Preface

This preface describes the audience, organization, and conventions of the *Cisco NX-OS FCoE Command Reference Guide, Nexus 7000 and MDS 9500*. It also provides information on how to obtain related documentation.

This chapter includes the following sections:

- Audience, page iii
- Organization, page iii
- Document Conventions, page iii
- Related Documentation, page iv
- Obtaining Documentation and Submitting a Service Request, page v

Audience

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

Organization

This reference is organized as follows:

Chapter and Title	Description
FCoE Commands	Describes the Cisco NX-OS FCoE commands for Nexus 7000 and MDS 9500 Series Switches.

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]	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.

Tip Means *the following information will help you solve a problem*.

Related Documentation

The Cisco Nexus 7000 Series documentation is available at the following URL:

http://www.cisco.com/en/US/products/ps9402/tsd_products_support_series_home.html

The Cisco MDS 9000 Series documentation is available at the following URL:

http://www.cisco.com/en/US/products/ps5989/tsd_products_support_series_home.html

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 a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS Version 2.0.

FCoE Commands

This chapter describes the Cisco NX-OS Fibre Channel over Ethernet (FCoE) commands for the Cisco Nexus 7000 Series and MDS 9500 Series switches.

allocate fcoe-vlan-range

To allocate Fibre Channel over Ethernet (FCoE) VLANs to a virtual device context (VDC), use the **allocate fcoe-vlan-range** command. To remove the shared FCoE VLAN configuration for the VDC, use the **no** form of this command.

allocate fcoe-vlan-range *vlan-range* **from vdcs** *vdc-name*... [, **vdcs** *vdc-name*]

no allocate fcoe-vlan-range *vlan-range* **from vdc** *vdc-name*...[, **vdcs** *vdc-name*]

Syntax Description		
	vlan-range	FCoE VLAN range. The range is from 1 to 3967.
	from	Specifies which VDCs are going to share ports with the FCoE VDC.
	vdcs	(Optional) Specifies the VDC.
	vdc-name	VDC name.

Defaults None

Command Modes VDC configuration mode

SupportedUserRoles network-admin
vdc-admin

Command History	Release	Modification
	5.2(1)	This command was introduced on the Cisco Nexus 7000 Series Switches.

Usage Guidelines Before allocating fcoe-vlan-range one has to create a storage vdc first.

This command does not require a license.

Note Before allocating **fcoe-vlan-range** one has to create a storage vdc first.

Examples This example shows how to allocate FCoE VLANs to a VDC:

```
switch# configure terminal
switch(config)# vdc 2
switch(config-vdc)# allocate fcoe-vlan-range 100-200 from vdc switch
switch(config-vdc)#
```

This example shows how to remove the shared FCoE VLAN configuration for a VDC:

```
switch(config-vdc)# no allocate fcoe-vlan-range 100-200 from vdc switch
switch(config-vdc)#
```

Related Commands	Command	Description
	allocate interface	Allocates interfaces to a VDC for sharing ports.
	show vdc fcoe-vlan-range	Displays the FCoE VLAN range on the VDC.

allocate shared interface ethernet

To allocate interfaces to a virtual device context (VDC) for sharing ports, use the **allocate shared interface ethernet** command. To disallow the VDC to share interfaces, use the **no** form of this command**.**

allocate shared interface ethernet *slot/chassis number*

no allocate shared interface ethernet *slot/chassis number*

Syntax Description	*slot/chassis number* Slot or chassis number. The range is from 1 to 253.

Defaults   None

Command Modes   VDC configuration mode

SupportedUserRoles   network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced on the Cisco Nexus 7000 Series Switches.

Usage Guidelines   This command does not require a license.

Examples   This example shows how to allocate interfaces to a VDC for sharing ports:

```
switch# configure terminal
switch(config)# vdc 2
switch(config-vdc)# allocate shared interface ethernet 7/5
switch(config-vdc)#
```

This example shows how to disallow a VDC to share interfaces:

```
switch(config-vdc)# no allocate shared interface ethernet 7/5
switch(config-vdc)#
```

Related Commands

Command	Description
allocate fcoe-vlan-range	Allocates FCoE VLANs to a VDC.
show vdc shared membership	Displays the shared interfaces on a VDC.

bind interface

To bind the virtual Fibre Channel (VFC) interface to the physical or logical interface, use the **bind interface** command. To unbind the VFC interface, use the **no** form of this command.

> **bind interface** {**ethernet** *slot/port number* | **ethernet-port-channel** **port-channel** *port-channel number*}

> **no bind interface** {**ethernet** *slot/port number* | **ethernet-port-channel** **port-channel** *port-channel number*}

Syntax Description		
ethernet	Specifies the Ethernet interface.
slot/port number	Slot and port number. The range is from 1 to 253.
ethernet-port-channel	Specifies the Ethernet port channel interface.
port-channel	Specifies the port channel interface.
port-channel number	Port channel number. The range is from 1 to 4096.

Defaults None.

Command Modes Interface configuration mode.

SupportedUserRoles network-admin
vdc-admin

Command History	Release	Modification
	5.2(1)	This command was introduced on the Cisco Nexus 7000 and MDS 9500 Switches.

Usage Guidelines None.

Examples This example shows how to bind a VFC interface to an Ethernet interface:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# interface vfc 4
switch(config-if)# bind interface ethernet 1/4
switch(config-if)#
```

This example shows how to bind a VFC interface to a port channel interface:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# interface vfc 4
```

```
switch(config-if)# bind interface port-channel 1
switch(config-if)#
```

Related Commands

Command	Description
interface vfc	Creates a VFC interface.

disable-fka

To disable the verification of Fibre Channel over Ethernet (FCoE) Initialization Protocol (FIP) keepalive (FKA) messages, use the **diable-fka** command. To enable FKA messages, use the **no** form of this command.

> **disable-fka**

> **no disable-fka**

Syntax Description   This command has no arguments or keywords.

Command Default   Enabled

Command Modes   Virtual Fibre Channel interface configuration mode

Command History

Release	Modification
NX-OS 6.2(8)	This command was introduced.

Usage Guidelines   Before you use this command, you must enable Fibre Channel over Ethernet (FCoE).

Examples   This example shows how to disable the verification of FKA messages:

```
switch# configure terminal
switch(config)# interface vfc 3
switch(config-if)# disable-fka
switch(config-if)#
```

This example shows how to enable the verification of FKA messages:

```
switch# configure terminal
switch(config)# interface vfc 3
switch(config-if)# no disable-fka
switch(config-if)#
```

Related Commands

Command	Description
fcoe fka-adv-period	Configures the time interval in which FIP keepalive (FKA) messages are transmitted to the MAC address of the ENode.
show fcoe-npv issu-impact	Displays FCoE NPV configuration information.
switchport (virtual Fibre Channel interface)	Configures a switch port parameter on a virtual Fibre Channel interface.

■ **disable-fka**

feature-set fcoe

To enable the Fibre Channel over Ethernet (FCoE) feature set, use the **feature-set fcoe** command. To disable this feature, use the **no** form of this command.

> **feature-set fcoe**

> **no feature-set fcoe**

Syntax Description   This command has no arguments or keywords.

Defaults   Disabled.

Command Modes   Global configuration mode.

SupportedUserRoles   network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced on the Cisco Nexus 7000 and MDS 9500 Series Switches.

Usage Guidelines   Use the **feature-set fcoe** command to enable all the features for FCoE. You must first use the **install feature-set fcoe** command to install FCoE support**.**

Note   The **feature-set fcoe** command is automatically installed and enabled when a FCoE line card is inserted.

The **no feature-set fcoe** command might take some time to complete if the size of the configuration is very large because the command must clean up all of the configuration associated with the FCoE feature set.

Examples   This example shows how to disable the FCoE feature set on the Cisco Nexus 7000 and MDS 9000 Series switches:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# no feature-set fcoe
switch(config)#
```

Related Commands	Command	Description
	install feature-set fcoe	Installs the FCoE support.

fcoe fcmap

To configure the Fibre Channel over Ethernet (FCoE) MAC address prefix (FC-Map) used to associate the FCoE node (ENode), use the **fcoe fcmap** command. To restore the default global FC-Map value of 0xefc00, use the **no** form of this command.

> **fcoe fcmap** *value*

> **no fcoe fcmap** *value*

Syntax Description	*value*	FC-Map value. The range is from 0EFC00 to 0EFCFF, and the default is 0xefc00.

Command Default 0EFC00.

Command Modes Global configuration mode.

SupportedUserRoles network-admin

vdc-admin

Command History	Release	Modification
	5.2(1)	This command was introduced on the Cisco Nexus 7000 and MDS 9500 Series Switches.

Usage Guidelines Before you use this command, you must enable FCoE on the switch by using the **feature fcoe** or the **feature-set fcoe** command.

You can prevent data corruption due to cross-fabric talk by configuring an FC-Map, which identifies the Fibre Channel fabric for this switch. When the FC-Map is configured, the switch discards the MAC addresses that are not part of the current fabric.

Examples This example shows how to configure the FC-Map value on the switch:

```
switch(config)# fcoe fcmap 0xefc10
switch(config)#
```

Related Commands	Command	Description
	fcoe fcf-priority	Configures the FCoE Initialization Protocol (FIP) priority value.
	fcoe fka-adv-period	Configures the time interval at which FIP keepalive (FKA) messages are transmitted to the MAC address of the ENode.

Command	Description
feature fcoe	Enables FCoE on the switch.
show fcoe	Displays the FCoE parameters, such as an FC-Map, default FCF priority value, and FKA advertisement period.
feature-set fcoe	Enables all the features necessary for FCoE on the switch.

fcoe fcf-priority

To configure the Fibre Channel over Ethernet (FCoE) Initialization Protocol (FIP) priority value advertised by the Fibre Channel Forwarder (FCF) to FCoE nodes (ENodes), use the **fcoe fcf-priority** command. To revert to the default FCF priority value, use the **no** form of this command.

> **fcoe fcf-priority** *value*

> **no fcoe fcf-priority** *value*

Syntax Description	*value*	FCF priority value. The range is from 0 to 255.

Command Default   128.

Command Modes   Global configuration mode.

Interface vFC mode.

SupportedUserRoles   network-admin

vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced on the Cisco Nexus 7000 MDS 9500 Series Switches.

Usage Guidelines   Before you use this command, you must enable FCoE on the switch by using the **feature fcoe** command.

The switch advertises its priority. The priority is used by the converged network adapters (CNAs) in the fabric to determine the best switch to connect to.

Examples   This example shows how to configure the FCF priority on the switch:

```
switch(config)# fcoe fcf-priority 50
switch(config)#
```

Related Commands

Command	Description
fcoe fcmap	Configures the FCoE MAC address prefix (FC-Map) value.
fcoe fka-adv-period	Configures the time interval at which FIP keepalive (FKA) messages are transmitted to the MAC address of the ENode.
feature fcoe	Enables FCoE on the switch.

Command	Description
show fcoe	Displays the FCoE parameters, such as an FC-Map, default FCF priority value, and FKA advertisement period.
feature-set fcoe	Enables all the features necessary for FCoE on the switch.

fcoe fka-adv-period

To configure the time interval at which Fabric Initialization Protocol (FIP) keepalive (FKA) messages are transmitted to the MAC address of the Fibre Channel over Ethernet (FCoE) node (ENode), use the **fcoe fka-adv-period** command. To return to the default settings, use the **no** form of this command.

fcoe fka-adv-period *value*

no fcoe fka-adv-period *value*

Syntax Description	

value	FKA advertisement period (in seconds). The range is from 4 to 60 seconds.

Command Default   8 seconds.

Command Modes   Global configuration mode.

SupportedUserRoles   network-admin

vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced on the Cisco Nexus 7000 MDS 9500 Series Switches.

Usage Guidelines   Before you use this command, you must enable FCoE on the switch by using the **feature fcoe** command.

Examples   This example shows how to configure the FKA advertisement period for the switch to 5 seconds:

```
switch(config)# fcoe fka-adv-period 5
switch(config)#
```

Related Commands

Command	Description
fcoe fcf-priority	Configures the FCoE Initialization Protocol (FIP) priority value.
fcoe fcmap	Configures the FCoE MAC address prefix (FC-Map) used to associate the FCoE node (ENode).
feature fcoe	Enables FCoE on the switch.
show fcoe	Displays the FCoE parameters, such as an FC-Map, default FCF priority value, and FKA advertisement period.

Command	Description
show fcoe database	Displays the FCoE database information.
feature-set fcoe	Enable all the features necessary for FCoE on the switch.

fcoe vsan

To map a virtual SAN (VSAN) to a VLAN that carries Fibre Channel over Ethernet (FCoE) traffic, use the **fcoe vsan** command. To remove the mapping, use the **no** form of this command.

fcoe vsan [*vsan-id*]

no fcoe vsan [*vsan-id*]

Syntax Description	*vsan-id*	(Optional) VSAN ID. The range is from 1 to 4094.

Command Default VLANID=VSANID.

Command Modes VLAN configuration mode.

SupportedUserRoles network-admin

vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced on the Cisco Nexus 7000 MDS 9500 Series Switches.

Usage Guidelines Before you map an FCoE VLAN to the VSAN, make sure that you create a VSAN using the **vsan** command in the VLAN database configuration mode.

You should use an FCoE VLAN only for FCoE. Do not use the default VLAN, VLAN1, as an FCoE VLAN. FCoE is not supported on private VLANs.

When you map an FCoE VLAN to a VSAN, ensure that the VSAN is not mapped to any other FCoE VLAN. If you map a FCoE VLAN to a VSAN that is already mapped to another FCoE VLAN, the following error appears:

```
vlan 30:another FCOE VLAN mapping exists using the requested VSAN
```

If you do not specify a VSAN number, a mapping is created from the FCoE VLAN in use to the VSAN with the same number.

Examples This example shows how to map an FCoE VLAN to a VSAN:

```
switch(config)# vlan 30
switch(config-vlan)# fcoe vsan 2
switch(config-vlan)#
```

FCoE-18

Related Commands	Command	Description
	show vsan	Displays the configuration information of VSANs.
	show vlan fcoe	Displays the FCoE VLAN-to-VSAN mappings.
	show vsan membership	Displays the VSAN membership information.
	vsan	Configures the VSAN information or membership.
	vsan database	Enters the VSAN database mode.

fcoe veloopback

To disable the VFID check for all VE ports, use the **fcoe veloopback** command. To return to the default settings, use the **no** form of this command.

fcoe vellopback

no fcoe veloopback

Syntax Description   This command has no keywords or arguments.

Command Default   None.

Command Modes   Configuration mode.

SupportedUserRoles   network-admin

vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced on the Cisco Nexus 7000 and MDS 9500 Series Switches.

Usage Guidelines   Before you map the FCoE VLAN to the VSAN, make sure that you create a VSAN using the **vsan** command in the VLAN database configuration mode.

You should use an FCoE VLAN only for FCoE. Do not use the default VLAN, VLAN1, as an FCoE VLAN. FCoE is not supported on private VLANs.

When you map an FCoE VLAN to a VSAN, ensure that the VSAN is not mapped to any other FCoE VLAN. If you map an FCoE VLAN to a VSAN that is already mapped to another FCoE VLAN, the following error appears:

```
vlan 30:another FCOE VLAN mapping exists using the requested VSAN
```

If you do not specify a VSAN number, a mapping is created from the FCoE VLAN in use to the VSAN with the same number.

Examples   This example shows how to enable VE loopback for a Cisco Nexus 7000 Series switch:

```
switch# switchto vdc fcoe type storage
fcoe# configure terminal
fcoe(config)# fcoe veloopback
```

This example shows how to enable VE loopback for a Cisco MDS 9500 switch:

```
switch# configure terminal
switch(config)# fcoe veloopback
```

Related Commands

Command	Description
show vsan	Displays the configuration information of VSANs.
show vlan fcoe	Displays the FCoE VLAN to VSAN mappings.
show vsan membership	Displays VSAN membership information.
vsan	Configures the VSAN information or membership.
vsan database	Enters the VSAN database mode.

install feature-set fcoe

To install the Fibre Channel over Ethernet (FCoE) feature set**,** use the **install feature-set fcoe** command. To disable this feature, use the **no** form of this command.

> **install feature-set fcoe**

> **no install feature-set fcoe**

Syntax Description   This command has no arguments or keywords.

Defaults   None.

Command Modes   EXEC mode.

SupportedUserRoles   network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced on the Cisco Nexus 7000 and MDS 9500 Series Switches.

Usage Guidelines   None.

Note   The **feature-set fcoe** command is automatically installed and enabled when a FCoE line card is inserted.

Examples   This example shows how to set the install FCoE feature set to its default value:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# no install feature-set fcoe
feature set is enabled(0x40aa0012)
switch(config)#
```

Related Commands

Command	Description
feature-set fcoe	Enables the FCoE feature and all related features.

interface vfc

To configure a virtual Fibre Channel (VFC) interface, use the **interface vfc** command. To return to the default settings, use the **no** form of this command.

> **interface vfc** *vfc-id* {**bind interface ethernet** *slot/port* | **shutdown** | **switchport mode E/F**}

> **no interface vfc** *vfc-id* {**bind interface ethernet** *slot/port* | **shutdown** | **switchport mode E/F**}

> **interface vfc** *slot/port* {**shutdown** | **switchport mode E/F**}

> **no interface vfc** *slot/port* {**shutdown** | **switchport mode E/F**}

Syntax Description		
	vfc-id	Virtual interface ID. The range is from 1 to 8192.
	bind interface ethernet	Specifies that the VFC interface be bound to a specified Ethernet interface.
	slot/port	Ethernet interface slot number and port number. The slot number is from 1 to 255, and the port number is from 1 to 128.
	shutdown	Specifies that the interface state be changed to administrative down.
	force	(Optional) Specifies that the interface state be forcefully changed to administrative down.
	switchport	Specifies the switch port parameters.
	mode	Specifies the port mode of the VFC interface.
	E	Specifies the E mode.
	F	Specifies the F mode.

Defaults Disabled.

Command Modes Configuration mode.

SupportedUserRoles network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced on the Cisco Nexus 7000 and MDS 9500 Series Switches.

Usage Guidelines You can specify a range of interfaces by entering a command with the following example format:

```
interface vfc 1 - 3 , vfc 5 - 7
```

Use the **no shutdown** command to enable the interface.

The **interface vfc** *slot/port* command is used to create a VFC implicitly bound for a particular Ethernet interface x/y.

Examples

This example shows how to enter interface configuration mode for VFC interface 3:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# interface vfc 3
switch(config-if)#
```

This example shows how to create a VFC (VFC 1/3) which will be implicitly bound to the Ethernet interface 1/3:

```
switch(config)# interface vfc 1/3
switch(config-if)#
```

This example shows how to create a VFC (vfc-po 3) bound to the Ethernet port channel 3:

```
switch(config)# interface vfc-port-channel 3
```

Related Commands

Command	Description
show interface	Displays an interface configuration for a specified interface.
shutdown	Disables and enables an interface.

interface vfc-port-channel

To create a virtual Fibre Channel (VFC) implicity bound to a port channel interface, use the **interface vfc-port-channel** command. To return to the default settings, use the **no** form of this command.

interface vfc-port-channel *interface-id*

no interface vfc-port-channel *interface-id*

Syntax Description	*interface-id*	Virtual interface ID. The range is from 257 to 4096.

Defaults   None.

Command Modes   Configuration mode.

SupportedUserRoles   network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced on the Cisco Nexus 7000 and MDS 9500 Series Switches.

Usage Guidelines   None.

Examples   This example shows how to create a virtual FC interface:

```
switch(config)# interface vfc-port-channel 300
switch(config)#
```

Related Commands

Command	Description
switchport	Configures the switch port parameters.

license fcoe module

To modify the license feature for the Fibre Channel over Ethernet (FCoE) module, use the **license fcoe module** command. To return to the default setting, use the **no** form of this command.

license fcoe module *module-number*

no license fcoe module *module-number*

Syntax Description	*module-number*	Module number. The range is from 0 to 21474836471.

Defaults None

Command Modes Configuration mode

SupportedUserRoles network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced on the Cisco Nexus 7000 Series Switches.

Usage Guidelines None.

Examples This example shows how to modify the license for the FCoE module:

```
switch(config)# license fcoe module 1
ERROR: fcoe_mgr: LC not present (err_id 0x42070032)
switch(config)#
#
```

Related Commands

Command	Description
switchport	Configures the switch-port parameters.

switchport trunk allowed vsan

To allow a virtual SAN list for a virtual Fibre Channel (VFC) interface, use the **switchport trunk allowed vsan** command. To return to the default setting, use the **no** form of this command.

switchport trunk allowed vsan *vsan-id*

no switchport trunk allowed vsan *vsan-id*

Syntax Description	*vsan-id*	VSAN ID. The range is from 1 to 4093.

Defaults None.

Command Modes Interface configuration mode.

SupportedUserRoles network-admin
vdc-admin

Command History	Release	Modification
	5.2(1)	This command was introduced on the Cisco Nexus 7000 and MDS 9500 Series Switches.

Usage Guidelines None.

Examples This example shows how to allow a VSAN list for a VFC interface:

```
switch(config)# interface vfc 1
switch(config-if)# switchport trunk allowed vsan 1
switch(config-if)#
```

This example shows how to add VSAN 100 to the allowed list:
```
switch(config-if)# switchport trunk allowed vsan add 100
switch(config-if)#
```

Related Commands	Command	Description
	switchport	Configures the switch port parameters.

show fcoe

To display the status of Fibre Channel over Ethernet (FCoE) parameters on the switch, use the **show fcoe** command.

show fcoe

Syntax Description   This command has no keywords or arguments.

Command Default   None.

Command Modes   EXEC mode.

SupportedUserRoles   network-admin

vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced on the Cisco Nexus 7000 and MDS 9500 Series Switches.

Usage Guidelines   None

Examples   This example shows how to display the FCoE status:

```
switch# show fcoe
Global FCF details
        FCF-MAC is 00:0d:ec:a3:9d:80
        FC-MAP is 0e:fc:00
        FCF Priority is 128
        FKA Advertisement period for FCF is 8 seconds
switch#
```

Related Commands

Command	Description
fcoe fcf-priority	Configures the FCoE Initialization Protocol (FIP) priority value.
fcoe fcmap	Configures the FCoE MAC Address Prefix (FC MAP) used to associate the FCoE node (ENode).
fcoe fka-adv-period	Configures the time interval at which FIP keepalive (FKA) messages are transmitted to the MAC address of the ENode.
show fcoe database	Displays the FCoE database information.

show fcoe database

To display the content of the Fibre Channel over Ethernet (FCoE) database, use the **show fcoe database** command.

show fcoe database

Syntax Description   This command has no arguments or keywords.

Defaults   None.

Command Modes   Interface configuration mode.

SupportedUserRoles   network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced on the Cisco Nexus 7000 and MDS 9500 Series Switches.

Usage Guidelines   None

Examples   This example shows how to display the FCoE database:

```
switch# show fcoe database
--------------------------------------------------------------------------------
INTERFACE FCID PORT NAME MAC ADDRESS
--------------------------------------------------------------------------------
vfc3 0x490100 21:00:00:1b:32:0a:e7:b8 00:c0:dd:0e:5f:76Enter configuration commands, one
```

Related Commands

Command	Description
fcoe vsan	Maps a FCoE VLAN to a VSAN.

show feature-set fcoe

To display information about the Fibre Channel over Ethernet (FCoE) feature set, use the **show feature-set fcoe** command.

show feature-set fcoe

Syntax Description   This command has no arguments or keywords.

Defaults   None.

Command Modes   EXEC mode.

SupportedUserRoles   network-admin

vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced on the Cisco Nexus 7000 and MDS 9500 Series Switches.

Usage Guidelines   None.

Examples   This example shows how to display information about the FCoE feature set:

```
switch# config t
Enter configuration commands, one per line.  End with CNTL/Z.
switch(config)# show feature-set fcoe
Feature Set Name     ID        State
-------------------  --------  --------
fcoe                 1         enabled
switch#
```

Related Commands

Command	Description
install feature-set fcoe	Installs FCoE support.
feature-set fcoe	Enables the FCoE feature and all related features.

show interface vfc-port-channel

To displays information about the virtual Fibre Channel (VFC) interfaces bound to port channel interfaces, use the **show interface vfc-port-channel** command.

> **show interface vfc-port-channel** *int-number*

Syntax Description		
	int-number	Interface number. The range is from 1 to 4096. The range is from 1 to 4095.

Defaults   Default switchport mode for this interface is E.

Command Modes   Interface configuration mode.

SupportedUserRoles   network-admin
vdc-admin

Command History	Release	Modification
	5.2(1)	This command was introduced on the Cisco Nexus 7000 and MDS 9500 Series Switches.

Usage Guidelines   None

Examples   This example shows how to display information about the VFC interfaces bound to port channel interfaces:

```
switch(config-if)# show interface vfc-port-channel 2
switch(config-if)#
```

Related Commands	Command	Description
	fcoe vsan	Maps a FCoE VLAN to a VSAN.

show vdc fcoe-vlan-range

To display the Fibre Channel over Ethernet (FCoE) VLAN range on a virtual device context (VDC), use the **show vdc fcoe-vlan-range** command.

> **show vdc fcoe-vlan-range**

Syntax Description   This command has no arguments or keywords.

Defaults   None

Command Modes   Any command mode

SupportedUserRoles   network-admin
network-operator
vdc-admin
vdc-operator

Command History

Release	Modification
5.2(1)	This command was introduced.

Usage Guidelines   This command does not require a license.

Examples   This example shows how to display the FCoE VLAN range on the current VDC:

```
switch# show vdc fcoe-vlan-range
Storage VDC: 2
switch#
```

Related Commands

Command	Description
show vdc shared membership	Displays the shared interfaces on a VDC.

show vdc shared membership

To display the shared interfaces on a virtual device context (VDC), use the **show vdc shared membership** command.

show vdc shared membership

Syntax Description	This command has no arguments or keywords.

Defaults	None

Command Modes	Any command mode

SupportedUserRoles	network-admin network-operator vdc-admin vdc-operator

Command History

Release	Modification
5.2(1)	This command was introduced on the Cisco Nexus 7000 Series Switches.

Usage Guidelines This command does not require a license.

> **Note** FCoE operates ONLY on F Series cards, so allocate interfaces only on that card to shared (You can also reference the VDC Config Guide for them to see which ports have to go to a VDC together, so can allocated to FCoE VLAN and shared.

Examples This example shows how to display the shared interfaces on the VDC:

```
switch(config)# show vdc shared membership

vdc_id: 1 vdc_name: switch interfaces:

vdc_id: 2 vdc_name: fcoe interfaces:

vdc_id: 3 vdc_name: vdc1 interfaces:
switch#
```

Related Commands

Command	Description
show vdc membership	Displays the VDC interface membership information.

show vsan

To display information about a configured virtual SAN (VSAN), use the **show vsan** command.

show vsan [*vsan-id*] [**membership**]

Syntax Description

vsan-id	(Optional) Information for the specified VSAN ID. The range is from 1 to 4094.
membership	(Optional) Displays the membership information.

Command Default   None.

Command Modes   EXEC mode.

SupportedUserRoles   network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced on the Cisco Nexus 7000 Series Switches.
4.0(1)	This command was introduced on the Cisco MDS 9000 MDS 9000 Series Switches.

Usage Guidelines   When you enter the **show vsan membership interface** command, interface information appears for interfaces that are configured in this VSAN.

The interface range must be in ascending order and nonoverlapping. You can specify a range using a hyphen and several interfaces using commas.

The interface range format for a Fibre Channel interface range is:

fcslot/*port* - *port*, *fcslot*/*port*, *fcslot*/*port*:

For example:

```
show int vfc2/1 - 3 , vfc2/4 , vfc3/2
```

Examples   This example shows how to display the configured VSAN information:

```
switch# show vsan 1
vsan 1 information
        name:VSAN0001  state:active
        interoperability mode:default
        loadbalancing:src-id/dst-id/oxid
        operational state:up
switch#
```

This example shows how to display the membership information for the VSAN:

```
switch# show vsan 2 membership
vsan 2 interfaces
vfc 4
switch#
```

Related Commands	Command	Description
	vsan	Configures a VSAN.

show vlan fcoe

To display information about the Fibre Channel over Ethernet (FCoE) VLAN to virtual SAN (VSAN) mappings, use the **show vlan fcoe** command.

show vlan fcoe

Syntax Description   This command has no arguments or keywords.

Command Default   None.

Command Modes   EXEC mode.

SupportedUserRoles   network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced on the Cisco Nexus 7000 and MDS 9500 Series Switches.

Usage Guidelines   None. FCoE only works on F Series modules in the N7K.

Examples   This example shows how to display the FCoE VLAN-to-VSAN mappings on the switch:

```
switch# show vlan fcoe
VLAN     VSAN     Status
-------- -------- --------
331      331      Operational
332      332      Operational
333      333      Operational
334      334      Operational
335      335      Non-operational
336      336      Operational
337      337      Operational
switch#
```

Related Commands

Command	Description
fcoe vsan	Maps a FCoE VLAN to a VSAN.

show interface vfc

To display the configuration information of virtual Fibre Channel (VFC) interfaces, use the **show interface vfc** command.

    show interface vfc *vfc-id*

Syntax Description		
	vfc-id	Virtual Fibre Channel interface ID. The range is from 1 to 8192.

Command Default   None.

Command Modes   EXEC mode.

SupportedUserRoles   network-admin
vdc-admin

Command History	Release	Modification
	5.2(1)	This command was introduced on the Cisco Nexus 7000 and MDS 9500 Series Switches.

Usage Guidelines   None

Examples   This example shows how to display the configuration information for a specified VFC interface:

```
switch# show interface vfc 3
vfc3 is up
Bound interface is Ethernet1/37
Hardware is Virtual Fibre Channel
Port WWN is 20:02:00:0d:ec:6d:95:3f
Admin port mode is F, trunk mode is on
snmp link state traps are enabled
Port mode is F, FCID is 0x490100
Port vsan is 931
1 minute input rate 0 bits/sec, 0 bytes/sec, 0 frames/sec
1 minute output rate 0 bits/sec, 0 bytes/sec, 0 frames/sec
0 frames input, 0 bytes
0 discards, 0 errors
0 frames output, 0 bytes
0 discards, 0 errors
Interface last changed at Thu May 21 04:44:42 2009
```

Related Commands	Command	Description
	interface vfc	Configures a virtual Fibre Channel interface.

spanning-tree fcoe

To enable the Spanning Tree Protocol (STP) for FCoE VLAN, use the **spanning-tree fcoe** command. To disable the STP for FCoE VLAN, use the **no** form of the command.

> **spanning-tree fcoe**

> **no spanning-tree fcoe**

Syntax Description   This command has no arguments or keywords.

Defaults   Enabled

Command Modes   Global configuration mode

SupportedUserRoles   network-admin
network-operator
vdc-admin
vdc-operator

Command History

Release	Modification
5.2(1)	This command was introduced on the Cisco Nexus 7000 Series Switches.

Usage Guidelines   The STP Lite feature, which is automatically enabled, runs on both FCoE shared and dedicated links in the FCoE VLANs and ensures rapid convergence across the network by sending an agreement BPDU whenever it receives a proposal BPDU. If you want to disable this feature for troubleshooting purposes, enter the **no spanning-tree fcoe** command.

This command is only available on F-Series Modules when FCoE is enabled.

We recommend that you configure the interface on the peer side of the FCoE link as an STP-type edge port. Ensure that the peer interface is not configured as an STP-type network port.

Note   This feature runs only in FCoE VLANs.

Examples   This example shows how to enable the STP for FCoE VLANs:

```
switch(config)# spanning-tree fcoe
switch(config)#
```

This example shows how to disable the STP lite in the FCoE VLANs if you need to do troubleshooting:

```
switch(config)# no spanning-tree fcoe
switch(config)#
```

Related Commands	Command	Description
	show spanning-tree summary	Displays the summary of port states information.

vsan database

To enter virtual SAN (VSAN) database mode to configure the VSAN information and membership, use the **vsan database** command.

vsan database

Syntax Description   This command has no arguments or keywords.

Command Default   None.

Command Modes   Global configuration mode.

SupportedUserRoles   network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced on the Cisco Nexus 7000 Series Switches.
4.0(1)	This command was introduced on the Cisco MDS 9000 Series Switches.

Usage Guidelines   To exit from the VSAN database configuration mode, use the **exit** command.

Examples   This example shows how to enter the VSAN database configuration mode:

```
switch(config)# vsan database
switch(config-vsan-db)# exit
switch(config)#
```

Related Commands

Command	Description
show vsan	Displays the configuration information of VSANs.
show vlan fcoe	Displays the FCoE VLAN-to-VSAN mappings.
show vsan membership	Displays VSAN membership information.
vsan	Configures the VSAN information or membership.