CHAPTER 16

Show Commands

The commands in this chapter apply to the Cisco MDS 9000 Family of multilayer directors and fabric switches. All commands are shown here in alphabetical order regardless of command mode. Please see the Command Mode section to determine the appropriate mode for each command. For more information, see the *Cisco MDS 9000 Family Configuration Guide*.

- show accounting
- show arp
- show authentication
- show boot
- show callhome
- show clock
- show cores
- show environment
- show fc2
- show fcalias
- show fcanalyzer
- show fcc
- show fcdomain
- show fcdroplatency
- show fcflow stats
- show fcfwd
- show fctimer
- show fcns database
- show fcns statistics
- show fcroute
- show fcs
- show file
- show flash
- show flogi database
- show fspf

- show hardware
- show interface
- show ip route
- show ip routing
- show logging
- show module
- show ntp
- show port-channel
- show processes
- show qos statistics
- show radius-server
- show role
- show rscn
- show running-config
- show scsi-target
- show snmp
- show span session
- show sprom
- show ssh
- show startup-config
- show switchname
- show system
- show tech support
- show telnet server
- show terminal
- show trunk protocol
- show user-account
- show users
- show version
- show vrrp
- show vsan
- show wwn
- show zone active
- show zoneset

show accounting

To display configured accounting information, use the **show accounting** command.

show accounting {config | log | logsize}

Syntax Description

config	Show RADIUS accounting configuration information.
log	Show accounting log.
logsize	Show local accounting log file size.

Defaults

None

Command Modes

Exec

Usage Guidelines

None.

Examples

To display configured accounting parameters.

```
switch# show accounting config
RADIUS accounting not enabled
local accounting enabled
```

To display configured log size.

```
switch# show accounting logsize
maximum local accounting log size:29000
```

To display the entire log file.

```
switch# show accounting log
2002:stop:snmp_1033151784_171.71.49.83:admin:
Fri Sep 27 18:36:24 2002:start:_1033151784:root
Fri Sep 27 18:36:28 2002:update:::fcc configuration requested
Fri Sep 27 18:36:33 2002:start:snmp_1033151793_171.71.49.83:admin
Fri Sep 27 18:36:33 2002:stop:snmp_1033151793_171.71.49.83:admin:
Fri Sep 27 18:39:28 2002:start:snmp_1033151968_171.71.49.96:admin
Fri Sep 27 18:39:28 2002:stop:snmp_1033151968_171.71.49.96:admin:
Fri Sep 27 18:39:28 2002:start:_1033151968:root
Fri Sep 27 18:39:31 2002:update:::fcc configuration requested
Fri Sep 27 18:39:37 2002:start:snmp_1033151977_171.71.49.96:admin
Fri Sep 27 18:39:37 2002:stop:snmp_1033151977_171.71.49.96:admin:
Fri Sep 27 18:39:37 2002:start:snmp_1033151977_171.71.49.96:admin
Fri Sep 27 18:42:12 2002:start:snmp_1033152132_171.71.49.96:admin
Fri Sep 27 18:42:12 2002:stop:snmp_1033152132_171.71.49.96:admin:
Fri Sep 27 18:42:12 2002:start:snmp_1033152132_171.71.49.96:admin
Fri Sep 27 18:42:40 2002:start:snmp_1033152160_171.71.49.96:admin
. . .
```

show arp

To view Address Resolution Protocol (ARP) entries, use the **show arp** command.

show arp

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Exec

Usage Guidelines

None

Examples

This displays the ARP table.

```
switch# show arp
Protocol  Address          Age (min)     Hardware Addr  Type  Interface
Internet  171.1.1.1        0             0006.5bec.699c  ARPA  mgmt0
Internet  172.2.0.1        4             0000.0c07.ac01  ARPA  mgmt0
```

Related Commands

Command	Description
clear arp-cache	Clears the arp-cache table entries.

show authentication

To display the configured authentication methods, use the **show authentication** command.

show authentication

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Exec

Usage Guidelines

None

Examples

This example displays authentication information.

```
switch# show authentication
authentication method:none
         console:not enabled
         telnet/ssh:not enabled
authentication method:radius
         console:not enabled
         telnet/ssh:not enabled
authentication method:local
         console:enabled
         telnet/ssh:enabled
```

show boot

To display the BootVAR variables, use the **show boot** command.

show boot

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

EXEC

Usage Guidelines

The kickstart image and the system image list can be specified independent of each other. At boot time, an internal script discards all system images that are incompatible with the loaded kickstart image.

Examples

To display the current contents of the SYSTEM variable, enter the following command at the switch prompt:

```
switch# show boot
KICKSTART variable = slot0:kickstart.img
SYSTEM variable = bootflash:first-system.img; bootflash:second-system.img;
```

To clear the current contents of the SYSTEM variable, enter the following command at the switch prompt:

```
switch# no boot system
switch# show boot
KICKSTART variable = boot-237
SYSTEM variable = system-237;
```

show callhome

To display related Call Home information configured on a switch, use the **show callhome** command.

show callhome [**destination-profile** *profile*] [**transport-email**]

Syntax Description

destination-profile *profile*	Show callhome destination profile information for the specified profile.
transport-email	Show callhome email transport information.

Defaults

None

Command Modes

Exec

Usage Guidelines

None

Examples

This example displays configured callhome information.

```
switch# show callhome
callhome enabled
Callhome Information:
contact person name:who@where
contact person's email:person@place.com
contact person's phone number:310-408-4000
street addr:1234 Picaboo Street, Any city, Any state, 12345
site id:Site1ManhattanNewYork
customer id:Customer1234
contract id:Andiamo1234
switch priority:0
```

This example displays destination profile information.

```
switch# show callhome destination-profile
XML destination profile information
maximum message size:250000
email addresses configured:
findout@.cisco.com

Short-txt destination profile information
maximum message size:4000
email addresses configured:
person1@epage.company.com

full-txt destination profile information
maximum message size:250000
email addresses configured:
person2@company2.com
```

This example displays the full-text profile.

```
switch# show callhome destination-profile profile full-txt-destination
full-txt destination profile information
maximum message size:250000
email addresses configured:
person2@company2.com
```

This example displays the short-text profile.

```
switch# show callhome destination-profile profile short-txt-destination
Short-txt destination profile information
maximum message size:4000
email addresses configured:
person2@company2.com
```

This example displays the XML destination profile.

```
switch# show callhome destination-profile profile XML-destination
XML destination profile information
maximum message size:250000
email addresses configured:
findout@.cisco.com
```

This example displays e-mail and SMTP information.

```
switch# show callhome transport-email
from email addr:user@company1.com
reply to email addr:pointer@company.com
return receipt email addr:user@company1.com
smtp server:server.company.com
smtp server port:25
```

show clock

To show the system date and time and verify the time zone configuration., use the **show clock** command.

show clock

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

EXEC

Usage Guidelines

None.

Examples

```
switch# show clock
Tue Nov  5 12:46:07 PST 2002
```

show cores

To shows all the cores presently available for upload from active sup, use the **show cores** command.

show cores

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Exec

Usage Guidelines

None.

Examples

In this example, an FSPF core was generated on the active supervisor (slot 5), an FCC core on the standby supervisor (slot 6) and acltcam and fib on module (slot 8).

```
switch# show cores

Module-num     Process-name       PID     Core-create-time
----------     ------------       ---     ----------------
5               fspf             1524     Jan 9 03:11
6               fcc               919     Jan 9 03:09
8               acltcam           285     Jan 9 03:09
8               fib               283     Jan 9 03:08
```

show environment

To display all environment-related switch information (status of chassis clock, chassis fan modules, power supply modules, power supply redundancy mode and power usage summary, module temperature thresholds and alarm status, use the **show environment** command.

show environment [clock | fan | power | temperature]

Syntax Description

clock	Display status of chassis clock modules
fan	Display status of chassis fan modules
power	Display status of power supply modules, power supply redundancy mode and power usage summary.
temperature	Display module temperature thresholds and alarm status of temperature sensors.

Defaults

None.

Command Modes

Exec

Usage Guidelines

None.

Examples

The following example displays the status and alarm states of the clock, fan, power supply and temperature sensors.

```
switch# show environment
Clock:
----------------------------------------------------------
Clock           Model                Hw         Status
----------------------------------------------------------
A               Clock Module         --         ok/active
B               Clock Module         --         ok/standby


Fan:
-----------------------------------------------------
FAN             Model                Hw         Status
-----------------------------------------------------
Chassis         DS-2SLOT-FAN         0.0        ok
PS-1            --                   --         ok
PS-2            --                   --         absent


Temperature:
-------------------------------------------------------------------
Module   Sensor   MajorThresh   MinorThres   CurTemp     Status
                  (Celsius)     (Celsius)    (Celsius)
-------------------------------------------------------------------
1        1        75            60           29          ok
```

```
1        2        65            50           27          ok
1        3        -127          -127         39          ok
1        4        -127          -127         35          ok

2        1        75            60           31          ok
2        2        65            50           25          ok
2        3        -127          -127         40          ok
2        4        -127          -127         30          ok


Power Supply:
------------------------------------------------------
PS  Model                Power     Power       Status
                         (Watts)   (Amp @42V)
------------------------------------------------------
1   WS-CAC-950W          919.38    21.89       ok
2                        --        --          absent


Mod Model                Power     Power       Power     Power       Status
                         Requested Requested   Allocated Allocated
                         (Watts)   (Amp @42V)  (Watts)   (Amp @42V)
--- -------------------  -------   ----------  --------- ----------  ----------
1    DS-X9216-K9-SUP     220.08    5.24        220.08    5.24        powered-up
2    DS-X9032            199.92    4.76        199.92    4.76        powered-up


Power Usage Summary:
--------------------
Power Supply redundancy mode:                  redundant

Total Power Capacity                           919.38   W

Power reserved for Supervisor(s)[-]            220.08   W
Power reserved for Fan Module(s)[-]            47.88    W
Power currently used by Modules[-]             199.92   W

                                               -------
Total Power Available                          451.50   W
                                               -------
```

Related Commands

Command	Description
show hardware	Displays all hardware components on a system.

show fc2

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

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

Syntax Description

bind	Show fc2 socket bindings
classf	Show fc2 classf sessions
exchange	Show fc2 active exchanges
exchresp	Show fc2 active responder exchanges
flogi	Show fc2 flogi table
nport	Show fc2 local nports
plogi	Show fc2 plogi sessions
plogi_pwwn	Show fc2 plogi pwwn entries
port ***brief***	Show fc2 physical port table
socket	Show fc2 active sockets
sockexch	Show fc2 active exchanges for each socket
socknotify	Show fc2 local nport plogi/logo notifications per each socket
socknport	Show fc2 local nports per each socket
vsan	Show fc2 vsan table

Defaults

None

Command Modes

Exec

Usage Guidelines

None

Examples

```
switch# show fc2 socket
description: lists all active sockets in fc2 stack.
column heading: SOCKET REFCNT PROTOCOL
SOCKET: socket address
REFCNT: number references to the socket
PROTOCOL: the andiamo type protocol.
          0 = AT_FC
          1 = AT_LB (loopback)
          3 = AT_RDL (remote domain loopback)

switch# show fc2 bind
description: lists the protocol pattern matching criteria for all
             active sockets in fc2 stack.
column heading: SOCKET RULE SINDEX VSAN D_ID MASK TYPE SUBTYPE M_VALUES
SOCKET: socket address
RULE: rule number
```

```
SINDEX: source if index
VSAN: vsan number
D_ID: destination fcid
MASK: destination fcid mask
TYPE: fc protocol type
SUBTYPE: subtype criteria,
         number of mvalues:size of each mvalue:offset into payload
M_VALUES: the first 8 bytes of m_value array

switch# show fc2 exchange
description: lists all active exchanges in the fc2 stack.
column heading: HIX VSAN X_ID OX_ID RX_ID O_ID R_ID ESTAT STATE SOCKET DIFINDEX CS TYPE
SEQID TCNT RCNT LO HI SSTAT
HIX: hask index or bucket (vsan ^ x_id)
VSAN: vsan number
X_ID: local exchange id (either used as ox_id or rx_id)
OX_ID: originator exchange id
RX_ID: responder exchange id
O_ID: originators fcid
R_ID: responders fcid
ESTAT: exchange status block estat word (see fs-fc draft for meaning of bits)
STATE: sequence state as a string,
       IDLE: nothing going on
       WAIT: waiting for resources, ee credit, concurrent sequences, seq_id,
             plogi
       INIT: initiator, sending frames of a sequence
       XIDIL: x_id interlock, waiting for rx_id from peer
       LAST: we sent last frame and we are waiting for final ACK_1 from peer
       RECIP: recipient, receiving frames of a sequence from peer
       ERROR: ABTS protocol, waiting for BA_ACC/RJT from peer
SOCKET: socket address that owns the exchange
DIFINDEX: current sequence's destination ifindex
CS: current sequence's class of service, 2,3,5 (equals F)
TYPE: fc protocol type for exchange
SEQID: current sequence id
TCNT: current transmit sequence count
RCNT: last received sequence count
LO: low sequence count for current sequence
HI: high sequence count for current sequence
SSTAT: sequence status block sstat word (see fc-fc draft for meaning of bits)

switch# show fc2 exchresp
description: lists all active responder exchanges in the fc2 stack.
column heading:HIX VSAN OX_ID S_ID CS SIFINDEX OX_ID RX_ID O_ID R_ID ESTAT STATE SOCKET
TYPE SEQID TCNT RCNT LO HI SSTAT
HIX: hask index or bucket (vsan ^ ox_id ^ s_id)
VSAN: vsan number
OX_ID: originator exchange id
S_ID: source fcid
CS: initial exchange's class of service, 2,3,5 (equals F)
SIFINDEX: source ifindex the first frame arrived from
OX_ID: originator exchange id
RX_ID: responder exchange id
O_ID: originators fcid
R_ID: responders fcid
ESTAT: exchange status block estat word (see fs-fc draft for meaning of bits)
STATE: sequence state as a string,
       IDLE: nothing going on
       WAIT: waiting for resources, ee credit, concurrent sequences, seq_id,
             plogi
       INIT: initiator, sending frames of a sequence
       XIDIL: x_id interlock, waiting for rx_id from peer
       LAST: we sent last frame and we are waiting for final ACK_1 from peer
       RECIP: recipient, receiving frames of a sequence from peer
```

```
       ERROR: ABTS protocol, waiting for BA_ACC/RJT from peer
SOCKET: socket address that owns the exchange
TYPE: fc protocol type for exchange
SEQID: current sequence id
TCNT: current transmit sequence count
RCNT: last received sequence count
LO: low sequence count for current sequence
HI: high sequence count for current sequence
SSTAT: sequence status block sstat word (see fc-fc draft for meaning of bits)

switch# show fc2 flogi
description: lists all Nx ports that have performed flogi with f-port server
             and fc2 stack.
column heading:HIX VSAN S_ID FLOGI
HIX: hask index or bucket (vsan ^ s_id)
VSAN: vsan number
S_ID: source fcid
FLOGI: boolean, 1 = fabric logged in, 0 = fabric logged out

switch# show fc2 plogi
description: lists all plogi records within fc2 stack.
column heading:HIX VSAN S_ID D_ID IFINDEX FL STATE CF TC 2-SO IC RC RS CS EE 3-SO IC RC RS
CS EE EECNT TCCNT 2CNT 3CNT REFCNT
HIX: hask index or bucket (vsan ^ s_id ^ d_id)
VSAN: vsan number
S_ID: source fcid
D_ID: destination fcid
IFINDEX: port ifindex where Nx Port is at
FL: flags
    0x01 = static
    0x02 = do not perform LOGO
    0x04 = ifindex is valid in lookup
STATE: plogi state: 0 = logged off, 1 = pending, 2 = logged in, 3 = error
CF: common features of peer
TC: total concurrent sequences of peer
2-SO: class 2 service options of peer
IC: class 2 initiator control of peer
RC: class 2 recipient control of peer
RS: class 2 receive size of peer
CS: class 2 concurrent sequences of peer
EE: class 2 end to end credit of peer
3-SO: class 3 service options of peer
IC: class 3 initiator control of peer
RC: class 3 recipient control of peer
RS: class 3 receive size of peer
CS: class 3 concurrent sequences of peer
EE: class 3 end to end credit of peer
EECNT: current class 2 end to end credit count
TCCNT: current total concurrent sequence count
2CNT: class 2 concurrent sequence count
3CNT: class 3 concurrent sequence count
REFCNT: reference count to the record

switch# show fc2 nport
description: lists all local nport records within fc2 stack.
column heading:REF VSAN D_ID MASK FL ST IFINDEX CF TC 2-SO IC RC RS CS EE 3-SO IC RC RS CS
EE
REF: reference count to the record
VSAN: vsan number
D_ID: destination nport fcid
MASK: destination nport fcid mask
FL: flags
    0x01 = valid in any vsan
    0x02 = enable nport
```

```
    0x04 = plogi not required
    0x08 = plogi/logo notifications
    0x10 = is a VEP nport
    0x20 = is a TL nport
    0x40 = donot send logo on removal
ST: state of nport
    0 = up
    1 = suspend
    2 = clean
    3 = dirty
IFINDEX: port ifindex where TL Port is at
CF: common features of nport
TC: total concurrent sequences of nport
2-SO: class 2 service options of nport
IC: class 2 initiator control of nport
RC: class 2 recipient control of nport
RS: class 2 receive size of nport
CS: class 2 concurrent sequences of nport
EE: class 2 end to end credit of nport
3-SO: class 3 service options of nport
IC: class 3 initiator control of nport
RC: class 3 recipient control of nport
RS: class 3 receive size of nport
CS: class 3 concurrent sequences of nport
EE: class 3 end to end credit of nport

switch# show fc2 classf
description: lists all classf records within fc2 stack.
column heading: HIX VSAN S_ID D_ID IFIDX R_A_TOV E_D_TOV F-SO RC RS CS EE 2-SO RS 3-SO RS
EECNT TCCNT FCNT REFCNT
HIX: hask index or bucket (vsan ^ s_id ^ d_id ^ ifindex)
VSAN: vsan number
S_ID: source fcid
D_ID: destination fcid
IFINDEX: port ifindex of E Port
R_A_TOV: resouce allocation timeout of elp
E_D_TOV: error detect timeout of elp
F-SO: class F service options of elp
RC: class F recipient control of elp
RS: class F receive size of elp
CS: class F concurrent sequences of elp
EE: class F end to end credit of elp
2-SO: class 2 service options of elp
RS: class 2 receive size of elp
3-SO: class 3 service options of elp
RS: class 3 receive size of elp
EECNT: current class F end to end credit count
TCCNT: current total concurrent sequence count
FCNT: class F concurrent sequence count
REFCNT: reference count to the record

switch# show fc2 port
description: lists all port (physical index) records within fc2 stack.
column heading: IX ST MODE TXPKTS TXDROP TXERR RXPKTS RXDROP R_A_TOV E_D_TOV F-SO RC RS CS
EE 2-SO RS 3-SO RS
IX: physical index
ST: state of port, U = up, D = down
MODE: mode of port, Fx,xE, same values as port mgr.
      1 = auto, 2 = sd, 4 = E, 8 = TE, 0x10 = TL, 0x20 = F,
      0x40 = FL
TXPKTS: number of pkts sent that returned success from inband
TXDROP: number of pkts dropped due to port being down
TXERR: number of pkts sent that returned error from inband
RXPKTS: number of pkts received from port
```

```
RXDROP: number of receive pkts dropped due to port being down
R_A_TOV: resouce allocation timeout of elp
E_D_TOV: error detect timeout of elp
F-SO: class F service options of elp
RC: class F recipient control of elp
RS: class F receive size of elp
CS: class F concurrent sequences of elp
EE: class F end to end credit of elp
2-SO: class 2 service options of elp
RS: class 2 receive size of elp
3-SO: class 3 service options of elp
RS: class 3 receive size of elp

switch# show fc2 vsan
description: lists all vsan records within fc2 stack.
column heading: VSAN X_ID E_D_TOV R_A_TOV
VSAN: vsan number
X_ID: next exchange id to use.
E_D_TOV: switch error detect timeout
R_A_TOV: switch resouce allocation timeout
```

show fcalias

Use the **show fcalias** command to display fcalias configuration.

show fcalias [name *string***][active][vsan** *vsan-range***]**

Syntax Description

name *string*	Show members of a specified fcalias
active	Show aliases which are part of active zoneset
vsan *vsan-range*	Show aliases belonging to the specified VSAN range. The VSAN range is 1-4096.

Defaults

None

Command Modes

Exec

Usage Guidelines

None

Examples

This example displays fcalias configuration.

```
switch# show fcalias vsan 1
fcalias name Alias2 vsan 1

fcalias name Alias1 vsan 1
  pwwn 21:00:00:20:37:6f:db:dd
  pwwn 21:00:00:20:37:9c:48:e5
```

show fcanalyzer

Use the **show fcanalyzer** command to display the list of hosts configured for a remote capture.

show fcanalyzer

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Exec

Usage Guidelines

The "DEFAULT" keyword shown with an "ActiveClient" entry specifies that the default port is used in attempting the connection to the client.

Examples

Displays Configured Hosts

```
switch# show fcanalyzer
PassiveClient = 10.21.0.3
PassiveClient = 10.21.0.3
ActiveClient = 10.21.0.3, DEFAULT
```

show fcc

Use the **show fcc** commands to view FCC settings.

show fcc vsan *vsan-range*

Syntax Description

vsan *vsan-range*	The range of the VSAN IDs for which you want to view FCC settings.

Defaults

None

Command Modes

Exec

Usage Guidelines

None

Examples

Displays Configured FCC Information

```
switch# show fcc
fcc is disabled
fcc is applied to frames with priority up to 4
```

show fcdomain

To show the fcdomain information, use the **show fcdomain** command.

show fcdomain [address-allocation [cache]][domain-list][fcid persistent][statistics][interface][vsan [*vsan-id* | *vsan-range***]**

Syntax Description

address-allocation	Show statistics for the fcid allocation
cache	
domain-list	Show list of domain ids granted by the principal sw
fcid persistent	Show persistent FCIDs (across reboot)
statistics *interface*	Show the statistics of fcdomain
vsan *vsan-id* | *vsan-range*	The ID or range of the VSAN (1-4096).

Defaults

None

Command Modes

Exec

Usage Guidelines

Issuing the **show fcdomain** with no arguments shows all vsans. The vsans should be active or you will get an error.

Examples

switch# **show fcdomain vsan 1**

```
The local switch is a Subordinated Switch.

Local switch run time information:
        State: Stable
        Local switch WWN:    20:01:00:05:30:00:51:1f
        Running fabric name: 10:00:00:60:69:22:32:91
        Running priority: 128
        Current domain ID: 0x64(100) ß verify domain id

Local switch configuration information:
        State: Enabled
        Auto-reconfiguration: Disabled
        Contiguous-allocation: Disabled
        Configured fabric name: 41:6e:64:69:61:6d:6f:21
        Configured priority: 128
        Configured domain ID: 0x64(100) (preferred)

Principal switch run time information:
        Running priority: 2

Interface              Role          RCF-reject
----------------    -------------    ------------
fc2/1               Downstream       Disabled
fc2/2               Downstream       Disabled
```

```
fc2/7               Upstream         Disabled
----------------    -------------    ------------



switch# show fcdomain domain-list vsan 1

Number of domains: 5
Domain ID              WWN
---------    -----------------------
 0x61(97)    10:00:00:60:69:50:0c:fe
 0x62(98)    20:01:00:05:30:00:47:9f
 0x63(99)    10:00:00:60:69:c0:0c:1d
0x64(100)    20:01:00:05:30:00:51:1f [Local]
0x65(101)    10:00:00:60:69:22:32:91 [Principal]
---------    -----------------------


switch# show fcdomain vsan 1
The local switch is a Subordinated Switch.

Local switch run time information:
        State: Stable
        Local switch WWN:    20:01:00:05:30:00:47:9f
        Running fabric name: 10:00:00:60:69:22:32:91
        Running priority: 128
        Current domain ID: 0x62(98) ß verify domain

Local switch configuration information:
        State: Enabled
        Auto-reconfiguration: Disabled
        Contiguous-allocation: Disabled
        Configured fabric name: 41:6e:64:69:61:6d:6f:21
        Configured priority: 128
        Configured domain ID: 0x62(98) (preferred)

Principal switch run time information:

        Running priority: 2

Interface               Role          RCF-reject
----------------    -------------    ------------
fc1/1               Upstream         Disabled
fc1/3               Non-principal    Disabled
fc1/6               Non-principal    Disabled
----------------    -------------    ------------
```

show fcdroplatency

To view the configured latency parameters, use the **show fcdroplatency** command.

show fcdroplatency [network | switch]

Syntax Description

network	Network latency in milliseconds.
switch	Switch latency in milliseconds.

Defaults

None

Command Modes

Exec

Usage Guidelines

None

Examples

```
switch# show fcdroplatency
switch latency value:4000 milliseconds
network latency value:5000 milliseconds
```

show fcflow stats

To view the configured fcflow information, use the **show fcflow stats** command.

show fcflow stats

Syntax Description

aggregated	Shows aggregated fcflow statistics.
module *module-number*	Shows fcflow statistics for a specified module. The module number is a number from 1-9.
usage	Shows flow index usage

Defaults

None.

Command Modes

Exec

Usage Guidelines

None

Examples

This example displays aggregated fcflow details for the specified module.

```
switch# show fcflow stats aggregated module 2
Idx  VSAN # frames # bytes
---- ---- -------- -------
0000 4    387,653  674,235,875
0001 6    34,402   2,896,628
```

This example displays fcflow details for the specified module.

```
switch# show fcflow stats module 2
Idx  VSAN D ID        S ID        mask      # frames # bytes
---- ---- ----------- ----------- -----     -------- -------
0000 4    032.001.002 007.081.012 ff.ff.ff   387,653  674,235,875
0001 6    004.002.001 019.002.004 ff.00.00   34,402   2,896,628
```

This example displays fcflow index usage for the specified module.

```
switch# show fcflow stats usage module 2
2 flows configured
configured flow : 3,7
```

show fcfwd

To view the configured fcfwd tables and statistics, use the **show fcfwd** command.

show fcfwd {idxmap [interface-toport | port-to-interface | statistics] | pcmap [interface] |sfib [multicast | statistics | unicast] | spanmap [rx | tx]}

Syntax Description

idxmap	Show fc fwd index tables.
interface-to-port	Show intf index to port index table.
port-to-interface	Show port index to intf index table.
statistics	Show index table statistics.
pcmap	Show fc fwd port-channel table.
interface	Show port-channel table for an interface.
sfib	Show software forwarding tables.
multicast	Show multicast software forwarding tables.
statistics	Show software forwarding statistics.
unicast	Show unicast software forwarding tables.
spanmap	Show spanmap tables.
rx	Show spanmap table in ingress -rx direction.
tx	Show spanmap table in egress -tx direction.

Defaults

None.

Command Modes

Exec

Usage Guidelines

None

Examples

```
switch# show fcfwd spanmap rx
SPAN source information: size [c8]
dir source                vsan   bit   drop_thresh destination
```

```
switch# show fcfwd idxmap statistics
idxmap statistics:
```

show fctimer

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

show fctimer [D_S_TOV | E_D_TOV | F_S_TOV | R_A_TOV]

Syntax Description

D_S_TOV	D_S_TOV in milliseconds
E_D_TOV	E_D_TOV in milliseconds
F_S_TOV	F_S_TOV in milliseconds
R_A_TOV	R_A_TOV in milliseconds

Defaults

None.

Command Modes

Exec

Usage Guidelines

None

Examples

```
switch# show fctimer
F_S_TOV : 5000 milliseconds
D_S_TOV : 5000 milliseconds
E_D_TOV : 2000 milliseconds
R_A_TOV : 10000 milliseconds
```

show fcns database

Use the **show fcns database** command to display the results of the discovery, or to display the name server database and statistical information for a specified VSAN or for all VSANs.

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

Syntax Description

detail	Show all objects in each entry.
vsan *vsan-id*	Show entries for a specified VSAN or VSANs.
domain *domain-id*	Show entries in a domain.
fcid *fcid-id*	Show entry for the given port.
local	Show local entries.

Defaults

None

Command Modes

Exec

Usage Guidelines

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

Examples

```
switch# show fcns database
VSAN 1:
--------------------------------------------------------------------------
FCID        TYPE  PWWN                    (VENDOR)        FC4-TYPE:FEATURE
--------------------------------------------------------------------------
0x9c0000    N     21:00:00:e0:8b:08:96:22 (Company 1)        scsi-fcp:init
0x9c0100    N     10:00:00:05:30:00:59:1f (Company 2)       ipfc
0x9c0200    N     21:00:00:e0:8b:07:91:36 (Company 3)        scsi-fcp:init
0x9c03d6    NL    21:00:00:20:37:46:78:97 (Company 4)       scsi-fcp:target
0x9c03d9    NL    21:00:00:20:37:5b:cf:b9 (Company 4)       scsi-fcp:target
0x9c03da    NL    21:00:00:20:37:18:6f:90 (Company 4)       scsi-fcp:target
0x9c03dc    NL    21:00:00:20:37:5a:5b:27 (Company 4)       scsi-fcp:target
0x9c03e0    NL    21:00:00:20:37:36:0b:4d (Company 4)       scsi-fcp:target
0x9c03e1    NL    21:00:00:20:37:39:90:6a (Company 4)       scsi-fcp:target
0x9c03e2    NL    21:00:00:20:37:18:d2:45 (Company 4)       scsi-fcp:target
0x9c03e4    NL    21:00:00:20:37:6b:d7:18 (Company 4)       scsi-fcp:target
0x9c03e8    NL    21:00:00:20:37:38:a7:c1 (Company 4)       scsi-fcp:target
0x9c03ef    NL    21:00:00:20:37:18:17:d2 (Company 4)       scsi-fcp:target

Total number of entries = 13
```

show fcns statistics

show fcns statistics [detail] vsan *vsan-range*

Syntax Description

detail	Show detailed statistics.
vsan *vsan-range*	Show statistics for the specified VSAN or VSANs.

Defaults

None.

Command Modes

Exec

Usage Guidelines

None.

Examples

```
switch# show fcns statistics
registration requests received = 27
deregistration requests received = 0
queries received = 57
queries sent = 10
reject responses sent = 14
RSCNs received = 0
RSCNs sent = 0
switch#
```

show fcroute

show fcroute distance

show fcroute label [*label***] [***label***] vsan** *vsan-id*

show fcroute multicast vsan *vsan-id*

show fcroute summary vsan *vsan-id*

show fcroute unicast *fc-id* **vsan** *vsan-id*

show fcroute unicast vsan *vsan-id*

To view specific information about existing Fibre Channel and FSPF configurations, use the **show fcroute** command.

Syntax Description

distance	Show FC route preference.
label	Show label routes.
multicast	Show FC multicast routes.
summary	Show FC routes summary.
unicast	Show FC unicast routes.
vsan *vsan-id*	The ID of the VSAN (1-4096).
fcid-id	The Fibre Channel ID.

Defaults

None

Command Modes

Exec

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 displays administrative distance.

```
switch# show fcroute distance

        Route
UUID    Distance        Name
----    --------        ----
10      20              RIB
22      40              FCDOMAIN
39      80              RIB-CONFIG
12      100             FSPF
17      120             FLOGI
21      140             TLPM
14      180             MCAST
64      200             RIB-TEST
```

This example displays multicast routing information.

```
switch# show fcroute multicast
VSAN FC ID    # Interfaces
---- -------- ------------
1    0xffffff 0
2    0xffffff 1
3    0xffffff 1
4    0xffffff 0
5    0xffffff 0
6    0xffffff 0
7    0xffffff 0
8    0xffffff 0
9    0xffffff 0
10   0xffffff 0
```

This example displays FCID information for a specified VSAN.

```
switch# show fcroute multicast vsan 3

VSAN FC ID    # Interfaces
---- -------- ------------
3    0xffffff 1
```

This example displays FCID and interface information for a specified VSAN.

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

VSAN FC ID    # Interfaces
---- -------- ------------
2    0xffffff 1
  fc1/1
```

This example displays unicast routing information.

```
switch# show fcroute unicast
D:direct R:remote P:permanent V:volatile A:active N:non-active
                                                  # Next
Protocol VSAN    FC ID/Mask     RCtl/Mask Flags Hops   Cost
-------- ---- -------- -------- ---- ---- ----- ------ ----
static   1    0x010101 0xffffff 0x00 0x00 D P A 1      10
static   2    0x111211 0xffffff 0x00 0x00 R P A 1      10
fspf     2    0x730000 0xff0000 0x00 0x00 D P A 4      500
fspf     3    0x610000 0xff0000 0x00 0x00 D P A 4      500
static   4    0x040101 0xffffff 0x00 0x00 R P A 1      103
static   4    0x040102 0xffffff 0x00 0x00 R P A 1      103
static   4    0x040103 0xffffff 0x00 0x00 R P A 1      103
static   4    0x040104 0xffffff 0x00 0x00 R P A 1      103
static   4    0x111211 0xffffff 0x00 0x00 D P A 1      10
```

This example displays unicast routing information for a specified VSAN.

```
switch# show fcroute unicast vsan 4

D:direct R:remote P:permanent V:volatile A:active N:non-active
                                                  # Next
Protocol VSAN    FC ID/Mask     RCtl/Mask Flags Hops   Cost
-------- ---- -------- -------- ---- ---- ----- ------ ----
```

```
static   4    0x040101 0xffffff 0x00 0x00 R P A 1      103
static   4    0x040102 0xffffff 0x00 0x00 R P A 1      103
static   4    0x040103 0xffffff 0x00 0x00 R P A 1      103
static   4    0x040104 0xffffff 0x00 0x00 R P A 1      103
static   4    0x111211 0xffffff 0x00 0x00 D P A 1      10
```

This example displays unicast routing information for a specified FCID.

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

D:direct R:remote P:permanent V:volatile A:active N:non-active
                                                    # Next
Protocol VSAN    FC ID/Mask     RCtl/Mask Flags Hops   Cost
-------- ---- -------- -------- ---- ---- ----- ------ ----
static   4    0x040101 0xffffff 0x00 0x00 R P A 1      103
  fc1/2 Domain 0xa6(166)
```

This example displays route database information.

```
switch# show fcroute summary

FC route database created Tue Oct 29 01:24:23 2002
VSAN    Ucast   Mcast   Label   Last Modified Time
----    -----   -----   -----   ------------------
1       2       1       0       Tue Oct 29 18:07:02 2002
2       3       1       0       Tue Oct 29 18:33:24 2002
3       2       1       0       Tue Oct 29 18:10:07 2002
4       6       1       0       Tue Oct 29 18:31:16 2002
5       1       1       0       Tue Oct 29 01:34:39 2002
6       1       1       0       Tue Oct 29 01:34:39 2002
7       1       1       0       Tue Oct 29 01:34:39 2002
8       1       1       0       Tue Oct 29 01:34:39 2002
9       1       1       0       Tue Oct 29 01:34:39 2002
10      1       1       0       Tue Oct 29 01:34:39 2002
Total   19      10      0
```

This example displays route database information for a specified VSAN.

```
switch# show fcroute summary vsan 4

FC route database created Tue Oct 29 01:24:23 2002
VSAN    Ucast   Mcast   Label   Last Modified Time
----    -----   -----   -----   ------------------
4       6       1       0       Tue Oct 29 18:31:16 2002
Total   6       1       0
```

show fcs

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

show fcs database vsan *vsan-range*

show fcs ie nwwn *wwn* **vsan** *vsan-range*

show fcs ie vsan *vsan-range*

show fcs platform name *string* **vsan** *vsan-range*

show fcs platform vsan *vsan-range*

show fcs port pwwn *wwn* **vsan** *vsan-range*

show fcs port vsan *vsan-range*

show fcs statistics vsan *vsan-range*

show fcs vsan

Syntax Description

database	Show local database of FCS.
ie	Show Interconnect Element Objects Information.
platform	Show Platform Objects Information.
port	Show Port Objects Information.
statistics	Show statistics for FCS packets.
vsan	Show list of all the VSANs and plat-check-mode for each.

Defaults

None

Command Modes

Exec

Usage Guidelines

None

Examples

This example displays FCS database information.

```
switch# show fcs database

FCS Local Database in VSAN: 1
------------------------------
Switch WWN               : 20:01:00:05:30:00:16:df
Switch Domain Id         : 0x7f(127)
Switch Mgmt-Addresses    : snmp://172.22.92.58/eth-ip
                           http://172.22.92.58/eth-ip
Fabric-Name              : 20:01:00:05:30:00:16:df
Switch Logical-Name      : 172.22.92.58
```

```
Switch Information List  : [Cisco Systems*DS-C9509*0*20:00:00:05:30:00
Switch Ports:
-------------------------------------------------------------------
Interface  pWWN                     Type     Attached-pWWNs
-------------------------------------------------------------------
fc2/1      20:41:00:05:30:00:16:de  TE       20:01:00:05:30:00:20:de
fc2/2      20:42:00:05:30:00:16:de  Unknown  None
fc2/17     20:51:00:05:30:00:16:de  TE       20:0a:00:05:30:00:20:de

FCS Local Database in VSAN: 5
------------------------------
Switch WWN               : 20:05:00:05:30:00:12:5f
Switch Domain Id         : 0xef(239)
Switch Mgmt-Addresses    : http://172.22.90.171/eth-ip
                           snmp://172.22.90.171/eth-ip
                           http://10.10.15.10/vsan-ip
                           snmp://10.10.15.10/vsan-ip
Fabric-Name              : 20:05:00:05:30:00:12:5f
Switch Logical-Name      : 172.22.90.171
Switch Information List  : [Cisco Systems*DS-C9509**20:00:00:05:30:00:12:5e]
Switch Ports:
-------------------------------------------------------------------
Interface  pWWN                     Type     Attached-pWWNs
-------------------------------------------------------------------
fc3/1      20:81:00:05:30:00:12:5e  TE       22:01:00:05:30:00:12:9e
fc3/2      20:82:00:05:30:00:12:5e  TE       22:02:00:05:30:00:12:9e
fc3/3      20:83:00:05:30:00:12:5e  TE       22:03:00:05:30:00:12:9e
```

This example displays Interconnect Element object information for a specific VSAN.

```
switch# show fcs ie vsan  1

IE List for VSAN: 1
------------------------------------------------------------------
IE-WWN                  IE-Type                         Mgmt-Id
------------------------------------------------------------------
20:01:00:05:30:00:16:df  Switch (Local)                 0xfffc7f
20:01:00:05:30:00:20:df  Switch (Adjacent)              0xfffc64
[Total 2 IEs in Fabric]
```

This command displays Interconnect Element object information for a specific WWN.

```
switch# show fcs ie nwwn 20:01:00:05:30:00:16:df vsan 1
IE Attributes
-------------
Domain-Id = 0x7f(127)
Management-Id = 0xfffc7f
Fabric-Name = 20:01:00:05:30:00:16:df
Logical-Name = 172.22.92.58
Management Address List =
        snmp://172.22.92.58/eth-ip
        http://172.22.92.58/eth-ip
Information List:
        Vendor-Name = Cisco Systems
        Model Name/Number = DS-C9509
        Release-Code = 0
```

This command displays platform information.

```
switch# show fcs platform name SamplePlatform vsan 1
Platform Attributes
-------------------
Platform Node Names:
        11:22:33:44:55:66:77:88
Platform Type = Gateway
Platform Management Addresses:
        1.1.1.1
```

This command displays platform information within a specified VSAN.

```
switch# show fcs platform vsan 1
Platform List for VSAN: 1
Platform-Names
--------------
SamplePlatform
[Total 1 Platforms in Fabric]
```

This command displays FCS port information within a specified VSAN.

```
switch# show fcs port vsan 24
Port List in VSAN: 24
                -- IE WWN: 20:18:00:05:30:00:16:df  --
------------------------------------------------------------------------
Port-WWN                Type      Module-Type            Tx-Type
------------------------------------------------------------------------
20:41:00:05:30:00:16:de  TE_Port   SFP with Serial Id      Shortwave Laser

20:51:00:05:30:00:16:de  TE_Port   SFP with Serial Id      Shortwave Laser

[Total 2 switch-ports in IE]
                -- IE WWN: 20:18:00:05:30:00:20:df  --
------------------------------------------------------------------------
Port-WWN                Type      Module-Type            Tx-Type
------------------------------------------------------------------------
20:01:00:05:30:00:20:de  TE_Port   SFP with Serial Id      Shortwave Laser

20:0a:00:05:30:00:20:de  TE_Port   SFP with Serial Id      Shortwave Laser

[Total 2 switch-ports in IE]
```

This command displays ports within a specified WWN.

```
switch# show fcs port pwwn 20:51:00:05:30:00:16:de vsan 24
Port Attributes
---------------
Port Type = TE_Port
Port Number = 0x1090000
Attached-Port-WWNs:
        20:0a:00:05:30:00:20:de
Port State = Online
```

This command displays FCS statistics.

```
switch# show fcs statistics

FCS Statistics for VSAN: 1
---------------------------
FCS Rx Get Reqs   :2
FCS Tx Get Reqs   :7
FCS Rx Reg Reqs   :0
FCS Tx Reg Reqs   :0
FCS Rx Dereg Reqs :0
FCS Tx Dereg Reqs :0
FCS Rx RSCNs      :0
FCS Tx RSCNs      :3
FCS Rx RJTs       :3
FCS Tx RJTs       :0
FCS Rx ACCs       :4
FCS Tx ACCs       :2
FCS No Response   :0
FCS Retransmit    :0

FCS Statistics for VSAN: 30
---------------------------
FCS Rx Get Reqs   :2
FCS Tx Get Reqs   :2
FCS Rx Reg Reqs   :0
FCS Tx Reg Reqs   :0
FCS Rx Dereg Reqs :0
FCS Tx Dereg Reqs :0
FCS Rx RSCNs      :0
FCS Tx RSCNs      :0
FCS Rx RJTs       :0
FCS Tx RJTs       :0
FCS Rx ACCs       :2
FCS Tx ACCs       :2
FCS No Response   :0
FCS Retransmit    :0
```

show file

To display the contents of a specified file in the file system, use the **show file** command.

show file *filename*

Syntax Description

filename	The name of the file for which you want to display contents.

Defaults

None

Command Modes

Exec

Usage Guidelines

None.

Examples

This example displays the contents of the test file that resides in the slot0 directory.

```
switch# show file slot0:test
config t
Int fc1/1
no shut
end
show int
```

This example displays the contents of a file residing in the current directory.

```
switch# show file myfile
```

show flash

To display the flash usage, use the **show flash** command.

show flash

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

EXEC

Usage Guidelines

None.

Examples

The **show flash** command displays the disk usage of various devices.

```
switch# show flash
```

show flogi database

To list all the flogi sessions through all interfaces across all vsans, use the **show flogi database** command.

show flogi database [fcid *fcid-id* **| interface** *interface* **| vsan** *vsan-id***]**

Syntax Description

fcid	Optional - filters flogi based on the fcid allocated.
interface	Optional - filters flogi based on the logged in interface.
vsan	Optional - filters flogi based on the vsan.

Defaults

None

Command Modes

Exec

Usage Guidelines

Output of this command is first sorted on interface and then on vsans.

In a Fibre Channel fabric, each host or disk requires an FC ID. Use the **show flogi** 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 command displays details on the FLOGI database.

```
switch# show flogi database
--------------------------------------------------------------------------------
INTERFACE  VSAN    FCID           PORT NAME               NODE NAME
--------------------------------------------------------------------------------
sup-fc0    2     0xb30100  10:00:00:05:30:00:49:63  20:00:00:05:30:00:49:5e
fc9/13     1     0xb200e2  21:00:00:04:cf:27:25:2c  20:00:00:04:cf:27:25:2c
fc9/13     1     0xb200e1  21:00:00:04:cf:4c:18:61  20:00:00:04:cf:4c:18:61
fc9/13     1     0xb200d1  21:00:00:04:cf:4c:18:64  20:00:00:04:cf:4c:18:64
fc9/13     1     0xb200ce  21:00:00:04:cf:4c:16:fb  20:00:00:04:cf:4c:16:fb
fc9/13     1     0xb200cd  21:00:00:04:cf:4c:18:f7  20:00:00:04:cf:4c:18:f7

Total number of flogi = 6.
```

This command displays the FLOGI interface.

```
switch# show flogi database interface fc1/11
INTERFACE       VSAN    FCID           PORT NAME               NODE NAME
-------------------- ---- -------- ----------------------- ---------------------
fc9/13     1 0xa002ef 21:00:00:20:37:18:17:d2 20:00:00:20:37:18:17:d2
fc9/13     1 0xa002e8 21:00:00:20:37:38:a7:c1 20:00:00:20:37:38:a7:c1
fc9/13     1 0xa002e4 21:00:00:20:37:6b:d7:18 20:00:00:20:37:6b:d7:18
fc9/13     1 0xa002e2 21:00:00:20:37:18:d2:45 20:00:00:20:37:18:d2:45
fc9/13     1 0xa002e1 21:00:00:20:37:39:90:6a 20:00:00:20:37:39:90:6a
fc9/13     1 0xa002e0 21:00:00:20:37:36:0b:4d 20:00:00:20:37:36:0b:4d
fc9/13     1 0xa002dc 21:00:00:20:37:5a:5b:27 20:00:00:20:37:5a:5b:27
```

```
fc9/13    1 0xa002da 21:00:00:20:37:18:6f:90 20:00:00:20:37:18:6f:90
fc9/13    1 0xa002d9 21:00:00:20:37:5b:cf:b9 20:00:00:20:37:5b:cf:b9
fc9/13    1 0xa002d6 21:00:00:20:37:46:78:97 20:00:00:20:37:46:78:97

Total number of flogi = 10.
```

This command displays the FLOGI VSAN.

```
switch# show flogi database vsan 1
--------------------------------------------------------------------------------
INTERFACE  VSAN    FCID           PORT NAME               NODE NAME
--------------------------------------------------------------------------------
fc9/13      1     0xef02ef  22:00:00:20:37:18:17:d2  20:00:00:20:37:18:17:d2
fc9/13      1     0xef02e8  22:00:00:20:37:38:a7:c1  20:00:00:20:37:38:a7:c1
fc9/13      1     0xef02e4  22:00:00:20:37:6b:d7:18  20:00:00:20:37:6b:d7:18
fc9/13      1     0xef02e2  22:00:00:20:37:18:d2:45  20:00:00:20:37:18:d2:45
fc9/13      1     0xef02e1  22:00:00:20:37:39:90:6a  20:00:00:20:37:39:90:6a
fc9/13      1     0xef02e0  22:00:00:20:37:36:0b:4d  20:00:00:20:37:36:0b:4d
fc9/13      1     0xef02dc  22:00:00:20:37:5a:5b:27  20:00:00:20:37:5a:5b:27
fc9/13      1     0xef02da  22:00:00:20:37:18:6f:90  20:00:00:20:37:18:6f:90
fc9/13      1     0xef02d9  22:00:00:20:37:5b:cf:b9  20:00:00:20:37:5b:cf:b9
fc9/13      1     0xef02d6  22:00:00:20:37:46:78:97  20:00:00:20:37:46:78:97

Total number of flogi = 10.
```

This command displays the FLOGI FCID.

```
switch# show flogi database fcid 0xef02e2
--------------------------------------------------------------------------------
INTERFACE  VSAN    FCID           PORT NAME               NODE NAME
--------------------------------------------------------------------------------
fc9/13      1     0xef02e2  22:00:00:20:37:18:d2:45  20:00:00:20:37:18:d2:45

Total number of flogi = 1.
```

Related Commands

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

show fspf

To display global FSPF information, use the **show fspf** command. This information includes:

- the domain number of the switch
- the autonomous region for the switch
- Min_LS_arrival: the minimum time that must elapse before the switch accepts LSR updates
- Min_LS_interval: the minimum time that must elapse before the switch can transmit an LSR
- LS_refresh_time: the interval lapse between refresh LSR transmissions
- Max_age: the maximum time aa LSR can stay before being deleted

show fspf database [vsan *vsan-id***][domain** *domain-id* **[detail]**

show fspf interface

show fspf [vsan *vsan-id]* [**interface** [*interface range*]]

Syntax Description

database	To display information of fspf database for a VSAN. If no other parameters are given all the LSRs in the database are displayed. If more specific information is required then the domain number of the owner of the LSR may be given. Detail gives more detailed information on each LSR.
domain *domain-id*	The domain of the database. The parameter *domain_num* is unsigned integers in the range 0-255.
interface *interface*	Display FSPF interface information for a given VSAN. If the interface number is specified information on the neighbor on that interface is displayed. If no interface is specified information on all interfaces are displayed. The parameter *interface_range* is of the format fcslot/port - fcslot/port
vsan *vsan-id*	The ID of the VSAN.

Defaults

None

Command Modes

Exec

Usage Guidelines

None

Examples

```
switch# show fspf vsan 1 interface fc 2/14
FSPF interface fc2/14 in VSAN 1
FSPF routing administrative state is active
Interface cost is 500
Timer intervals configured, Hello 20 s, Dead 80 s, Retransmit 5 s
FSPF State is FULL
Neighbor Domain Id is 0x03(3), Neighbor Interface index is 0x0001060d
```

```
Statistics counters :
   Number of packets received :LSU  184  LSA  184  Hello 5477  Error packets 0
   Number of packets transmitted :LSU  184  LSA  184  Hello 5478  Retransmitted
 LSU  0
  Number of times inactivity timer expired for the interface = 0
```

This example displays FSPF interface information.

```
switch# show fspf interface vsan 1 fc1/1
FSPF interface fc1/1 in VSAN 1
FSPF routing administrative state is active
Interface cost is 500
Timer intervals configured, Hello 20 s, Dead 80 s, Retransmit 5 s
FSPF State is FULL
Neighbor Domain Id is 0x0c(12), Neighbor Interface index is 0x0f100000

Statistics counters :
   Number of packets received : LSU  8  LSA  8  Hello 118  Error packets 0
   Number of packets transmitted : LSU  8  LSA  8  Hello 119  Retransmitted LSU
 0
  Number of times inactivity timer expired for the interface = 0
```

This example displays FSPF database information.

```
switch# show fspf database vsan 1

FSPF Link State Database for VSAN 1 Domain 0x0c(12)
LSR Type                = 1
Advertising domain ID   = 0x0c(12)
LSR Age                 = 1686
LSR Incarnation number  = 0x80000024
LSR Checksum            = 0x3caf
Number of links         = 2
 NbrDomainId      IfIndex   NbrIfIndex    Link Type         Cost
--------------------------------------------------------------------------------
   0x65(101) 0x0000100e     0x00001081               1          500
   0x65(101) 0x0000100f     0x00001080               1          500

FSPF Link State Database for VSAN 1 Domain 0x65(101)
LSR Type                = 1
Advertising domain ID   = 0x65(101)
LSR Age                 = 1685
LSR Incarnation number  = 0x80000028
LSR Checksum            = 0x8443
Number of links         = 6
 NbrDomainId      IfIndex   NbrIfIndex    Link Type         Cost
--------------------------------------------------------------------------------
   0xc3(195) 0x00001085     0x00001095               1          500
   0xc3(195) 0x00001086     0x00001096               1          500
   0xc3(195) 0x00001087     0x00001097               1          500
   0xc3(195) 0x00001084     0x00001094               1          500
    0x0c(12) 0x00001081     0x0000100e               1          500
    0x0c(12) 0x00001080     0x0000100f               1          500

FSPF Link State Database for VSAN 1 Domain 0xc3(195)
LSR Type                = 1
Advertising domain ID   = 0xc3(195)
LSR Age                 = 1686
LSR Incarnation number  = 0x80000033
LSR Checksum            = 0x6799
Number of links         = 4
```

```
 NbrDomainId      IfIndex   NbrIfIndex    Link Type         Cost
-------------------------------------------------------------------------------
   0x65(101) 0x00001095     0x00001085               1          500
   0x65(101) 0x00001096     0x00001086               1          500
   0x65(101) 0x00001097     0x00001087               1          500
   0x65(101) 0x00001094     0x00001084               1          500
```

This command displays 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 = 5000 msec
Local Domain is 0x65(101)
Number of LSRs = 3, Total Checksum = 0x0001288b

Protocol constants :
   LS_REFRESH_TIME = 1800 sec
   MAX_AGE         = 3600 sec

Statistics counters :
   Number of LSR that reached MaxAge = 0
   Number of SPF computations        = 7
   Number of Checksum Errors         = 0
   Number of Transmitted packets :  LSU 65 LSA 55 Hello 474 Retranmsitted LSU 0
   Number of received packets :  LSU 55 LSA 60 Hello 464 Error packets 10
```

show hardware

Use the **show hardware** command to display switch hardware inventory details.

show hardware

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Exec

Usage Guidelines

None

Examples

```
switch# sho hardware
Cisco Storage Area Networking Operating System (SAN-OS) Software
TAC support:http://www.cisco.com/tac
Copyright (c) 1986-2002 by cisco Systems, Inc. All rights reserved.
The copyright for certain works contained herein are owned by
Andiamo Systems, Inc. and/or other third parties and are used and
distributed under license.


Software
  BIOS:     version 0.0.0
  loader:   version 1.0(0.259)
  kickstart:version 1.0(2a)
  system:   version 1.0(2a)

  BIOS compile time:      10/10/02
  kickstart image file is:bootflash:/boot-280
  kickstart compile time: 11/20/2002 6:00:00
  system image file is:   isan-280
  system compile time:    11/20/2002 6:00:00


Hardware
  RAM 963108 kB

  bootflash:503808 blocks (block size 512b)
  slot0:         0 blocks (block size 512b)

  172.22.92.28 uptime is 0 days 0 hour 31 minute(s) 23 second(s)

  Last reset
    Reason:Watchdog Timeout/External Reset
    System version:1.0(2a)


This supervisor carries Pentium processor with 963108 kB of memory
Intel(R) Pentium(R) III CPU at 800MHz with 512 KB L2 Cache
```

```
Rev:Family  6, Model  11 stepping  1

512K bytes of non-volatile memory.
503808 blocks of internal bootflash (block size 512b)
```

show interface

You can check the status of an interface at any time by using the **show interface** command.

show interface [**brief** | **counters** | **description** | **fc** | **mgmt**| **port-channel** | **status** | **sup-fc** | **transceiver** | **vsan**] [**interface range**]

Syntax Description

interface range	
brief	Show brief info of interface.
counters	Show counters of interface.
description	Show description of interface.
fc	Fibre Channel interface.
mgmt	Management interface.
port-channel	Port Channel interface.
status	Show operational state of interface.
sup-fc	Inband interface
transceiver	Show transceiver information for interface.
vsan	Show IPFC VSAN interface

Defaults

None

Command Modes

EXEC

Usage Guidelines

None.

Examples

```
switch# show interface fc1/1
fc1/1 is up
    Hardware is Fibre Channel, 20:01:ac:16:5e:4a:00:00
    vsan is 1
    Port modeis E
    Speed is 1 Gbps
    Beacon is turned off
    FCID is 0x0b0100
      0 frames input, 0 bytes, 0 discards
      0 runts, 0 jabber, 0 too long, 0 too short
      0 input errors, 0 CRC, 0 invalid transmission words
      0 address id, 0 delimiter
      0 EOF abort, 0 fragmented, 0 unknown class
      0 frames output, 0 bytes, 0 discards
      Received 0 OLS, 0 LRR, 0 NOS, 0 loop inits
      Transmitted 0 OLS, 0 LRR, 0 NOS, 0 loop inits


switch# show int sup-fc0
sup-fc0 is up
    Hardware is FastEthernet, address is 0000.0000.0000
```

```
    MTU 2596 bytes, BW 1000000 Kbit
    66 packets input, 7316 bytes
    Received 0 multicast frames, 0 compressed
    0 input errors, 0 frame, 0 overrun 0 fifo
    64 packets output, 28068 bytes, 0 underruns
    0 output errors, 0 collisions, 0 fifo
    0 carrier errors
```

```
switch# show int vsan 2
vsan2 is up, line protocol is up
    WWPN is 10:00:00:05:30:00:59:1f, FCID is 0xb90100
    Internet address is 10.1.1.1/24
    MTU 1500 bytes, BW 1000000 Kbit
    0 packets input, 0 bytes, 0 errors, 0 multicast
    0 packets output, 0 bytes, 0 errors, 0 dropped
```

```
switch# show interface description
fc1/1
    no description
fc1/2
    no description
fc1/15
fcAnl

sup-fc0 is up

mgmt0 is up

vsan1 - IPFC interface

port-channel 15
no description

port-channel 98
no description
```

```
switch# show interface fc2/1 - 5 brief
show int brief

-------------------------------------------------------------------------------
Interface  Vsan   Admin  Admin   Status          Oper  Oper   Port-channel
                  Mode   Trunk                   Mode  Speed
                         Mode                          (Gbps)
-------------------------------------------------------------------------------
fc1/1      1      auto   on      down            --    --     --
fc1/2      1      auto   on      fcotAbsent      --    --     --
fc1/3      1      F      --      notConnected    --    --     --
fc1/4      1      auto   on      fcotAbsent      --    --     --
fc1/5      1      F      --      up              F     2      --
fc1/6      1      auto   on      fcotAbsent      --    --     --
fc1/7      1      auto   on      down            --    --     --
fc1/8      1      auto   on      fcotAbsent      --    --     --
fc1/9      1      auto   on      fcotAbsent      --    --     --
fc1/10     1      auto   on      fcotAbsent      --    --     --
fc1/11     1      auto   on      down            --    --     --
fc1/12     1      auto   on      fcotAbsent      --    --     --
fc1/13     1      auto   on      down            --    --     --
fc1/14     1      auto   on      fcotAbsent      --    --     --
```

```
fc1/15     1      auto   on      down             --    --      --
fc1/16     1      auto   on      fcotAbsent       --    --      --
-------------------------------------------------------------------------------
Interface          Status   IP Address               Speed        MTU
-------------------------------------------------------------------------------
sup-fc0            up       --                       1 Gbps       2596
-------------------------------------------------------------------------------
Interface          Status   IP Address               Speed        MTU
-------------------------------------------------------------------------------
mgmt0              up       172.22.95.112/24         100 Mbps     1500
-------------------------------------------------------------------------------
Interface          Status   IP Address               Speed        MTU
-------------------------------------------------------------------------------
vsan1                 up    10.1.1.1/24              1 Gbps       1500
```

```
switch# show interface counters
fc1/2
    Class-2 0 frames output, 0 bytes
    0 frames input, 0 bytes, 0 discards
    Class-3 0 frames output, 0 bytes
    0 frames input, 0 bytes, 0 discards
    Class-F 0 frames output, 0 bytes
    0 frames input, 0 bytes, 0 discards
    Total 0 frames output, 0 bytes
    0 frames input, 0 bytes, 0 discards
    Received 0 OLS, 0 LRR, 0 NOS, 0 loop inits
    Transmitted 0 OLS, 0 LRR, 0 NOS, 0 loop inits
    Errors 0 link failures, 0 sync losses
    0 signal losses, 0 primitive sequence protocol
    0 invalid CRCs, 0 invalid transmission words
    0 delimiter, 0 address identifier, 0 transmit wait
    0 runts, 0 jabber, 0 too long, 0 too short
    0 EOF abort, 0 fragmented, 0 unknown class

fc1/5
    Class-2 0 frames output, 0 bytes
    0 frames input, 0 bytes, 0 discards
    Class-3 58 frames output, 25316 bytes
    59 frames input, 3444 bytes, 0 discards
    Class-F 0 frames output, 0 bytes
    0 frames input, 0 bytes, 0 discards
    Total 58 frames output, 25316 bytes
    59 frames input, 3444 bytes, 0 discards
    Received 0 OLS, 0 LRR, 0 NOS, 0 loop inits
    Transmitted 6 OLS, 3 LRR, 1 NOS, 0 loop inits
    Errors 0 link failures, 0 sync losses
    0 signal losses, 0 primitive sequence protocol
    0 invalid CRCs, 0 invalid transmission words
    0 delimiter, 0 address identifier, 0 transmit wait
    0 runts, 0 jabber, 0 too long, 0 too short
    0 EOF abort, 0 fragmented, 0 unknown class

fc1/15
    Class-2 0 frames output, 0 bytes
    0 frames input, 0 bytes, 0 discards
    Class-3 0 frames output, 0 bytes
    0 frames input, 0 bytes, 0 discards
    Class-F 0 frames output, 0 bytes
    0 frames input, 0 bytes, 0 discards
    Total 0 frames output, 0 bytes
    0 frames input, 0 bytes, 0 discards
```

```
    Received 0 OLS, 0 LRR, 0 NOS, 0 loop inits
    Transmitted 0 OLS, 0 LRR, 0 NOS, 0 loop inits
    Errors 0 link failures, 0 sync losses
    0 signal losses, 0 primitive sequence protocol
    0 invalid CRCs, 0 invalid transmission words
    0 delimiter, 0 address identifier, 0 transmit wait
    0 runts, 0 jabber, 0 too long, 0 too short
    0 EOF abort, 0 fragmented, 0 unknown class

fc1/16
    Class-2 0 frames output, 0 bytes
    0 frames input, 0 bytes, 0 discards
    Class-3 0 frames output, 0 bytes
    0 frames input, 0 bytes, 0 discards
    Class-F 0 frames output, 0 bytes
    0 frames input, 0 bytes, 0 discards
    Total 0 frames output, 0 bytes
    0 frames input, 0 bytes, 0 discards
    Received 0 OLS, 0 LRR, 0 NOS, 0 loop inits
    Transmitted 0 OLS, 0 LRR, 0 NOS, 0 loop inits
    Errors 0 link failures, 0 sync losses
    0 signal losses, 0 primitive sequence protocol
    0 invalid CRCs, 0 invalid transmission words
    0 delimiter, 0 address identifier, 0 transmit wait
    0 runts, 0 jabber, 0 too long, 0 too short
    0 EOF abort, 0 fragmented, 0 unknown class

sup-fc0
    66 packets input, 7316 bytes
    Received 0 multicast frames, 0 compressed
    0 input errors, 0 frame, 0 overrun 0 fifo
    64 packets output, 28068 bytes, 0 underruns
    0 output errors, 0 collisions, 0 fifo
    0 carrier errors

mgmt0
    630891 packets input, 190902354 bytes
    Received 0 multicast frames, 0 compressed
    0 input errors, 0 frame, 0 overrun 0 fifo
    494455 packets output, 116219488 bytes, 0 underruns
    0 output errors, 50 collisions, 0 fifo
    5 carrier errors


switch# show interface counters brief


switch# show interface status
fc1/1 is down (Administratively down)
fc1/2 is down (Fcot not present)
fc1/3 is down (Link failure or not-connected)
fc1/5 is up    Port mode is F
fc1/6 is up    Port mode is FL
fc2/7 is up    Port mode is SD
fc2/17 is trunking    Port mode is TE
fc2/18 is trunking    Port mode is SD
fc2/19 is trunking    Port mode is TE
sup-fc0 is up
mgmt0 is up
vsan1 is upport-channel 4 is trunking    Port mode is TE
port-channel 5 is down
port-channel 7 is trunking    Port mode is TE
```

```
switch# show interface transceiver
fc1/1 fcot is present but not supported
    name is IBM
    part number is IBM42P21SNY
    revision is AA20
    serial number is 53P148700109D
    vendor specific data (bytes 96-127)
      0x49 0x42 0x4D 0x20 0x53 0x46 0x50 0x53
      0x20 0x41 0x52 0x45 0x20 0x43 0x4C 0x41
      0x53 0x53 0x20 0x31 0x20 0x4C 0x41 0x53
      0x45 0x52 0x20 0x53 0x41 0x46 0x45 0x20
fc1/2 fcot not present
fc1/3 fcot is present but not supported
    name is IBM
    part number is IBM42P21SNY
    revision is AA20
    serial number is 53P1487000ZXR
    vendor specific data (bytes 96-127)
      0x49 0x42 0x4D 0x20 0x53 0x46 0x50 0x53
      0x20 0x41 0x52 0x45 0x20 0x43 0x4C 0x41
      0x53 0x53 0x20 0x31 0x20 0x4C 0x41 0x53
      0x45 0x52 0x20 0x53 0x41 0x46 0x45 0x20
```

show ip route

To display the ip routes currently active, use the **show ip route** command.

show ip route

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

EXEC

Usage Guidelines

None.

Examples

```
switch# show ip route

Codes: C - connected, S - static

Default gateway is 172.22.95.1

C 10.0.0.0/24 is directly connected, vsan1
C 172.22.95.0/24 is directly connected, mgmt0
switch#
```

show ip routing

To display the ip routing state, use the **show ip routing**command.

show ip routing

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

EXEC

Usage Guidelines

None.

Examples

```
switch# show ip routing
ip routing is disabled
switch#
```

show logging

Use the **show logging** command to display the current system message logging configuration.

show logging [console | level [auth | authpriv | callhome | cron | daemon | ftp | kernel | local*n* **|lpr | mail | news | security | syslog | user | uucp | vsan] | info | last** *lines* **| logfile | module | monitor | nvram | server** *servername* **]**

Syntax Description

console	Show console logging configuration.
info	Show logging configuration.
last	Show last few lines of logfile.
level	Show last few lines of logfile.
logfile	Show contents of logfile.
module	Show module logging configuration.
monitor	Show monitor logging configuration.
nvram	Show NVRAM log.
server	Show server logging configuration.

Defaults

None.

Command Modes

Exec

Usage Guidelines

None

Examples

This example displays current system message logging.

```
switch# show logging

Logging console:                enabled (Severity: notifications)
Logging monitor:                enabled (Severity: information)
Logging linecard:               enabled (Severity: debugging)
Logging server:                 enabled
{172.22.0.0}
        server severity:        debugging
        server facility:        local7
{172.22.0.0}
        server severity:        debugging
        server facility:        local7
Logging logfile:                enabled
        Name - external/sampleLogFile: Severity - notifications Size - 3000000

syslog_get_levels :: Error(-1) querying severity values for fcmpls at SAP 30
syslog_get_levels :: Error(-1) querying severity values for fcfwd at SAP 38
Facility        Default Severity        Current Session Severity
--------        ----------------        ------------------------
kern                    6                       4
user                    3                       3
```

```
mail                    3                       3
daemon                  7                       7
auth                    0                       0
syslog                  3                       3
lpr                     3                       3
news                    3                       3
uucp                    3                       3
cron                    3                       3
authpriv                3                       3
ftp                     3                       3
local0                  3                       3
local1                  3                       3
local2                  3                       3
local3                  3                       3
local4                  3                       3
local5                  3                       3
local6                  3                       3
local7                  3                       3
fspf                    3                       3
fcdomain                2                       2
module                  5                       5
zone                    2                       2
vni                     2                       2
ipconf                  2                       2
ipfc                    2                       2
xbar                    3                       3
fcns                    2                       2
fcs                     2                       2
acl                     2                       2
tlport                  2                       2
port                    5                       5
port_channel            5                       5
fcmpls                  0                       0
wwn                     3                       3
fcc                     2                       2
qos                     3                       3
vrrp_cfg                2                       2
fcfwd                   0                       0
ntp                     2                       2
platform                5                       5
vrrp_eng                2                       2
callhome                2                       2
mcast                   2                       2
rscn                    2                       2
securityd               2                       2
vhbad                   2                       2
rib                     2                       2
vshd                    5                       5

0(emergencies)          1(alerts)       2(critical)
3(errors)               4(warnings)     5(notifications)
6(information)          7(debugging)

Nov  8 16:48:04 excal-113 %LOG_VSHD-5-VSHD_SYSLOG_CONFIG_I: Configuring console
from pts/1 (171.71.58.56)
Nov  8 17:44:09 excal-113 %LOG_VSHD-5-VSHD_SYSLOG_CONFIG_I: Configuring console
from pts/0 (171.71.58.72)
```

This example displays console logging status.

```
switch# show logging console
Logging console:                enabled (Severity: notifications)
```

This example displays logging facility status.

```
switch# show logging facility
syslog_get_levels :: Error(-1) querying severity values for fcmpls at SAP 30
syslog_get_levels :: Error(-1) querying severity values for fcfwd at SAP 38
Facility        Default Severity        Current Session Severity
--------        ----------------        ------------------------
kern                    6                       4
user                    3                       3
mail                    3                       3
daemon                  7                       7
auth                    0                       0
syslog                  3                       3
lpr                     3                       3
news                    3                       3
uucp                    3                       3
cron                    3                       3
authpriv                3                       3
ftp                     3                       3
local0                  3                       3
local1                  3                       3
local2                  3                       3
local3                  3                       3
local4                  3                       3
local5                  3                       3
local6                  3                       3
local7                  3                       3
fspf                    3                       3
fcdomain                2                       2
module                  5                       5
zone                    2                       2
vni                     2                       2
ipconf                  2                       2
ipfc                    2                       2
xbar                    3                       3
fcns                    2                       2
fcs                     2                       2
acl                     2                       2
tlport                  2                       2
port                    5                       5
port_channel            5                       5
fcmpls                  0                       0
wwn                     3                       3
fcc                     2                       2
qos                     3                       3
vrrp_cfg                2                       2
fcfwd                   0                       0
ntp                     2                       2
platform                5                       5
vrrp_eng                2                       2
callhome                2                       2
mcast                   2                       2
rscn                    2                       2
securityd               2                       2
vhbad                   2                       2
rib                     2                       2
vshd                    5                       5
```

```
0(emergencies)          1(alerts)       2(critical)
3(errors)               4(warnings)     5(notifications)
6(information)          7(debugging)
```

This example displays logging information.

```
switch# show logging info

Logging console:                enabled (Severity: notifications)
Logging monitor:                enabled (Severity: information)
Logging linecard:               enabled (Severity: debugging)
Logging server:                 enabled
{172.22.95.167}
        server severity:        debugging
        server facility:        local7
{172.22.92.58}
        server severity:        debugging
        server facility:        local7
Logging logfile:                enabled
        Name - external/sampleLogFile: Severity - notifications Size - 3000000

syslog_get_levels :: Error(-1) querying severity values for fcmpls at SAP 30
syslog_get_levels :: Error(-1) querying severity values for fcfwd at SAP 38
Facility        Default Severity        Current Session Severity
--------        ----------------        ------------------------
kern                    6                       4
user                    3                       3
mail                    3                       3
daemon                  7                       7
auth                    0                       0
syslog                  3                       3
lpr                     3                       3
news                    3                       3
uucp                    3                       3
cron                    3                       3
authpriv                3                       3
ftp                     3                       3
local0                  3                       3
local1                  3                       3
local2                  3                       3
local3                  3                       3
local4                  3                       3
local5                  3                       3
local6                  3                       3
local7                  3                       3
fspf                    3                       3
fcdomain                2                       2
module                  5                       5
zone                    2                       2
vni                     2                       2
ipconf                  2                       2
ipfc                    2                       2
xbar                    3                       3
fcns                    2                       2
fcs                     2                       2
acl                     2                       2
tlport                  2                       2
port                    5                       5
port_channel            5                       5
fcmpls                  0                       0
wwn                     3                       3
fcc                     2                       2
qos                     3                       3
```

```
vrrp_cfg                2                       2
fcfwd                   0                       0
ntp                     2                       2
platform                5                       5
vrrp_eng                2                       2
callhome                2                       2
mcast                   2                       2
rscn                    2                       2
securityd               2                       2
vhbad                   2                       2
rib                     2                       2
vshd                    5                       5

0(emergencies)          1(alerts)       2(critical)
3(errors)               4(warnings)     5(notifications)
6(information)          7(debugging)
```

This example displays last few lines of a log file.

```
switch# show logging last 2
Nov  8 16:48:04 excal-113 %LOG_VSHD-5-VSHD_SYSLOG_CONFIG_I: Configuring console
from pts/1 (171.71.58.56)
Nov  8 17:44:09 excal-113 %LOG_VSHD-5-VSHD_SYSLOG_CONFIG_I: Configuring console
from pts/0 (171.71.58.72)
```

This example displays switching module logging status.

```
switch# show logging module
Logging linecard:                enabled (Severity: debugging)
```

This example displays monitor logging status.

```
switch# show logging monitor
Logging monitor:                 enabled (Severity: information)
```

This example displays server information.

```
switch# show logging server
Logging server:                  enabled
{172.22.95.167}
        server severity:         debugging
        server facility:         local7
{172.22.92.58}
        server severity:         debugging
        server facility:         local7
```

show module

To verify the status of a module, use the **show module** command.

show module [diag | *integer***]**

Syntax Description

diag	Shows module-related information.
integer	Module number (1-9).

Defaults

None

Command Modes

EXEC

Usage Guidelines

If your chassis has more than one switching module, you will see the progress check if you issue the show module command several times and view the status column each time.

The switching module goes through a testing and an initializing stage before displaying an ok status.

The following table describes the possible states in which a module can exist.

Module States	
powered up	When a switching module is in this stage, it indicates that the hardware has electrical power. When the hardware is powered up, the software begins booting.
testing	When a switching module is in this stage, it indicates that the module has established connection with the supervisor and the switching module is performing bootup diagnostics.
initializing	When a switching module is in this stage, it indicates that the diagnostics has passed and the configuration is being downloaded.
failure	If the switch detects a switching module failure on initialization, it automatically attempts to power-cycle the module three (3) times. After the third attempt it continues to display a failed state. The switching module itself is kept powered-up in order to allow more accurate failure analysis.
ok	When a switching module is in this stage, it indicates that the switch is ready to be configured.
power-denied	If the switch detects insufficient power for a switching module to power up, it displays this message. In this case, issue a show environment power command to determine power consumption issues

Module States	
active	When a supervisor module is in this stage, it indicates that this module is the active supervisor module and the switch is ready to be configured.
ha-standby	When a supervisor module is in this stage, it indicates that this module is the standby supervisor module and that the HA switchover mechanism is enabled
standby	When a supervisor module is in this stage, it indicates that this module is the standby supervisor module and that the warm switchover mechanism is enabled

Examples

```
switch# show module
Mod  Ports  Module-Type                      Model              Status
---  -----  -------------------------------- ------------------ ------------
2    16     1/2 Gbps FC Module               DS-X9016           powered-up
5    0      Supervisor/Fabric-1              DS-X9530-SF1-K9    active *
6    0      Supervisor/Fabric-1                                 powered-up

Mod  Sw           Hw      World-Wide-Name(s) (WWN)
---  -----------  ------  --------------------------------------------------
2                 0.0     20:41:00:05:30:00:49:5e to 20:50:00:05:30:00:49:5e
5    1.1(0.38)    0.0
--

Mod  MAC-Address(es)                         Serial-Num
---  --------------------------------------  ----------
2    00-05-30-00-01-a6 to 00-05-30-00-01-aa
5    00-05-30-00-07-fe to 00-05-30-00-08-02

* this terminal session

-------------------------------- cli-output end
```

show ntp

To display the configured server and peer associations, use the **show ntp** command.

show ntp [peers | statistics [io-statistics | local-statistics | mem-statistics]

show ntp statistics peer-stats [ipaddr *ip-addr* | **name** *string*]

show ntp timestamp-status

Syntax Description

peers	Show all the peers.
statistics	Show the NTP statistics
timestamp-status	Show if the timestamp check is enabled.

Defaults

None

Command Modes

Exec

Usage Guidelines

None

Examples

```
switch# show ntp peers
-----------------------------------------
  Peer IP Address               Serv/Peer
-----------------------------------------
  10.20.10.2                    Server
  10.20.10.0                    Peer
```

show port-channel

show port-channel compatibility-parameters

show port-channel consistency

show port-channel consistency detail

show port-channel database

show port-channel database interface port-channel *port channel number*

show port-channel summary

show port-channel usage

Syntax Description

compatibility-parameters	Show compatibility parameters.
consistency	Verify database consistency of all modules.
detail	Show port channel database information for all modules.
database	Show port-channel database.
interface port-channel *port channel number*	Port channel number (1-128)
summary	Show port-channel summary.
usage	Show port-channel number usage.

Defaults

None

Command Modes

EXEC

Usage Guidelines

None.

Examples

This example displays the PortChannel summary.

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

This example displays the PortChannel compatibility.

```
switch# show port-channel compatibility-parameters
    physical port layer                fibre channel or ethernet
    port mode                          E/TE/AUTO only
    trunk mode
    speed
    port VSAN
    port allowed VSAN list
```

This example shows the PortChannel database.

```
switch# show port-channel database
port-channel 2
    Administrative channel mode is on
    Operational channel mode is on
    Last membership update succeeded
    First operational port is fc2/2
    1 port in total, 1 port up
    Ports:   fc2/2    [up]
```

The **show port-channel consistency** command has two options—without detail **and detail**.

Command Without Details

```
switch# show port-channel consistency
Database is consistent
switch#
```

Command With Details

```
switch# show port-channel consistency detail
Authoritative port-channel database:
============================================
totally 1 port-channels
port-channel 2:
    1 ports, first operational port is fc2/2
    fc2/2    [up]
============================================
database 1: from module 5
============================================
totally 1 port-channels

port-channel 2:
    1 ports, first operational port is fc2/2
    fc2/2    [up]
============================================
database 2: from module 2
============================================
totally 1 port-channels
port-channel 2:
    1 ports, first operational port is fc2/2
    fc2/2    [up]
============================================
```

The **show port-channel usage** command displays details of the used and unused PortChannel numbers.

PortChannel Usage

```
switch# show port-channel usage
Totally 2 port-channel numbers used
===================================
Used  :   3, 9
Unused:   1-2, 4-8, 10-128
switch#
```

show processes

To show general information about all the processes, use the show processes command.

show processes [cpu | log [details | pid *process-id* | **memory]**

Syntax Description

cpu	Show processes CPU Info
log	Show information about process logs
memory	Show processes Memory Info

Defaults

None

Command Modes

Exec

Usage Guidelines

None

Examples

```
switch# show process
PID    State  PC        Start_cnt    TTY   Process
-----  -----  --------  -----------  ----  -------------
  868      S  2ae4f33e            1     -  snmpd
  869      S  2acee33e            1     -  rscn
  870      S  2ac36c24            1     -  qos
  871      S  2ac44c24            1     -  port-channel
  872      S  2ac7a33e            1     -  ntp
    -     ER         -            1     -  mdog
    -     NR         -            0     -  vbuilder


PID: process ID.

State: process state

       D   uninterruptible sleep (usually IO)
       R   runnable (on run queue)
       S   sleeping
       T   traced or stopped
       Z   a defunct ("zombie") process

    NR  not-running
    ER  should be running but currently not-running

PC: Current program counter in hex format

Start_cnt: how many times a process has been started.

TTY: Terminal that controls the process. A "-" usually means a daemon not
     running on any perticular tty.

Process: name of the process.
```

```
=====================================================

2. show processes cpu (new output)
Description: show cpu utilization information about the processes.

switch# show processes cpu

PID    Runtime(ms)  Invoked   uSecs  1Sec   Process
-----  -----------  --------  -----  -----  -----------
  842         3807    137001     27    0.0  sysmgr
 1112         1220     67974     17    0.0  syslogd
 1269          220     13568     16    0.0  fcfwd
 1276         2901     15419    188    0.0  zone
 1277          738     21010     35    0.0  xbar_client
 1278         1159      6789    170    0.0  wwn
 1279          515     67617      7    0.0  vsan


Runtime(ms): cpu time the process has used, expressed in milliseconds
Invoked: Number of times the process has been invoked.
uSecs:  Microseconds of CPU time in average for each process invocation.
1Sec:    CPU utilization in percentage for the last 1 second.

=====================================================
3. show processes mem
Description: show memory information about the processes.

PID    MemAlloc  StackBase/Ptr      Process
-----  --------  -----------------  ----------------
 1277    120632  7ffffcd0/7fffefe4  xbar_client
 1278     56800  7ffffce0/7ffffb5c  wwn
 1279   1210220  7ffffce0/7ffffbac  vsan
 1293    386144  7ffffcf0/7fffebd4  span
 1294   1396892  7ffffce0/7fffdff4  snmpd
 1295    214528  7ffffcf0/7ffff904  rscn
 1296     42064  7ffffce0/7ffffb5c  qos

MemAlloc: total memory allocated by the process.
StackBase/Ptr: process stack base and current stack pointer in hex format


=====================================================
3. show processes log
Decription: list all the process logs

switch# show processes log
Process           PID     Normal-exit  Stack-trace  Core     Log-create-time
----------------  ------  -----------  -----------  -------  ---------------
fspf              1339              N            Y        N  Jan  5 04:25
lcm               1559              N            Y        N  Jan  2 04:49
rib               1741              N            Y        N  Jan  1 06:05

Normal-exit: whether or not the process exited normally.
Stack-trace: whether or not there is a stack trace in the log.
Core: whether or not there exists a core file.
Log-create-time: when the log file got generated.
```

This example displays the detail log information about a particular process.

```
switch# show processes log pid 1339
Service: fspf
Description: FSPF Routing Protocol Application
```

```
Started at Sat Jan  5 03:23:44 1980 (545631 us)
Stopped at Sat Jan  5 04:25:57 1980 (819598 us)
Uptime: 1 hours 2 minutes 2 seconds

Start type: SRV_OPTION_RESTART_STATELESS (23)
Death reason: SYSMGR_DEATH_REASON_FAILURE_SIGNAL (2)
Exit code: signal 9 (no core)
CWD: /var/sysmgr/work

Virtual Memory:

    CODE      08048000 - 0809A100
    DATA      0809B100 - 0809B65C
    BRK       0809D988 - 080CD000
    STACK     7FFFFD20
    TOTAL     23764 KB

Register Set:

    EBX 00000005         ECX 7FFFF8CC         EDX 00000000
    ESI 00000000         EDI 7FFFF6CC         EBP 7FFFF95C
    EAX FFFFFDFE         XDS 8010002B         XES 0000002B
    EAX 0000008E (orig)  EIP 2ACE133E         XCS 00000023
    EFL 00000207         ESP 7FFFF654         XSS 0000002B

Stack: 1740 bytes. ESP 7FFFF654, TOP 7FFFFD20

0x7FFFF654: 00000000 00000008 00000003 08051E95 ................
0x7FFFF664: 00000005 7FFFF8CC 00000000 00000000 ................
0x7FFFF674: 7FFFF6CC 00000001 7FFFF95C 080522CD ........\....".."
0x7FFFF684: 7FFFF9A4 00000008 7FFFFC34 2AC1F18C ........4......*
```

show qos statistics

To display the current QoS settings along with a the number of frames marked high priority, use the **show qos statistics** command.

show qos statistics

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Exec

Usage Guidelines

None

Examples

```
switch# show qos statistics
Statistics: Marking Ctrl. Frames as Hi-Priority
Current State is enabled
Total number of frames seen=695
Number of frames marked as high-priority=566
```

show radius-server

To display all configured RADIUS server parameters, use the **show radius-server** command.

show radius-server

Syntax Description

This command has no keywords or arguments.

Defaults

None

Command Modes

Exec

Usage Guidelines

Only administrators can view the RADIUS pre-shared key.

Examples

```
switch# show radius-server
Global RADIUS shared secret:Myxgqc
retransmission count:5
timeout value:10

following RADIUS servers are configured:
        myradius.cisco.users.com:
                available for authentication on port:1812
                available for accounting on port:1813
        172.22.91.37:
                available for authentication on port:1812
                available for accounting on port:1813
                RADIUS shared secret:23MHcUnD
        10.10.0.0:
                available for authentication on port:1812
                available for accounting on port:1813
                RADIUS shared secret:hostkey----> for administrators only
```

show role

To display rules (and their associated rules) configured on the switch, including those roles that have not yet been committed to persistent storage, use the **show role** command.

show role [name *string*]

Syntax Description

name *string*	The name of the role for which you want to display information.

Defaults

None

Command Modes

Exec

Usage Guidelines

The rules are displayed by rule number and are based on each role. All roles are displayed even if role name is not specified.

Only network admin role can access this command.

Examples

```
switch# show role
Role: network-admin
Description: Predefined Network Admin group. This role cannot be modified
Access to all the switch commands

Role: network-operator
Description: Predefined Network Operator group. This role cannot be modified
Access to Show commands and selected Exec commands

Role: sangroup
Description: SAN management group
----------------------------------------
Rule   Type   Command-type   Feature
----------------------------------------
  1.   permit    config           *
  2.     deny    config        fspf
  3.   permit     debug        zone
  4.   permit      exec      fcping
```

show rscn

To display RSCN information, use the **show rscn** command.

show rscn [scr-table vsan *vsan-range* **| statistics vsan** *vsan-range* **]**

Syntax Description

scr-table	Show State Change Registration table.
statistics	Show RSCN statistics.
vsan *vsan-range*	The ID or range of the VSAN.

Defaults

None

Command Modes

Exec

Usage Guidelines

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

Examples

```
switch# show rscn scr-table vsan 1
SCR table for VSAN: 1
---------------------------------------------
FC-ID         REGISTERED FOR
---------------------------------------------
0x1b0300      fabric detected rscns

Total number of entries = 1


switch# show rscn statistics vsan 1

Statistics for VSAN: 1
------------------------

Number of SCR received         = 0
Number of SCR ACC sent         = 0
Number of SCR RJT sent         = 0
Number of RSCN received        = 0
Number of RSCN sent            = 0
Number of RSCN ACC received    = 0
Number of RSCN ACC sent        = 0
Number of RSCN RJT received    = 0
Number of RSCN RJT sent        = 0
Number of SW-RSCN received     = 0
Number of SW-RSCN sent         = 0
Number of SW-RSCN ACC received = 0
Number of SW-RSCN ACC sent     = 0
Number of SW-RSCN RJT received = 0
Number of SW-RSCN RJT sent     = 0
```

show running-config

To view the running configuration file, use the **show running-config** command

show running-config [diff]

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

EXEC

Usage Guidelines

If the running configuration is different from the startup configuration, issue the **show startup-config** command to view the ASCII version of the current startup configuration that was used to boot the switch.

Examples

```
switch# show running-config  EXAMPLE OF DIFF ALSO
switch# show run
Building Configuration ...
 interface fc1/1
 interface fc1/2
 interface fc1/3
 interface fc1/4
 interface mgmt0
ip address 172.22.95.112 255.255.255.0
no shutdown
vsan database
boot system bootflash:isan-237; sup-1
boot kickstart bootflash:boot-237 sup-1
callhome
ip default-gateway 172.22.95.1
switchname switch
trunk protocol enable
username admin password 5 /AFDAMD4B2xK2  role network-admin
```

show scsi-target

show scsi target [disk [vsan *vsan-range* **[fcid** *fcid-id***] | lun [vsan** *vsan-range* **[fcid** *fcid-id***] | status]**

Syntax Description

disk	Show discovered disk information.
lun	Show discovered scsi-target lun information.
vsan *vsan-range*	The VSAN ID or VSAN range.
fcid *fcid-id*	The FCID of the SCSI target to display.
status	Show scsi-target discovery status.

Defaults

None

Command Modes

Exec

Usage Guidelines

None

Examples

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

```
switch# show scsi-target disk
--------------------------------------------------------------------------------
VSAN    FCID        PWWN                      VENDOR    MODEL             REV
--------------------------------------------------------------------------------
1       0x9c03d6    21:00:00:20:37:46:78:97   Company 4 ST318203FC        0004
1       0x9c03d9    21:00:00:20:37:5b:cf:b9   Company 4 ST318203FC        0004
1       0x9c03da    21:00:00:20:37:18:6f:90   Company 4 ST318203FC        0004
1       0x9c03dc    21:00:00:20:37:5a:5b:27   Company 4 ST318203FC        0004
1       0x9c03e0    21:00:00:20:37:36:0b:4d   Company 4 ST318203FC        0004
1       0x9c03e1    21:00:00:20:37:39:90:6a   Company 4 ST318203 CLAR18   3844
1       0x9c03e2    21:00:00:20:37:18:d2:45   Company 4 ST318203 CLAR18   3844
1       0x9c03e4    21:00:00:20:37:6b:d7:18   Company 4 ST318203 CLAR18   3844
1       0x9c03e8    21:00:00:20:37:38:a7:c1   Company 4 ST318203FC        0004
1       0x9c03ef    21:00:00:20:37:18:17:d2   Company 4 ST318203FC        0004
```

This example displays the discovered LUNs.

```
switch# show scsi-target lun
- ST318203FC       from Company 4  (Rev 0004)
  FCID is 0x9c03d6 in VSAN 1, PWWN is 21:00:00:20:37:46:78:97
  --------------------------------------------------------------------------------
  LUN     Capacity   Status Serial Number    Device-Id
          (MB)
  --------------------------------------------------------------------------------
  0x0     18210      Online LRA2510000007027 C:1 A:0 T:3 20:00:00:20:37:46:78:97
- ST318203FC       from Company 4  (Rev 0004)
  FCID is 0x9c03d9 in VSAN 1, PWWN is 21:00:00:20:37:5b:cf:b9
```

```
    ---------------------------------------------------------------------------
    LUN     Capacity   Status Serial Number    Device-Id
            (MB)
    ---------------------------------------------------------------------------
    0x0     18210      Online LR94873000007029 C:1 A:0 T:3 20:00:00:20:37:5b:cf:b9
  - ST318203FC       from Company 4  (Rev 0004)
    FCID is 0x9c03da in VSAN 1, PWWN is 21:00:00:20:37:18:6f:90
    ---------------------------------------------------------------------------
    LUN     Capacity   Status Serial Number    Device-Id
            (MB)
    ---------------------------------------------------------------------------
    0x0     18210      Online LR18591800001004 C:1 A:0 T:3 20:00:00:20:37:18:6f:90
  - ST318203FC       from Company 4  (Rev 0004)
    FCID is 0x9c03dc in VSAN 1, PWWN is 21:00:00:20:37:5a:5b:27
    ---------------------------------------------------------------------------
    LUN     Capacity   Status Serial Number    Device-Id
            (MB)
    ---------------------------------------------------------------------------
    0x0     18210      Online LRC4498200007031 C:1 A:0 T:3 20:00:00:20:37:5a:5b:27
  - ST318203FC       from Company 4  (Rev 0004)
    FCID is 0x9c03e0 in VSAN 1, PWWN is 21:00:00:20:37:36:0b:4d
    ---------------------------------------------------------------------------
    LUN     Capacity   Status Serial Number    Device-Id
            (MB)
    ---------------------------------------------------------------------------
    0x0     18210      Online LR18184700007024 C:1 A:0 T:3 20:00:00:20:37:36:0b:4d
  - ST318203 CLAR18  from Company 4  (Rev 3844)
    FCID is 0x9c03e1 in VSAN 1, PWWN is 21:00:00:20:37:39:90:6a
    ---------------------------------------------------------------------------
    LUN     Capacity   Status Serial Number    Device-Id
            (MB)
    ---------------------------------------------------------------------------
    0x0     18200      Online LR64147100001017 C:1 A:0 T:3 20:00:00:20:37:39:90:6a
  - ST318203 CLAR18  from Company 2  (Rev 3844)
    FCID is 0x9c03e2 in VSAN 1, PWWN is 21:00:00:20:37:18:d2:45
    ---------------------------------------------------------------------------
    LUN     Capacity   Status Serial Number    Device-Id
            (MB)
    ---------------------------------------------------------------------------
    0x0     18200      Online LR28349500001952 C:1 A:0 T:3 20:00:00:20:37:18:d2:45
  - ST318203 CLAR18  from Company 2  (Rev 3844)
    FCID is 0x9c03e4 in VSAN 1, PWWN is 21:00:00:20:37:6b:d7:18
    ---------------------------------------------------------------------------
    LUN     Capacity   Status Serial Number    Device-Id
            (MB)
    ---------------------------------------------------------------------------
    0x0     18200      Online LRF7150500001041 C:1 A:0 T:3 20:00:00:20:37:6b:d7:18
  - ST318203FC       from Company 2  (Rev 0004)
    FCID is 0x9c03e8 in VSAN 1, PWWN is 21:00:00:20:37:38:a7:c1
    ---------------------------------------------------------------------------
    LUN     Capacity   Status Serial Number    Device-Id
            (MB)
    ---------------------------------------------------------------------------
    0x0     18210      Online LR43588300001011 C:1 A:0 T:3 20:00:00:20:37:38:a7:c1
  - ST318203FC       from Company 2  (Rev 0004)
    FCID is 0x9c03ef in VSAN 1, PWWN is 21:00:00:20:37:18:17:d2
    ---------------------------------------------------------------------------
    LUN     Capacity   Status Serial Number    Device-Id
            (MB)
    ---------------------------------------------------------------------------
    0x0     18210      Online LR06903200001949 C:1 A:0 T:3 20:00:00:20:37:18:17:d2
```

show snmp

The **show snmp** command displays the count information for all SNMP settings.

show snmp [user | community]

Syntax Description

community	Show snmp community strings.
user	Show SNMPv3 users.

Defaults

None

Command Modes

Exec

Usage Guidelines

None.

Examples

This example displays SNMP information.

```
switch# show snmp
sys contact:
sys location:

4 SNMP packets input
        0 Bad SNMP versions
        4 Unknown community name
        0 Illegal operation for community name supplied
        0 Encoding errors
        0 Number of requested variables
        0 Number of altered variables
        0 Get-request PDUs
        0 Get-next PDUs
        0 Set-request PDUs
0 SNMP packets output
        0 Too big errors
        0 No such name errors
        0 Bad values errors
        0 General errors
```

This example displays SNMP user details.

```
switch# show snmp user
User                          Group                         Auth  Priv
____                          _____                         ____  ____
steve                         network-admin                 md5   des
sadmin                        network-admin                 md5   des
stever                        network-operator              md5   des
```

This example displays SNMP community information.

```
switch# show snmp community
Community                      Access
---------                      ------
```

```
private                         rw
public                          ro
v93RACqPNH                      ro
```

show span session

show span session [*session-id* **[brief] | brief]**

Syntax Description

session	Show SPAN session configuration.
session-id	SPAN session ID (1-16).
brief	Shows SPAN session configuration in brief format.

Defaults

None

Command Modes

Exec

Usage Guidelines

None

Examples

This example displays SPAN sessions in a brief format.

```
switch# show span session brief
-------------------------------------------------------
 Session  Admin          Oper           Destination
          State          State          Interface
-------------------------------------------------------
 7        no suspend     active         fc2/7
```

This example displays a specific SPAN session details.

```
switch# show span session 7
Session 7 (active)
   Destination is fc2/7
   No session filters configured
   No ingress (rx) sources
   Egress (tx) sources are
     port-channel 7,
```

This example displays ALl SPAN sessions .

```
switch# show span session
Session 1 (inactive as no destination)
Destination is not specified
   Session filter vsans are 1
   No ingress (rx) sources
   No egress (tx) sources

Session 2 (active)
   Destination is fc9/5
   No session filters configured
   Ingress (rx) sources are
      vsans 1
     sup-fc0,
   Egress (tx) sources are
     sup-fc0,
```

show sprom

To show vendor ID, product's component attributes, serial number information that can be used to track field replacable units, use the **show sprom** command.

show sprom sup

show sprom clock *clock-module-index*

show sprom backplane *backplane-index*

show sprom module *module-number sprom-index*

show sprom fan

show sprom powersupply *powersupply-index*

show sprom mgmt-module

Syntax Description

sup	Display Vendor ID, product's component attributes for the current supervisor module
module *module-number sprom-index*	Display Vendor ID, product's component attributes for the given linecard module. There can be upto 4 sub-components in a module. Each of them will have a SPROM associated with it.
clock clock-module-index>	Display attributes of the clock module. There are two clock modules in a switch. This module is absent in MDS9216 type switch.
backplane <backplane-index>	Display attributes that can be used to uniquely identify aswitch.
powersupply <powersupply-index>	Displays attributes of the first or the second power-supply. This contains information about the powersupply capacity in watts when it is used in 110Volts and 220Volts respectively. This information is used for power-budget allocation.
fan	Display attributes that uniquely identified fan.
mgmt-module	Display attributes of management module. This module is only present in MDS9216 type switch.

Defaults

None

Command Modes

Exec

Usage Guidelines

Use the 'show sprom' command to get unique information about a specific module,

supervisor module, switch, power-supply module, or a fan module. If the customer needs to report a problem with a module, supervisor module, switch, power-supply module, or a fan module and does not have access to management station, then he can extract serial number information from "show sprom"

Examples

```
switch# sho sprom mgmt-module
DISPLAY SAM sprom contents:
Common block:
 Block Signature :0xabab
 Block Version   :2
 Block Length    :156
 Block Checksum  :0x1295
 EEPROM Size     :0
 Block Count     :2
 FRU Major Type  :0x0
 FRU Minor Type  :0x0
 OEM String      :Cisco Systems Inc
 Product Number  :SAM SMITH
 Serial Number   :12345678901
 Part Number     :SAM-SMITH-06
 Part Revision   :A0
 Mfg Deviation   :
 H/W Version     :1.0
 Mfg Bits        :1
 Engineer Use    :0
 snmpOID         :0.0.0.0.0.0.0.0
 Power Consump   :-200
 RMA Code        :0-0-0-0
Linecard Module specific block:
 Block Signature :0x6003
 Block Version   :2
 Block Length    :103
 Block Checksum  :0x3c7
 Feature Bits    :0x0
 HW Changes Bits :0x0
 Card Index      :9009
 MAC Addresses   :00-12-34-56-78-90
 Number of MACs  :4
 Number of EOBC links :4
 Number of EPLD  :0
 Port Type-Num   :200-16
 SRAM size       :0
 Sensor #1       :0,0
 Sensor #2       :0,0
 Sensor #3       :0,0
 Sensor #4       :0,0
 Sensor #5       :0,0
 Sensor #6       :0,0
 Sensor #7       :0,0
 Sensor #8       :0,0


switch# show sprom sup
DISPLAY supervisor sprom contents:
Common block:
 Block Signature : 0xabab
 Block Version   : 2
 Block Length    : 156
 Block Checksum  : 0x10a8
 EEPROM Size     : 512
 Block Count     : 2
 FRU Major Type  : 0x6002
 FRU Minor Type  : 0x7d0
 OEM String      : Cisco Systems
 Product Number  : DS-X9530-SF1-K9
 Serial Number   : abcdefgh
 Part Number     : 73-7523-06
```

```
 Part Revision   : 0.0
 Mfg Deviation   : 0.0
 H/W Version     : 0.0
 Mfg Bits        : 0
 Engineer Use    : 0
 snmpOID         : 9.5.1.3.1.1.2.2000
 Power Consump   : -524
 RMA Code        : 0-0-0-0
Supervisor Module specific block:
 Block Signature : 0x6002
 Block Version   : 2
 Block Length    : 103
 Block Checksum  : 0x927
 Feature Bits    : 0x0
 HW Changes Bits : 0x0
 Card Index      : 9003
 MAC Addresses   : 00-05-30-00-18-be
 Number of MACs  : 4
 Number of EPLD  : 1
 EPLD A          : 0x0
 Sensor #1       : 75,60
 Sensor #2       : 60,55
 Sensor #3       : -127,-127
 Sensor #4       : -127,-127
 Sensor #5       : -128,-128
 Sensor #6       : -128,-128
 Sensor #7       : -128,-128
 Sensor #8       : -128,-128
switch#
```

Related Commands

Command	Description
show hardware	Displays brief information about the list of field replacable units in the switch.

show ssh

Use the **show ssh key** command to display the host key pair details for the specified key or for all keys, if no key is specified.Use the **show ssh server** command to display the status of the SSH protocol (enabled or disabled) and the versions that are enabled for that switch.**show ssh key**

show ssh [key [dsa | rsa | rsa1] | server]

Syntax Description

key	Show ssh keys.
server	Show whether ssh server is enabled or not.
dsa	Show dsa ssh keys.
rsa	Show rsa ssh keys.
rsa1	Show rsa1 ssh keys.

Defaults

None

Command Modes

Exec

Usage Guidelines

None

Examples

This example displays SSH protocol status.

```
switch# show ssh server
ssh is enabled
version 1 enabled
version 2 enabled
```

This example displays Host Key Pair details.

```
switch# show ssh key
rsa1 Keys generated:Sun Jan 13 07:16:26 1980

1024 35

fingerprint:
1024 67:76:02:bd:3e:8d:f5:ad:59:5a:1e:c4:5e:44:03:07

could not retrieve rsa key information

dsa Keys generated:Sun Jan 13 07:40:08 1980

ssh-dss AAAAB3NzaC1kc3MAAABBAJTCRQOydNRel2v7uiO6Fix+OTn8eGdnnDVxw5eJs5OcOEXOyjaW
cMMYsEgxc9ada1NElp8Wy7GPMWGOQYj9CU0AAAAVAMCcWhNN18zFNOIPo7cU3t7d0iEbAAAAQBdQ8UAO
i/Cti84qFb3kTqXlS9mEhdQUo0lHcH5bw5PKfj2Y/dLR437zCBKXetPj4p7mhQ6Fq5os8RZtJEyOsNsA
AABAA0oxZbPyWeR5NHATXiyXdPI7j9i8fgyn9FNipMkOF2Mn75Mi/lqQ4NIq0gQNvQOx27uCeQlRts/Q
wI4q68/eaw==

fingerprint:
512 f7:cc:90:3d:f5:8a:a9:ca:48:76:9f:f8:6e:71:d4:ae
```

show startup-config

To view the startup configuration file, use the **show startup-config** command

show startup-config [log]

Syntax Description

log	Displays execution log of last used ascii startup configuration.

Defaults

None

Command Modes

EXEC

Usage Guidelines

None.

Examples

```
switch# show startup-config
 interface port-channel 98
 interface fc1/1
channel-group 98 force
no shutdown
 interface mgmt0
ip address 172.22.95.112 255.255.255.0
boot system isan-237; ep-41
boot kickstart boot-237 ep-41
ip domain-name cisco.com
```

show switchname

To view the switch's network name, use the **show switchname** command.

show switchname

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

EXEC

Usage Guidelines

None.

Examples

```
switch# show switchname
switch-123
switch#
```

show system

To show the system information use the **show system** command.

show system autosync

show system cores

show system default switchport

show system directory information

show system error-id [*list* | *hex***]**

show system redundancy status

show system reset-reason

show system srg

show system uptime

Syntax Description

autosync	Show image autosync status
cores	Displays core transfer option
default switchport	Show system default values
directory information	Directory Info of System Manager
error-id	Show description about errors
redundancy status	Redundancy status
reset-reason	Show last reset reason
srg	
uptime	Show how long the system has been up and running

Defaults

None

Command Modes

EXEC

Usage Guidelines

The show system autosync command cannot be started in HA and single-supervisor scenarios.

Examples

Use the **show system redundancy status** command to ensure that the system is ready to accept a switchover.

```
switch# show system redundancy status
This supervisor
---------------
    Redundancy state:   Active
    Supervisor state:   Active
```

```
      Internal state:   Active with no standby

Other supervisor
----------------
    Redundancy state:   Initializing
```

This example displays the default switch port states.

```
switch# show system default switchport
System default port state is down
System default trunk mode is on
```

This example displays error information for a specified ID .

```
switch# show system error-id 0x401D0019
Error Facility: module
Error Description: Failed to stop Linecard Async Notifciation.
```

This example displays the system reset information.

```
switch# Show system reset reason
1) No time
    Reason: Watchdog Timeout
    Service:
    Version: 1.0(0.253e)

2) At 125982 usecs after Tue Jan  1 06:45:55 1980
    Reason: Reset Requested CLI command reload
    Service:
    Version: 1.0(0.253e)
```

This example displays the system uptime.

```
switch# show system uptime
Start Time: Sun Oct 13 18:09:23 2030
Up Time:    0 days, 9 hours, 46 minutes, 26 seconds
```

Use the **show system cores** command to display the currently configured scheme for copying cores.

```
switch# show system cores
Transfer of cores is enabled
```

show tech support

To display relevant information about entities like modules, interfaces that can be provided to technical support, use the **show tech-support** command.

show tech-support [interface | module | vsan *vsan-id***]**

Syntax Description

interface	Display interface status and configuration information
module	Display module status information
vsan	Display vsan status and configuration information

Defaults

None

Command Modes

Exec

Usage Guidelines

The 'show tech-support internal' option provides internal information relevant to troubleshooting problems associated with modules, interfaces and vsans that can be provided to technical support personnel.

Examples

switch# sho tech-support module 1

```
'terminal length 0'

'show module '
Mod  Ports  Module-Type                      Model              Status
---  -----  -------------------------------- ------------------ ------------
1    16     1/2 Gbps FC/Supervisor           DS-X9216-K9-SUP    active *
2    32     1/2 Gbps FC Module               DS-X9032           ok

Mod  Sw           Hw      World-Wide-Name(s) (WWN)
---  -----------  ------  --------------------------------------------------
1    1.0(0.271)   0.0     20:01:00:05:30:00:21:9e to 20:10:00:05:30:00:21:9e
2    1.0(0.271)   0.0     20:41:00:05:30:00:21:9e to 20:60:00:05:30:00:21:9e

Mod  MAC-Address(es)                         Serial-Num
---  --------------------------------------  ----------
1    00-05-30-00-40-b6 to 00-05-30-00-40-ba
2    00-05-30-00-11-22 to 00-05-30-00-11-26

* this terminal session

'show environment'
Clock:
----------------------------------------------------------
Clock           Model                Hw         Status
----------------------------------------------------------
A               Clock Module         --         ok/active
B               Clock Module         --         ok/standby
```

```
Fan:
-----------------------------------------------------
Fan             Model                Hw         Status
-----------------------------------------------------
Chassis         DS-2SLOT-FAN         0.0        ok
PS-1            --                   --         ok
PS-2            --                   --         absent


Temperature:
------------------------------------------------------------------
Module   Sensor   MajorThresh   MinorThres   CurTemp     Status
                  (Celsius)     (Celsius)    (Celsius)
------------------------------------------------------------------
1        1        75            60           30          ok
1        2        65            50           28          ok
1        3        -127          -127         40          ok
1        4        -127          -127         36          ok

2        1        75            60           32          ok
2        2        65            50           26          ok
2        3        -127          -127         41          ok
2        4        -127          -127         31          ok


Power Supply:
-----------------------------------------------------
PS  Model                Power     Power       Status
                         (Watts)   (Amp @42V)
-----------------------------------------------------
1   WS-CAC-950W          919.38    21.89       ok
2                        --        --          absent


Mod Model                Power     Power       Power     Power       Status
                         Requested Requested   Allocated Allocated
                         (Watts)   (Amp @42V)  (Watts)   (Amp @42V)
--- -------------------  -------   ----------  --------- ----------  ----------
1    DS-X9216-K9-SUP     220.08    5.24        220.08    5.24        powered-up
2    DS-X9032            199.92    4.76        199.92    4.76        powered-up


Power Usage Summary:
--------------------
Power Supply redundancy mode:                  redundant

Total Power Capacity                           919.38   W

Power reserved for Supervisor(s)[-]            220.08   W
Power reserved for Fan Module(s)[-]            47.88    W
Power currently used by Modules[-]             199.92   W

                                               -------
Total Power Available                          451.50
```

show telnet server

To display the state of the Telnet access configurationThe show telnet server command displays the state of the Telnet access configuration.

show telnet server

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Exec

Usage Guidelines

None

Examples

```
switch# show telnet server
telnet service enabled
```

show terminal

To view the terminal information, use the **show terminal** command

show terminal

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

EXEC

Usage Guidelines

None.

Examples

```
switch# show terminal
TTY:  Type: "vt100"
Length: 25 lines, Width: 80 columns
Session Timeout: 30 minutes
switch#
```

show trunk protocol

To show trunk protocol information, use the **show trunk protocol** command.

show trunk protocol

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

EXEC

Usage Guidelines

None.

Examples

This example displays trunk protocol

```
switch# show trunk protocol
Trunk protocol is enabled
```

show user-account

Use the **show user-account** command to display configured information about user accounts.

show user-account *string*

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Exec

Usage Guidelines

None

Examples

This example displays information for a specified user.

```
switch# show user-account user1
user:user1
        this user account has no expiry date
        roles:network-operator
no password set. Local login not allowed
Remote login through RADIUS is possible
```

This example displays information for all users.

```
switch# show user-account
show user-account
user:admin
        this user account has no expiry date
        roles:network-admin

user:usam
        expires on Sat May 31 00:00:00 2003
        roles:network-admin network-operator

user:msam
        this user account has no expiry date
        roles:network-operator

user:user1
        this user account has no expiry date
        roles:network-operator
no password set. local login not allowed
Remote login through RADIUS is possible
```

show users

The **show users** command displays all users currently accessing the switch.

show users

Syntax Description

This command has no arguments or keywords.

Defaults

None

Command Modes

Exec

Usage Guidelines

None

Examples

This example displays all users.

```
switch# show users
switch# show users
admin    pts/7        Jan 12 20:56 (10.77.202.149)
admin    pts/9        Jan 12 23:29 (modena.cisco.com)
admin    pts/10       Jan 13 03:05 (dhcp-171-71-58-120.cisco.com)
admin    pts/11       Jan 13 01:53 (dhcp-171-71-49-49.cisco.com)
```

show version

To show the version of system software, use the **show version** command.

show version [compatibility[*URI***] | detail | image | module** *module-number***]**

Syntax Description

compatibility	Show the software compatibility matrix with given image.
detail	Show the software version.
image	Show the software version of a given image.
module	Show the software version of a module.

Defaults

None

Command Modes

EXEC

Usage Guidelines

None.

Examples

```
switch# show version
Cisco Storage Area Networking Operating System (SAN-OS) Software
TAC support:http://www.cisco.com/tac
Copyright (c) 2002 by Cisco Systems, Inc. All rights reserved.
The copyright for certain works contained herein are owned by
Andiamo Systems, Inc. and/or other third parties and are used and
distributed under license.


Software
  BIOS:     version 1.0.4
  loader:   version 1.0(2a)
  kickstart:version 1.0(2a)
  system:   version 1.0(2a)

  BIOS compile time:      10/18/02
  kickstart image file is:bootflash:/m9200-ek9-kickstart-mz.1.0.1.bin
  kickstart compile time: 12/3/2002 17:00:00
  system image file is:   m9200-ek9-mz.1.0.1.bin
  system compile time:    12/3/2002 17:00:00


Hardware
  RAM 963164 kB

  bootflash:503808 blocks (block size 512b)
  slot0:         0 blocks (block size 512b)

  172.22.91.31 uptime is 0 days 0 hour 2 minute(s) 27 second(s)

  Last reset at 2797 usecs after Tue Dec  3 18:36:20 2002
    Reason:Reset Requested by CLI command reload
    System version:1.0(2a)
```

```
172.22.91.24# show version image bootflash:bad-256                ====> Failure case.
Md5 Verification Failed

172.22.91.24# show version image bootflash:isan-276-interchangeable
  image name:m9500-sf1ek9-mzg.1.0.0.276.bin
  system:    version 1.1(0) [build 1.0(0.276)] [gdb]                   =====> Regular
case.
  compiled:  10/25/2010 12:00:00

172.22.91.24#

switch(boot)# show version image bootflash:isan-276
  image name:m9500-sf1ek9-mzg.1.0.0.276.bin
  system:    version 1.0(2a) [gdb]
  compiled:  11/16/2002 11:00:00
switch(boot)#

switch(boot)# show version image bootflash:kboot.272
  image name:m9500-sf1ek9-kickstart-mzg.1.0.0.272.bin
  kickstart: version 1.0(2a) [gdb]
  compiled:  11/11/2002 10:00:00
switch(boot)#
```

show vrrp

Use the **show vrrp vr** command to display the VRRP configuration information

show vrrp [statistics | vr [*integer* **interface** *group***]**

Syntax Description

statistics	Shows cumulative vrrp statistics for this machine.
vr	Show virtual router information.
group	The ID of the group (1-255).
interface	Enter **mgmt** for management interface, or vsan for the IPFC VSAN interface.

Defaults

None

Command Modes

Exec

Usage Guidelines

None

Examples

This example displays VRRP configured information.

```
switch# show vrrp vr 7 interface vsan 2 configuration
vr id 7 configuration
admin state down
priority 100
no authentication
advertisement-Interval 1
preempt yes
tracking interface vsan1 priority 2
protocol IP
```

This example displays VRRP status information.

```
switch# show vrrp vr 7 interface vsan 2 status
vr id 7 status
MAC address 00:00:5e:00:01:07
Operational state: init
```

This example displays VRRP statistics

```
switch# show vrrp vr 7 interface vsan 2 statistics
vr id 7 statistics
Become master 0
Advertisement 0
Advertisement Interval Error 0
Authentication Failure 0
TTL Error 0
Priority 0 Received 0
Priority 0 Sent 0
Invalid Type 0
```

```
Mismatch Address List 0
Invalid Authentication Type 0
Mismatch Authentication 0
Invalid Packet Length 0
```

This example displays VRRP cumulative statistics.

```
switch# show vrrp statistics
Invalid checksum 0
Invalid version 0
Invalid VR ID 0
```

show vsan

Use the **show vsan** command to display information about configured VSAN

show vsan [vsan-range] | [membership interface vsan-range] | usage]]

Syntax Description

vsan *vsan-range*	The VSAN ID range.
membership	Show membership information.
usage	Show vsan usage in the system.

Defaults

None

Command Modes

Exec

Usage Guidelines

For the **show vsan membership interface** command, interface information is not displayed if interfaces are not configured on this VSAN.

Examples

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


switch# show vsan usage
4 vsan configured
configured vsans:1-4
vsans available for configuration:5-4093


switch# show vsan
switch# show vsan
vsan 1 information
         name:VSAN0001  state:active
         in-order guarantee:no  interoperability mode:no
         loadbalancing:src-id/dst-id/oxid
vsan 2 information
         name:VSAN0002  state:active
         in-order guarantee:no  interoperability mode:no
         loadbalancing:src-id/dst-id/oxid
vsan 7 information
         name:VSAN0007  state:active
         in-order guarantee:no  interoperability mode:no
         loadbalancing:src-id/dst-id/oxid
vsan 100 information
         name:VSAN0100  state:active
         in-order guarantee:no  interoperability mode:no
         loadbalancing:src-id/dst-id/oxid
vsan 4094:isolated vsan
```

```
switch # show vsan 1 membership
vsan 1 interfaces:
        fc1/1   fc1/2   fc1/3   fc1/4   fc1/5   fc1/6   fc1/7   fc1/9
        fc1/10  fc1/11  fc1/12  fc1/13  fc1/14  fc1/15  fc1/16  port-channel 99
```

This example displays membership information for all VSANs

```
switch # show vsan membership
vsan 1 interfaces:
        fc2/16  fc2/15  fc2/14  fc2/13  fc2/12  fc2/11  fc2/10  fc2/9
        fc2/8   fc2/7   fc2/6   fc2/5   fc2/4   fc2/3   fc2/2   fc2/1
        fc1/16  fc1/15  fc1/14  fc1/13  fc1/12  fc1/11  fc1/10  fc1/9
        fc1/7   fc1/6   fc1/5   fc1/4   fc1/3   fc1/2   fc1/1
vsan 2 interfaces:
vsan 7 interfaces:
        fc1/8
vsan 100 interfaces:
vsan 4094(isolated vsan) interfaces:
```

This example displays membership information for a specified interface.

```
switch # show vsan membership interface fc1/1
fc1/1
        vsan:1
        allowed list:1-4093
```

show wwn

Use the **show wwn** commands to display the status of the WWN configuration.

show wwn [status *block-id number* | **switch**]

Syntax Description

status	Show overall WWN Usage and Alarm Status
switch	Show switch WWN.

Defaults

None.

Command Modes

Exec

Usage Guidelines

None

Examples

```
switch# show wwn vsan 1
VSAN WWN of VSAN# 1 is 20:01:ac:16:5e:52:00:01
```

show zone

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

show zone [active]

show zone [change [event-history] [vsan *vsan-range*]

show zone [member [[fcalias *alias-name*] [**active] [vsan** *vsan-range***] | [fcid** *fcid-id*] [**active] [vsan** *vsan-range***] | pwwn** *wwn* [**active] [vsan** *vsan-range***]]**

show zone [merge] [event-history] [interface *interface* **vsan** *vsan-id*]

show zone [name *string* **active vsan** *vsan-range*]

show zone [statistics vsan *vsan-range*]

show zone [status vsan *vsan-range*]

Syntax Description

active	Show zones which are part of active zoneset.
change	Show change protocol internals.
member	Show all zones in which the given member is part of.
merge	Show merge protocol internals.
name	Show members of a specified zone.
statistics	Show zone server statistics.
status	Show zone server current status.
vsan	Show zones belonging to the specified VSAN.

Defaults

None.

Command Modes

Exec

Usage Guidelines

None.

Examples

```
switch(config)# show zone
zone name Zone3 vsan 1
  pwwn 21:00:00:20:37:6f:db:dd
  pwwn 21:00:00:20:37:9c:48:e5

zone name Zone2 vsan 2
  fwwn 20:41:00:05:30:00:2a:1e
  fwwn 20:42:00:05:30:00:2a:1e
  fwwn 20:43:00:05:30:00:2a:1e

zone name Zone1 vsan 1
  pwwn 21:00:00:20:37:6f:db:dd
```

```
  pwwn 21:00:00:20:37:a6:be:2f
  pwwn 21:00:00:20:37:9c:48:e5
  fcalias Alias1
```

Use the **show zone vsan** command to display zone information for a specific VSAN.

```
switch(config)# show zone vsan 1
zone name Zone3 vsan 1
  pwwn 21:00:00:20:37:6f:db:dd
  pwwn 21:00:00:20:37:9c:48:e5

zone name Zone2 vsan 1
  fwwn 20:41:00:05:30:00:2a:1e
  fwwn 20:42:00:05:30:00:2a:1e
  fwwn 20:43:00:05:30:00:2a:1e
  fwwn 20:44:00:05:30:00:2a:1e
  fwwn 20:45:00:05:30:00:2a:1e
  fwwn 20:46:00:05:30:00:2a:1e
  fwwn 20:47:00:05:30:00:2a:1e
  fwwn 20:48:00:05:30:00:2a:1e
  fwwn 20:49:00:05:30:00:2a:1e
  fwwn 20:4a:00:05:30:00:2a:1e
  fwwn 20:4b:00:05:30:00:2a:1e
  fwwn 20:4c:00:05:30:00:2a:1e
  fwwn 20:4d:00:05:30:00:2a:1e
  fwwn 20:4e:00:05:30:00:2a:1e
  fwwn 20:4f:00:05:30:00:2a:1e
  fwwn 20:50:00:05:30:00:2a:1e
  fwwn 20:51:00:05:30:00:2a:1e
  fwwn 20:52:00:05:30:00:2a:1e
  fwwn 20:53:00:05:30:00:2a:1e
  fwwn 20:54:00:05:30:00:2a:1e
  fwwn 20:55:00:05:30:00:2a:1e
  fwwn 20:56:00:05:30:00:2a:1e
  fwwn 20:57:00:05:30:00:2a:1e
  fwwn 20:58:00:05:30:00:2a:1e
  fwwn 20:59:00:05:30:00:2a:1e
  fwwn 20:5a:00:05:30:00:2a:1e
  fwwn 20:5b:00:05:30:00:2a:1e
  fwwn 20:5c:00:05:30:00:2a:1e
  fwwn 20:5d:00:05:30:00:2a:1e
  fwwn 20:5e:00:05:30:00:2a:1e
  fwwn 20:5f:00:05:30:00:2a:1e
  fwwn 20:60:00:05:30:00:2a:1e

zone name Zone1 vsan 1
  pwwn 21:00:00:20:37:6f:db:dd
  pwwn 21:00:00:20:37:a6:be:2f
  pwwn 21:00:00:20:37:9c:48:e5
  fcalias Alias1
```

Use the **show zone name** command to display members of a specific zone.

```
switch# show zone name Zone1
zone name Zone1 vsan 1
  pwwn 21:00:00:20:37:6f:db:dd
  pwwn 21:00:00:20:37:a6:be:2f
  pwwn 21:00:00:20:37:9c:48:e5
  fcalias Alias1
```

Use the **show fcalias** command to display fcalias configuration.

```
switch# show fcalias vsan 1
fcalias name Alias2 vsan 1

fcalias name Alias1 vsan 1
  pwwn 21:00:00:20:37:6f:db:dd
  pwwn 21:00:00:20:37:9c:48:e5
```

Use the **show zone member** command to display all zones to which a member belongs using the FC ID.

```
@switch# show zone member pwwn 21:00:00:20:37:9c:48:e5
           VSAN: 1
zone Zone3
zone Zone1
fcalias Alias1
```

Use the **show zone statistics** command to display the number of control frames exchanged with other switches.

```
switch# show zone statistics
Statistics For VSAN: 1
**********************************
Number of Merge Requests Sent: 24
Number of Merge Requests Recvd: 25
Number of Merge Accepts Sent: 25
Number of Merge Accepts Recvd: 25
Number of Merge Rejects Sent: 0
Number of Merge Rejects Recvd: 0
Number of Change Requests Sent: 0
Number of Change Requests Recvd: 0
Number of Change Rejects Sent: 0
Number of Change Rejects Recvd: 0
Number of GS Requests Recvd: 0
Number of GS Requests Rejected: 0
Statistics For VSAN: 2
**********************************
Number of Merge Requests Sent: 4
Number of Merge Requests Recvd: 4
Number of Merge Accepts Sent: 4
Number of Merge Accepts Recvd: 4
Number of Merge Rejects Sent: 0
Number of Merge Rejects Recvd: 0
Number of Change Requests Sent: 0
Number of Change Requests Recvd: 0
Number of Change Rejects Sent: 0
Number of Change Rejects Recvd: 0
Number of GS Requests Recvd: 0
Number of GS Requests Rejected: 0
```

show zoneset

Use the **show zoneset** command to view the configured zone sets.

show zoneset [name | brief | active | vsan *vsan-id*]

Syntax Description

active	Show only active zonesets.
brief	Show members in brief mode.
name	Show members of a specified zoneset.
vsan *vsan-id*	Show zonesets belonging to the specified VSAN.

Defaults

None

Command Modes

Exec

Usage Guidelines

None

Examples

This example displays configured zoneset information.

```
switch# show zoneset vsan 1
zoneset name ZoneSet2 vsan 1
  zone name Zone2 vsan 1
    fwwn 20:4e:00:05:30:00:2a:1e
    fwwn 20:4f:00:05:30:00:2a:1e
    fwwn 20:50:00:05:30:00:2a:1e
    fwwn 20:51:00:05:30:00:2a:1e
    fwwn 20:52:00:05:30:00:2a:1e

  zone name Zone1 vsan 1
    pwwn 21:00:00:20:37:6f:db:dd
    pwwn 21:00:00:20:37:a6:be:2f
    pwwn 21:00:00:20:37:9c:48:e5
    fcalias Alias1

zoneset name ZoneSet1 vsan 1
  zone name Zone1 vsan 1
    pwwn 21:00:00:20:37:6f:db:dd
    pwwn 21:00:00:20:37:a6:be:2f
    pwwn 21:00:00:20:37:9c:48:e5
    fcalias Alias1
```

This example displays configured zone set information for a specific VSAN.

```
switch# show zoneset vsan 2-3
zoneset name ZoneSet2 vsan 1
  zone name Zone2 vsan 1
    fwwn 20:52:00:05:30:00:2a:1e
    fwwn 20:53:00:05:30:00:2a:1e
    fwwn 20:54:00:05:30:00:2a:1e
    fwwn 20:55:00:05:30:00:2a:1e
```

```
    fwwn 20:56:00:05:30:00:2a:1e

  zone name Zone1 vsan 1
    pwwn 21:00:00:20:37:6f:db:dd
    pwwn 21:00:00:20:37:a6:be:2f
    pwwn 21:00:00:20:37:9c:48:e5
    fcalias Alias1

zoneset name ZoneSet1 vsan 1
  zone name Zone1 vsan 1
    pwwn 21:00:00:20:37:6f:db:dd
    pwwn 21:00:00:20:37:a6:be:2f
    pwwn 21:00:00:20:37:9c:48:e5
    fcalias Alias1
```