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## CHAPTER 9

# Fibre Channel Show Commands

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This chapter describes the Cisco NX-OS Fibre Channel show commands available on Cisco Nexus 5000 Series switches.

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## show cfs

To display Cisco Fabric Services (CFS) information, use the **show cfs** command.

```
show cfs { application [name app-name] | lock [name app-name [vsan vsan-id]] | merge status
          [name app-name [vsan vsan-id]] | peers [name app-name [vsan vsan-id]] | regions | status }
```

### Syntax Description

<b>application</b>	Displays locally registered applications.
<b>name</b> <i>app-name</i>	(Optional) Specifies a local application information by name. Maximum length is 64 characters.
<b>lock</b>	Displays the state of application logical or physical locks.
<b>vsan</b> <i>vsan-id</i>	(Optional) Specifies the VSAN ID. The range is 1 to 4093.
<b>merge status</b>	Displays CFS merge information.
<b>peers</b>	Displays logical or physical CFS peers.
<b>regions</b>	Displays the CFS regions.
<b>status</b>	Displays if CFS distribution is enabled or disabled. Enabled is the default configuration.

### Command Default

None

### Command Modes

EXEC mode.

### Command History

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

### Examples

The following example shows how to display CFS physical peer information for all applications:

```
switch# show cfs peers
```

The following example shows how to display CFS information for all applications on the switch:

```
switch# show cfs application
```



#### Note

The **show cfs application** command displays only those applications that are registered with CFS. Conditional services that use CFS do not appear in the output unless those services are running.

The following example shows how to display CFS information for the device alias application:

```
switch# show cfs application name device-alias
```

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The following example shows how to display CFS merge operation information for the device alias application:

```
switch# show cfs merge status device-alias
```

The following example shows whether or not CFS distribution is enabled:

```
switch# show cfs status
```

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## show debug npv

To display the N Port Virtualization (NPV) debug commands configured on the switch, use the **show debug npv** command.

**show debug npv**

**Syntax Description** This command has no other keywords or arguments.

**Command Default** None

**Command Modes** EXEC mode.

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

**Usage Guidelines** The **show debug npv** command is available only when the switch is in NPV mode.

**Examples** The following example shows all the NPV debug commands available on the switch:

```
switch# show debug npv
```

Related Commands	Command	Description
	<b>debug npv</b>	Enables debugging NPV configurations.

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## show device-alias

To display the device name information, use the **show device-alias** command.

```
show device-alias { database | merge status | name device-name [pending] | pending |
pending-diff | pwwn pwwn-id [pending] | session status | statistics | status
```

Syntax Description		
<b>database</b>		Displays the entire device name database.
<b>merge status</b>		Displays the device merge status.
<b>name <i>device-name</i></b>		Displays device name database information for a specific device name.
<b>pending</b>		Displays the pending device name database information.
<b>pending-diff</b>		Displays pending differences in the device name database information.
<b>pwwn <i>pwwn-id</i></b>		Displays device name database information for a specific pWWN. The format is <i>hh:hh:hh:hh:hh:hh:hh:hh</i> , where <i>h</i> is a hexadecimal digit.
<b>session status</b>		Displays the device name session status.
<b>statistics</b>		Displays device name database statistics.
<b>status</b>		Displays the device name database status.

**Command Default** None

**Command Modes** EXEC mode.

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

**Usage Guidelines** To make use of fcalias as device names instead of using the cryptic device name, add only one member per fcalias.

**Examples** The following example shows how to display the contents of the device alias database:

```
switch# show device-alias database
```

The following example shows how to display all global fcalias and all VSAN dependent fcalias:

```
switch# show device-alias name efg
```

The following example shows how to display all global fcalias and all VSAN dependent fcalias:

```
switch# show device-alias statistics
```

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Related Commands	Command	Description
	<b>device-alias name</b>	Configures device alias names.
	<b>device-alias database</b>	Configures device alias information.
	<b>device-alias distribute</b>	Enables device alias CFS distribution.

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## show fabric-binding

To display configured fabric binding information, use the **show fabric-binding** command.

```
show fabric-binding { database [active] [vsan vsan-id] | efmd statistics [vsan vsan-id] | statistics [vsan vsan-id] | status [vsan vsan-id] | violations [last number] }
```

Syntax Description		
<b>database</b>		Displays configured database information.
<b>active</b>		(Optional) Displays the active database configuration information.
<b>vsan</b> <i>vsan-id</i>		(Optional) Specifies the FICON-enabled VSAN ID. The range is 1 to 4093.
<b>efmd statistics</b>		Displays Exchange Fabric Membership Data (EFMD) statistics.
<b>statistics</b>		Displays fabric binding statistics.
<b>status</b>		Displays fabric binding status.
<b>violations</b>		Displays violations in the fabric binding configuration.
<b>last number</b>		(Optional) Specifies recent violations. The range is 1 to 100.

**Command Default** None

**Command Modes** EXEC mode.

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

### Examples

The following example displays configured fabric binding database information:

```
switch# show fabric-binding database
```

The following example displays active fabric binding information:

```
switch# show fabric-binding database active
```

The following example displays active VSAN-specific fabric binding information:

```
switch# show fabric-binding database active vsan 61
```

The following example displays configured VSAN-specific fabric binding information:

```
switch# show fabric-binding database vsan 4
```

The following example displays fabric binding statistics:

```
switch# show fabric-binding statistics
```

The following example displays fabric binding status for each VSAN:

```
switch# show fabric-binding status
```

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The following example displays EFMD statistics:

```
switch# show fabric-binding efmd statistics
```

The following example displays EFMD statistics for a specified VSAN:

```
switch# show fabric-binding efmd statistics vsan 4
```

The following example displays fabric binding violations:

```
switch# show fabric-binding violations
```



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## show fc2

To display FC2 information, use the **show fc2** command.

```
show fc2 { bind | classf | exchange | exchresp | flogi | nport | plogi | plogi_pwwn | port [brief] |
socket | sockexch | socknotify | socknport | vsan }
```

### Syntax Description

<b>bind</b>	Displays FC2 socket bindings.
<b>classf</b>	Displays FC2 classf sessions.
<b>exchange</b>	Displays FC2 active exchanges.
<b>exchresp</b>	Displays FC2 active responder exchanges.
<b>flogi</b>	Displays FC2 FLOGI table.
<b>nport</b>	Displays FC2 local N ports.
<b>plogi</b>	Displays FC2 PLOGI sessions.
<b>plogi_pwwn</b>	Displays FC2 PLOGI pWWN entries.
<b>port</b>	Displays FC2 physical port table.
<b>brief</b>	Displays FC2 physical port table in brief format.
<b>socket</b>	Displays FC2 active sockets.
<b>sockexch</b>	Displays FC2 active exchanges for each socket.
<b>socknotify</b>	Displays FC2 local N port PLOGI/LOGO notifications for each socket.
<b>socknport</b>	Displays FC2 local nports per each socket.
<b>vsan</b>	Displays FC2 VSAN table.

### Command Default

None

### Command Modes

EXEC mode.

### Command History

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

### Examples

The following example displays FC2 active socket information:

```
switch# show fc2 socket
```

The following example displays FC2 socket binding information:

```
switch# show fc2 bind
```

The following example displays FC2 local N port information:

```
switch# show fc2 nport
```

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The following example displays FC2 PLOGI session information:

```
switch# show fc2 plogi
```

The following example displays FC2 physical port information:

```
switch# show fc2 port
```

The following example displays FC2 local N port PLOGI notifications for each socket:

```
switch# show fc2 socknotify
```

The following example displays FC2 local N ports for each socket:

```
switch# show fc2 socknport
```

The following example displays FC2 VSAN table:

```
switch# show fc2 vsan
```

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## show fcalias

To display the member name information in a Fibre Channel alias (fcalias), use the **show fcalias** command.

```
show fcalias [name fcalias-name] [pending] [vsan vsan-id]
```

### Syntax Description

<b>name</b> <i>fcalias-name</i>	(Optional) Displays fcalias information for a specific name. The maximum length is 64.
<b>pending</b>	(Optional) Displays pending fcalias information.
<b>vsan</b> <i>vsan-id</i>	(Optional) Displays fcalias information for a VSAN. The range is 1 to 4093.

### Command Default

Displays a list of all global fcalias and all VSAN-dependent fcalias.

### Command Modes

EXEC mode.

### Command History

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

### Usage Guidelines

To make use of fcalias as device names instead of using the cryptic device name, add only one member per fcalias.

### Examples

The following example displays fcalias configuration information:

```
switch# show fcalias vsan 1
```

### Related Commands

Command	Description
<b>fcalias name</b>	Configures fcalias names.

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## show fcdomain

To display the Fibre Channel domain (fcdomain) information, use the **show fcdomain** command.

```
show fcdomain [address-allocation [cache] | allowed | domain-list | fcid persistent [unused] |
pending [vsan vsan-id] | pending-diff [vsan vsan-id] | session-status [vsan vsan-id] | statistics
[interface { fc slot/port [vsan vsan-id] } | san-port-channel port [vsan vsan-id]] | status | vsan
vsan-id]
```

Syntax Description	
<b>address-allocation</b>	(Optional) Displays statistics for the FC ID allocation.
<b>cache</b>	(Optional) Reassigns the FC IDs for a device (disk or host) that exited and reentered the fabric for the principal switch. In the cache content, VSAN refers to the VSAN that contains the device, WWN refers to the device that owned the FC IDs, and mask refers to a single or entire area of FC IDs.
<b>allowed</b>	(Optional) Displays a list of allowed domain IDs.
<b>domain-list</b>	(Optional) Displays a list of domain IDs provided by the principal switch.
<b>fcid persistent</b>	(Optional) Displays persistent FC IDs (across reboot).
<b>pending</b>	(Optional) Displays the pending configuration.
<b>pending-diff</b>	(Optional) Displays the difference between the running configuration and the pending configuration.
<b>session-status</b>	(Optional) Displays the last action performed by FC domain.
<b>vsan vsan-id</b>	(Optional) Specifies a VSAN ID. The range is 1 to 4093.
<b>statistics</b>	(Optional) Displays the statistics of FC domain.
<b>interface</b>	(Optional) Specifies an interface.
<b>fc slot/port</b>	(Optional) Specifies a Fibre Channel interface.
<b>san-port-channel port</b>	(Optional) Specifies a SAN port channel interface. The range is 1 to 128.
<b>status</b>	(Optional) Displays all VSAN-independent information in FC domain.

**Command Default** None

**Command Modes** EXEC mode.

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

**Usage Guidelines** When you enter the **show fcdomain** with no arguments, all VSANs are displayed. The VSANs should be active or you will get an error.

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### Examples

The following example displays the fcdomain information for VSAN 1:

```
switch# show fcdomain vsan 1
```

The following example displays the fcdomain domain-list information for VSAN 76:

```
switch# show fcdomain domain-list vsan 76
```

```
Number of domains: 3
Domain ID          WWN
-----
0xc8(200)         20:01:00:05:30:00:47:df [Principal]
 0x63(99)         20:01:00:0d:ec:08:60:c1 [Local]
 0x61(97)         50:00:53:0f:ff:f0:10:06 [Virtual (IVR)]
```

Table 9-1 describes the significant fields shown in the **show fcdomain domain-list** command output.

**Table 9-1** *show fcdomain Field Descriptions*

Field	Description
Domain ID	Lists the domain IDs corresponding to the WWN.
WWN	Indicates the WWN of the switch (physical or virtual) that requested the corresponding domain ID.
Principal	Indicates which row of the display lists the WWN and domain ID of the principal switch in the VSAN.
Local	Indicates which row of the display lists the WWN and domain ID of the local switch (the switch where you entered the <b>show fcdomain domain-list</b> command).
Virtual (IVR)	Indicates which row of the display lists the WWN of the virtual switch used by the Inter-VSAN Routing (IVR) manager to obtain the domain ID.

The following example displays the allowed domain ID lists:

```
switch# show fcdomain allowed vsan 1
```

The following example shows the status of CFS distribution for allowed domain ID lists:

```
switch# show fcdomain status
```

The following example displays pending configuration changes:

```
switch# show fcdomain pending vsan 10
```

The following example displays the differences between the pending configuration and the current configuration:

```
switch# show fcdomain pending-diff vsan 10
```

The following example displays the status of the distribution session:

```
switch# show fcdomain session-status vsan 1
```

### Related Commands

Command	Description
<b>fcdomain</b>	Configures the Fibre Channel domain feature.

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## show fcdroplateny

To display the configured Fibre Channel latency parameters, use the **show fcdroplateny** command.

```
show fcdroplateny [network | switch]
```

Syntax Description	network	(Optional) Network latency in milliseconds.
	switch	(Optional) Switch latency in milliseconds.

Command Default	None
-----------------	------

Command Modes	EXEC mode.
---------------	------------

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

Examples	The following example displays the configured Fibre Channel latency parameters:
----------	---

```
switch# show fcdroplateny
```

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## show fcflow stats

To display the configured Fibre Channel flow (fcflow) information, use the **show fcflow stats** command.

```
show fcflow stats [aggregated | usage] [index flow-index]
```

Syntax Description	aggregated	(Optional) Displays aggregated fcflow statistics.
	usage	(Optional) Displays flow index usage
	index <i>flow-index</i>	(Optional) Specifies an fcflow index.

Command Default	None
-----------------	------

Command Modes	EXEC mode.
---------------	------------

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

### Examples

The following example displays aggregated fcflow details:

```
switch# show fcflow stats aggregated
```

The following example displays fcflow details:

```
switch# show fcflow stats
```

The following example displays fcflow index usage:

```
switch# show fcflow stats usage
```

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## show fcid-allocation

Use the **show fcid allocation** command to display the Fibre Channel area list of company IDs.

```
show fcid-allocation area | company-id-from-wwn wwn [company-id]
```

Syntax Description	
<b>area</b>	Selects the auto area list of company IDs.
<b>company-id-from-wwn</b> <i>wwn</i>	Selects company ID from the specified world wide name (WWN).
<i>company-id</i>	(Optional) Selects the individual company ID (also know as Organizational Unit Identifier, or OUI) to display.

Command Default	
None	

Command Modes	
EXEC mode.	

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

### Examples

The following example shows the Fibre Channel area company list of company IDs:

```
switch# show fcid-allocation area
Fcid area allocation company id info:
```

```
00:50:2E
00:50:8B
00:60:B0
00:A0:B8
00:E0:69
00:E0:8B
00:32:23 +
```

```
Total company ids: 7
+ - Additional user configured company ids.
* - Explicitly deleted company ids from default list.
```

[Table 9-2](#) describes the significant fields shown in the display.

**Table 9-2** *show fcid-allocation area company Field Descriptions*

Field	Description
+	Indicates a company ID added to the default list.
-	Indicates a company ID deleted from the default list.



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## show fcns database

To display the results of the discovery, or to display the name server database for a specified VSAN or for all VSANs, use the **show fcns database** command.

```
show fcns database { detail [vsan vsan-id] | domain domain-id [detail] [vsan vsan-range] | fcid
fcid-id [detail] vsan vsan-range | local [detail] [vsan vsan-range] | vsan vsan-id }
```

Syntax Description		
<b>detail</b>		Displays all objects in each entry.
<b>vsan</b> <i>vsan-id</i>		(Optional) Displays entries for a specified VSAN ID. The range is 1 to 4093.
<b>domain</b> <i>domain-id</i>		Displays entries in a domain.
<b>detail</b>		(Optional) Displays detailed entries for the domain.
<b>fcid</b> <i>fcid-id</i>		Displays entry for the given port.
<b>local</b>		Displays local entries.

**Command Default** None

**Command Modes** EXEC mode.

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

**Usage Guidelines** The discovery can take several minutes to complete, especially if the fabric is large or if several devices are slow to respond.

Virtual enclosure ports can be viewed using the **show fcns database** command.

**Examples** The following example displays the contents of the FCNS database:

```
switch# show fcns database
```

The following example displays the detailed contents of the FCNS database:

```
switch# show fcns database detail
```

The following example displays the management VSAN (VSAN 2):

```
switch# show fcns database vsan 2
```

The following example displays the database for all configured VSANs:

```
switch# show fcns database
```

■ show fcns database

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Related Commands	Command	Description
	fcns	Configuration-mode command for name server configuration.

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## show fcns statistics

To display the statistical information for a specified VSAN or for all VSANs, use the **show fcns statistics** command.

```
show fcns statistics [detail] [vsan vsan-id]
```

Syntax Description	detail	(Optional) Displays detailed statistics.
	<b>vsan</b> <i>vsan-id</i>	(Optional) Displays statistics for the specified VSAN ID. The range is 1 to 4093.

**Command Default** None

**Command Modes** EXEC mode.

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

**Examples** The following example displays statistical information for a specified VSAN:

```
switch# show fcns statistics
```

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## show fcoe

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

**show fcoe**

---

**Syntax Description** This command has no other keywords or arguments.

---

**Command Default** None

---

**Command Modes** EXEC mode.

---

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

---



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**Examples** The following example displays the FCoE status:

```
switch# show fcoe
```

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## show fcroute

Use the **show fcroute** command to view specific information about existing Fibre Channel and FSPF configurations.

```
show fcroute { distance | label [label] vsan vsan-id | multicast [fc-id vsan vsan-id | vsan vsan-id]
              | summary [vsan vsan-id] | unicast [[host] fc-id fc-mask vsan vsan-id | vsan vsan-id]}
```

Syntax Description		
<b>distance</b>		Displays FC route preference.
<b>label</b>		Displays label routes.
<i>label</i>		(Optional) Displays label routes for the specified label.
<b>vsan</b> <i>vsan-id</i>		(Optional) Specifies the ID of the VSAN (from 1 to 4093).
<b>multicast</b>		Displays FC multicast routes.
<i>fc-id</i>		(Optional) Specifies the Fibre Channel ID.
<b>summary</b>		Displays the FC routes summary.
<b>unicast</b>		Displays FC unicast routes.
<i>host</i>		Displays unicast routes for the specified host.
<i>fc-mask</i>		Displays unicast routes for hosts that match the range of FC IDs that is specified by the mask.

**Command Default** None

**Command Modes** EXEC mode.

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

**Usage Guidelines** When the number of routes are displayed in the command output, both visible and hidden routes are included in the total number of routes.

**Examples** The following example displays administrative distance:

```
switch# show fcroute distance
```

The following example displays multicast routing information:

```
switch# show fcroute multicast
```

The following example displays FCID information for a specified VSAN:

```
switch# show fcroute multicast vsan 3
```

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The following example displays FCID and interface information for a specified VSAN:

```
switch# show fcroute multicast 0xffffffff vsan 2
```

The following example displays unicast routing information:

```
switch# show fcroute unicast
```

The following example displays unicast routing information for a specified VSAN:

```
switch# show fcroute unicast vsan 4
```

The following example displays unicast routing information for a specified FCID:

```
switch# show fcroute unicast 0x040101 0xffffffff vsan 4
```

The following example displays route database information:

```
switch# show fcroute summary
```

The following example displays route database information for a specified VSAN:

```
switch# show fcroute summary vsan 4
```

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## show fcs

Use the **show fcs** commands to display the status of the fabric configuration.

```
show fcs { database [vsan vsan-id] | ie [nwwn wwn] vsan vsan-id | platform [name string] vsan
vsan-id | port [pwwn wwn] vsan vsan-id | statistics vsan vsan-id | vsan }
```

### Syntax Description

<b>database</b>	Displays local database of FCS.
<b>vsan</b> <i>vsan-id</i>	(Optional) Specifies a VSAN ID. The range is 1 to 4093.
<b>ie</b>	Displays interconnect element objects information.
<b>nwwn</b> <i>wwn</i>	(Optional) Specifies a node WWN ID. The format is <i>hh:hh:hh:hh:hh:hh:hh:hh</i> .
<b>platform</b>	Displays platform objects information.
<b>name</b> <i>string</i>	(Optional) Specifies a platform name. Maximum length is 255 characters.
<b>port</b>	Displays port objects information.
<b>pwwn</b> <i>wwn</i>	(Optional) Specifies a port WWN ID. The format is <i>hh:hh:hh:hh:hh:hh:hh:hh</i> .
<b>statistics</b>	Displays statistics for FCS packets.
<b>vsan</b>	Displays list of all the VSANs.

### Command Default

None

### Command Modes

EXEC mode.

### Command History

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

### Examples

The following example displays FCS database information:

```
switch# show fcs database
```

The following example displays interconnect element object information for a specific VSAN:

```
switch# show fcs ie vsan 1
```

This command displays interconnect element object information for a specific WWN:

```
switch# show fcs ie nwwn 20:01:00:05:30:00:16:df vsan 1
```

This command displays platform information:

```
switch# show fcs platform name SamplePlatform vsan 1
```

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This command displays platform information within a specified VSAN:

```
switch# show fcs platform vsan 1
```

This command displays FCS port information within a specified VSAN:

```
switch# show fcs port vsan 24
```

This command displays ports within a specified WWN:

```
switch# show fcs port pwn 20:51:00:05:30:00:16:de vsan 24
```

This command displays FCS statistics:

```
switch# show fcs statistics
```



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## show fcsp

To display the status of the Fibre Channel Security Protocol (FC-SP) configuration, use the **show fcsp** commands.

```
show fcsp [asciiwnn ascii-wwn | dhchap [database] | interface {fc slot/port | vfc vfc-id} [statistics | wwn]]
```

Syntax Description		
<b>asciiwnn</b> <i>ascii-wwn</i>	(Optional)	Displays the ASCII representation of the WWN used with AAA server.
<b>dhchap</b>	(Optional)	Displays the DHCHAP hash algorithm status.
<b>database</b>	(Optional)	Displays the contents of the local DHCHAP database.
<b>interface</b>	(Optional)	Displays the FC-SP settings for a Fibre Channel or Fibre Channel interface.
<b>fc</b> <i>slot/port</i>		Specifies a Fibre Channel interface.
<b>vfc</b> <i>vfc-id</i>	(Optional)	Specifies a virtual Fibre Channel interface.
<b>statistics</b>	(Optional)	Displays the statistics for the specified interface.
<b>wwn</b>	(Optional)	Displays the FC-SP identity of the other device.

**Command Default** None

**Command Modes** EXEC mode.

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

### Examples

The following example displays DHCHAP configurations in FC interfaces:

```
switch# show fcsp interface fc2/3
```

The following example displays DHCHAP statistics for a FC interfaces:

```
switch# show fcsp interface fc2/3 statistics
```

The following example displays the FC-SP WWN of the device connected through a specified interface:

```
switch# show fcsp interface fc 2/1 wwn
```

The following example displays hash algorithm and DHCHAP groups configured for the local switch:

```
switch# show fcsp dhchap
```

The following example displays the DHCHAP local password database:

```
switch# show fcsp dhchap database
```

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The following example displays the ASCII representation of the device WWN:

```
switch# show fcsp asciiwn 30:11:bb:cc:dd:33:11:22
```

**Related Commands**

Command	Description
<b>fcsp enable</b>	Enables the FC-SP feature for this switch.

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## show fctimer

To view the Fibre Channel timers (fctimer), use the **show fctimer** command.

```
show fctimer [d_s_tov [vsan vsan-id] | e_d_tov [vsan vsan-id] | f_s_tov [vsan vsan-id] | r_a_tov
[vsan vsan-id] | last action status | pending | pending-diff | session status | status | vsan
vsan-id]
```

Syntax Description		
<b>vsan vsan-id</b>	(Optional)	Displays information for a VSAN. The range is 1 to 4093.
<b>d_s_tov</b>	(Optional)	Displays the distributed services time out value (D_S_TOV) in milliseconds.
<b>e_d_tov</b>	(Optional)	Displays the error detection time out value (E_D_TOV) in milliseconds.
<b>f_s_tov</b>	(Optional)	Displays the fabric stability time out value (F_S_TOV) in milliseconds.
<b>r_a_tov</b>	(Optional)	Displays the resource allocation time out value (R_A_TOV) in milliseconds.
<b>last action status</b>	(Optional)	Displays the status of the last CFS commit or discard operation.
<b>pending</b>	(Optional)	Displays the status of pending fctimer commands.
<b>pending-diff</b>	(Optional)	Displays the difference between pending database and running config.
<b>session status</b>	(Optional)	Displays the state of fctimer CFS session.
<b>status</b>	(Optional)	Displays the Fibre Channel timer status.

**Command Default** None

**Command Modes** EXEC mode.

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

**Examples** The following example displays configured global TOVs:

```
switch# show fctimer
```

The following example displays configured TOVs for a specified VSAN:

```
switch# show fctimer vsan 10
```

Related Commands	Command	Description
	<b>fctimer</b>	Configures fctimer parameters.

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## show fDMI

To display the Fabric-Device Management Interface (FDMI) database information, use the **show fDMI** command.

```
show fDMI database [detail [hba-id {hba-id vsan vsan-id} | vsan vsan-id] | vsan vsan-id] |
suppress-updates
```

Syntax Description	database	Displays the FDMI database contents.
	<b>detail</b>	(Optional) Specifies detailed FDMI information.
	<b>hba-id</b> <i>hba-id</i>	(Optional) Displays detailed information for the specified HBA entry.
	<b>vsan</b> <i>vsan-id</i>	(Optional) Specifies FDMI information for the specified VSAN. The range is 1 to 4093.
	<b>suppress-updates</b>	Displays the VSANs that are configured to suppress updates.

**Command Default** None

**Command Modes** EXEC mode.

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

### Examples

The following example displays all HBA management servers:

```
switch# show fDMI database
```

The following example displays VSAN1-specific FDMI information:

```
switch# show fDMI database detail vsan 1
```

The following example displays details for the specified HBA entry:

```
switch# show fDMI database detail Hba-id 21:01:00:e0:8b:2a:f6:54 vsan 1
```

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## show flogi

To list all the fabric login (FLOGI) sessions through all interfaces across all VSANs, use the **show flogi** command.

```
show flogi {auto-area-list} | database {fcid fcid-id | interface {fc slot/port | vfc vfc-id} | vsan
vsan-id}
```

Syntax Description		
<b>auto-area-list</b>		Displays the list of Organizational Unit Identifiers (OUIs) that are allocated areas.
<b>database</b>		Displays information about FLOGI sessions.
<b>fcid</b> <i>fcid-id</i>		Displays FLOGI database entries based on the FCID allocated. The format is <i>0xhhhhhh</i> .
<b>interface</b>		Displays FLOGI database entries based on the logged in interface.
<b>fc</b> <i>slot/port</i>		Specifies the Fibre Channel or virtual Fibre Channel interface by slot and port number.
<b>vfc</b> <i>vfc-id</i>		Specifies a virtual Fibre Channel interface.
<b>vsan</b> <i>vsan-id</i>		Displays FLOGI database entries based on the VSAN ID. The range is 1 to 4093.

**Command Default** None

**Command Modes** EXEC mode.

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

### Usage Guidelines

The output of this command is sorted by interface numbers and then by VSAN IDs.

In a Fibre Channel fabric, each host or disk requires an FCID. Use the **show flogi database** command to verify if a storage device is displayed in the fabric login (FLOGI) table as in the examples below. If the required device is displayed in the FLOGI table, the fabric login is successful. Examine the FLOGI database on a switch that is directly connected to the host HBA and connected ports.

### Examples

The following example displays details on the FLOGI database:

```
switch# show flogi database
```

The following example displays the FLOGI interface:

```
switch# show flogi database interface fc 2/3
```

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The following example displays the FLOGI VSAN:

```
switch# show flogi database vsan 1
```

The following example displays the FLOGI for a specific FCID:

```
switch# show flogi database fcid 0xef02e2
```

**Related Commands**

Command	Description
<b>show fcns database</b>	Displays all the local and remote name server entries

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## show fspf

To display global Fibre Shortest Path First (FSPF) routing information, use the **show fspf** command.

```
show fspf [database [vsan vsan-id] [detail | domain domain-id detail] | interface | vsan vsan-id
interface {fc slot/port | san-port-channel port-channel}]
```

### Syntax Description

<b>database</b>	(Optional) Displays the FSPF link state database.
<b>vsan</b> <i>vsan-id</i>	(Optional) Specifies the VSAN ID. The range is 1 to 4093.
<b>detail</b>	(Optional) Displays detailed FSPF information.
<b>domain</b> <i>domain-id</i>	(Optional) Specifies the domain of the database. The range is 0 to 255.
<b>interface</b>	(Optional) Specifies the FSPF interface.
<b>fc</b> <i>slot/port</i>	Specifies the Fibre Channel interface to configure.
<b>san-port-channel</b> <i>port-channel</i>	Specifies the port channel interface. The range is 1 to 256.

### Command Default

None

### Command Modes

EXEC mode.

### Command History

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

### Usage Guidelines

If you enter the command without parameters, all the entries in the database are displayed.

### Examples

The following example displays FSPF interface information:

```
switch# show fspf interface vsan 1 fc2/1
```

The following example displays FSPF database information:

```
switch# show fspf database vsan 1
```

This command displays FSPF information for a specified VSAN:

```
switch# show fspf vsan 1
```

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## show in-order-guarantee

To display the present configured state of the in-order delivery feature, use the **show in-order-guarantee** command.

**show in-order-guarantee**

**Syntax Description** This command has no arguments or keywords.

**Command Default** None

**Command Modes** EXEC mode.

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

**Examples** The following example displays the present configuration status of the in-order delivery feature:

```
switch# show in-order-guarantee
```



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## show lldp

To display information about the Link Layer Discovery Protocol (LLDP) configuration on the switch, use the **show lldp** command.

```
show lldp {interface {ethernet slot/port | mgmt intf-no} | neighbors [detail | interface] | timers |
traffic [interface {ethernet slot/port | mgmt intf-no}]}
```

Syntax Description		
<b>interface</b>		Displays LLDP interface information, or LLDP neighbor information on an interface.
<b>ethernet slot/port</b>		Displays the configuration information of the Ethernet IEEE 802.3z interface. The slot number is from 1 to 255, and the port number is from 1 to 128.
<b>mgmt intf-no</b>		Displays the configuration information of the management interface. The management interface number is 0.
<b>neighbors</b>		Displays information about LLDP neighbors.
<b>detail</b>		(Optional) Displays the detailed information about LLDP neighbors.
<b>timers</b>		Displays information about LLDP timers.
<b>traffic</b>		Displays the LLDP counters configured on the switch.

**Command Default** None

**Command Modes** EXEC mode

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

### Examples

This example shows how to display LLDP interface information:

```
switch# show lldp traffic interface ethernet 1/1
LLDP interface traffic statistics:

    Total frames transmitted: 7490
    Total entries aged: 0
    Total frames received: 7458
    Total frames received in error: 0
    Total frames discarded: 0
    Total unrecognized TLVs: 0
switch#
```

This example shows how to display LLDP management interface information:

```
switch# show lldp traffic interface mgmt 0
LLDP interface traffic statistics:

    Total frames transmitted: 0
    Total entries aged: 0
```

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```

Total frames received: 0
Total frames received in error: 0
Total frames discarded: 0
Total unrecognized TLVs: 0
switch#

```

This example shows how to display LLDP timers configured on the switch:

```

switch# show lldp timers
LLDP Timers:

    Holdtime in seconds: 120
    Reinit-time in seconds: 2
    Transmit interval in seconds: 30
switch#

```

This example shows how to display LLDP neighbor information:

```

switch# show lldp neighbors
Capability codes:
  (R) Router, (B) Bridge, (T) Telephone, (C) DOCSIS Cable Device
  (W) WLAN Access Point, (P) Repeater, (S) Station, (O) Other
Local Intf  Chassis ID      Port ID      Hold-time  Capability
Eth1/1      000d.eca3.6080   Eth1/1      120        B
Eth1/2      000d.eca3.6080   Eth1/2      120        B
Eth1/3      000d.eca3.6080   Eth1/3      120        B
Eth1/4      000d.eca3.6080   Eth1/4      120        B
Eth1/7      000d.ecf2.0880   Eth1/7      120        B
Eth1/8      000d.ecf2.0880   Eth1/8      120        B
Eth1/9      000d.ecf2.0b40   Eth1/9      120        B
Eth1/10     000d.ecf2.0b40   Eth1/10     120        B
switch#

```

This example shows how to display LLDP information for a specified interface:

```

switch# show lldp interface ethernet 1/1
Interface Information:
  Enable (tx/rx/dcbx): Y/Y/Y   Port Mac address: 00:0d:ec:b2:30:c8

Peer's LLDP TLVs:
Type Length Value
----
001 007 04000dec a36080
002 007 05457468 312f31
003 002 0078
004 009 4e354b2d 506f7274 00
005 013 45756765 6e652d4e 354b2d32 00
006 010 4e354b2d 53776974 6368
007 004 00040004
008 012 05010ac1 8303021a 00000000
128 055 001b2102 020a0000 00000001 00000001 06060000 80000808 080a0000
      80008906 001b2108 04110000 80000001 00003232 00000000 000002
128 005 00014201 01
128 006 0080c201 0001
000 000
switch#

```

This example shows how to display LLDP traffic information:

```

switch# show lldp traffic
LLDP traffic statistics:

    Total frames transmitted: 89743
    Total entries aged: 0
    Total frames received: 59300

```

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```
Total frames received in error: 0
Total frames discarded: 0
Total unrecognized TLVs: 0
switch#
```

**Related Commands**

<b>Command</b>	<b>Description</b>
<b>lldp</b>	Configures the global LLDP options on the switch.
<b>lldp (Interface)</b>	Configures the LLDP feature on an interface.

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## show loadbalancing

To display load-balancing status for specific unicast flows, use the **show loadbalancing** command.

```
show loadbalancing vsan vsan-id source-fcid dest-fcid [exchange-id]
```

Syntax Description	vsan vsan-id	Displays FLOGI database entries based on the FCID allocated. The format is 0xhhhhhh.
	source-fcid	Displays loadbalancing status for the specified source FCID. The format is 0xhhhhhh.
	dest-fcid	Displays loadbalancing status for the specified destination FCID. The format is 0xhhhhhh.
	exchange-id	(Optional) Displays loadbalancing status for the specified exchange. The format is 0xhhhhhh.

**Command Default** None

**Command Modes** EXEC mode.

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

**Examples** The following example displays the load-balancing information for the specified source and destination in VSAN 3:

```
switch# show loadbalancing vsan 3 0x3345 0x2546
```

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## show npv flogi-table

To display the information about N port virtualization (NPV) FLOGI session, use the **show npv flogi-table** command.

**show npv flogi-table**

**Syntax Description** This command has no other keywords or arguments.

**Command Default** None

**Command Modes** EXEC mode.

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	4.0(0)N1(1a)	This command was introduced.

**Usage Guidelines** The **show npv flogi-table** command is available only when the switch is in NPV mode.

**Examples** The following example displays the information on NPV FLOGI session:

```
switch# show npv flogi-table
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>show npv status</b>	Displays the NPV current status.

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## show npv status

To display the N port virtualization (NPV) current status, use the **show npv status** command.

```
show npv status
```

---

**Syntax Description** This command has no other keywords or arguments.

---

**Command Default** None

---

**Command Modes** EXEC mode.

---

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

---



---

**Usage Guidelines** The **show npv status** command is available only when the switch is in NPV mode.

---

**Examples** The following example displays the current status of NPV:

```
switch# show npv status
```

---

Related Commands	Command	Description
	<b>show npv flogi-table</b>	Displays the information about NPV FLOGI session.

---

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## show npv traffic-map

To display N port virtualization (NPV) traffic maps, use the **show npv traffic-map** command.

```
show npv traffic-map
```

**Syntax Description** This command has no other keywords or arguments.

**Command Default** None

**Command Modes** EXEC mode.

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

**Usage Guidelines** The **show npv traffic-map** command is available only when the switch is in NPV mode.

**Examples** The following example displays the current status of NPV:

```
switch# show npv traffic-map
```


Related Commands	Command	Description
	<b>show npv flogi-table</b>	Displays the information about NPV FLOGI session.

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## show port index-allocation

To display port index allocation information, use the **show port index-allocation** command.

```
show port index-allocation [startup]
```

<b>Syntax Description</b>	<b>startup</b> (Optional) Displays port index allocation information at startup.				
<b>Command Default</b>	None				
<b>Command Modes</b>	EXEC mode.				
<b>Command History</b>	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>4.0(0)N1(1a)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	4.0(0)N1(1a)	This command was introduced.
Release	Modification				
4.0(0)N1(1a)	This command was introduced.				
 <b>Note</b>	On a switch where the maximum number of port indexes is 256, any module that exceeds that limit does not power up. There is no startup module index distribution for the Cisco Nexus 5000 Series switch.				

### Examples

The following example displays port index allocation information:

```
switch# show port index-allocation
```



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## show port-security

To display configured port security feature information, use the **show port-security** command.

```
show port-security { database [active [vsan vsan-id]] | fwwn fwwn-id vsan vsan-id | interface { fc
slot/port | san-port-channel port } vsan vsan-id | vsan vsan-id | pending [vsan vsan-id] |
pending-diff [vsan vsan-id] | session status [vsan vsan-id] | statistics [vsan vsan-id] | status
[vsan vsan-id] | violations [last count | vsan vsan-id]}
```

### Syntax Description

<b>database</b>	Displays database-related port security information.
<b>active</b>	(Optional) Displays the activated database information.
<b>vsan vsan-id</b>	(Optional) Displays information for the specified database.
<b>fwwn fwwn-id</b>	Displays information for the specified fabric WWN.
<b>interface</b>	Displays information for an interface.
<b>fc slot/port</b>	Displays information for the specified Fibre Channel interface.
<b>san-port-channel port</b>	Displays information for the specified SAN port channel interface. The range is 1 to 128.
<b>pending</b>	Displays the server address pending configuration.
<b>pending-diff</b>	Displays the server address pending configuration differences with the active configuration.
<b>session status</b>	Displays the port security session status on a per VSAN basis.
<b>statistics</b>	Displays port security statistics.
<b>status</b>	Displays the port security status on a per VSAN basis.
<b>violations</b>	Displays violations in the port security database.
<b>last count</b>	(Optional) Displays the last number of lines in the database. The range is 1 to 100.

### Command Default

None

### Command Modes

EXEC mode.

### Command History

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

### Usage Guidelines

The access information for each port can be individually displayed. If you specify the fabric world wide name (fWWN) or interface options, all devices that are paired in the active database (at that point) with the given fWWN or the interface are displayed.

When you enter the **show port-security** command with the **last number** option, only the specified number of entries that appear first are displayed.

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### Examples

The following example displays the contents of the port security database:

```
switch# show port-security database
```

The following example displays the output of the active port security database in VSAN 1:

```
switch# show port-security database vsan 1
```

The following example displays the active database:

```
switch# show port-security database active
```

The following example displays the wildcard fWWN port security in VSAN 1:

```
switch# show port-security database fwwn 20:85:00:44:22:00:4a:9e vsan 1
```

The following example displays the configured fWWN port security in VSAN 1:

```
switch# show port-security database fwwn 20:01:00:05:30:00:95:de vsan 1
```

The following example displays the interface port information in VSAN 2.

```
switch# show port-security database interface fc 2/1 vsan 2
```

The following example displays the port security statistics:

```
switch# show port-security statistics
```

The following example displays the status of the active database and the autolearn configuration.

```
switch# show port-security status
```

The following example displays the previous 100 violations.

```
switch# show port-security violations
```

### Related Commands

Command	Description
<b>port-security</b>	Configures port security parameters.

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## show rlir

To display Registered Link Incident Report (RLIR) information, use the **show rlir** command.

```
show rlir {erl [vsan vsan-id] | history | recent {interface fc slot/port | portnumber port} |
statistics [vsan vsan-id]}
```

### Syntax Description

<b>erl</b>	Displays the Established Registration List.
<b>vsan</b> <i>vsan-id</i>	(Optional) Specifies a VSAN ID. The range is 1 to 4093.
<b>history</b>	Displays the link incident history.
<b>recent</b>	Displays recent link incidents.
<b>interface fc</b> <i>slot/port</i>	Specifies a Fibre Channel interface.
<b>portnumber</b> <i>port</i>	Displays RLIR information for the specified port number.
<b>statistics</b>	Displays RLIR statistics for all VSANs or the specified VSAN.

### Command Default

None

### Command Modes

EXEC mode.

### Command History

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

### Examples

The following example displays RLIR information for VSAN 1:

```
switch# show rlir erl vsan 1
```

The following example displays RLIR statistics:

```
switch# show rlir statistics vsan 1
```

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## show rscn

To display Registered State Change Notification (RSCN) information, use the **show rscn** command.

```
show rscn {event-tov vsan vsan-id | pending vsan vsan-id | pending-diff vsan vsan-id | scr-table
[vsan vsan-id] | session status vsan vsan-id | statistics [vsan vsan-id]}
```

### Syntax Description

<b>event-tov</b>	Displays the event timeout value.
<b>vsan vsan-id</b>	Specifies a VSAN ID. The range is 1 to 4093.
<b>pending</b>	Displays the pending configuration.
<b>pending-diff</b>	Displays the difference between the active and the pending configuration.
<b>scr-table</b>	Displays the State Change Registration (SCR) table.
<b>session status</b>	Displays RSCN session status.
<b>statistics</b>	Displays RSCN statistics.

### Command Default

None

### Command Modes

EXEC mode.

### Command History

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

### Usage Guidelines

The SCR table cannot be configured. It is only populated if one or more N ports send SCR frames to register for RSCN information. If the **show rscn scr-table** command does not return any entries, no N port is interested in receiving RSCN information.

### Examples

The following example displays RSCN information:

```
switch# show rscn scr-table vsan 1
```

The following example displays RSCN statistics:

```
switch# show rscn statistics vsan 1
```

The following example shows the RSCN event timeout value configured on VSAN 1:

```
switch# show rscn event-tov vsan 1
```

The following example shows the difference between the active RSCN configuration and the pending RSCN configuration on VSAN 1:

```
switch# show rscn pending-diff vsan 1
```

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## show san-port-channel

Use the **show san-port-channel** command to view information about existing SAN port channel configurations.

```
show san-port-channel { compatibility-parameters | consistency [detail] | database [interface
san-port-channel port] | summary | usage }
```

Syntax Description	
<b>compatibility-parameters</b>	Displays compatibility parameters.
<b>consistency</b>	Displays the database consistency information of all modules.
<b>detail</b>	(Optional) Displays detailed database consistency information.
<b>database</b>	Displays SAN port channel database information.
<b>interface san-port-channel port</b>	(Optional) Specifies the SAN port channel number. The range is 1 to 256.
<b>summary</b>	Displays SAN port channel summary.
<b>usage</b>	Displays SAN port channel number usage.

**Command Default** None

**Command Modes** EXEC mode.

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

### Examples

The following example displays the SAN port channel summary:

```
switch# show san-port-channel summary
```

The following example displays the SAN port channel compatibility parameters:

```
switch# show san-port-channel compatibility-parameters
```

The following example displays the SAN port channel database:

```
switch# show san-port-channel database
```

The following example displays the consistency status of the SAN port channel database:

```
switch# show san-port-channel consistency
```

The following example displays detailed information about the consistency status of the SAN port channel database:

```
switch# show san-port-channel consistency detail
```

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The **show san-port-channel usage** command displays details of the used and unused SAN port channel numbers:

```
switch# show san-port-channel usage
```

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## show scsi-target

To display information about existing SCSI target configurations, use the **show scsi-target** command.

```
show scsi-target { auto-poll | custom-list | devices [vsan vsan-id] [fcid fcid-id] | disk [vsan
vsan-id] [fcid fcid-id] | lun [vsan vsan-id] [fcid fcid-id] [os [aix | all | hpux | linux | solaris |
windows] | pwwn | status | tape [vsan vsan-id] [fcid fcid-id] | vsan vsan-id}
```

Syntax Description	
<b>auto-poll</b>	Displays SCSI target auto polling information.
<b>custom-list</b>	Displays customized discovered targets.
<b>devices</b>	Displays discovered SCSI target devices information
<b>vsan</b> <i>vsan-range</i>	(Optional) Specifies the VSAN ID or VSAN range. The range is 1 to 4093.
<b>fcid</b> <i>fcid-id</i>	(Optional) Specifies the FCID of the SCSI target to display.
<b>disk</b>	Displays discovered disk information.
<b>lun</b>	Displays discovered SCSI target LUN information.
<b>os</b>	(Optional) Discovers the specified operating system.
<b>aix</b>	(Optional) Specifies the AIX operating system.
<b>all</b>	(Optional) Specifies all operating systems.
<b>hpux</b>	(Optional) Specifies the HPUX operating system.
<b>linux</b>	(Optional) Specifies the Linux operating system.
<b>solaris</b>	(Optional) Specifies the Solaris operating system.
<b>windows</b>	(Optional) Specifies the Windows operating system.
<b>pwwn</b>	Displays discovered pWWN information for each operating system.
<b>status</b>	Displays SCSI target discovery status.
<b>tape</b>	Displays discovered tape information.

**Command Default** None

**Command Modes** EXEC mode.

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

**Usage Guidelines** Use the **show scsi-target auto-poll** command to verify automatic discovery of online SCSI targets.

**Examples** The following example displays the status of a SCSI discovery:

```
switch# show scsi-target status
```

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The following example displays a customized discovered targets:

```
switch# show scsi-target custom-list
```

The following example displays discovered disk information:

```
switch# show scsi-target disk
```

The following example displays the discovered LUNs for all operating systems:

```
switch# show scsi-target lun os all
```

The following example displays the discovered LUNs for the Solaris operating system:

```
switch# show scsi-target lun os solaris
```

The following example displays auto-polling information:

```
switch# show scsi-target auto-poll
```

The following example displays the port WWN that is assigned to each operating system (Windows, AIX, Solaris, Linux, or HPUX):

```
switch# show scsi-target pwwn
```



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## show topology

To display topology information for connected SAN switches, use the **show topology** command.

```
show topology [vsan vsan-id]
```

<b>Syntax Description</b>	<b>vsan</b> <i>vsan-id</i> (Optional) Displays information for a VSAN. The range is 1 to 4093.				
<b>Command Default</b>	None				
<b>Command Modes</b>	EXEC mode.				
<b>Command History</b>	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>4.0(0)N1(1a)</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	4.0(0)N1(1a)	This command was introduced.
Release	Modification				
4.0(0)N1(1a)	This command was introduced.				

### Examples

The following example displays topology information:

```
switch# show topology
```

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## show trunk protocol

To display trunk protocol status, use the **show trunk protocol** command.

```
show trunk protocol
```

---

**Syntax Description** This command has no arguments or keywords.

---

**Command Default** None

---

**Command Modes** EXEC mode.

---

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

---



---

**Examples** The following example displays trunk protocol status:

```
switch# show trunk protocol
```

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## show vsan

To display information about configured VSAN, use the **show vsan** command.

```
show vsan [vsan-id [membership] | membership [interface {fc slot/port | san-port-channel port
| vfc vfc-id}] | usage]
```

Syntax Description		
<i>vsan-id</i>	(Optional) Displays information for the specified VSAN ID. The range is 1 to 4093.	
<b>membership</b>	(Optional) Displays membership information.	
<b>interface</b>	(Optional) Specifies the interface type.	
<i>fc slot/port</i>	(Optional) Specifies a Fibre Channel interface.	
<b>san-port-channel</b> <i>port</i>	(Optional) Specifies a SAN port channel interface specified by the port channel number.	
<b>vfc</b> <i>vfc-id</i>	(Optional) Specifies a virtual Fibre Channel interface.	
<b>usage</b>	(Optional) Displays VSAN usage in the system.	

**Command Default** None

**Command Modes** EXEC mode.

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

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

The interface range must be in ascending order and non-overlapping. 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 fc2/1 - 3 , fc2/4 , fc3/2**

**Examples** The following example displays configured VSAN information:

```
switch# show vsan 1
```

The following example displays membership information for all VSANs.

```
switch # show vsan membership
```

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The following example displays membership information for a specified interface:

```
switch # show vsan membership interface fc1/1
```

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## show wwn

To display the status of the WWN configuration, use the **show wwn** command.

```
show wwn {status [block-id number] | switch | vsan-wwn}
```

Syntax Description	status	Displays a summary of WWN usage and alarm status.
	<b>block-id</b> <i>number</i>	(Optional) Displays WWN usage and alarm status for a block ID. The range is 34 to 1793.
	<b>switch</b>	Displays switch WWN.
	<b>vsan-wwn</b>	Displays all user-configured VSAN WWNs.

**Command Default** None

**Command Modes** EXEC mode.

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

**Examples** The following example displays the WWN of the switch:

```
switch# show wwn switch
```

The following example displays a user-configured VSAN WWN:

```
switch# show wwn vsan-wwn
```

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## show zone

To display zone information, use the **show zone** command.

```
show zone [active [vsan vsan-id] | analysis {active vsan vsan-id | vsan vsan-id | zoneset
zoneset-name} | ess [vsan vsan-id] | member {fcalias alias-name | fcid fcid-id [active | lun
lun-id | vsan vsan-id] | pwwn wwn [active | lun lun-id | vsan vsan-id]} | name string [active]
[pending] [vsan vsan-id] | pending [active] [vsan vsan-id] | pending-diff [vsan vsan-id] |
policy [pending] [vsan vsan-id] | statistics [vsan vsan-id] | status [vsan vsan-id]]
```

### Syntax Description

<b>active</b>	(Optional) Displays zones which are part of active zone set.
<b>vsan</b> <i>vsan-id</i>	(Optional) Displays zones belonging to the specified VSAN ID. The range is 1 to 4093.
<b>analysis</b>	(Optional) Displays analysis of the zone database.
<b>active</b>	Displays analysis of the active zone database.
<b>vsan</b>	Displays analysis of the zone database for the specified VSAN.
<b>zoneset</b> <i>zoneset-name</i>	Displays analysis of the specified zoneset.
<b>ess</b>	(Optional) Displays ESS information.
<b>member</b>	(Optional) Displays all zones in which the given member is part of.
<b>fcalias</b> <i>alias-name</i>	Displays member information for a specific fcalias.
<b>fc-id</b> <i>fc-id</i>	Displays member information for a specific Fibre Channel ID.
<b>lun</b> <i>lun-id</i>	Displays logical unit ID.
<b>pwwn</b> <i>wwwn</i>	Displays device name information for a specific pWWN. The format is <i>hh:hh:hh:hh:hh:hh:hh:hh</i> , where <i>h</i> is a hexadecimal number.
<b>name</b> <i>string</i>	Displays members of a specified zone.
<b>pending</b>	Displays members of a specified zone in the current session.
<b>pending-diff</b>	Displays pending changes to the zone database.
<b>statistics</b>	Displays zone server statistics.
<b>status</b>	Displays zone server current status.

### Command Default

None

### Command Modes

EXEC mode.

### Command History

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

### Examples

The following example displays configured zone information:

```
switch# show zone
```

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The following example displays zone information for a specific VSAN:

```
switch# show zone vsan 1
```

The following example displays members of a specific zone:

```
switch# show zone name Zone1
```

The following example displays all zones to which a member belongs using the FCID:

```
switch# show zone member pwn 21:00:00:20:37:9c:48:e5
```

The following example displays the number of control frames exchanged with other switches:

```
switch# show zone statistics
```

The following example displays the status of the configured zones:

```
switch# show zone status
```

The following example checks the status of the **zoneset distribute vsan** command and displays the default zone attributes of a specific VSAN or all active VSANs:

```
switch# show zone status vsan 1
VSAN:1 default-zone:deny distribute:active only Interop:default
      mode:basic merge-control:allow session:none
      hard-zoning:enabled
Default zone:
      qos:low broadcast:disabled ronly:disabled
Full Zoning Database :
      Zonesets:0 Zones:0 Aliases:0
Active Zoning Database :
      Database Not Available
Status:
```

[Table 9-3](#) describes the significant fields shown in the **show zone status vsan** display.

**Table 9-3** *show zone status Field Descriptions*

Field	Description
VSAN:	VSAN number displayed.
default-zone:	Default-zone policy either permit or deny.
Default zone:	The Default zone field displays the attributes for the specified VSAN. The attributes include: Qos level, broadcast zoning enabled/disabled, and read-only zoning enabled/disabled.
distribute:	Distribute full-zone set (full) or active-zone set (active only).
Interop:	Displays interop mode. 100 = default, 1 = standard, 2 and 3 = Non-Cisco vendors.
mode:	Displays zoning mode either basic or enhanced.
merge control:	Displays merge policy either allow or restrict.
Hard zoning is enabled	If hardware resources (TCAM) becomes full, hard zoning is automatically disabled.
Full Zoning Database:	Displays values of zone database.
Active Zoning Database:	Displays values of active zone database.
Status:	Displays status of last zone distribution.

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## show zone analysis

To display detailed analysis and statistical information about the zoning database, use the **show zone analysis** command.

```
show zone analysis {active vsan vsan-id | vsan vsan-id | zoneset name vsan vsan-id}
```

Syntax Description	active	Displays analysis information for the active zone set.
	vsan vsan-id	Displays analysis information for the specified VSAN ID. The range is 1 to 4093.
	zoneset name	Displays zone set analysis information for the specified zone set.

**Command Default** None

**Command Modes** EXEC mode.

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

### Examples

The following example displays detailed statistics and analysis of the active zoning database:

```
switch# show zone analysis active vsan 1
```

The following example displays detailed statistics and analysis of the full zoning database:

```
switch# sh zone analysis vsan 1
Zoning database analysis vsan 1
  Full zoning database
    Last updated at: 14:36:56 UTC Oct 04 2005
    Last updated by: Local [CLI / SNMP / GS / CIM / INTERNAL] or
                    Merge [interface] or
                    Remote [Domain, IP-Address]
                    [Switch name]

    Num zonesets: 1
    Num zones: 1
    Num aliases: 0
    Num attribute groups: 0
    Formatted database size: < 1 Kb / 2000 kb ( < 1% usage)

Unassigned zones:
  zone name z1 vsan 1
```



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Table 9-4 describes the fields displayed in the output of a **show zone analysis** command for the full zoning database.

**Table 9-4** *show zone analysis Field Descriptions for the Full Zoning Database*

Field	Description
Last updated at	Displays a time stamp showing when the full zoning database was last updated.
Last Updated by	<p>Displays the agent that most recently modified the full zoning database. The agent can be one of the following three types:</p> <ul style="list-style-type: none"> <li>• Local: indicates that the full database was last modified locally through a configuration change from one of the following applications: <ul style="list-style-type: none"> <li>– CLI—The full zoning database was modified by the user from the command line interface.</li> <li>– SNMP—The full zoning database was modified by the user through the Simple Network Management Protocol (SNMP).</li> <li>– GS—The full zoning database was modified from the Generic Services (GS) client.</li> <li>– CIM—The full zoning database was modified by the applications using the Common Information Model (CIM).</li> <li>– INTERNAL—The full zoning database was modified as a result of an internal activation either from Inter-VSAN Routing (IVR) or from the IP storage services manager.</li> </ul> </li> <li>• Merge—Indicates that the full database was last modified by the Merge protocol. In this case, the interface on which the merge occurred is also displayed.</li> <li>• Remote—Indicates that the full database was last modified by the Change protocol, initiated by a remote switch, when the full zone set distribution was enabled. The domain, IP address, and switch name of the switch initiating the change are also displayed.</li> </ul> <p><b>Note</b> The switch name is displayed on the next line, aligned with the domain, only if the switch name is set. The default switch name <i>switch</i> and the <i>ip-address</i> are not displayed.</p>
Num zonesets	Displays the total number of zone sets in the database.
Num zones	Displays the total number of zones in the database, including unassigned zones.
Num aliases	Displays the total number of aliases in the database, including unassigned FC aliases.
Num attribute groups	Displays the total number of attribute groups in the database. This field applies only when enhanced zoning is used.

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**Table 9-4** *show zone analysis Field Descriptions (continued)for the Full Zoning Database*

Field	Description
Formatted database size	<p>Displays the total size of the full database when formatted to be sent over the wire.</p> <p>The formatted database size is displayed in kilobytes in this format: &lt; X KB / Y KB, as in the following example:</p> <p>Formatted database size: &lt; 1 KB/2000 KB</p> <p>In this example, the formatted database size is less than 1 KB out of the maximum size of 2000 KB.</p>
Unassigned zones	<p>Displays all the unassigned zones in the VSAN. Only the names of the zones are displayed. The details about the members of the zone are not displayed in this section.</p>

The following example displays zone set analysis information:

```
switch# show zone analysis zoneset zs1 vsan 1
```

#### Related Commands

Command	Description
<b>zone compact database</b>	Compacts a zone database in a VSAN.

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## show zoneset

To display the configured zone sets, use the **show zoneset** command.

```
show zoneset [active [vsan vsan-id] | brief [active [vsan vsan-id] | vsan vsan-id] | name
zoneset-name [active [vsan vsan-id] | brief [active [vsan vsan-id] | vsan vsan-id] | vsan
vsan-id] | pending [active [vsan vsan-id] | brief [active [vsan vsan-id] | vsan vsan-id] | vsan
vsan-id] | vsan vsan-id
```

Syntax Description		
<b>active</b>	(Optional)	Displays only active zone sets.
<b>vsan</b> <i>vsan-id</i>	(Optional)	Displays the VSAN. The range is 1 to 4093
<b>brief</b>	(Optional)	Displays zone set members in a brief list.
<b>name</b> <i>zoneset-name</i>	(Optional)	Displays members of a specified zone set.
<b>pending</b>	(Optional)	Displays zone sets members that are in session.

**Command Default** None

**Command Modes** EXEC mode.

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

**Examples** The following example displays configured zone set information:

```
switch# show zoneset vsan 1
```

The following example displays configured zone set information for a specific VSAN:

```
switch# show zoneset vsan 2-3
```

■ show zoneset

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