



## FCoE Commands

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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.                    |
| <b>from</b>       | Specifies which VDCs are going to share ports with the FCoE VDC. |
| <b>vdc</b>        | (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**

| <b>Command</b>                  | <b>Description</b>                               |
|---------------------------------|--|
| <b>allocate interface</b>       | Allocates interfaces to a VDC for sharing ports. |
| <b>show vdc fcoe-vlan-range</b> | 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*

|                           |  |
|---------------------------|--|
| <b>Syntax Description</b> | <i>slot/chassis number</i> Slot or chassis number. The range is from 1 to 253. |
|---------------------------|--|

|                 |      |
|-----------------|------|
| <b>Defaults</b> | None |
|-----------------|------|

|                      |                        |
|----------------------|------------------------|
| <b>Command Modes</b> | VDC configuration mode |
|----------------------|------------------------|

|                           |                            |
|---------------------------|----------------------------|
| <b>SupportedUserRoles</b> | network-admin<br>vdc-admin |
|---------------------------|----------------------------|

|                        |                |  |
|------------------------|----------------|--|
| <b>Command History</b> | <b>Release</b> | <b>Modification</b>  |
|                        | 5.2(1)         | This command was introduced on the Cisco Nexus 7000 Series Switches. |

|                         |  |
|-------------------------|--|
| <b>Usage Guidelines</b> | This command does not require a license. |
|-------------------------|--|

|                 |   |
|-----------------|---|
| <b>Examples</b> | 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)#
```

|                         |   |  |
|-------------------------|---|--|
| <b>Related Commands</b> | <b>Command</b>                            | <b>Description</b>                       |
|                         | <b>allocate</b><br><b>fcoe-vlan-range</b> | Allocates FCoE VLANs to a VDC.           |
|                         | <b>show vdc shared membership</b>         | 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                                       |
|--------------------|------------------------------|---|
|                    | <b>ethernet</b>              | Specifies the Ethernet interface.                 |
|                    | <i>slot/port number</i>      | Slot and port number. The range is from 1 to 253. |
|                    | <b>ethernet-port-channel</b> | Specifies the Ethernet port channel interface.    |
|                    | <b>port-channel</b>          | 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**

| <b>Command</b>       | <b>Description</b>       |
|----------------------|--------------------------|
| <b>interface vfc</b> | 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   |
|---|---|
| <b>fcoe fka-adv-period</b>                          | Configures the time interval in which FIP keepalive (FKA) messages are transmitted to the MAC address of the ENode. |
| <b>show fcoe-npv issu-impact</b>                    | Displays FCoE NPV configuration information.  |
| <b>switchport (virtual Fibre Channel interface)</b> | 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**

| <b>Command</b>                  | <b>Description</b>         |
|---------------------------------|----------------------------|
| <b>install feature-set fcoe</b> | 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*

|                           |              |   |
|---------------------------|--------------|---|
| <b>Syntax Description</b> | <i>value</i> | FC-Map value. The range is from 0EFC00 to 0EFCFF, and the default is 0xefc00. |
|---------------------------|--------------|---|

|                        |         |
|------------------------|---------|
| <b>Command Default</b> | 0EFC00. |
|------------------------|---------|

|                      |                            |
|----------------------|----------------------------|
| <b>Command Modes</b> | Global configuration mode. |
|----------------------|----------------------------|

|                           |                            |
|---------------------------|----------------------------|
| <b>SupportedUserRoles</b> | network-admin<br>vdc-admin |
|---------------------------|----------------------------|

| <b>Command History</b> | <b>Release</b> | <b>Modification</b>   |
|------------------------|----------------|---|
|                        | 5.2(1)         | This command was introduced on the Cisco Nexus 7000 and MDS 9500 Series Switches. |

|                         |  |
|-------------------------|--|
| <b>Usage Guidelines</b> | <p>Before you use this command, you must enable FCoE on the switch by using the <b>feature fcoe</b> or the <b>feature-set fcoe</b> 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> |
|-------------------------|--|

|                 |   |
|-----------------|---|
| <b>Examples</b> | This example shows how to configure the FC-Map value on the switch: |
|-----------------|---|

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

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

| <b>Command</b>          | <b>Description</b>   |
|-------------------------|--|
| <b>feature fcoe</b>     | Enables FCoE on the switch.  |
| <b>show fcoe</b>        | Displays the FCoE parameters, such as an FC-Map, default FCF priority value, and FKA advertisement period. |
| <b>feature-set fcoe</b> | 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*

|                           |              |   |
|---------------------------|--------------|---|
| <b>Syntax Description</b> | <i>value</i> | FCF priority value. The range is from 0 to 255. |
|---------------------------|--------------|---|

|                        |      |
|------------------------|------|
| <b>Command Default</b> | 128. |
|------------------------|------|

|                      |   |
|----------------------|---|
| <b>Command Modes</b> | Global configuration mode.<br>Interface vFC mode. |
|----------------------|---|

|                           |                            |
|---------------------------|----------------------------|
| <b>SupportedUserRoles</b> | network-admin<br>vdc-admin |
|---------------------------|----------------------------|

| <b>Command History</b> | <b>Release</b> | <b>Modification</b>   |
|------------------------|----------------|---|
|                        | 5.2(1)         | This command was introduced on the Cisco Nexus 7000 MDS 9500 Series Switches. |

|                         |   |
|-------------------------|---|
| <b>Usage Guidelines</b> | Before you use this command, you must enable FCoE on the switch by using the <b>feature fcoe</b> 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)#
```

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

| Command                 | Description  |
|-------------------------|--|
| <b>show fcoe</b>        | Displays the FCoE parameters, such as an FC-Map, default FCF priority value, and FKA advertisement period. |
| <b>feature-set fcoe</b> | 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*

|                           |   |  |
|---------------------------|---|--|
| <b>Syntax Description</b> | <i>value</i>  | FKA advertisement period (in seconds). The range is from 4 to 60 seconds.                                  |
| <b>Command Default</b>    | 8 seconds.  |  |
| <b>Command Modes</b>      | Global configuration mode.  |  |
| <b>SupportedUserRoles</b> | network-admin<br>vdc-admin  |  |
| <b>Command History</b>    | <b>Release</b>  | <b>Modification</b>  |
|                           | 5.2(1)  | This command was introduced on the Cisco Nexus 7000 MDS 9500 Series Switches.                              |
| <b>Usage Guidelines</b>   | Before you use this command, you must enable FCoE on the switch by using the <b>feature fcoe</b> command.   |  |
| <b>Examples</b>           | This example shows how to configure the FKA advertisement period for the switch to 5 seconds:<br><pre>switch(config)# fcoe fka-adv-period 5 switch(config)#</pre> |  |
| <b>Related Commands</b>   | <b>Command</b>  | <b>Description</b>   |
|                           | <b>fcoe fcf-priority</b>  | Configures the FCoE Initialization Protocol (FIP) priority value.  |
|                           | <b>fcoe fcmap</b>   | Configures the FCoE MAC address prefix (FC-Map) used to associate the FCoE node (ENode).                   |
|                           | <b>feature fcoe</b>   | Enables FCoE on the switch.  |
|                           | <b>show fcoe</b>  | Displays the FCoE parameters, such as an FC-Map, default FCF priority value, and FKA advertisement period. |

| <b>Command</b>            | <b>Description</b>  |
|---------------------------|---|
| <b>show fcoe database</b> | Displays the FCoE database information.                   |
| <b>feature-set fcoe</b>   | 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*]

|                           |   |
|---------------------------|---|
| <b>Syntax Description</b> | <i>vsan-id</i> (Optional) VSAN ID. The range is from 1 to 4094. |
|---------------------------|---|

|                        |                |
|------------------------|----------------|
| <b>Command Default</b> | VLANID=VSANID. |
|------------------------|----------------|

|                      |                          |
|----------------------|--------------------------|
| <b>Command Modes</b> | VLAN configuration mode. |
|----------------------|--------------------------|

|                             |                            |
|-----------------------------|----------------------------|
| <b>Supported User Roles</b> | network-admin<br>vdc-admin |
|-----------------------------|----------------------------|

| <b>Command History</b> | <b>Release</b> | <b>Modification</b>   |
|------------------------|----------------|---|
|                        | 5.2(1)         | This command was introduced on the Cisco Nexus 7000 MDS 9500 Series Switches. |

|                         |  |
|-------------------------|--|
| <b>Usage Guidelines</b> | <p>Before you map an FCoE VLAN to the VSAN, make sure that you create a VSAN using the <b>vsan</b> 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> |
|-------------------------|--|

|                 |   |
|-----------------|---|
| <b>Examples</b> | 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                                      |
|------------------|-----------------------------|--|
|                  | <b>show vsan</b>            | Displays the configuration information of VSANs. |
|                  | <b>show vlan fcoe</b>       | Displays the FCoE VLAN-to-VSAN mappings.         |
|                  | <b>show vsan membership</b> | Displays the VSAN membership information.        |
|                  | <b>vsan</b>                 | Configures the VSAN information or membership.   |
|                  | <b>vsan database</b>        | 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:

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

**Related Commands**

| <b>Command</b>              | <b>Description</b>                               |
|-----------------------------|--|
| <b>show vsan</b>            | Displays the configuration information of VSANs. |
| <b>show vlan fcoe</b>       | Displays the FCoE VLAN to VSAN mappings.         |
| <b>show vsan membership</b> | Displays VSAN membership information.            |
| <b>vsan</b>                 | Configures the VSAN information or membership.   |
| <b>vsan database</b>        | 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  |
|------------------|-------------------------|--|
|                  | <b>feature-set fcoe</b> | 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.  |
|                    | <b>bind interface ethernet</b> | 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. |
|                    | <b>shutdown</b>                | Specifies that the interface state be changed to administrative down.   |
|                    | <b>force</b>                   | (Optional) Specifies that the interface state be forcefully changed to administrative down.                             |
|                    | <b>switchport</b>              | Specifies the switch port parameters.   |
|                    | <b>mode</b>                    | Specifies the port mode of the VFC interface.   |
|                    | <b>E</b>                       | Specifies the E mode.   |
|                    | <b>F</b>                       | 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  |
|-----------------------|--|
| <b>show interface</b> | Displays an interface configuration for a specified interface. |
| <b>shutdown</b>       | 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
```

|                             |  |   |
|-----------------------------|--|---|
| <b>Syntax Description</b>   | <i>interface-id</i>  | Virtual interface ID. The range is from 257 to 4096.                              |
| <b>Defaults</b>             | None.  |   |
| <b>Command Modes</b>        | Configuration mode.  |   |
| <b>Supported User Roles</b> | network-admin<br>vdc-admin   |   |
| <b>Command History</b>      | <b>Release</b>   | <b>Modification</b>   |
|                             | 5.2(1)   | This command was introduced on the Cisco Nexus 7000 and MDS 9500 Series Switches. |
| <b>Usage Guidelines</b>     | None.  |   |
| <b>Examples</b>             | This example shows how to create a virtual FC interface:<br><br>switch(config)# <b>interface vfc-port-channel 300</b><br>switch(config)# |   |
| <b>Related Commands</b>     | <b>Command</b>   | <b>Description</b>  |
|                             | <b>switchport</b>  | 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 |
|---------------|--------------------|
|---------------|--------------------|

| Supported User Roles | network-admin<br>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                            |
|------------------|-------------------|--|
|                  | <b>switchport</b> | 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*

|                             |  |   |
|-----------------------------|--|---|
| <b>Syntax Description</b>   | <i>vsan-id</i>   | VSAN ID. The range is from 1 to 4093.   |
| <b>Defaults</b>             | None.  |   |
| <b>Command Modes</b>        | Interface configuration mode.  |   |
| <b>Supported User Roles</b> | network-admin<br>vdc-admin   |   |
| <b>Command History</b>      | <b>Release</b>   | <b>Modification</b>   |
|                             | 5.2(1)   | This command was introduced on the Cisco Nexus 7000 and MDS 9500 Series Switches. |
| <b>Usage Guidelines</b>     | None.  |   |
| <b>Examples</b>             | <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> |   |
| <b>Related Commands</b>     | <b>Command</b>   | <b>Description</b>  |
|                             | <b>switchport</b>  | 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   |
|------------------|----------------------------|---|
|                  | <b>fcoe fcf-priority</b>   | Configures the FCoE Initialization Protocol (FIP) priority value.   |
|                  | <b>fcoe fcmmap</b>         | Configures the FCoE MAC Address Prefix (FC MAP) used to associate the FCoE node (ENode).                            |
|                  | <b>fcoe fka-adv-period</b> | Configures the time interval at which FIP keepalive (FKA) messages are transmitted to the MAC address of the ENode. |
|                  | <b>show fcoe database</b>  | 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.

**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  |
|------------------|---------------------------------|--|
|                  | <b>install feature-set fcoe</b> | Installs FCoE support.                             |
|                  | <b>feature-set fcoe</b>         | 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*

|                           |                   |   |
|---------------------------|-------------------|---|
| <b>Syntax Description</b> | <i>int-number</i> | Interface number. The range is from 1 to 4096. The range is from 1 to 4095. |
|---------------------------|-------------------|---|

|                 |  |
|-----------------|--|
| <b>Defaults</b> | Default switchport mode for this interface is E. |
|-----------------|--|

|                      |                               |
|----------------------|-------------------------------|
| <b>Command Modes</b> | Interface configuration mode. |
|----------------------|-------------------------------|

|                           |                            |
|---------------------------|----------------------------|
| <b>SupportedUserRoles</b> | network-admin<br>vdc-admin |
|---------------------------|----------------------------|

| <b>Command History</b> | <b>Release</b> | <b>Modification</b>   |
|------------------------|----------------|---|
|                        | 5.2(1)         | This command was introduced on the Cisco Nexus 7000 and MDS 9500 Series Switches. |

|                         |      |
|-------------------------|------|
| <b>Usage Guidelines</b> | None |
|-------------------------|------|

|                 |   |
|-----------------|---|
| <b>Examples</b> | <p>This example shows how to display information about the VFC interfaces bound to port channel interfaces:</p> <pre>switch(config-if)# <b>show interface vfc-port-channel 2</b> switch(config-if)#</pre> |
|-----------------|---|

| <b>Related Commands</b> | <b>Command</b>   | <b>Description</b>          |
|-------------------------|------------------|-----------------------------|
|                         | <b>fcoe vsan</b> | 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                              |
|------------------|-----------------------------------|--|
|                  | <b>show vdc shared membership</b> | 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  |
|------------------|----------------------------|--|
|                  | <b>show vdc membership</b> | 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. |
| <b>membership</b>  | (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*

|                           |               |  |
|---------------------------|---------------|--|
| <b>Syntax Description</b> | <i>vfc-id</i> | Virtual Fibre Channel interface ID. The range is from 1 to 8192. |
|---------------------------|---------------|--|

|                        |       |  |
|------------------------|-------|--|
| <b>Command Default</b> | None. |  |
|------------------------|-------|--|

|                      |            |  |
|----------------------|------------|--|
| <b>Command Modes</b> | EXEC mode. |  |
|----------------------|------------|--|

|                           |                            |  |
|---------------------------|----------------------------|--|
| <b>SupportedUserRoles</b> | network-admin<br>vdc-admin |  |
|---------------------------|----------------------------|--|

| <b>Command History</b> | <b>Release</b> | <b>Modification</b>   |
|------------------------|----------------|---|
|                        | 5.2(1)         | This command was introduced on the Cisco Nexus 7000 and MDS 9500 Series Switches. |

|                         |      |  |
|-------------------------|------|--|
| <b>Usage Guidelines</b> | 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
```

| <b>Related Commands</b> | <b>Command</b>       | <b>Description</b>                            |
|-------------------------|----------------------|---|
|                         | <b>interface vfc</b> | 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**

| <b>Command</b>                        | <b>Description</b>                               |
|---------------------------------------|--|
| <b>show spanning-tree<br/>summary</b> | 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                                      |
|------------------|-----------------------------|--|
|                  | <b>show vsan</b>            | Displays the configuration information of VSANs. |
|                  | <b>show vlan fcoe</b>       | Displays the FCoE VLAN-to-VSAN mappings.         |
|                  | <b>show vsan membership</b> | Displays VSAN membership information.            |
|                  | <b>vsan</b>                 | Configures the VSAN information or membership.   |

