Show Commands

This chapter describes the Cisco NX-OS Fibre Channel, virtual Fibre Channel, and Fibre Channel over Ethernet (FCoE) **show** commands.

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

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

Command Default

None

Command Modes

EXEC mode

Command History

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

Usage Guidelines

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.

Examples

This example shows how to display the CFS physical peer information for all applications:

```
switch# show cfs peers
```

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

```
switch# show cfs application
```

This example shows how to display the status of the CFS distribution:

```
switch# show cfs status
```

Related Commands

Command	Description
cfs	Configures Cisco Fabric Services (CFS) information.

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 arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

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

Usage Guidelines

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

Examples

This example shows how to display all the NPV debug commands available on the switch:

```
switch# show debug npv
```

Related Commands

Command	Description
debug npv	Enables the debugging of NPV configurations.

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

database	Displays the entire device name database.
merge status	Displays the device merge status.
name *device-name*	Displays device name database information for a specific device name.
pending	(Optional) Displays the pending device name database information.
pending-diff	Displays pending differences in the device name database information.
pwwn *pwwn-id*	Displays device name database information for a specific pWWN. The format is *hh*:*hh*:*hh*:*hh*:*hh*:*hh*:*hh*:*hh*, where *h* is a hexadecimal digit.
session status	Displays the device name session status.
statistics	Displays device name database statistics.
status	Displays the device name database status.

Command Default

None

Command Modes

EXEC mode

Command History

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

Usage Guidelines

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

Examples

This example shows how to display the contents of the device alias database:

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

This example shows how to display all global fcaliases and all Virtual SAN (VSAN) dependent fcaliases:

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

This example shows how to display all global fcaliases and all VSAN dependent fcaliases:

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

Related Commands

Command	Description
device-alias name	Configures device alias names.
device-alias database	Configures device alias information.
device-alias distribute	Enables device alias CFS distribution.

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

database	Displays configured database information.
active	(Optional) Displays the active database configuration information.
vsan *vsan-id*	(Optional) Specifies the FICON-enabled Virtual SAN (VSAN) ID. The range is from 1 to 4093.
efmd statistics	Displays Exchange Fabric Membership Data (EFMD) statistics.
statistics	Displays fabric binding statistics.
status	Displays fabric binding status.
violations	Displays violations in the fabric binding configuration.
last *number*	(Optional) Specifies recent violations. The range is from 1 to 100.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display the configured fabric binding database information:

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

This example shows how to display the active fabric binding information:

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

This example shows how to display the active VSAN-specific fabric binding information:

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

This example shows how to display the configured VSAN-specific fabric binding information:

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

This example shows how to display the fabric binding statistics:

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

This example shows how to display the fabric binding status for each VSAN:

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

This example shows how to display the EFMD statistics:

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

This example shows how to display the EFMD statistics for a specified VSAN:

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

This example shows how to display the fabric binding violations:

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

Related Commands

Command	Description
fabric-binding	Configures fabric binding in a VSAN.

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

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

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display the FC2 active socket information:

```
switch# show fc2 socket
```

This example shows how to display the FC2 socket binding information:

```
switch# show fc2 bind
```

This example shows how to display the FC2 local N port information:

```
switch# show fc2 nport
```

This example shows how to display the FC2 PLOGI session information:

```
switch# show fc2 plogi
```

This example shows how to display the FC2 physical port information:

```
switch# show fc2 port
```

This example shows how to display the FC2 local N port PLOGI notifications for each socket:

```
switch# show fc2 socknotify
```

This example shows how to display the FC2 local N ports for each socket:

```
switch# show fc2 socknport
```

This example shows how to display the FC2 VSAN table:

```
switch# show fc2 vsan
```

show fc-port-security

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

show fc-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

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

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
5.0(2)N1(1)	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 fc-port-security** command with the **last** *number* option, only the specified number of entries that appear first are displayed.

Examples

This example shows how to display the contents of the port security database:

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

This example shows how to display the output of the active port security database in VSAN 1:

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

This example shows how to display the active database:

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

This example shows how to display the wildcard fWWN port security in VSAN 1:

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

This example shows how to display the configured fWWN port security in VSAN 1:

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

This example shows how to display the interface port information in VSAN 2:

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

This example shows how to display the port security statistics:

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

This example shows how to display the status of the active database and the autolearn configuration:

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

This example shows how to display the previous 100 violations:

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

Related Commands

Command	Description
fc-port-security	Configures port security parameters.

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

name *fcalias-name*	(Optional) Displays fcalias information for a specific name. The maximum length is 64.
pending	(Optional) Displays pending fcalias information.
vsan *vsan-id*	(Optional) Displays fcalias information for a VSAN. The range is from 1 to 4093.

Command Default

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

Command Modes

EXEC mode

Command History

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

Usage Guidelines

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

Examples

This example shows how to display the fcalias configuration information:

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

Related Commands

Command	Description
fcalias name	Configures fcalias names.

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

address-allocation	(Optional) Displays statistics for the FC ID allocation.
cache	(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, Virtual SAN (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.
allowed	(Optional) Displays a list of allowed domain IDs.
domain-list	(Optional) Displays a list of domain IDs provided by the principal switch.
fcid persistent	(Optional) Displays persistent FC IDs (across reboot).
unused	(Optional) Displays unused persistent FCIDs (across reboot).
pending	(Optional) Displays the pending configuration.
vsan *vsan-id*	(Optional) Specifies a VSAN ID. The range is from 1 to 4093.
pending-diff	(Optional) Displays the difference between the running configuration and the pending configuration.
session-status	(Optional) Displays the last action performed by an FC domain.
statistics	(Optional) Displays the statistics of an FC domain.
interface	(Optional) Specifies an interface.
fc *slot/port*	(Optional) Specifies a Fibre Channel interface.
san-port-channel *port*	(Optional) Specifies a SAN port channel interface. The range is from 1 to 128.
status	(Optional) Displays all VSAN-independent information in an FC domain.

Command Default

None

Command Modes

EXEC mode

Command History

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

Usage Guidelines

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

Examples

This example shows how to display the fcdomain information for VSAN 1:

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

This example shows how to display 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 1 describes the significant fields shown in the **show fcdomain domain-list** command output.

Table 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 **show fcdomain domain-list** 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.

This example shows how to display the allowed domain ID lists:

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

This example shows how to display the status of the CFS distribution for allowed domain ID lists:

```
switch# show fcdomain status
```

This example shows how to display the pending configuration changes:

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

This example shows how to display the differences between the pending configuration and the current configuration:

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

This example shows how to display the status of the distribution session:

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

Related Commands

Command	Description
fcdomain	Configures the Fibre Channel domain feature.

show fcdroplatency

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

show fcdroplatency [**network** | **switch**]

Syntax Description

network	(Optional) Displays the network latency in milliseconds.
switch	(Optional) Displays the switch latency in milliseconds.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display the configured Fibre Channel latency parameters:

```
switch# show fcdroplatency
```

Related Commands

Command	Description
fcdroplatency	Configures the network and switch Fibre Channel drop latency time.

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 *flow-index*	(Optional) Specifies an fcflow index.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display the aggregated fcflow details:

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

This example shows how to display the fcflow details:

```
switch# show fcflow stats
```

This example shows how to display the fcflow index usage:

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

Related Commands

Command	Description
fcflow stats	Configures fcflow statistics.

show fcid-allocation

To display the Fibre Channel area list of company IDs, use the **show fcid allocation** command.

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

Syntax Description

area	Displays the auto area list of company IDs.
company-id-from-wwn *wwn*	Displays the company ID from the specified world wide name (WWN).
company-id	(Optional) Company ID (also know as Organizational Unit Identifier, or OUI) to display.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display the 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 2 describes the significant fields shown in the display.

Table 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.

Related Commands

Command	Description
fcid-allocation	Adds a FCID to the default area company ID list.

show fcns database

To display the results of the discovery, or to display the name server database for a specified Virtual SAN (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

detail	Displays all objects in each entry.
vsan *vsan-id*	(Optional) Displays entries for a specified VSAN ID. The range is from 1 to 4093.
domain *domain-id*	Displays entries in a domain.
detail	(Optional) Displays detailed entries for the domain.
fcid *fcid-id*	Displays entry for the given port.
local	Displays local entries.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
5.0(2)N1(1)	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

This example shows how to display the contents of the FCNS database:

```
switch# show fcns database
```

This example shows how to display the detailed contents of the FCNS database:

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

This example shows how to display the management VSAN (VSAN 2):

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

This example shows how to display the database for all configured VSANs:

```
switch# show fcns database
```

Related Commands

Command	Description
fcns	Specifies the configuration mode command for name server configuration.

show fcns statistics

To display the statistical information for a specified Virtual SAN (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.
vsan *vsan-id*	(Optional) Displays statistics for the specified VSAN ID. The range is from 1 to 4093.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display the statistical information for a specified VSAN:

```
switch# show fcns statistics
```

Related Commands

Command	Description
fcns	Specifies the configuration mode command for name server configuration.

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 arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display the FCoE status:

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

Related Commands

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

show fcoe-npv issu-impact

To display the configuration issues caused by the Fibre Channel over Ethernet (FCoE) N-Port Virtualizer (NPV) during a nondisruptive in-service software upgrade (ISSU), use the **show fcoe-npv issu-impact** command.

show fcoe-npv issu-impact

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

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

Usage Guidelines

Before you use this command, make sure that you enable Fibre Channel over Ethernet (FCoE) N-Port Virtualizer (NPV) on the switch by using the **feature fcoe-npv** command.

This command requires the FCoE NPV license.

Examples

This example shows how to display the configuration issues caused by the FCoE NPV feature:

```
switch# show fcoe-npv issu-impact
show fcoe-npv issu-impact
-------------------------

Please make sure to enable "disable-fka" on all logged in VFCs
Please increase the FKA duration to 60 seconds on FCF


Active VNP ports with no disable-fka set
----------------------------------------


ISSU downgrade not supported as feature fcoe-npv is enabled
switch#
```

Related Commands

Command	Description
feature fcoe-npv	Enables FCoE NPV on the switch.

Command	Description
show running-config fcoe_mgr	Displays the FCoE running configuration information.
show tech-support fcoe	Displays troubleshooting information about FCoE.

show fcoe database

To display information about 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.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display the FCoE database:

```
switch# show fcoe database

------------------------------------------------------------------------------
INTERFACE       FCID            PORT NAME               MAC ADDRESS
------------------------------------------------------------------------------
vfc1            0x580016        10:00:00:00:07:f8:0e:45 00:00:00:13:05:01
vfc1            0x580017        10:00:00:00:07:f8:21:bf 00:00:00:13:05:01
vfc2            0x580020        10:00:00:00:07:f8:0e:46 00:00:00:13:05:02
vfc2            0x580033        10:00:00:00:07:f8:21:c0 00:00:00:13:05:02
vfc4            0x58001e        10:00:00:00:07:f8:0e:48 00:00:00:13:05:04
vfc4            0x580031        10:00:00:00:07:f8:21:c2 00:00:00:13:05:04
vfc5            0x58001d        10:00:00:00:07:f8:0e:49 00:00:00:13:05:05
vfc5            0x580030        10:00:00:00:07:f8:21:c3 00:00:00:13:05:05
vfc6            0x58001c        10:00:00:00:07:f8:0e:4a 00:00:00:13:05:06
vfc6            0x58002f        10:00:00:00:07:f8:21:c4 00:00:00:13:05:06
vfc7            0x58001b        10:00:00:00:07:f8:0e:4b 00:00:00:13:05:07
vfc7            0x58002e        10:00:00:00:07:f8:21:c5 00:00:00:13:05:07
vfc8            0x58001a        10:00:00:00:07:f8:0e:4c 00:00:00:13:05:08
vfc8            0x58002d        10:00:00:00:07:f8:21:c6 00:00:00:13:05:08
vfc9            0x580019        10:00:00:00:07:f8:0e:4d 00:00:00:13:05:09
vfc9            0x58002c        10:00:00:00:07:f8:21:c7 00:00:00:13:05:09
vfc10           0x580018        10:00:00:00:07:f8:0e:4e 00:00:00:13:05:0a
vfc10           0x58002a        10:00:00:00:07:f8:21:c8 00:00:00:13:05:0a
vfc11           0x580023        10:00:00:00:07:f8:0e:4f 00:00:00:13:05:0b
vfc11           0x580036        10:00:00:00:07:f8:21:c9 00:00:00:13:05:0b
vfc12           0x580022        10:00:00:00:07:f8:0e:50 00:00:00:13:05:0c
vfc12           0x580035        10:00:00:00:07:f8:21:ca 00:00:00:13:05:0c
vfc13           0x580021        10:00:00:00:07:f8:0e:51 00:00:00:13:05:0d
vfc13           0x580034        10:00:00:00:07:f8:21:cb 00:00:00:13:05:0d
vfc14           0x58002b        10:00:00:00:07:f8:0e:52 00:00:00:13:05:0e
vfc14           0x58003d        10:00:00:00:07:f8:21:cc 00:00:00:13:05:0e
vfc15           0x580029        10:00:00:00:07:f8:0e:53 00:00:00:13:05:0f
vfc15           0x58003c        10:00:00:00:07:f8:21:cd 00:00:00:13:05:0f
```

```
vfc16           0x580028        10:00:00:00:07:f8:0e:54 00:00:00:13:05:10
vfc16           0x58003b        10:00:00:00:07:f8:21:ce 00:00:00:13:05:10
vfc17           0x580027        10:00:00:00:07:f8:0e:55 00:00:00:13:05:11
vfc17           0x580039        10:00:00:00:07:f8:21:cf 00:00:00:13:05:11
vfc18           0x580026        10:00:00:00:07:f8:0e:56 00:00:00:13:05:12
vfc18           0x58003a        10:00:00:00:07:f8:21:d0 00:00:00:13:05:12
vfc19           0x580025        10:00:00:00:07:f8:0e:57 00:00:00:13:05:13
vfc19           0x580038        10:00:00:00:07:f8:21:d1 00:00:00:13:05:13
vfc20           0x580024        10:00:00:00:07:f8:0e:58 00:00:00:13:05:14
switch#
```

Related Commands

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

show fcroute

To view specific information about existing Fibre Channel and Fabric Shortest Path First (FSPF) configurations, use the **show fcroute** command.

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

distance	Displays the FC route preference.
label	Displays label routes.
label	(Optional) Label routes for the specified label.
vsan *vsan-id*	(Optional) Specifies the ID of the VSAN (from 1 to 4093).
multicast	Displays FC multicast routes.
fc-id	(Optional) Fibre Channel ID.
summary	Displays the FC routes summary.
unicast	Displays FC unicast routes.
host	Unicast routes for the specified host.
fc-mask	Unicast routes for hosts that match the range of FCIDs that are specified by the mask.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
5.0(2)N1(1)	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

This example shows how to display the administrative distance:

```
switch# show fcroute distance
```

This example shows how to display the multicast routing information:

```
switch# show fcroute multicast
```

This example shows how to display the FCID information for a specified VSAN:

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

This example shows how to display the FCID and interface information for a specified VSAN:

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

This example shows how to display the unicast routing information:

```
switch# show fcroute unicast
```

This example shows how to display the unicast routing information for a specified VSAN:

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

This example shows how to display the unicast routing information for a specified FCID:

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

This example shows how to display the route database information:

```
switch# show fcroute summary
```

This example shows how to display the route database information for a specified VSAN:

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

Related Commands

Command	Description
fcroute	Configures Fibre Channel routes and activates policy routing.

show fcs

To display the status of the fabric configuration, use the **show fcs** commands.

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

database	Displays local database of frame check sequence (FCS).
vsan *vsan-id*	(Optional) Specifies a Virtual SAN (VSAN) ID. The range is from 1 to 4093.
ie	Displays interconnect element objects information.
nwwn *wwn*	(Optional) Specifies a node WWN ID. The format is *hh*:*hh*:*hh*:*hh*:*hh*:*hh*:*hh*:*hh*.
platform	Displays platform objects information.
name *string*	(Optional) Specifies a platform name. The name can be a maximum of 255 characters.
port	Displays port objects information.
pwwn *wwn*	Specifies a port WWN ID. The format is *hh*:*hh*:*hh*:*hh*:*hh*:*hh*:*hh*:*hh*.
statistics	Displays statistics for FCS packets.
vsan	Displays list of all the VSANs.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display the FCS database information:

```
switch# show fcs database
```

This example shows how to display the interconnect element object information for a specific VSAN:

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

This example shows how to display the interconnect element object information for a specific WWN:

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

This example shows how to display the platform information:

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

This example shows how display to the platform information within a specified VSAN:

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

This example shows how to display the FCS port information within a specified VSAN:

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

This example shows how to display the ports within a specified WWN:

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

This example shows how to display the FCS statistics:

```
switch# show fcs statistics
```

Related Commands

Command	Description
fcs	Configures FCS platform attributes.

show fcsp

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

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

Syntax Description

asciiwwn *ascii-wwn*	(Optional) Displays the ASCII representation of the WWN used with authentication, authorization, and accounting (AAA) server.
dhchap	(Optional) Displays the DHCHAP hash algorithm status.
database	(Optional) Displays the contents of the local DHCHAP database.
interface	(Optional) Displays the FC-SP settings for a Fibre Channel or Fibre Channel interface.
fc *slot/port*	Specifies a Fibre Channel interface.
vfc *vfc-id*	(Optional) Specifies a virtual Fibre Channel interface.
statistics	(Optional) Displays the statistics for the specified interface.
wwn	(Optional) Displays the FC-SP identity of the other device.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display the DHCHAP configurations in FC interfaces:

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

This example shows how to display the DHCHAP statistics for an FC interface:

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

This example shows how to display the FC-SP WWN of the device connected through a specified interface:

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

This example shows how to display the hash algorithm and DHCHAP groups configured for the local switch:

```
switch# show fcsp dhchap
```

This example shows how to display the DHCHAP local password database:

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

This example shows how to display the ASCII representation of the device WWN:

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

Related Commands

Command	Description
fcsp enable	Enables the FC-SP feature for this switch.

show fctimer

To display 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

d_s_tov	(Optional) Displays the distributed services time out value (D_S_TOV) in milliseconds.
vsan *vsan-id*	(Optional) Displays information for a Virtual SAN (VSAN). The range is from 1 to 4093.
e_d_tov	(Optional) Displays the error detection timeout value (E_D_TOV) in milliseconds.
f_s_tov	(Optional) Displays the fabric stability timeout value (F_S_TOV) in milliseconds.
r_a_tov	(Optional) Displays the resource allocation time out value (R_A_TOV) in milliseconds.
last action status	(Optional) Displays the status of the last Cisco Fabric Services (CFS) commit or discard operation.
pending	(Optional) Displays the status of pending fctimer commands.
pending-diff	(Optional) Displays the difference between the pending database and running configuration.
session status	(Optional) Displays the state of the fctimer CFS session.
status	(Optional) Displays the Fibre Channel timer status.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display the configured global TOVs:

```
switch# show fctimer
```

This example shows how to display the configured TOVs for a specified VSAN:

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

Related Commands

Command	Description
fctimer	Configures fctimer parameters.

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.
detail	(Optional) Specifies detailed FDMI information.
hba-id *hba-id*	(Optional) Displays detailed information for the specified host bus adapter (HBA) entry.
vsan *vsan-id*	(Optional) Specifies FDMI information for the specified Virtual SAN (VSAN). The range is from 1 to 4093.
suppress-updates	Displays the VSANs that are configured to suppress updates.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display all HBA management servers:

```
switch# show fdmi database
```

This example shows how to display the VSAN1-specific FDMI information:

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

This example shows how to display the details for the specified HBA entry:

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

Related Commands

Command	Description
fdmi suppress-updates	Suppresses FDMI updates.

show fex

To display information about a specific Fabric Extender or all attached chassis, use the **show fex** command.

show fex [*chassis_ID* [**detail**]]

Syntax Description

chassis_ID	(Optional) Fabric Extender chassis ID. The chassis ID range is from 100 to 199.
detail	(Optional) Displays a detailed listing.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display information about all attached Fabric Extender chassis:

```
switch# show fex
FEX         FEX           FEX                     FEX
Number    Description      State            Model            Serial
------------------------------------------------------------------------------
100        FEX0100               Online   N5K-C5110T-BF-1GE   JAF1237ABSE
101        FEX0101               Online     N2K-C2248TP-1GE   JAF11223333
102        FEX0102               Online   N5K-C5110T-BF-1GE   JAF1241BLHQ
105        FEX0105               Online     N2K-C2232P-10GE   JAF1331AKBM
switch#
```

This example shows how to display information about a specific Fabric Extender chassis:

```
switch# show fex 101
FEX: 101 Description: FEX0101   state: Online
  FEX version: 4.2(1)N1(1) [Switch version: 4.2(1)N1(1)]
  Extender Model: N2K-C2248TP-1GE,  Extender Serial: JAF11223333
  Part No: 73-12748-01
 pinning-mode: static    Max-links: 1
  Fabric port for control traffic: Eth3/5
  Fabric interface state:
    Po5 - Interface Up. State: Active
    Eth3/5 - Interface Up. State: Active
    Eth3/6 - Interface Up. State: Active
switch#
```

Related Commands

Command	Description
fex	Creates a Fabric Extender and enters fabric extender configuration mode.

show flogi

To list all the fabric login (FLOGI) sessions through all interfaces across all Virtual SAN (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

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

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
5.0(2)N1(1)	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

This example shows how to display the details on the FLOGI database:

```
switch# show flogi database
```

This example shows how to display the FLOGI interface:

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

This example shows how to display the FLOGI VSAN:

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

This example shows how to display the FLOGI for a specific FCID:

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

Related Commands

Command	Description
show fcns database	Displays all the local and remote name server entries.

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

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

Command Default

None

Command Modes

EXEC mode

Command History

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

Usage Guidelines

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

Examples

This example shows how to display the FSPF interface information:

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

This example shows how to display the FSPF database information:

```
switch# show fspf database vsan 1

FSPF Link State Database for VSAN 1 Domain 0xc6(198)
LSR Type                = 1
Advertising domain ID   = 0xc6(198)
LSR Age                 = 1050
LSR Incarnation number  = 0x800007c5
LSR Checksum            = 0x35d2
Number of links         = 0
 NbrDomainId      IfIndex   NbrIfIndex    Link Type         Cost
--------------------------------------------------------------------------------
switch#
```

This command shows how to display the FSPF information for a specified VSAN:

```
switch# show fspf vsan 1
FSPF routing for VSAN 1
FSPF routing administration status is enabled
FSPF routing operational status is UP
It is an intra-domain router
Autonomous region is 0
SPF hold time is 0 msec
MinLsArrival = 1000 msec , MinLsInterval = 2000 msec
Local Domain is 0xc6(198)
Number of LSRs = 1, Total Checksum = 0x000035d2

Protocol constants :
   LS_REFRESH_TIME = 30 minutes (1800 sec)
   MAX_AGE         = 60 minutes (3600 sec)

Statistics counters :
   Number of LSR that reached MaxAge = 0
   Number of SPF computations        = 0
   Number of Checksum Errors         = 0
   Number of Transmitted packets :  LSU 0 LSA 0 Hello 0 Retranmsitted LSU 0
   Number of received packets :  LSU 0 LSA 0 Hello 0 Error packets 0

switch#
```

This command shows how to display the FSPF information for all interfaces:

```
switch# show fspf interface
FSPF interface vfc5 in VSAN 1
FSPF routing administrative state is active
Interface cost is 2100
Timer intervals configured, Hello 20 s, Dead 80 s, Retransmit 5 s
FSPF State is DOWN

switch#
```

Related Commands

Command	Description
fspf	Configures FSPF.

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

Examples

This example shows how to display the present configuration status of the in-order delivery feature:

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

Related Commands

Command	Description
in-order-guarantee	Enables in-order delivery.

show interface fcoe

To display information about the Fibre Channel over Ethernet (FCoE) for an interface, use the **show interface fcoe** command.

show interface [*interface number*] **fcoe**

Syntax Description

interface	(Optional) Interface, either Ethernet or EtherChannel.
number	Interface number. The number can be one of the following: • The Ethernet interface slot and the port number within the slot. The slot number range is from 1 to 255, and the port number range is from 1/255. • The EtherChannel number. The range is from 1 to 4096.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display the FCoE information for Ethernet interfaces:

```
switch# show interface fcoe
Ethernet1/1 is FCoE UP
Ethernet1/2 is FCoE UP
Ethernet1/3 is FCoE UP
Ethernet1/4 is FCoE UP
Ethernet1/5 is FCoE UP
Ethernet1/6 is FCoE UP
Ethernet1/7 is FCoE UP
Ethernet1/8 is FCoE UP
Ethernet1/9 is FCoE UP
Ethernet1/10 is FCoE UP
Ethernet1/11 is FCoE down
Ethernet1/12 is FCoE down
Ethernet1/13 is FCoE UP
Ethernet1/14 is FCoE UP
Ethernet1/15 is FCoE down
Ethernet1/16 is FCoE down
Ethernet1/17 is FCoE UP
Ethernet1/18 is FCoE down
Ethernet1/19 is FCoE UP
Ethernet1/20 is FCoE UP
Ethernet1/21 is FCoE UP
Ethernet1/22 is FCoE UP
Ethernet1/23 is FCoE UP
Ethernet1/24 is FCoE UP
```

```
Ethernet1/25 is FCoE UP
Ethernet1/26 is FCoE UP
Ethernet1/27 is FCoE UP
Ethernet1/28 is FCoE UP
Ethernet1/29 is FCoE UP
Ethernet1/30 is FCoE UP
Ethernet1/31 is FCoE UP
Ethernet1/32 is FCoE UP
Ethernet1/33 is FCoE UP
    vfc1 is Up
        FCID is 0x580016
        PWWN is 10:00:00:00:07:f8:0e:45
        MAC addr is 00:00:00:13:05:01
        FCID is 0x580017
        PWWN is 10:00:00:00:07:f8:21:bf
        MAC addr is 00:00:00:13:05:01
    vfc2 is Up
        FCID is 0x580020
        PWWN is 10:00:00:00:07:f8:0e:46
        MAC addr is 00:00:00:13:05:02
        FCID is 0x580033
        PWWN is 10:00:00:00:07:f8:21:c0
        MAC addr is 00:00:00:13:05:02
    vfc4 is Up
        FCID is 0x58001e
        PWWN is 10:00:00:00:07:f8:0e:48
        MAC addr is 00:00:00:13:05:04
        FCID is 0x580031
        PWWN is 10:00:00:00:07:f8:21:c2
        MAC addr is 00:00:00:13:05:04
    vfc5 is Up
        FCID is 0x58001d
        PWWN is 10:00:00:00:07:f8:0e:49
        MAC addr is 00:00:00:13:05:05
        FCID is 0x580030
        PWWN is 10:00:00:00:07:f8:21:c3
        MAC addr is 00:00:00:13:05:05
    vfc6 is Up
        FCID is 0x58001c
        PWWN is 10:00:00:00:07:f8:0e:4a
        MAC addr is 00:00:00:13:05:06
        FCID is 0x58002f
        PWWN is 10:00:00:00:07:f8:21:c4
        MAC addr is 00:00:00:13:05:06
Ethernet1/34 is FCoE down
Ethernet1/35 is FCoE UP
<--Output truncated-->
switch#
```

This example shows how to display the FCoE information for a specific Ethernet interface:

```
switch# show interface ethernet 1/21 fcoe
Ethernet1/21 is FCoE UP
switch#
```

This example shows how to display the FCoE information for a specific EtherChannel interface:

```
switch# show interface port-channel 3 fcoe
port-channel3 is FCoE UP
switch#
```

Related Commands

Command	Description
show fcoe	Displays the status of the FCoE parameters.

show interface san-port-channel

To display the configuration information of SAN port channel interfaces, use the **show interface san-port-channel** command.

show interface san-port-channel *port-num* [**brief** | **counters** [**brief**] | **trunk vsan** [*vsan-range*]]

Syntax Description

port-num	SAN port channel interface ID. The range is from 1 to 256.
brief	(Optional) Displays brief information about the SAN port channel interfaces.
counters	(Optional) Displays the SAN port channel interface counters.
trunk	(Optional) Displays the SAN port channel interface trunk information.
vsan	(Optional) Displays the per VSAN information for the SAN port channel interface trunk.
vsan-range	(Optional) VSAN range. The range is from 1 to 4093.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display the configuration information for a specified SAN port channel interface:

```
switch# show interface san-port-channel 101
san-port-channel 101 is down (No operational members)
    Hardware is Fibre Channel
    Port WWN is 24:65:00:05:9b:74:a6:c0
    Admin port mode is NP, trunk mode is off
    snmp link state traps are enabled
    Port vsan is 1
    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 CRC,  0 unknown class
        0 too long, 0 too short
      0 frames output, 0 bytes
        0 discards, 0 errors
      0 input OLS, 0 LRR, 0 NOS, 0 loop inits
      0 output OLS, 0 LRR, 0 NOS, 0 loop inits
    last clearing of "show interface" counters never
    No members

switch#
```

This example shows how to display the summary information of the counters of a specified SAN port channel interface:

```
switch# show interface san-port-channel 101 counters  brief

--------------------------------------------------------------------------------
Interface            Input (rate is 1 min avg)    Output (rate is 1 min avg)
                     --------------------------   ------------------------------
                     Rate     Total               Rate     Total
                     MB/s     Frames              MB/s     Frames
--------------------------------------------------------------------------------
san-port-channel 101    0     0                      0     0

switch#
```

Related Commands

Command	Description
interface san-port-channel	Configures a SAN port channel interface.
show interface	Displays an interface configuration for a specified interface.
show running-config interface san-port-channel	Displays the running configuration information for SAN port channels.

show interface vfc

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

show interface vfc *vfc-id* [**brief**] [**counters**]

Syntax Description

vfc-id	Virtual Fibre Channel interface ID. The range is from 1 to 8192.
brief	(Optional) Displays brief information about the virtual Fibre Channel interfaces.
counters	(Optional) Displays the virtual Fibre Channel interface counters.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display the configuration information for a specified virtual Fibre Channel interface:

```
switch# show interface vfc 1
vfc1 is down (Administratively down)
    Bound MAC is 00:50:3e:8d:64:00
    Hardware is Virtual Fibre Channel
    Port WWN is 20:00:00:05:9b:23:40:7f
    Admin port mode is F, trunk mode is on
    snmp link state traps are enabled
    Port vsan is 1
    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
    last clearing of "show interface" counters never

switch#
```

This example shows how to display a brief information for a specified virtual Fibre Channel interface:

```
switch# show interface vfc 5 brief

--------------------------------------------------------------------------------
Interface  Vsan   Admin  Admin   Status          SFP    Oper  Oper   Port
                  Mode   Trunk                         Mode  Speed  Channel
                         Mode                                (Gbps)
--------------------------------------------------------------------------------
```

```
vfc5       1      E      on      down             --     --           --
switch#
```

This example shows how to display the counters for a specified virtual Fibre Channel interface:

```
switch# show interface vfc 5 counters
vfc5
    5 minute input rate 0 bits/sec, 0 bytes/sec, 0 frames/sec
    5 minute output rate 0 bits/sec, 0 bytes/sec, 0 frames/sec
    0 frames input, 0 bytes
      0 discards, 0 errors, 0 CRC
      0 too long, 0 too short
    0 frames output, 0 bytes
      0 discards, 0 errors
    0 input OLS, 0 LRR, 0 NOS, 0 loop inits
    0 output OLS, 0 LRR, 0 NOS, 0 loop inits
    0 link failures, 0 sync losses, 0 signal losses
     0 BB credit transitions from zero

switch#
```

Related Commands

Command	Description
interface vfc	Configures a virtual Fibre Channel interface.

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

interface	Displays LLDP interface information, or LLDP neighbor information on an interface.
ethernet *slot*/*port*	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.
mgmt *intf-no*	Displays the configuration information of the management interface. The management interface number is 0.
neighbors	Displays information about LLDP neighbors.
detail	(Optional) Displays the detailed information about LLDP neighbors.
timers	Displays information about LLDP timers.
traffic	Displays the LLDP counters configured on the switch.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display 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
```

```
    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
```

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

Related Commands

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

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 Fabric login (FLOGI) database entries based on the FCID allocated. The format is 0xhhhhhh.
source-fcid	Displays the load balancing status for the specified source FCID. The format is 0xhhhhhh.
dest-fcid	Displays the load balancing status for the specified destination FCID. The format is 0xhhhhhh.
exchange-id	(Optional) Displays the load balancing status for the specified exchange. The format is 0xhhhhhh.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display the load-balancing information for the specified source and destination in VSAN 3:

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

Related Commands

Command	Description
vsan	Configures VSAN information or membership.

show npv flogi-table

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

show npv flogi-table

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

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

Usage Guidelines

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

Examples

This example shows how to display the information on NPV FLOGI session:

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

Related Commands

Command	Description
show npv status	Displays the NPV current status.

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 arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

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

Usage Guidelines

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

Examples

This example shows how to display the current status of NPV:

```
switch# show npv status
```

Related Commands

Command	Description
show npv flogi-table	Displays the information about NPV FLOGI session.

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 arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

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

Usage Guidelines

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

Examples

This example shows how to display the current status of NPV:

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

Related Commands

Command	Description
show npv flogi-table	Displays the information about an NPV FLOGI session.

show port index-allocation

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

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

Syntax Description		
	startup	(Optional) Displays port index allocation information at startup.

Command Default None

Command Modes EXEC mode

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

Usage Guidelines 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 5500 Series switch.

Examples This example shows how to display port index allocation information:

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

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

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

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display the RLIR information for VSAN 1:

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

This example shows how to display the RLIR statistics:

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

Related Commands

Command	Description
rlir preferred-cond fcid	Specifies a preferred host to receive RLIR frames.

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

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

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
5.0(2)N1(1)	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

This example shows how to display the RSCN information:

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

This example shows how to display the RSCN statistics:

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

This example shows how to display the RSCN event timeout value configured on VSAN 1:

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

This example shows how to display the difference between the active RSCN configuration and the pending RSCN configuration on VSAN 1:

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

Related Commands

Command	Description
rscn	Configures a registered state change notification (RSCN).

show running-config fcoe_mgr

To display the running configuration information about Fibre Channel over Ethernet (FCoE), use the **show running-config fcoe_mgr** command.

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

Syntax Description

all	(Optional) Displays the full operating information including default settings.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display the FCoE running configuration information:

```
switch# show running-config fcoe_mgr

!Command: show running-config fcoe_mgr
!Time: Fri Jan  2 06:33:11 2009

version 5.0(3)N2(1)

interface vfc1
  bind mac-address 00:50:3e:8d:64:00
fcoe fka-adv-period 60
fcoe veloopback


switch#
```

This example shows how to display detailed information on the running configuration:

```
switch# show running-config fcoe_mgr all

!Command: show running-config fcoe_mgr all
!Time: Fri Jan  2 05:36:52 2009

version 5.0(3)N2(1)
logging level fcoe_mgr 3

interface vfc1
  bind mac-address 00:50:3e:8d:64:00
fcoe fka-adv-period 60
fcoe veloopback


switch#
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration information to the startup configuration file.
show tech-support fcoe	Displays troubleshooting information about FCoE.

show running-config interface san-port-channel

To display the runninf system configuration information of SAN port channel interfaces, use the **show running-config interface san-port-channel** command.

show running-config interface san-port-channel *port-num* [**all** | **expand-port-profile**]

Syntax Description

all	(Optional) Displays configured and default information.
expand-port-profile	(Optional) Displays the configuration information of port profiles.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display the running configuration information for a specified SAN port channel interface:

```
switch# show running-config interface san-port-channel 101

!Command: show running-config interface san-port-channel 101
!Time: Mon Apr 11 09:14:20 2005

version 5.1(3)N1(1)

interface san-port-channel 101
  channel mode active
  switchport mode NP

switch#
```

Related Commands

Command	Description
interface san-port-channel	Configures a SAN port channel interface.
copy running-config startup-config	Copies the running configuration information to the startup configuration file.

show san-port-channel

To view information about existing SAN port channel configurations, use the **show san-port-channel** command.

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

Syntax Description

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

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display the SAN port channel summary:

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

This example shows how to display the SAN port channel compatibility parameters:

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

This example shows how to display the SAN port channel database:

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

This example shows how to display the consistency status of the SAN port channel database:

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

This example shows how to display detailed information about the consistency status of the SAN port channel database:

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

This example shows how to display details of the used and unused SAN port channel numbers:

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

Related Commands

Command	Description
san-port-channel persistent	Converts an autocreated SAN port channel to a persistent SAN port channel.

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

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

Command Default

None

Command Modes

EXEC mode

Command History

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

Usage Guidelines

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

Examples

This example shows how to display the status of a SCSI discovery:

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

This example shows how to display the customized discovered targets:

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

This example shows how to display the discovered disk information:

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

This example shows how to display the discovered LUNs for all operating systems:

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

This example shows how to display the discovered LUNs for the Solaris operating system:

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

This example shows how to display the auto-polling information:

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

This example shows how to display the port WWN that is assigned to each operating system (Windows, AIX, Solaris, Linux, or HPUX):

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

Related Commands

Command	Description
scsi-target	Configures SCSI target discovery.

show startup-config fcoe_mgr

To display the startup configuration information about Fibre Channel over Ethernet (FCoE), use the **show startup-config fcoe_mgr** command.

show startup-config fcoe_mgr

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display the FCoE startup configuration information:

```
switch# show startup-config fcoe_mgr

!Command: show startup-config fcoe_mgr
!Time: Fri Jan  2 05:41:38 2009
!Startup config saved at: Thu Jan  1 00:04:46 2009

version 5.0(3)N2(1)
logging level fcoe_mgr 3

interface vfc1
  bind mac-address 00:50:3e:8d:64:00
fcoe fka-adv-period 60
fcoe veloopback


switch#
```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration information to the startup configuration file.
show tech-support fcoe	Displays troubleshooting information about FCoE.

show tech-support fcoe

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

show tech-support fcoe

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display Cisco technical support information for FCoE interfaces:

```
switch# show tech-support fcoe
******************** FCOE MGR tech-support start *****************
`show platform software fcoe_mgr event-history errors`
1) Event:E_DEBUG, length:71, at 269945 usecs after Fri Jan  2 06:35:17 2009
    [102] fcoe_mgr_demux(535): (Warning) unexpected mts msg (opcode - 7972)


2) Event:E_DEBUG, length:64, at 269136 usecs after Fri Jan  2 06:35:17 2009
    [102] fcoe_mgr_pss_add_global_cfg_data(5428): fka-adv-period: 60


3) Event:E_DEBUG, length:64, at 269107 usecs after Fri Jan  2 06:35:17 2009
    [102] fcoe_mgr_pss_add_global_cfg_data(5427): fcf-priority  : 128

4) Event:E_DEBUG, length:68, at 269076 usecs after Fri Jan  2 06:35:17 2009
    [102] fcoe_mgr_pss_add_global_cfg_data(5426): fcmap         : 0xefc00

5) Event:E_DEBUG, length:100, at 269036 usecs after Fri Jan  2 06:35:17 2009
    [102] fcoe_mgr_pss_add_global_cfg_data(5425): fcoe_mgr_pss_add_global_cfg_da
ta: Exiting, ret_val = 0


6) Event:E_DEBUG, length:88, at 268788 usecs after Fri Jan  2 06:35:17 2009
    [102] fcoe_mgr_pss_add_global_cfg_data(5400): fcoe_mgr_pss_add_global_cfg_data:
Entering


7) Event:E_DEBUG, length:63, at 567997 usecs after Fri Jan  2 06:30:27 2009
    [102] fcoe_mgr_pss_add_global_cfg_data(5428): fka-adv-period: 8


8) Event:E_DEBUG, length:64, at 567965 usecs after Fri Jan  2 06:30:27 2009
    [102] fcoe_mgr_pss_add_global_cfg_data(5427): fcf-priority  : 128
```

```
9) Event:E_DEBUG, length:68, at 567932 usecs after Fri Jan  2 06:30:27 2009
    [102] fcoe_mgr_pss_add_global_cfg_data(5426): fcmap         : 0xefc00

10) Event:E_DEBUG, length:100, at 567891 usecs after Fri Jan  2 06:30:27 2009
    [102] fcoe_mgr_pss_add_global_cfg_data(5425): fcoe_mgr_pss_add_global_cfg_da
ta: Exiting, ret_val = 0


11) Event:E_DEBUG, length:88, at 567732 usecs after Fri Jan  2 06:30:27 2009
    [102] fcoe_mgr_pss_add_global_cfg_data(5400): fcoe_mgr_pss_add_global_cfg_da
ta: Entering


12) Event:E_DEBUG, length:88, at 567667 usecs after Fri Jan  2 06:30:27 2009
    [102] fcoe_mgr_cli_set_ve_loopback(1562): Enabling VE loopback (will disable
 VFID check)


13) Event:E_DEBUG, length:129, at 177534 usecs after Fri Jan  2 06:25:17 2009
    [102] fcoe_mgr_mts_vfc_bind_check_resp_handler(2488): Bind Check Resp: if_in
dex: 0x0, status: (null): success (err_id 0x00000000)


14) Event:E_DEBUG, length:71, at 176687 usecs after Fri Jan  2 06:25:17 2009
    [102] fcoe_mgr_demux(535): (Warning) unexpected mts msg (opcode - 7972)


15) Event:E_DEBUG, length:71, at 392038 usecs after Fri Jan  2 06:16:00 2009
    [102] fcoe_mgr_mac_pool_bmp_to_tlv(143): mac_pool->mac_usage_bmp = NULL

16) Event:E_DEBUG, length:63, at 89603 usecs after Fri Jan  2 06:16:00 2009
    [102] fcoe_mgr_get_eth_fcoe_info(58): sending lls down Eth1/31


17) Event:E_DEBUG, length:63, at 89509 usecs after Fri Jan  2 06:16:00 2009
    [102] fcoe_mgr_get_eth_fcoe_info(58): sending lls down Eth1/29


18) Event:E_DEBUG, length:63, at 89405 usecs after Fri Jan  2 06:16:00 2009
    [102] fcoe_mgr_get_eth_fcoe_info(58): sending lls down Eth1/18


19) Event:E_DEBUG, length:63, at 89310 usecs after Fri Jan  2 06:16:00 2009
    [102] fcoe_mgr_get_eth_fcoe_info(58): sending lls down Eth1/17


20) Event:E_DEBUG, length:63, at 89212 usecs after Fri Jan  2 06:16:00 2009
    [102] fcoe_mgr_get_eth_fcoe_info(58): sending lls down Eth1/15


21) Event:E_DEBUG, length:62, at 89101 usecs after Fri Jan  2 06:16:00 2009
    [102] fcoe_mgr_get_eth_fcoe_info(58): sending lls down Eth1/8

<--Output truncated-->
switch#
```

Related Commands

Command	Description
show running-config fcoe_mgr	Displays the running configuration information about FCoE.

show topology

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

show topology [**vsan** *vsan-id*]

Syntax Description		
	vsan *vsan-id*	(Optional) Displays information for a VSAN. The range is from 1 to 4093.

Command Default None

Command Modes EXEC mode

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

Examples This example shows how to display topology information:

```
switch# show topology
```

Related Commands	Command	Description
	cfs ipv4 mcast-address	Configures an IPv4 multicast address for Cisco Fabric Services (CFS) distribution over IPv4.
	cfs ipv6 distribute	Enables CFS distribution over IPv6 for applications using CFS.
	cfs ipv6 mcast-address	Configures an IPv6 multicast address for CFS distribution over IPv6.

show trunk protocol

To display the 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
5.0(2)N1(1)	This command was introduced.

Examples

This example shows how to display the trunk protocol status:

```
switch# show trunk protocol
switch#
```

Related Commands

Command	Description
trunk protocol enable	Configures the trunking protocol for Fibre Channel interfaces.

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

Command History

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

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 vsan

To display information about a configured Virtual SAN (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

vsan-id	(Optional) Information for the specified VSAN ID. The range is from 1 to 4094.
membership	(Optional) Displays membership information.
interface	(Optional) Specifies the interface type.
fc *slot*/*port*	Specifies a Fibre Channel interface.
san-port-channel *port*	Specifies a SAN port channel interface specified by the port channel number.
vfc *vfc-id*	Specifies a virtual Fibre Channel interface.
usage	(Optional) Displays VSAN usage in the system.

Command Default

None

Command Modes

EXEC mode

Command History

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

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 fc2/1 - 3 , fc2/4 , fc3/2`**

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 all VSANs:

```
switch # show vsan membership
vsan 1 interfaces:

vsan 331 interfaces:
    fc2/3             fc2/4             san-port-channel 14 vfc1
    vfc2              vfc3              vfc4              vfc5
    vfc6              vfc7              vfc8              vfc9
    vfc10             vfc11             vfc12             vfc13
    vfc14             vfc15             vfc16             vfc17
    vfc18             vfc19             vfc20

vsan 332 interfaces:
    fc2/5             fc2/6             fc2/7             fc2/8
    san-port-channel 8 san-port-channel 9 vfc21             vfc22
    vfc23             vfc24             vfc25             vfc26
    vfc27             vfc28             vfc29             vfc30
    vfc31             vfc32             vfc33             vfc34
    vfc35             vfc36             vfc37             vfc38
    vfc39             vfc40

vsan 333 interfaces:
fc2/1             fc2/2             san-port-channel 13

vsan 334 interfaces:

vsan 336 interfaces:

vsan 337 interfaces:

vsan 4079(evfp_isolated_vsan) interfaces:

vsan 4094(isolated_vsan) interfaces:

switch#
```

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

```
switch# show vsan membership interface fc2/1
fc2/1
        vsan:333
        allowed list:1-4078,4080-4093
switch#
```

Related Commands

Command	Description
vsan	Configures a VSAN.

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 the WWN usage and alarm status.
block-id *number*	(Optional) Displays the WWN usage and alarm status for a block ID. The range is from 34 to 1793.
switch	Displays the switch WWN.
vsan-wwn	Displays all user-configured VSAN WWNs.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display the WWN of the switch:

```
switch# show wwn switch
```

This example shows how to display a user-configured VSAN WWN:

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

Related Commands

Command	Description
wwn vsan	Configures a WWN for a suspended VSAN that has interop mode 4 enabled.

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** *fc-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

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

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display the configured zone information:

```
switch# show zone
```

This example shows how to display the zone information for a specific VSAN:

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

This example shows how to display the members of a specific zone:

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

This example shows how to display all zones to which a member belongs using the FCID:

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

This example shows how to display the number of control frames exchanged with other switches:

```
switch# show zone statistics
```

This example shows how to display the status of the configured zones:

```
switch# show zone status
```

This 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 3 describes the significant fields shown in the **show zone status vsan** display.

Table 3 show zone status Field Descriptions

Field	Description
VSAN:	VSAN number displayed.
default-zone:	Default-zone policy, either permit or deny.
Default zone:	Field that 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:	Interop mode. 100 = default, 1 = standard, 2 and 3 = Non-Cisco vendors.
mode:	Zoning mode, either basic or enhanced.
merge control:	Merge policy, either allow or restrict.
Hard zoning is enabled	If hardware resources (TCAM) becomes full, hard zoning is automatically disabled.
Full Zoning Database:	Values of zone database.
Active Zoning Database:	Values of active zone database.
Status:	Status of last zone distribution.

Related Commands

Command	Description
zone	Configures zone information.

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 from 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
5.0(2)N1(1)	This command was introduced.

Examples

This example shows how to display the detailed statistics and analysis of the active zoning database:

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

This example shows how to display the 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
```

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

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

Field	Description
Last updated at	Time stamp that shows when the full zoning database was last updated.
Last Updated by	Agent that most recently modified the full zoning database. The agent can be one of the following three types: • Local—Indicates that the full database was last modified locally through a configuration change from one of the following applications: – CLI—The full zoning database was modified by the user from the command line interface. – SNMP—The full zoning database was modified by the user through the Simple Network Management Protocol (SNMP). – GS—The full zoning database was modified from the Generic Services (GS) client. – CIM—The full zoning database was modified by the applications using the Common Information Model (CIM). – 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. • 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. • 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. **Note** The switch name is displayed on the next line, aligned with the domain, only if the switch name is set. The default switch name *switch* and the *ip-address* are not displayed.
Num zonesets	Total number of zone sets in the database.
Num zones	Total number of zones in the database, including unassigned zones.
Num aliases	Total number of aliases in the database, including unassigned FC aliases.
Num attribute groups	Total number of attribute groups in the database. This field applies only when enhanced zoning is used.

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

Field	Description
Formatted database size	Total size of the full database when formatted to be sent over the wire. The formatted database size is displayed in kilobytes in this format: < *X* KB / *Y* KB, as in the following example: Formatted database size: < 1 KB/2000 KB In this example, the formatted database size is less than 1 KB out of the maximum size of 2000 KB.
Unassigned zones	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.

This example shows how to display the zone set analysis information:

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

Related Commands

Command	Description
zone compact database	Compacts a zone database in a VSAN.

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

active	(Optional) Displays only active zone sets.
vsan *vsan-id*	(Optional) Displays the VSAN. The range is from 1 to 4093.
brief	(Optional) Displays zone set members in a brief list.
name *zoneset-name*	(Optional) Displays members of a specified zone set.
pending	(Optional) Displays zone sets members that are in session.

Command Default

None

Command Modes

EXEC mode

Command History

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

Examples

This example shows how to display the configured zone set information:

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

This example shows how to display the configured zone set information for a specific VSAN:

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

Related Commands

Command	Description
zoneset (Global configuration mode)	Groups zones under one zone set.
zoneset (EXEC mode)	Merges zone set databases.