters.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Examples

This example shows how to display the session history of the switch profile named s5010 on switch 1 of the peer:

```
switch# show switch-profile s5010 session-history

Start-time: 959269 usecs after Fri Aug 13 06:16:29 2010
End-time: 961304 usecs after Fri Aug 13 06:16:29 2010

Profile-Revision: 1
Session-type: Initial-Exchange
Peer-triggered: No
Profile-status: -

Local information:
----------------
Status: -
Error(s):

Peer information:
----------------
IP-address: 192.168.120.3
Pending-merge: 1
Received-merge: 0
Sync-status: Not yet merged. pending-merge:1 received-merge:0
Status: Peer not reachable
Error(s):

Start-time: 794606 usecs after Fri Aug 13 06:16:40 2010
End-time: 796861 usecs after Fri Aug 13 06:16:40 2010

Profile-Revision: 1
Session-type: Peer-delete
```

```
Peer-triggered: No
Profile-status: Sync Success

Local information:
----------------
Status: Verify Success
Error(s):

switch#
```

Table 7 describes the fields shown in the display:

Table 7 show switch-profile session-history Field Descriptions

Field	Description
Start-time	The start time of the configuration session in the format *nn* usecs after *Day-of-week Month Date hh*:*mm*:*ss Year*, where usecs represents microseconds. For example, 265561 usecs after Fri Aug 13 06:21:30 2010
End-time	The end time of the configuration session in the format *nn* usecs after *Day-of-week Month Date hh*:*mm*:*ss Year*, where usecs represents microseconds.
Profile-Revision	The number of times the switch profile configuration has been revised.
Session-type	The action taken on the switch profile configuration; for example, Initial-Exchange, Commit, Peer-Delete.
Peer-triggered	The status of receiving the peer reachable notification.
Profile-status	The status of the configuration synchronization.
Local information	The information about the local switch profile.
Status	The status of the configuration synchronization action in the local switch.
Error(s)	The reason for the errors that appear while synchronizing the configuration in the local switch.
Peer information	The information about the peer switch profile.
IP-address	The IPv4 address of the destination peer switch.
Pending-merge	The latest configuration revision number in the local switch that is to be merged with the configuration in the peer switch.
Received-merge	The configuration revision received from the local switch to synchronize with the peer switch.
Sync-status	The status of the synchronized configuration in the peer switch as follows: • In Sync—The configuration on the peer switch is synchronized with the configurations of the local switch. • Not yet merged. pending-merge:1 received_merge:0—The configuration in the local switch is not yet merged with the peer switch.

Table 7 show switch-profile session-history Field Descriptions (continued)

Field	Description
Status	The status of the peer switch, such as the connectivity, or command execution status.
Error(s)	The reason for the errors that appear while synchronizing the configuration in the peer switch.

Related Commands

Command	Description
show switch-profile	Displays the switch profile and configuration revisions.
show switch-profile status	Displays the status of the switch profile.
switch-profile	Configures a switch profile.

show switch-profile status

To display the switch profile configuration status, use the **show switch-profile** command.

show switch-profile *sw-profile-name* **status**

Syntax Description

sw-profile-name	Name of the switch profile. The name is case sensitive, can be a maximum of 64 alphanumeric characters and can include an underscore and hyphen. The name cannot contain spaces or special characters.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Examples

This example shows how to display the status of the switch profile named s5010 on switch 1 of the peer:

```
switch# show switch-profile s5010 status

Start-time: 794606 usecs after Fri Aug 13 06:16:40 2010
End-time: 796861 usecs after Fri Aug 13 06:16:40 2010

Profile-Revision: 3
Session-type: Commit
Peer-triggered: Yes
Profile-status: Sync Success

Local information:
----------------
Status: Commit Success
Error(s):

Peer information:
----------------
IP-address: 192.168.120.3
Sync-status: In Sync.
Status: Commit Success
Error(s):

switch#
```

Table 8 describes the fields shown in the display:

Table 8 show switch-profile status Field Descriptions

Field	Description
Start-time	The start time of the configuration session in the format *nn* usecs after *Day-of-week Month Date hh*:*mm*:*ss Year*, where usecs represents microseconds. For example, 265561 usecs after Fri Aug 13 06:21:30 2010
End-time	The end time of the configuration session in the format *nn* usecs after *Day-of-week Month Date hh*:*mm*:*ss Year*, where usecs represents microseconds.
Profile-Revision	The number of times the switch profile configuration has been revised.
Session-type	The action taken on the switch profile configuration; for example, Commit, Peer-Delete.
Peer-triggered	The status of receiving the peer reachable notification.
Profile-status	The status of the configuration synchronization.
Local information	The information about the local switch profile.
Status	The status of the configuration synchronization action in the local switch.
Error(s)	The reason for the errors that appear while synchronizing the configuration in the local switch.
Peer information	The information about the peer switch profile.
IP-address	The IPv4 address of the destination peer switch.
Sync-status	The status of the synchronized configuration in the peer switch. • In Sync—The configuration on the peer switch is synchronized with the configurations of the local switch. • Not yet merged. pending-merge:1 received_merge:0—The configuration in the local switch is not yet merged with the peer switch.
Status	The status of the configuration synchronization action in the peer switch.
Error(s)	The reason for the errors that appear while synchronizing the configuration in the peer switch.

Related Commands

Command	Description
show switch-profile	Displays the switch profile and configuration revisions.
switch-profile	Configures a switch profile.

show tech-support vpc

To display troubleshooting information about the virtual port channel (vPC), use the **show tech-support vpc** command.

show tech-support vpc

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.2(1)N1(1)	This command was introduced.

Examples

This example shows how to display the vPC troubleshooting information:

```
switch# show tech-support vpc
`show version`
Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac
Copyright (c) 2002-2010, Cisco Systems, Inc. All rights reserved.
The copyrights to certain works contained herein are owned by
other third parties and are used and distributed under license.
Some parts of this software are covered under the GNU Public
License. A copy of the license is available at
http://www.gnu.org/licenses/gpl.html.

Software
  BIOS:      version 1.3.0
  loader:    version N/A
  kickstart: version 4.2(1)N1(1) [build 4.2(1)N1(0.329)]
  system:    version 4.2(1)N1(1) [build 4.2(1)N1(0.329)]
  power-seq: version v1.2
  BIOS compile time:       09/08/09
  kickstart image file is: bootflash:/n5000-uk9-kickstart.4.2.1.N1.latest.bin
  kickstart compile time:  4/18/2010 8:00:00 [04/18/2010 15:03:44]
  system image file is:    bootflash:/n5000-uk9.4.2.1.N1.latest.bin
  system compile time:     4/18/2010 8:00:00 [04/18/2010 16:08:18]


Hardware
  cisco Nexus5020 Chassis ("40x10GE/Supervisor")
  Intel(R) Celeron(R) M CPU    with 2074284 kB of memory.
  Processor Board ID JAF1413ADCS

  Device name: d14-switch-2
  bootflash:    1003520 kB

Kernel uptime is 0 day(s), 2 hour(s), 25 minute(s), 26 second(s)
```

```
Last reset at 414529 usecs after  Mon Apr 19 05:59:19 2010

  Reason: Disruptive upgrade
  System version: 4.2(1u)N1(1u)
  Service:

plugin
  Core Plugin, Ethernet Plugin, Fc Plugin
`show module`
Mod Ports  Module-Type                       Model                  Status
--- -----  -------------------------------- ---------------------- ------------
1    40     40x10GE/Supervisor               N5K-C5020P-BF-SUP      active *
2    8      8x1/2/4G FC Module               N5K-M1008              ok
3    6      6x10GE Ethernet Module           N5K-M1600              ok

Mod  Sw              Hw      World-Wide-Name(s) (WWN)
---  --------------  ------  --------------------------------------------------
1    4.2(1)N1(1)     1.3     --
2    4.2(1)N1(1)     0.200   20:41:00:05:9b:78:6e:40 to 20:48:00:05:9b:78:6e:40
3    4.2(1)N1(1)     0.100   --

Mod  MAC-Address(es)                         Serial-Num
---  --------------------------------------  ----------
1    0005.9b78.6e48 to 0005.9b78.6e6f         JAF1413ADCS
2    0005.9b78.6e70 to 0005.9b78.6e77         JAB1228016M
3    0005.9b78.6e78 to 0005.9b78.6e7f         JAB12310214
`show vpc brief`
Legend:
                (*) - local vPC is down, forwarding via vPC peer-link

vPC domain id                     : 1000
Peer status                       : peer adjacency formed ok
vPC keep-alive status             : peer is alive
Configuration consistency status: success
vPC role                          : secondary
Number of vPCs configured         : 150
Peer Gateway                      : Disabled
Dual-active excluded VLANs        : -

vPC Peer-link status
---------------------------------------------------------------------
id   Port   Status Active vlans
--   ----   ------ --------------------------------------------------
1    Po1    up     1-330,335,338-447,1000-1023,2000-2018

vPC status
----------------------------------------------------------------------------
id     Port        Status Consistency Reason                     Active vlans
------ ----------- ------ ----------- -------------------------- -----------
41     Po41        down*  failed      Consistency Check Not      -
                                      Performed
48     Po48        down*  failed      Consistency Check Not      -
                                      Performed
2000   Po24        down   success     success                    -
4000   Po12        down   success     success                    -
4001   Po5         down   success     success                    -
4096   Po3         down   success     success                    -
101376 Eth100/1/1  down*  failed      Consistency Check Not      -
                                      Performed
101377 Eth100/1/2  down*  failed      Consistency Check Not      -
                                      Performed
101378 Eth100/1/3  down*  failed      Consistency Check Not      -
                                      Performed
```

```
101379 Eth100/1/4  down*  failed      Consistency Check Not      -
                                      Performed
101380 Eth100/1/5  down*  failed      Consistency Check Not      -
--More--
switch#
```

Related Commands

Command	Description
show vpc brief	Displays information about vPCs. If the feature is not enabled, the system displays an error when you enter this command.

show version

To display information about the software and hardware version, use the **show version** command.

show version

Syntax Description

This command has no arguments or keywords.

Command Default

All version information

Command Modes

EXEC mode

Command History

Release	Modification
4.0(0)N1(1a)	This command was introduced.

Examples

This example shows how to display the version information of a switch that runs Cisco NX-OS Release 4.2(1)N1(1):

```
switch# show version
Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac
Copyright (c) 2002-2010, Cisco Systems, Inc. All rights reserved.
The copyrights to certain works contained herein are owned by
other third parties and are used and distributed under license.
Some parts of this software are covered under the GNU Public
License. A copy of the license is available at
http://www.gnu.org/licenses/gpl.html.

Software
  BIOS:      version 1.3.0 [last: ]
  loader:    version N/A
  kickstart: version 4.2(1u)N1(1u) [build 4.2(1)N1(0.328)]
  system:    version 4.2(1u)N1(1u) [build 4.2(1)N1(0.328)]
  power-seq: version v1.2
  BIOS compile time:       09/08/09 [last: ]
  kickstart image file is: bootflash:///n5000-uk9-kickstart.4.2.1.N1.latest.bin.
upg
  kickstart compile time:  12/25/2020 12:00:00 [04/17/2010 15:06:29]
  system image file is:    bootflash:/n5000-uk9.4.2.1.N1.latest.bin.upg
  system compile time:     12/25/2020 12:00:00 [04/17/2010 16:11:29]


Hardware
  cisco Nexus5020 Chassis ("40x10GE/Supervisor")
  Intel(R) Celeron(R) M CPU    with 2074284 kB of memory.
  Processor Board ID JAF1413ADCS

  Device name: d14-switch-2
  bootflash:    1003520 kB

Kernel uptime is 0 day(s), 1 hour(s), 2 minute(s), 41 second(s)
```

```
Last reset at 167864 usecs after  Mon Apr 19 04:22:45 2010

  Reason: Reset due to upgrade
  System version: 4.2(1)N1(1)
  Service:

plugin
  Core Plugin, Ethernet Plugin, Fc Plugin
switch#
```

This example shows how to display the version information for the kickstart and system image running on a device that runs Cisco NX-OS Release 5.0(2)N2(1):

```
switch# show version
Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac
Copyright (c) 2002-2010, Cisco Systems, Inc. All rights reserved.
The copyrights to certain works contained herein are owned by
other third parties and are used and distributed under license.
Some parts of this software are covered under the GNU Public
License. A copy of the license is available at
http://www.gnu.org/licenses/gpl.html.

Software
  BIOS:      version 1.3.0
  loader:    version N/A
  kickstart: version 5.0(2)N2(1) [build 5.0(2)N2(1)]
  system:    version 5.0(2)N2(1) [build 5.0(2)N2(1)]
  power-seq: version v1.2
  BIOS compile time:       09/08/09
  kickstart image file is: bootflash:/sanity-kickstart
  kickstart compile time:  12/6/2010 7:00:00 [12/06/2010 07:35:14]
  system image file is:    bootflash:/sanity-system
  system compile time:     12/6/2010 7:00:00 [12/06/2010 08:56:45]


Hardware
  cisco Nexus5010 Chassis ("20x10GE/Supervisor")
  Intel(R) Celeron(R) M CPU    with 2073416 kB of memory.
  Processor Board ID JAF1228BTAS

  Device name: BEND-2
  bootflash:    1003520 kB

Kernel uptime is 0 day(s), 3 hour(s), 30 minute(s), 45 second(s)

Last reset
  Reason: Unknown
  System version:
  Service:

plugin
  Core Plugin, Ethernet Plugin, Fc Plugin
switch#
```

Related Commands

Command	Description
show vpc brief	Displays information about vPCs. If the feature is not enabled, the system displays an error when you enter this command.

show vpc

To display detailed information about the virtual port channels (vPCs) configured on the switch, use the **show vpc** command.

show vpc [*vpc-number*]

Syntax Description

vpc-number	(Optional) vPC number. The range is from 1 to 4096.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
4.1(3)N1(1)	This command was introduced.

Examples

This example shows how to display the vPC information:

```
switch# show vpc
Legend:
                (*) - local vPC is down, forwarding via vPC peer-link

vPC domain id                     : 10
Peer status                       : peer adjacency formed ok
vPC keep-alive status             : peer is alive
Configuration consistency status: success
Type-2 consistency reason         : Consistency Check Not Performed
vPC role                          : secondary
Number of vPCs configured         : 1
Peer Gateway                      : Disabled
Dual-active excluded VLANs        : -

vPC Peer-link status
---------------------------------------------------------------------
id   Port   Status Active vlans
--   ----   ------ --------------------------------------------------
1    Po4000 up     1,3001-3500

vPC status
----------------------------------------------------------------------------
id     Port        Status Consistency Reason                     Active vlans
------ ----------- ------ ----------- -------------------------- -----------
10     Po10        up     success     success                    3001-3200

switch#
```

This example shows how to display information about a specific vPC:

```
switch# show vpc 10
```

```
vPC status
----------------------------------------------------------------------------
id     Port        Status Consistency Reason                     Active vlans
------ ----------- ------ ----------- -------------------------- -----------
10     Po10        up     success     success                    3001-3200

switch#
```

Related Commands

Command	Description
show vpc brief	Displays vPC information in a brief summary.
vpc	Configures vPC features on the switch.

show vpc brief

To display brief information about the virtual port channels (vPCs), use the **show vpc brief** command.

show vpc brief [**vpc** *number*]

Syntax Description

vpc *number*	(Optional) Displays the brief information for the specified vPC. The range is from 1 to 4096.

Command Default

None

Command Modes

Any command mode

Command History

Release	Modification
4.1(3)N1(1)	This command was introduced.

Usage Guidelines

The **show vpc brief** command displays the vPC domain ID, the peer-link status, the keepalive message status, whether the configuration consistency is successful, and whether a peer link formed or failed to form.

This command is not available if you have not enabled the vPC feature. See the **feature vpc** command for information about enabling vPCs.

You can display the track object if you have configured a tracked object for running vPCs on a single module in the vpc-domain configuration mode.

Examples

This example shows how to display brief information about the vPCs on a switch that runs Cisco NX-OS Release 4.1(3)N1(1):

```
switch(config)# show vpc brief

Legend:
                (*) - local vpc is down, forwarding via vPC peer-link

vPC domain id                     : 10
Peer status                       : peer adjacency formed ok
vPC keep-alive status             : peer is alive
Configuration consistency status: success
vPC role                          : primary
Number of vPC configured          : 1

vPC Peer-link status
---------------------------------------------------------------------
id   Port   Status Active vlans
--   ----   ------ --------------------------------------------------
1    Po10   up     1-100

vPC status
```

```
--------------------------------------------------------------------
id   Port   Status Consistency Reason                     Active vlans
--   ----   ------ ----------- -------------------------- ------------
20   Po20   up     success     success                    1-100
switch(config)#
```

This example shows how to display brief information about the vPCs. In this example, the port channel failed the consistency check, and the device displays the reason for the failure:

```
switch(config)# show vpc brief

Legend:
                (*) - local vpc is down, forwarding via vPC peer-link

vPC domain id                     : 10
Peer status                       : peer adjacency formed ok
vPC keep-alive status             : peer is alive
Configuration consistency status: failed
Configuration consistency reason: vPC type-1 configuration incompatible - STP interface
port type inconsistent
vPC role                          : secondary
Number of vPC configured          : 1

vPC Peer-link status
---------------------------------------------------------------------
id   Port   Status Active vlans
--   ----   ------ --------------------------------------------------
1    Po10   up     1-100

vPC status
----------------------------------------------------------------------
id   Port   Status Consistency Reason                     Active vlans
--   ----   ------ ----------- -------------------------- ------------
20   Po20   up     failed      vPC type-1 configuration   -
                                incompatible - STP
                                interface port type
                                inconsistent
switch(config)#
```

This example shows how to display information about the tracked objects in the vPCs:

```
switch(config)# show vpc brief

Legend:
                (*) - local vpc is down, forwarding via vPC peer-link

vPC domain id                     : 1
Peer status                       : peer adjacency formed ok
vPC keep-alive status             : peer is alive
Configuration consistency status: success
vPC role                          : secondary
Number of vPC configured          : 3
Track object                      : 12


vPC Peer-link status
---------------------------------------------------------------------
id   Port   Status Active vlans
--   ----   ------ --------------------------------------------------
1    Po10   up     1-100
switch(config)#
```

This example shows how to display the vPC configuration, including the Graceful Type-1 Consistency configuration, on a switch that runs Cisco NX-OS Release 5.0(2)N2(1):

```
switch# show vpc brief
Legend:
                (*) - local vPC is down, forwarding via vPC peer-link

vPC domain id                     : 100
Peer status                       : peer link is down
vPC keep-alive status             : peer is alive, but domain IDs do not match
Configuration consistency status: success
Per-vlan consistency status       : success
Type-2 consistency status         : success
vPC role                          : primary
Number of vPCs configured         : 1
Peer Gateway                      : Disabled
Dual-active excluded VLANs        : -
Graceful Consistency Check        : Enabled

vPC Peer-link status
---------------------------------------------------------------------
id   Port   Status Active vlans
--   ----   ------ --------------------------------------------------
1    Po100  down   -

vPC status
----------------------------------------------------------------------------
id     Port        Status Consistency Reason                     Active vlans
------ ----------- ------ ----------- -------------------------- -----------
1      Po1         down   success     success                    -

switch#
```

Related Commands

Command	Description
feature vpc	Enables vPCs on the device.
show port channel summary	Displays information about port channels.
vpc	Configures vPC domains and peers.

show vpc consistency-parameters

To display the consistency of parameters that must be compatible across the virtual port-channel (vPC) interfaces, use the **show vpc consistency-parameters** command.

show vpc consistency-parameters {**global** | **interface port-channel** *channel-number* | **vlans** | **vpc** *number*}

Syntax Description

global	Displays the configuration of all Type 1 global parameters on both sides of the vPC peer link.
interface port-channel *channel-number*	Displays the configuration of all Type 1 interface parameters on both sides of the vPC peer link.
vlans	Displays the configuration of all VLANs, including incompatible VLANs, on both sides of the vPC peer link for the specified vPC.
vpc *number*	Displays the configuration of all Type 1 interface parameters on both sides of the vPC peer link for the specified vPC.

Command Default

None

Command Modes

Any command mode

Command History

Release	Modification
4.1(3)N1(1)	This command was introduced.
5.0(2)N2(1)	The **vlans** keyword was added.

Usage Guidelines

The **show vpc consistency-parameters** command displays the configuration of all the vPC Type 1 parameters on both sides of the vPC peer link.

Note All the Type 1 configurations must be identical on both sides of the vPC peer link, or the link will not come up.

The vPC Type 1 configuration parameters are as follows:

- Port-channel mode: on, off, or active
- Link speed per channel
- Duplex mode per channel
- Trunk mode per channel
  - Native VLAN
  - VLANs allowed on trunk

  - Tagging of native VLAN traffic
- Spanning Tree Protocol (STP) mode
- STP region configuration for Multiple Spanning Tree
- Enable/disable state the same per VLAN
- STP global settings
  - Bridge Assurance setting
  - Port type setting—We recommend that you set all vPC peer link ports as network ports.
  - Loop Guard settings
- STP interface settings:
  - Port type setting
  - Loop Guard
  - Root Guard
- Maximum transmission unit (MTU)
- Allowed VLAN bit set

This command is not available if you have not enabled the vPC feature. See **feature vpc** for information on enabling vPCs.

Examples

This example shows how to display the vPC global consistency parameters on a switch that runs Cisco NX-OS Release 4.1(3)N1(1):

```
switch(config)# show vpc consistency-parameters global

    Legend:
        Type 1 : vPC will be suspended in case of mismatch

Name                        Type  Local Value            Peer Value
-------------               ----  ---------------------- -----------------------
QoS                         1     ([], [3], [0], [1-2],  ([], [3], [0], [1-2],
                                  [4-5], [6])            [4-5], [6])
Network QoS (MTU)           1     (1538, 2240, 5038,     (1538, 2240, 5038,
                                  4038, 9216, 9216)      4038, 9216, 9216)
Network Qos (Pause)         1     (F, T, F, F, F, F)     (F, T, F, F, F, F)
Input Queuing (Bandwidth)   1     (5, 10, 20, 0, 20, 40) (5, 10, 20, 0, 20, 40)
Input Queuing (Absolute     1     (F, F, F, T, F, F)     (F, F, F, T, F, F)
Priority)
Output Queuing (Bandwidth)  1     (5, 10, 20, 0, 20, 40) (5, 10, 20, 0, 20, 40)
Output Queuing (Absolute    1     (F, F, F, T, F, F)     (F, F, F, T, F, F)
Priority)
STP Mode                    1     Rapid-PVST             Rapid-PVST
STP Disabled                1     None                   None
STP MST Region Name         1     ""                     ""
STP MST Region Revision     1     0                      0
STP MST Region Instance to  1
 VLAN Mapping
STP Loopguard               1     Disabled               Disabled
STP Bridge Assurance        1     Enabled                Enabled
STP Port Type, Edge         1     Normal, Disabled,      Normal, Disabled,
BPDUFilter, Edge BPDUGuard        Disabled               Disabled
STP MST Simulate PVST       1     Enabled                Enabled
Allowed VLANs               -     1-330,335,338-450,1000 1-330,333-447,1000-102
                                  -1023,2000-2023        8,2000-2018
Local suspended VLANs       -     331-334,336-337,448-45 -
```

```
                                    0,2019-2023
switch(config)#
```

This example shows how to display the vPC global consistency parameters on a switch that runs Cisco NX-OS Release 5.0(2)N2(1):

```
switch# show vpc consistency-parameters global

    Legend:
        Type 1 : vPC will be suspended in case of mismatch

Name                        Type  Local Value            Peer Value
-------------               ----  ---------------------- -----------------------
QoS                         2     ([], [3], [], [], [],  ([], [3], [], [], [],
                                  [])                    [])
Network QoS (MTU)           2     (1538, 2240, 0, 0, 0,  (1538, 2240, 0, 0, 0,
                                  0)                     0)
Network Qos (Pause)         2     (F, T, F, F, F, F)     (1538, 2240, 0, 0, 0,
                                                         0)
Input Queuing (Bandwidth)   2     (50, 50, 0, 0, 0, 0)   (50, 50, 0, 0, 0, 0)
Input Queuing (Absolute     2     (F, F, F, F, F, F)     (50, 50, 0, 0, 0, 0)
Priority)
Output Queuing (Bandwidth)  2     (50, 50, 0, 0, 0, 0)   (50, 50, 0, 0, 0, 0)
Output Queuing (Absolute    2     (F, F, F, F, F, F)     (50, 50, 0, 0, 0, 0)
Priority)
STP Mode                    1     Rapid-PVST             Rapid-PVST
STP Disabled                1     None                   None
STP MST Region Name         1     ""                     ""
STP MST Region Revision     1     0                      0
STP MST Region Instance to  1
 VLAN Mapping
STP Loopguard               1     Disabled               Disabled
STP Bridge Assurance        1     Enabled                Enabled
STP Port Type, Edge         1     Normal, Disabled,      Normal, Disabled,
BPDUFilter, Edge BPDUGuard        Disabled               Disabled
STP MST Simulate PVST       1     Enabled                Enabled
VTP domain                  2     cisco                  cisco
VTP version                 2     2                      2
VTP mode                    2     Server                 Server
VTP password                2
VTP pruning status          2     Disabled               Disabled
VTP trunk status            2     Enabled                Enabled
Pruning eligible vlans      2     2-1001                 2-1001
Allowed VLANs               -     1-10                   1-2
Local suspended VLANs       -     3-10                   -

switch#
```

This example shows how to display the vPC consistency parameters for the specified port channel on a switch that runs Cisco NX-OS Release 4.1(3)N1(1):

```
switch(config)# show vpc consistency-parameters interface port-channel 20

Legend:
        Type 1 : vPC will be suspended in case of mismatch

Name            Type Local Value              Peer Value
-------------   ---- ------------------------ --------------------------
STP Port Type   1    Default                  Default
STP Port        1    None                     None
Guard
mode            1    on                       on
Speed           1    10 Gb/s                  10 Gb/s
Duplex          1    full                     full
```

```
Port Mode       1    trunk                    trunk
Native Vlan     1    1                        1
MTU             1    1500                     1500
Allowed VLAN    -    1-100                    1-100
bitset
switch(config)#
```

This example shows how to display the vPC consistency parameters for the specified port channel on a switch that runs Cisco NX-OS Release 5.0(2)N2(1):

```
switch# show vpc consistency-parameters interface port-channel 1

    Legend:
        Type 1 : vPC will be suspended in case of mismatch

Name                        Type  Local Value            Peer Value
-------------               ----  ---------------------- -----------------------
Shut Lan                    1     No                     No
STP Port Type               1     Default                Default
STP Port Guard              1     None                   None
STP MST Simulate PVST       1     Default                Default
mode                        1     on                     on
Speed                       1     10 Gb/s                10 Gb/s
Duplex                      1     full                   full
Port Mode                   1     trunk                  trunk
Native Vlan                 1     1                      1
MTU                         1     1500                   1500
VTP trunk status            2     Enabled                Enabled
Pruning eligible vlans      2     2-1001                 2-1001
Allowed VLANs               -     1-3967,4048-4093       1-3967,4048-4093
Local suspended VLANs       -     3-10                   -
switch#
```

This example shows how to display the vPC consistency parameters for the specified vPC on a switch that runs Cisco NX-OS Release 4.1(3)N1(1):

```
switch# show vpc consistency-parameters vpc 1

    Legend:
        Type 1 : vPC will be suspended in case of mismatch

Name                        Type  Local Value            Peer Value
-------------               ----  ---------------------- -----------------------
Shut Lan                    1     No                     No
STP Port Type               1     Default                Default
STP Port Guard              1     None                   None
STP MST Simulate PVST       1     Default                Default
lag-id                      1     [(7f9b,                [(7f9b,
                                  0-23-4-ee-be-64, 8001, 0-23-4-ee-be-64, 8001,
                                   0, 0), (8000,          0, 0), (8000,
                                  0-5-9b-23-40-3c, 0, 0, 0-5-9b-23-40-3c, 0, 0,
                                   0)]                    0)]
mode                        1     active                 active
Speed                       1     1000 Mb/s              10 Gb/s
Duplex                      1     full                   full
Port Mode                   1     access                 access
MTU                         1     1500                   1500
Allowed VLANs               -     1                      1
Local suspended VLANs       -     -                      -
switch#
```

This example shows how to display the vPC consistency parameters for VLANs on a switch that runs Cisco NX-OS Release 4.1(3)N1(1):

```
switch# show vpc consistency-parameters vlans

Name                        Type  Reason Code             Pass Vlans

-------------               ----  --------------------- -----------------------
STP Mode                    1     success                 0-4095
STP Disabled                1     success                 0-4095
STP MST Region Name         1     success                 0-4095
STP MST Region Revision     1     success                 0-4095
STP MST Region Instance to  1     success                 0-4095
 VLAN Mapping
STP Loopguard               1     success                 0-4095
STP Bridge Assurance        1     success                 0-4095
STP Port Type, Edge         1     success                 0-4095
BPDUFilter, Edge BPDUGuard
STP MST Simulate PVST       1     success                 0-4095
Pass Vlans                  -                             0-4095
switch#
```

Related Commands

Command	Description
show vpc brief	Displays information about vPCs. If the feature is not enabled, the system displays an error when you enter this command.
show port channel summary	Displays information about port channels.
vpc	Configures vPC domains and peers.

show vpc orphan-ports

To display ports that are not part of the virtual port channel (vPC) but have common VLANs, use the **show vpc orphan-ports** command.

show vpc orphan-ports

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Any command mode

Command History

Release	Modification
4.1(3)N1(1)	This command was introduced.

Usage Guidelines

The **show vpc orphan-ports** command displays those ports that are not part of the vPC but that share common VLANs with ports that are part of the vPC.

This command is not available if you have not enabled the vPC feature. See the **feature vpc** command for information about enabling vPCs.

Examples

This example shows how to display vPC orphan ports:

```
switch(config)# show vpc orphan-ports

Note:
--------::Going through port database. Please be patient.::--------

VLAN            Orphan Ports
-------         -------------------------
1               Po600
2               Po600
3               Po600
4               Po600
5               Po600
6               Po600
7               Po600
8               Po600
9               Po600
10              Po600
11              Po600
12              Po600
13              Po600
14              Po600
--More--
switch(config)#
```

Related Commands

Command	Description
feature vpc	Enables vPCs on the device.
vpc orphan-port suspend	Suspends a non-vPC port.
show vpc brief	Displays brief information about vPCs.

show vpc peer-keepalive

To display the destination IP for the virtual port-channel (vPC) peer keepalive message and the status of the messages, use the **show vpc peer-keepalive** command.

show vpc peer-keepalive

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Any command mode

Command History

Release	Modification
4.1(3)N1(1)	This command was introduced.

Usage Guidelines

The show **vpc peer-keepalive** command displays the destination IP of the peer keepalive message for the vPC. The command also displays the send and receive status as well as the last update from the peer in seconds and milliseconds.

Note We recommend that you create a separate VRF on the peer devices to send and receive the vPC peer keepalive messages. Do not use the peer link itself to send the vPC peer-keepalive messages.

This command is not available if you have not enabled the vPC feature. See the **feature vpc** command for information about enabling vPCs.

Examples

This example shows how to display information about the peer-keepalive message:

```
switch(config)# show vpc peer-keepalive

vPC keep-alive status           : peer is alive
--Send status                   : Success
--Last send at                  : 2008.05.17 18:23:53 986 ms
--Sent on interface             : Eth7/16
--Receive status                : Success
--Last receive at               : 2008.05.17 18:23:54 99 ms
--Received on interface         : Eth7/16
--Last update from peer         : (0) seconds, (486) msec

vPC Keep-alive parameters
--Destination                   : 192.168.145.213
--Keepalive interval            : 1000 msec
--Keepalive timeout             : 5 seconds
--Keepalive hold timeout        : 3 seconds
--Keepalive vrf                 : pkal
--Keepalive udp port            : 3200
```

```
--Keepalive tos                : 192
switch(config)#
```

Related Commands

Command	Description
show vpc brief	Displays information about vPCs. If the feature is not enabled, the system displays an error when you enter this command.

show vpc role

To display information about the virtual port-channel (vPC) role of the peer device, use the **show vpc role** command.

show vpc role

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Any command mode

Command History

Release	Modification
4.1(3)N1(1)	This command was introduced.

Usage Guidelines

The **show vpc role** command displays the following information about the vPC status:

- Status of peer adjacency
- vPC role
- vPC MAC address
- vPC system priority
- MAC address of the device that you are working on
- System priority for the device that you are working on

This command is not available if you have not enabled the vPC feature. See the **feature vpc** command for information on enabling vPCs.

Examples

This example shows how to display the vPC role information of the device that you are working on:

```
switch(config)# show vpc role

Primary:

vPC Role status
----------------------------------------------------
vPC role                        : primary
Dual Active Detection Status    : 0
vPC system-mac                  : 00:23:04:ee:be:01
vPC system-priority             : 32667
vPC local system-mac            : 00:22:55:79:ea:c1
vPC local role-priority         : 32667


Secondary:
```

```
vPC Role status
----------------------------------------------------
vPC role                        : secondary
Dual Active Detection Status    : 0
vPC system-mac                  : 00:23:04:ee:be:01
vPC system-priority             : 32667
vPC local system-mac            : 00:22:55:79:de:41
vPC local role-priority         : 32667
switch(config)#
```

When you reload the primary vPC peer device, the secondary vPC peer device assumes the role of the primary device. This example shows how the vPC role displays then on the new primary device:

```
switch(config)# show vpc role

vPC Role status
----------------------------------------------------
vPC role                        : secondary, operational primary
Dual Active Detection Status    : 0
vPC system-mac                  : 00:23:04:ee:be:64
vPC system-priority             : 32667
vPC local system-mac            : 00:22:55:79:de:41
vPC local role-priority         : 32667

switch(config)#
```

Related Commands

Command	Description
role	Assigns a primary or secondary role to a vPC device.
show vpc brief	Displays information about vPCs. If the feature is not enabled, the system displays an error when you enter this command.
show port channel summary	Displays information about port channels.

show vpc statistics

To display virtual port-channel (vPC) statistics, use the **show vpc statistics** command.

show vpc statistics {**peer-keepalive** | **peer-link** | **vpc** *number*}

Syntax Description

peer-keepalive	Displays statistics about the peer-keepalive message.
peer-link	Displays statistics about the peer link.
vpc *number*	Displays statistics about the specified vPC. The range is from 1 to 4096.

Command Default

None

Command Modes

Any command mode

Command History

Release	Modification
4.1(3)N1(1)	This command was introduced.

Usage Guidelines

The **peer-link** parameter displays the same information as the **show interface port-channel** *channel number* command for the vPC peer-link port channel.

The **vpc** *number* parameter displays the same information as the **show interface port-channel** *channel number* command for the specified vPC port channel.

This command is not available if you have not enabled the vPC feature. See the **feature vpc** command for information on enabling vPCs.

Examples

This example shows how to display statistics about the peer-keepalive message:

```
switch# show vpc statistics peer-keepalive

vPC keep-alive status           : peer is alive

VPC keep-alive statistics
--------------------------------------------------
peer-keepalive tx count:          1036
peer-keepalive rx count:          1028
average interval for peer rx:     995
Count of peer state changes:      1
switch(config)#
```

Related Commands

Command	Description
show vpc brief	Displays information about vPCs. If the feature is not enabled, the system displays an error when you enter this command.
show port channel summary	Displays information about port channels.

V Commands

This chapter describes the Cisco NX-OS virtual port channel (vPC) commands that begin with V.

verify

To verify the buffered configuration of a switch profile, use the **verify** command.

verify

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Switch profile configuration mode

Command History

Release	Modification
5.0(2)N1(1)	This command was introduced.

Usage Guidelines

When you use the **verify** command, the commands in the configuration are verified for mutual exclusion locally on the switch and on the peer switch, and then a merge check occurs on the peer switch to verify that the switch profile configurations are identical on both switches.

Note Only one peer can initiate the verification at a time.

Merge checks are done on the peer switch whenever the switch receives a new configuration. The merge checks ensure that the received configuration does not conflict with the switch profile configuration that already exists on the receiving switch. The merge check occurs during the merge or commit process. Errors are reported as merge failures and must be manually corrected.

A command that is included in a switch profile cannot be configured outside of the switch profile or on a peer switch. Ensure that the new configuration in the switch profile does not conflict with the configurations that might exist outside the switch profile or inside another switch profile. This process is called a mutual exclusion (mutex) check.

The following exceptions apply to mutual exclusion checks:

- Interface configuration—An interface configuration is exempted from mutual exclusion checks because it can exist both inside and outside a switch profile. For example, interface ethernet 1/1 can be present inside and outside the switch profile.
- Port shutdown—For operational or debugging reasons, a port may be shut down only on one of the switches. The **shutdown** and **no shutdown** commands are exempted from mutual exclusion checks.
- Port Channel command—When the first member interface is added to a port channel, the port channel inherits certain configurations from the member interface. Mutual exclusion checks are exempted.
- Port profiles—Port profiles are applied on interfaces using the **inherit** command. The inherit command allows you to apply a set of configurations on the interface at once. These commands can be overridden on the interface.

- Switchport trunk allowed vlan—The **switchport trunk allowed vlan add** and **switchport trunk allowed vlan remove** command modifies a command instead of replacing the command. These commands are exempted from mutual exclusion checks.

If the configuration verification fails, you see the following error message:

```
Failed: Verify Failed
```

Use the **show switch-profile status** or **show switch-profile peer** command to view the reason for the mutual check failure, merge failure, or the peer switch status.

Examples

This example shows how to verify a configuration on a switch profile named s5010 on switch 1 of the peer:

```
switch# config sync
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config-sync)# switch-profile s5010
Switch-Profile started, Profile ID is 1
switch(config-sync-sp)# interface ethernet 1/1
switch(config-sync-sp-if)# switchport mode trunk
switch(config-sync-sp-if)# speed 1000
switch(config-sync-sp-if)# exit
switch(config-sync-sp)# verify
Verification Successful
switch(config-sync-sp)#
```

Related Commands

Command	Description
commit	Commits a switch profile configuration.
copy running-config startup-config	Copies the running configuration to the startup configuration.
show switch-profile peer	Displays information about the peer switch.
show switch-profile status	Displays information about the switch profile status.
show running-config switch-profile	Displays the running configuration for a switch profile.

vpc

To move other port channels into a virtual port channel (vPC) to connect to the downstream device, use the **vpc** command. To remove the port channels from the vPC, use the **no** form of this command.

vpc *number*

no vpc *number*

Syntax Description

number	Port channel number to connect to the downstream device. The range is from 1 and 4096. **Note** The vPC number that you assign to the port channel that connects to the downstream device from the vPC peer device must be identical on both vPC peer devices.

Command Default

None

Command Modes

Interface configuration mode

Command History

Release	Modification
4.2(1)N1(1)	This command was introduced.

Usage Guidelines

You can use any module in the device for the port channels.

Note We recommend that you attach the vPC domain downstream port channel to two devices for redundancy.

To connect to the downstream device, you create a port channel from the downstream device to the primary vPC peer device, and you create another port channel from the downstream device to the secondary peer device. Finally, working on each vPC peer device, you assign a vPC number to the port channel that connects to the downstream device. You will experience minimal traffic disruption when you are creating vPCs.

Note The port channel number and vPC number can be different, but the vPC number must be the same on both Cisco Nexus 5000 Series switches.

Examples

This example shows how to configure the selected port channel into the vPC to connect to the downstream device:

```
switch(config)# interface port-channel 20
switch(config-if)# vpc 5
switch(config-if)#
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
show running-config vpc	Displays the running configuration information for vPCs.
show vpc brief	Displays information about each vPC, including information about the vPC peer link.
show vpc consistency-parameters	Displays the status of those parameters that must be consistent across all vPC interfaces.

vpc bind-vrf

To bind a virtual routing and forwarding (VRF) instance to a virtual Port Channel (vPC), use the **vpc bind-vrf** command. To remove the static binding between the vPC and VRF, use the **no** form of this command.

vpc bind-vrf *vrf-name* **vlan** *vlan-id*

no vpc bind-vrf *vrf-name* **vlan** *vlan-id*

Syntax Description

vrf-name	VRF name.
vlan *vlan-id*	Specifies the VLANs to bind to the vPC. The VLAN ID range is from 1 to 3967, and 4049 to 4093.

Command Default

None

Command Modes

Global configuration mode

Command History

Release	Modification
5.0(3)N1(1)	This command was introduced.

Usage Guidelines

To bind the VRF to the vPC, you must use a VLAN that is not already in use. Use the sh**ow interfaces brief** command to view the interfaces that are in use on the switch.

Examples

This example shows how to bind a vPC to the default VRF using VLAN 2:

```
switch(config)# vpc bind-vrf default vlan 2
switch(config)#
```

Related Commands

Command	Description
show interfaces brief	Displays the configuration information about all interfaces.
show vpc	Displays vPC configuration information.

vpc domain

To create a virtual port channel (vPC) domain and assign a domain ID, use the **vpc domain** command. To revert to the default vPC configuration, use the **no** form of this command.

vpc domain *domain_id*

no vpc domain *domain_id*

Syntax Description

domain_id	vPC domain ID. The range is from 1 to 1000.

Command Default

None

Command Modes

Global configuration mode

Command History

Release	Modification
4.2(1)N1(1)	This command was introduced.

Usage Guidelines

Before you can create a vPC domain and configure vPC on the switch, you must enable the vPC feature using the **feature vpc** command.

The vPC domain includes both vPC peer devices, the vPC peer keepalive link, the vPC peer link, and all the port channels in the vPC domain connected to the downstream device. You can have only one vPC domain ID on each device.

When configuring the vPC domain ID, make sure that the ID is different from the ID used by a neighboring vPC-capable device with which you may configure a double-sided vPC. This unique ID is needed because the system ID is derived from the MAC address ID of the switch. For a vPC, this MAC address is derived from the domain ID. As a result, in a peer-to-peer vPC configuration, if the neighboring switches use the same domain ID, a system ID conflict may occur in the LACP negotiation that may cause an unsuccessful LACP negotiation.

Under the vPC domain, make sure to configure the primary vPC device to ignore type checks by using the **peer-config-check-bypass** command.

Examples

This example shows how to create a vPC domain:

```
switch# configure terminal
switch(config)# vpc domain 5
switch(config-vpc-domain)#
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
feature vpc	Enables or disables a vPC on the switch.
peer-config-check-bypass	Ignores type checks on primary when the MCT is down.
peer-keepalive	Configures the vPC peer keepalive link.
reload restore	Restores the vPC peer links after a specified period of time.
role priority	Configures the role priority for the vPC device.
show vpc brief	Displays brief information about each vPC domain.

vpc orphan-port suspend

To suspend a nonvirtual port channel (vPC) port when the peer link of a vPC secondary goes down, use the **vpc orphan-port suspend** command. To resume the non-vPC port, use the **no** form of this command.

vpc orphan-port suspend

no vpc orphan-port suspend

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Interface configuration mode

Command History

Release	Modification
5.0(3)N2(1)	This command was introduced.

Usage Guidelines

A non-vPC port, also known as an orphaned port, is a port that is not part of a vPC.

Examples

This example shows how to suspend an orphan port:

```
switch(config)# interface ethernet 1/20
switch(config-if)# vpc orphan-port suspend
switch(config-if)#
```

Related Commands

Command	Description
show vpc brief	Displays brief information about the vPCs.
show vpc orphan-ports	Displays information about orphan ports.

vpc peer-link

To create a virtual port channel (vPC) peer link by designating the port channel that you want on each device as the peer link for the specified vPC domain, use the **vpc peer-link** command. To remove the peer link, use the **no** form of this command.

vpc peer-link

no vpc peer-link

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Interface configuration mode

Command History

Release	Modification
4.2(1)N1(1)	This command was introduced.

Usage Guidelines

We recommend that you configure the Layer 2 port channels that you are designating as the vPC peer link in trunk mode and that you use two ports on separate modules on each vPC peer device for redundancy.

The Cisco Nexus 5000 Series switch supports 768 hardware port channels. Use the **show port-channel capacity** command to display the total number of port channels supported by the hardware.

Examples

This example shows how to select the port channel that you want to use as the vPC peer link for this device and configure the selected port channel as the vPC peer link:

```
switch(config)# interface port-channel 20
switch(config-if)# vpc peer-link
switch(config-if)#
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration.
reload restore	Restores the vPC peer links after a specified period of time.
show port-channel capacity	Reports the number of port channels that are configured and the number of port channels that are still available on the device.
show running-config vpc	Displays the running configuration information for vPCs.

Command	Description
show vpc brief	Displays brief information about the vPCs.
show vpc brief	Displays information about each vPC, including information about the vPC peer link.
show vpc peer-keepalive	Displays information on the peer-keepalive messages.