



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 vdc** *vdc-name...* [, **vdc** *vdc-name*]

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

Syntax Description

<i>vlan-range</i>	FCoE VLAN range. The range is from 1 to 3967.
from	Specifies which VDCs are going to share ports with the FCoE VDC.
vdc	(Optional) Specifies the VDC.
<i>vdc-name</i>	VDC name.

Defaults

None

Command Modes

VDC configuration mode

Supported User Roles

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	<i>slot/chassis number</i> 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	Parameter	Description
	ethernet	Specifies the Ethernet interface.
	<i>slot/port number</i>	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.
	<i>port-channel number</i>	Port channel number. The range is from 1 to 4096.

Defaults None.

Command Modes Interface configuration mode.

Supported User Roles 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
```

■ bind interface

```
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 **disable-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.

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 fcmmap

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

fcoe fcmmap *value*

no fcoe fcmmap *value*

Syntax Description	<i>value</i>	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	<p>Before you use this command, you must enable FCoE on the switch by using the feature fcoe or the feature-set fcoe command.</p> <p>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.</p>
-------------------------	--

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

```
switch(config)# fcoe fcmmap 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	<i>value</i>	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 fcmmap	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	<i>value</i>	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: <pre>switch(config)# fcoe fka-adv-period 5 switch(config)#</pre>	
Related Commands	Command	Description
	fcoe fcf-priority	Configures the FCoE Initialization Protocol (FIP) priority value.
	fcoe fcmmap	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	<i>vsan-id</i> (Optional) VSAN ID. The range is from 1 to 4094.
---------------------------	---

Command Default	VLANID=VSANID.
------------------------	----------------

Command Modes	VLAN configuration mode.
----------------------	--------------------------

Supported User Roles	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	<p>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.</p> <p>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.</p> <p>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:</p> <pre>vlan 30:another FCOE VLAN mapping exists using the requested VSAN</pre> <p>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.</p>
-------------------------	--

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)#
```

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 veloopback

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:

■ fcoe vloopback

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

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		
	<i>vfc-id</i>	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.
	<i>slot/port</i>	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.

Supported User Roles 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) implicitly 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	<i>interface-id</i>	Virtual interface ID. The range is from 257 to 4096.
Defaults	None.	
Command Modes	Configuration mode.	
Supported User Roles	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	<i>module-number</i>	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	<p>This example shows how to modify the license for the FCoE module:</p> <pre>switch(config)# license fcoe module 1 ERROR: fcoe_mgr: LC not present (err_id 0x42070032) switch(config)# #</pre>	
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	<i>vsan-id</i>	VSAN ID. The range is from 1 to 4093.
Defaults	None.	
Command Modes	Interface configuration mode.	
Supported User Roles	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	<p>This example shows how to allow a VSAN list for a VFC interface:</p> <pre>switch(config)# interface vfc 1 switch(config-if)# switchport trunk allowed vsan 1 switch(config-if)#</pre> <p>This example shows how to add VSAN 100 to the allowed list:</p> <pre>switch(config-if)# switchport trunk allowed vsan add 100 switch(config-if)#</pre>	
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 fcmmap	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.

Supported User Roles 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.

Supported User Roles 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# conf 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	<i>int-number</i>	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	<p>This example shows how to display information about the VFC interfaces bound to port channel interfaces:</p> <pre>switch(config-if)# show interface vfc-port-channel 2 switch(config-if)#</pre>
-----------------	---

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	
<i>vsan-id</i>	(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.

Supported User Roles 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.

Supported User Roles 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	<i>vfc-id</i>	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.

