



Show Commands

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show arp ethernet

To display entries in the Ethernet ARP routing table, enter the **show arp ethernet** command in User Exec mode or Privileged Exec mode.

show arp ethernet

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 3012

Privilege Level:
Ethernet read-only user.

Your Server Switch dynamically creates ARP connections on an as-needed basis and removes ARP entries from ARP routing tables when connections drop.

[Table 6-1](#) describes the fields in the **show arp ethernet** command output.

Table 6-1 *show arp ethernet Command Field Descriptions*

Field	Description
port	Port (in slot#/port# format) on your Server Switch to which the host connects.
physical-address	MAC address of the host.
net-address	IP address of the host.
type	Type of route between the host and your Server Switch, either static or dynamic .

Examples The following example displays the entries in the Ethernet ARP routing table of the Server Switch.

```
SFS-7000P# show arp ethernet
=====
                        ARP Information
=====
port    physical-address    net-address    type
-----
4/1     00:05:ad:00:10:41    20.45.0.1     static
```

Related Commands [arp ethernet](#)

show authentication

To display how your system authenticates logins, enter the **show authentication** command in Privileged Exec mode.

show authentication

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes Privileged Execute mode.

Usage Guidelines

Platform Availability:
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
General read-only user.

Use this command to determine if your Server Switch uses a RADIUS server, along with the local database, to authenticate CLI user logins. If your Server Switch uses both resources, the command output displays the order in which your Server Switch authenticates logins.

[Table 6-2](#) describes the fields in the **show authentication** command output.

Table 6-2 *show authentication Command Field Descriptions*

Field	Description
authentication method	Displays whether your Server Switch authenticates logins with the local CLI database, the RADIUS server, or both. If both, the output displays the order in which your Server Switch authenticates the login.

Examples The following example displays the authentication method that the Server Switch uses.

```
SFS-7000P# show authentication

authentication method: local
-----
```

Related Commands [authentication](#)
[radius-server](#)

show backplane

To display a breakdown of Serial Electrically Erasable and Programmable Read-Only Memory (SEEPROM) details of your Server Switch, enter the **show backplane** command in User Exec mode or Privileged Exec mode.

show backplane

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012

Privilege Level:
General read-only user.

The output of the **show backplane** command assists product support personnel.

[Table 6-3](#) describes the fields in the **show backplane** command output.

Table 6-3 *show backplane Command Field Descriptions*

Field	Description
base-mac-addr	24-bit base MAC address of this chassis.
chassis-id	Factory-assigned, 64-bit chassis-identification number.
chassis-guid	Factory-assigned GUID of the chassis.
product serial-number	Factory-assigned product serial number.
pca serial-number	Printed circuit assembly (PCA) serial number.
pca number	Printed Circuit Assembly (PCA) assembly number.
fru number	Field replaceable unit (FRU) number for the actual switch (Cisco SFS 3001) or chassis (Cisco SFS 3012).

Examples The following example displays the SEEPROM details of the Server Switch backplane.

```
SFS-270> show backplane
```

```
=====
                          Backplane Seeprom
=====
base-mac-addr      chassis-id      chassis-guid
```

```
-----  
0:5:ad:0:0:0          0x5ad000000197d      0x5ad000000197d  
=====
```

Backplane Seeprom			
=====			
product	pca	pca	fru
serial-number	serial-number	number	number

0	PY-0405-00044	SFS-7000P	248

show boot-config

To display the active system image that runs when your Server Switch boots, enter the **show boot-config** command in User Exec mode or Privileged Exec mode.

show boot-config

Syntax Description This command has no arguments or keywords.

Defaults No default behavior or values

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
General read-only user.

The **show boot-config** command displays the image that initializes chassis firmware and configures the interfaces.

This command lists the files that were used to bring up the system, the files to use the next time the system reboots, and the backup files to use in the event that the primary boot files are not available.

[Table 6-4](#) describes the fields in the **show boot-config** command output.

Table 6-4 *show boot-config Command Field Descriptions*

Field	Description
slot-id	Slot identifier of the controller card in use.
sw-version	Version of the software image that initialized chassis components.
last-image-source	Directory name of the active system image used to initialize chassis components.
primary-image-source	Name and directory location of the active system image to use to initialize chassis components the next time the system boots.

Examples

The following example displays the image that the Server Switch boots.

```
SFS-7000P# show boot-config
=====
                System Boot Configuration
=====
                slot-id : 1
                sw-version : OS-1.1.3/build255
                last-image-source : OS-1.1.3/build255
                primary-image-source : OS-1.1.3/build255
```

Related Commands

[boot-config](#)
[install](#)
[reload](#)
[show version](#)

show bridge-forwarding

To display the subnets to which bridge groups forward traffic, enter the **show bridge-forwarding** command in User Exec mode or Privileged Exec mode.

show bridge-forwarding [*integer*] [**subnet** *subnet-prefix prefix-length*]

Syntax Description	<i>integer</i>	(Optional) Bridge group number. Narrows the display output to only forwarding information relevant to that particular bridge group.
	subnet	(Optional) Specifies a particular subnet to display in the command output.
	<i>subnet-prefix</i>	(Optional) Particular subnet to display in the command output.
	<i>prefix-length</i>	(Optional) Prefix length of the subnet to display in the command output.

Defaults This command has no default settings.

Command Modes: User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 3012

Privilege Level:
Unrestricted read-write user.

[Table 6-7](#) explains the fields that appear in the **show bridge-subnets** command output.

Table 6-5 *show bridge-subnets Command Field Descriptions*

Field	Description
bridge	Number of the bridge group that bridges the subnet.
subnet-prefix	Subnet prefix that the bridge-group bridges.
subnet-prefix-len	Length of the subnet prefix of the subnet.

Examples The following example provides sample output of the **show bridge-subnets** command:

```
SFS-7000P# show bridge-subnets

=====
                        Bridge Subnets
=====
bridge subnet-prefix  subnet-prefix-len
-----
1       192.168.0.0    22
2       192.168.13.32  29
```

Related Commands [bridge-group](#)

show bridge-group

To display the attributes of bridge groups, enter the **show bridge-group** command in User Exec mode or Privileged Exec mode.

```
show bridge-group [bridge-groupID#]
```

Syntax Description	<i>bridge-groupID#</i> (Optional) Integer value that represents a bridge group. Use the bridge-group ID number to view the attributes of one specific bridge group.
---------------------------	---

Defaults Without an argument, the **show bridge-group** command shows all bridge groups.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines: **Privilege Level:**
General read-only user.

Platform Availability:
Cisco SFS 3001, Cisco SFS 3012

[Table 6-6](#) describes the fields in the **show bridge-group** command output.

Table 6-6 *show bridge-group Command Field Descriptions*

Field	Description
bridge-group-id	Displays the integer-value identifier of the bridge group that the administrator assigned with the bridge-group command.
bridge-group-name	Displays the ASCII text string identifier that the administrator assigned with the bridge-group command.
eth-bridge-port	Displays the trunk that the bridge group uses to connect to the Ethernet switch.
ib-bridge-port	Displays the internal gateway slot#/port# of the bridge-group.
broadcast-forwarding	Displays True if you enable broadcast-forwarding. Displays False if you disable broadcast forwarding.
broadcast-forwarding-mode	
loop-protection-method	Displays one if you enable ARP Packet Painting. Displays ? if you disable ARP Packet Painting. Refer to the <i>Ethernet Gateway User Guide</i> for more information.
multicast	Displays true if the bridge group belongs to a multicast group. Displays false if the bridge group does not belong to a multicast group.

Table 6-6 *show bridge-group Command Field Descriptions (continued)*

Field	Description
redundancy-group	Displays the redundancy group to which the bridge group belongs.
status-in-redundancy-group	Displays none (when the bridge group is not in a redundancy group), primary , or secondary .

Examples

The following example (output abridged) shows all bridge groups on the Server Switch.

```
SFS-7000P# show bridge-group
```

```
=====
                          Bridge Groups
=====
      bridge-group-id : 1
      bridge-group-name :
      eth-bridge-port : trunk 1 (not tagged)
      ib-bridge-port  : 5/2 (gw) (pkey: ff:ff)
      broadcast-forwarding : false
      broadcast-forwarding-mode : inherit-from-redundancy-group
      loop-protection-method : one
      multicast        : false
      multicast-mode   : inherit-from-redundancy-group
      redundancy-group : 1
      status-in-redundancy-group : primary
```

Related Commands

[bridge-group](#)

show bridge-subnets

To display the subnets that a particular bridge group bridges, enter the **show bridge-subnets** command in User Exec mode or Privileged Exec mode.

```
show bridge-subnets [bridge-group-number]
```

Syntax Description	<i>bridge-group-number</i>	(Optional) Limits the command output to the subnets of one particular bridge group.
--------------------	----------------------------	---

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 3012

Privilege Level:
Unrestricted read-write user.

[Table 6-7](#) explains the fields that appear in the **show bridge-subnets** command output.

Table 6-7 *show bridge-subnets* Command Field Descriptions

Field	Description
bridge	Number of the bridge group that bridges the subnet.
subnet-prefix	Subnet prefix that the bridge-group bridges.
subnet-prefix-len	Length of the subnet prefix of the subnet.

Examples The following example provides sample output of the **show bridge-subnets** command:

```
SFS-7000P# show bridge-subnets

=====
                          Bridge Subnets
=====
bridge subnet-prefix  subnet-prefix-len
-----
1      192.168.0.0    22
2      192.168.13.32  29
```

Related Commands [bridge-group](#)

show card

To display the configuration, status, and Serial Electrically Erasable and Programmable Read Only Memory (SEEPROM) details of interface cards, enter the **show card** command in User Exec mode or Privileged Exec mode.

show card {*card-selection* | **all**}

Syntax Description	<i>card-selection</i>	Card, list of cards, or range of cards to view.
	all	Displays the details of all interface cards in your Server Switch.

Defaults The **show card** command displays all cards by default.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:

General read-only user.

- Use the following syntax format to display the details of one card:
show card 5
- Use the following syntax format to display the details of a list of cards:
show card 5,9,14
- Use the following syntax format to display the details of a range of cards:
show card 5-9
- Use the following syntax format to display the details of a list with ranges of cards:
show card 5, 7-9, 14

Table 6-8 describes the fields in the **show card** command output.

Table 6-8 *show card Command Field Descriptions*

Field	Description
slot	Displays the number of the slot that the card occupies.
admin type	<p>Displays the type of the interface card that the administrator specified with the type command. The first two letters of the entry indicate the general type of the card:</p> <ul style="list-style-type: none"> • en for Ethernet • ib for InfiniBand • fc for Fibre Channel <p>The number of ports on the card follow the two-letter type identifier. The remaining number and letter identify the speed of the ports on the card. The admin type fc2port2G indicates a Fibre Channel card with two ports that run at a maximum speed of 2 Gbps.</p> <p>Note The controller and controllerIb12port4x cards serve as an exception to these rules.</p> <p>The “admin type” identifier “controller” indicates the type of independent controller card found on both sides of the system chassis. The “admin type” identifier “controllerIb12port4x” indicates a controller card that piggy-backs onto a 12-port InfiniBand switch card where each port connection can support speeds up to 4X.</p>
oper type	Displays the type of the card as detected by the controller. If any conflict occurs between admin type and oper type, the system assumes that the type specified by oper type is correct and allows you to configure the card based upon this assumption. If a type mismatch occurs, verify that you are selecting the correct type for the card in the chassis.
admin status	Displays the administrative status (that you configure with the shutdown and no shutdown commands) of the port.
oper status	<p>Displays the operational status as detected by the controller. This represents the absolute status of the interface card based upon self-detection. The value of this read-only field appears as one of the following:</p> <ul style="list-style-type: none"> • unknown, which generally indicates that an error occurred when the card booted • up, which indicates that the card successfully runs • down, which indicates that a user disabled the card with the shutdown command • failure, which indicates that the card failed to boot correctly <p>The “up” indicator means that your card runs successfully. You can only configure cards with an operational status of “up.”</p>

Table 6-8 *show card Command Field Descriptions (continued)*

Field	Description
oper code	<p>Displays the general condition of the interface card. The general condition may appear as any of the following:</p> <ul style="list-style-type: none"> • unknown • normal • wrongBootImage • bootFailed • tooHot • checkingBootImage • rebooting • booting • standby • recoveryImage <p>A condition of “unknown” indicates an unsupported interface card. To address this condition, replace the card with a supported card.</p> <p>The oper code of a card must appear as “normal” for the oper status of the card to appear as “up.”</p> <p>A “wrong-image” condition indicates that the active system image on the interface card does not match the active system image on the controller. All cards must run the same active system image as the controller card to function.</p> <p>A “bootFailed” condition indicates that the active system image on the card was incompletely or incorrectly loaded. If the other interface cards come up successfully, reset the individual card. Otherwise, reboot your entire Server Switch.</p> <p>When your card overheats, the “tooHot” condition appears in the show card command output. Enter the “show fan” command to check to see if your fans have failed.</p> <p>The “booting” condition indicates that the card has not finished loading necessary image data for internal configuration.</p>

Table 6-8 *show card Command Field Descriptions (continued)*

Field	Description
boot stage	<p>Boot Stage could be any of the following:</p> <ul style="list-style-type: none"> • recovery • ipl • ppcboot • fpga • pic • ib • rootfs • kernel • exe • done
boot status	<p>Boot Status may appear as any of the following:</p> <ul style="list-style-type: none"> • upgrading • success • failed • badVersion • badCrc • memoryError • outOfSpace • programmingError • hardwareError • fileNotFound • inProgress
boot image	Displays the active system image that the card runs when it boots.
product serial-number	Displays the factory-assigned product serial number of the card.
pca serial-number	Displays the Printed Circuit-Assembly (PCA) serial number of the card.
pca number	Displays the Printed Circuit-Assembly (PCA) assembly number of the card.
fru number	Displays the field-replaceable unit (FRU) number of the card.

**Note**

When you run the **show card** command on a Cisco SFS 7008, an asterisk (*) next to the slot number identifies the controller card on which you executed this command. The asterisk does not identify the normal or standby controllers. That information appears in the “oper code” column.

Examples

To display the configuration and status information for cards 5, 9, 14, and 16:

```
SFS-7000P# show card 5,9,14,16
```

```

=====
                        Card Information
=====
      admin      oper      admin      oper      oper
slot type      type      status      status      code
-----
5   en4port1G   en4port1G   up        up        normal
9   fc2port2G   fc2port2G   up        up        normal
14  controller   controller   up        up        normal
16  ib12port4x   ib12port4x   up        up        normal
=====

                        Card Boot Information
=====
      boot      boot      boot
slot stage      status      image
-----
5   done        success     OS-1.1.2/build084
9   done        success     OS-1.1.2/build084
14  done        success     OS-1.1.2/build084
16  done        success     OS-1.1.2/build084
=====

                        Card Seeprom
=====
      product      pca      pca      fru
slot serial-number  serial-number  number      number
-----
5   00024          1234          95-00007-01  1234
9   1234           1234          95-00008-01  1234
14  00002          00002         95-00005-01  1234
16  1234           1234          95-00006-01  1234
SFS-7000P#

```

On the Cisco SFS 7008, an asterisk (*) designates the active controller card from which you have initiated your CLI session.

SFS-270# **show card**

```

=====
                        Card Information
=====
      admin      oper      admin      oper      oper
slot type      type      status      status      code
-----
11* controllerFabric12x  controllerFabric12x  up        up        normal
12  controllerFabric12x  controllerFabric12x  up        up        standby

```

Related Commands

[action](#)
[boot-config](#)
[card](#)
[install](#)
[shutdown](#)
[type](#)

show card-inventory

To display the system resources and image data of interface cards, enter the **show card-inventory** command in User Execute mode or Privileged Execute mode.



Note

The **show card-inventory** command only displays cards with an oper-status of **up**.

show card-inventory [*card-selection* | **all**]

Syntax Description

<i>card-selection</i>	(Optional) Card, list of cards, or range of cards to view.
all	(Optional) Displays resources and data of all cards in the chassis.

Defaults

The **show card-inventory** defaults to **show card-inventory all**.

Command Modes

User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:

Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:

General read-only user.

Each interface card is a system in itself. The following comprise system resources:

- available and used memory
- available and used flash memory
- active system image on the interface card
- CPU name and version

The active system image should match the active image that runs on the controller card. Occasions may occur when you update the system image on the controller but not on an interface card, such as when you swap interface cards between chassis or update the system image on the controller when an interface card goes down. Disk space may be an issue if you try to update the system image on the controller but cannot propagate this data to the interface card because the interface card has no free space.

The CPU description may be requested by support personnel in the event you are experience difficulties with a controller or interface card.

[Table 6-9](#) describes the fields in the **show card-inventory** command output.

Table 6-9 *show card-inventory* Command Field Descriptions

field	description
slot-id	Slot number of the controller card, gateway module, or InfiniBand switch.
used-memory	Total amount of local RAM being used by the card.

Table 6-9 *show card-inventory* Command Field Descriptions (continued)

field	description
slot-id	Displays the slot ID.
used-memory	Total amount of memory used in local RAM.
free-memory	Total amount of available local RAM.
used-disk-space	Total amount of local flash memory space being used by the card.
free-disk-space	Total amount of available local flash memory space.
last-image-source	Last image that the card booted.
primary-image-source	Active system image to use when the system reboots. This value should be the same for all cards in the system.
image	If only one instance of the image field appears, it indicates the system image used to initialize the card firmware. If there are two instances of the image field, the second instance indicates a second system image present on the card.
cpu-descr	CPU type, model, and firmware version. The disk on chip (DOC) versions are appended to the existing CPU descriptions in this release.
fpga-firmware-rev	Current FPGA firmware version that the card runs.
ib-firmware-rev	Version of InfiniBand firmware on the card. Note The CLI displays the device-id and version number of the IB chip for each card for Anafa 2 chips. This content appears in parentheses next to the firmware version. For original Anafa chips, no parenthetical text appears. The Cisco SFS 3001 and Cisco SFS 3012 run original Anafa chips. Cisco SFS 7000s and Cisco SFS 7008s run later models.
hw-rev-level : xxx <=	Version of the hardware.
mfg-date-code : xxx	Manufacturing date code.
card-part-num : xxx	Card part number.
card-fru-num : xxx	Card field replaceable unit (FRU) number.
uuid : xxx	Unit ID.
guid : xxx	GID

Examples

The following example displays the configuration and status information for the cards on the Server Switch.

```
SFS-7000P# show card-inventory
```

```
=====
                        Card Resource/Inventory Information
=====
      slot-id : 1
      used-memory : 18928 (kbytes)
      free-memory : 108900 (kbytes)
      used-disk-space : 47111 (kbytes)
      free-disk-space : 48646 (kbytes)
      last-image-source : OS-2.5.0/build092
```

■ show card-inventory

```
primary-image-source : OS-2.5.0/build092
    image : OS-2.5.0/build092
    image : OS-2.5.0/build096
    cpu-descr : PPC 440GP Rev. C - Rev 4.129 (pvr 4012 0481)
fpga-firmware-rev : a7
pic-firmware-rev : 036036
ib-firmware-rev : 00050122da (hw-rev b924 1a1)
    hw-rev-level : xxx                <= NEW
    mfg-date-code : xxx              <= NEW
    card-part-num : xxx              <= NEW
    card-fru-num : xxx               <= NEW
    uuid : xxx                      <= NEW
    guid : xxx                      <= NEW
```

Related Commands [boot-config](#)
[card](#)

show cdp

To display the Cisco Discovery Protocol (CDP) advertisement information, enter the **show cdp** command in User Exec mode or Privileged Exec mode.

show cdp

Syntax Description This command has no arguments or keywords.

Defaults CDP is running when the chassis boots.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
Unrestricted read-write user.

The Cisco Discovery Protocol (CDP) is used to obtain protocol addresses of neighboring devices and discover the platform of those devices. Using it with the MIB database allows applications to learn the device and the SNMP agent address of neighboring devices. CDP uses the CISCO-CDP-MIB.

Each device configured for CDP sends periodic messages, known as advertisements, to a multicast address. Each device advertises at least one address at which it can receive SNMP messages. The advertisements also contain time-to-live, or holdtime, information, which indicates the length of time a receiving device should hold CDP information before discarding it. Each device also listens to the periodic CDP messages sent by others in order to learn about neighboring devices and determine when their interfaces to the media go up or down.

CDP Version-2 is the most recent release of the protocol. With CDP Version-2, detailed information is provided on the VLAN Trunking Protocol (VTP) management domain and duplex modes of neighbor devices, CDP-related counters, and VLAN IDs of connecting ports. This can help the Ethernet gateway configuration. CDP is run on server switches over both management-Ethernet and management-IB interfaces.

Examples The following example displays the CDP advertisement informaton.

```
SFS-7000P# show cdp

=====
                        CDP Information
=====
                        run : false
                        message-interval : 60
                        hold-time : 180
                        device-id : SFS(00:05:ad:01:5f:f2)
```

■ show cdp

Related Commands

[show cdp entry](#)
[show cdp neighbors](#)
[show clock](#)

show cdp entry

To display the Cisco Discovery Protocol (CDP) information for a specific neighbor, enter the **show cdp entry** command in User Exec mode or Privileged Exec mode.

```
show cdp entry entry-name [protocol | version]
```

Syntax Description	entry-name	Specifies the entry name
	<i>protocol</i>	(Optional) Specifies the protocol.
	<i>version</i>	(Optional) Specifies the version

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
Unrestricted read-write user.

Examples The following example displays the CDP entry information.

```
SFS-7000P# show cdp entry
```

```
=====
                                CDP entry
=====
      device-id : svbu-h46-c2950.svbu-h46-c2950.cisco.com
      platform  : cisco WS-C2950T-24
capabilities  : switch
      device-port : FastEthernet0/1224
      version    : Cisco Internetwork OS C2950 Software
(C2950-I6Q4L2-M) Version 12.1(22)
      native-vlan : 230
      duplex     : half
```

Related Commands [show cdp](#)
[show cdp neighbors](#)
[show clock](#)

show cdp neighbors

To display the information for neighbors CDP has discovered, enter the **show cdp neighbors** command in User Exec mode or Privileged Exec mode.

show cdp neighbors [**type number**] [**detail**]

Syntax Description	type number	(Optional) Displays the type of device discovered, the device name, the number and type of the local interface (port), the number of seconds the CDP advertisement is valid for the port, the device type, the device product number, and the port ID.
	detail	(Optional) Displays information on the native VLAN ID, the duplex mode, and the VTP domain name associated with the neighbor device.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
Unrestricted read-write user.

Examples The following example displays the CDP neighbors information.

```
SFS-7000P# show cdp neighbors

=====
                          CDP neighbors
=====
Capability Codes: R - Router, T - Trans Bridge, B - Source Route Bridge
                  S - Switch, H - Host, I - IGMP, r - Repeater, P - Phone

device-id                hold-time capability platform      port-id
-----
svbu-q8-c2950.svbu-q8-c2950.cisco.com? (- 180          S          cisco WS-C2950T-24
FastEthernet0/4-24
```

Related Commands

- [show cdp](#)
- [show cdp entry](#)
- [show clock](#)

show clock

To display the current system time, enter the **show clock** command in User Exec mode or Privileged Exec mode.

show clock

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
Unrestricted read-write user.

If you have not set the clock, system time begins at 00:00:00, January 1, 1970.

Examples The following example displays the clock settings of the Server Switch.

```
SFS-7000P# show clock
Mon Mar 17 02:26:32 2003 (UTC)
SFS-7000P#
```

Related Commands [clock set](#)

show config

To display the startup configuration, enter the **show config** command in User Exec mode or Privileged Exec mode.

show config

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
Unrestricted read-write user.

The **show config** command displays the current configuration as a series of commands in the format that you use when you execute commands in a CLI session. This command queries all active service components to collect their current configuration data and translates the data into a CLI command format.

This record of the configuration may be saved, edited, and reused to replicate a configuration.



Note

ITLs (see the [fc srp itl](#) command on page 9) with default attributes (see the [fc srp-global itl](#) command on page 19) do not appear in the **show config** command output.

Examples The following example displays the running configuration on the Server Switch:

```
SFS-7000P# show config
enable
config terminal
card 2
type en4port1G
no shutdown
ib sm subnet-prefix fe:80:00:00:00:00:00:00 priority 0
interface gateway 2
ip address 192.168.2.1 255.255.255.0
interface ethernet 2/1
ip address 192.168.1.1 255.255.255.0
```

```
interface ethernet 2/2
ip address 192.168.3.1 255.255.255.0
arp ib 192.168.2.2 gid fe:80:00:00:00:00:00:00:02:c9:00:00:13:68:c3 qpn 2 2/0
arp ib 192.168.2.3 gid fe:80:00:00:00:00:00:00:00:02:c9:00:00:16:af:d3 qpn 2 2/0
SFS-7000P#
```

Related Commands

[copy](#)
[history](#)

show diagnostic

To display diagnostics, enter the **show diagnostic** command in User Exec mode or Privileged Exec mode.

show diagnostic

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
General read-only user.

Examples The following example displays the system diagnostics available.

```
SFS-270# diagnostic ?
SFS-7000P# show diag ?
card                - Show card specific diagnostic test
chassis             - Show chassis specific diagnostic test
fan                 - Show fan specific diagnostic test
fru-error           - Show the last hardware error (if any) detected
interface           - Show interface specific diagnostic test
post                - Show POST status of all FRUs in the system
power-supply        - Show power supply specific diagnostic test
rack-locator        - Show rack locator specific diagnostic test
```

Related Commands

- [show diagnostic card](#)
- [show diagnostic chassis](#)
- [show diagnostic fan](#)
- [show diagnostic fru-error](#)
- [show diagnostic interface ethernet](#)
- [show diagnostic interface fc](#)
- [show diagnostic interface ib](#)
- [show diagnostic post](#)
- [show diagnostic power-supply](#)
- [show diagnostic rack-locator](#)

show diagnostic card

To display completed or ongoing diagnostic tests for cards, enter the **show diagnostic card** command in User Exec mode or Privileged Exec mode.

```
show diagnostic card {all | card-selection}
```

Syntax Description

all	Specifies all cards on the Server Switch.
<i>card-selection</i>	Card or cards whose tests you want to view.

Defaults

This command has no default settings.

Command Modes

User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:

Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:

Unrestricted read-write user.

[Table 6-10](#) lists and describes the fields in the **show diagnostic card** command.

Table 6-10 *show diagnostic card Command Field Descriptions*

Field	Description
test	Test that ran or runs on the card.
slot-id	Slot of the card.
iterations	Number of iterations that the test completed.
action	Last action that an administrator applied to the test.
result	Result of the last action that an administrator applied to the test.
percentage-completed	Percentage of the test that has executed.
result-string	Diagnostic test results.

Examples

The following example displays the completed and ongoing diagnostic tests on card 3.

```
SFS-7000P# show diag card 3
```

```
=====
                        Diagnostic Tests For Cards
=====
      test : led
     slot-id : 3
  iterations : 1
      action : stop
```

```
                result : success
percentage-completed : 100
                result-string : Card LED Test, Final report : PASSED
```

The following example displays the available test parameters:

```
SFS-7000P(config)# diagnostic card 16
SFS-7000P(config-diag-card-16)# ?
diagnostic Configuration Commands:
exit                - Exit current mode
help                - Show command help
history             - Show command history
start               - Initiate a test
stop                - Stop a test
test                - Configure test type
SFS-7000P(config-diag-card-16)# test ?
> led               - Test type is LED test
> self-test         - Test type is self-test
```

Related Commands [show diagnostic](#)

show diagnostic chassis

To display completed or ongoing diagnostic tests the chassis, enter the **show diagnostic chassis** command in User Exec mode or Privileged Exec mode.

show diagnostic chassis

Syntax Description This command has no arguments or keywords.

Platform Availability:

Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Privilege Level:

Unrestricted read-write user.

Examples The following example displays the completed and ongoing diagnostic tests on card 3.

```
SFS-120# show diagnostic chassis

=====
                          Diagnostic Tests For Chassis
=====
      module-type : chassis
      module-number : 1
          test : self-test
          iterations : 1
              option : stopOnError
              action : start
              result : success
      percentage-completed : 100
      result-string : Self Test, Final report : PASSED; Please reboot syst
em
SFS-120#
```

Related Commands [show diagnostic](#)

show diagnostic fan

To display completed or ongoing diagnostic tests for fans, enter the **show diagnostic fan** command in User Exec mode or Privileged Exec mode.

```
show diagnostic fan {all | fan-selection}
```

Syntax Description	all	Specifies all fans on the Server Switch.
	fan-selection	Fan or fans whose tests you want to view.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 7000, Cisco SFS 7008

Privilege Level:
Unrestricted read-write user.

[Table 6-11](#) lists and describes the fields in the **show diagnostic fan** command.

Table 6-11 *show diagnostic card Command Field Descriptions*

Field	Description
test	Test that ran or runs on the card.
slot-id	Slot of the card.
iterations	Number of iterations that the test completed.
action	Last action that an administrator applied to the test.
result	Result of the last action that an administrator applied to the test.
percentage-completed	Percentage of the test that has executed.
result-string	Diagnostic test results.

Examples The following example displays diagnostic test results for a fan.

```
SFS-120# show diag fan
```

```
=====
Diagnostic Tests For Fan
=====

module-type : fan
```

```
module-number : 3
  test : self-test
  iterations : 1
  action : stop
  result : success
percentage-completed : 100
result-string : Fan Self Test Completed, Final report : Passed=1, Failed=0, Total=1
```

Related Commands [show diagnostic](#)

show diagnostic fru-error

To display field-replaceable unit (FRU) run-time errors, enter the **show diagnostic fru-error** command in User Exec mode or Privileged Exec mode.

show diagnostic fru-error

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes: User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 7000, Cisco SFS 7008

Privilege Level:
Unrestricted read-write user.

[Table 6-12](#) lists and describes the fields in the **show diagnostic fru-error** command.

Table 6-12 *show diagnostic card Command Field Descriptions*

Field	Description
fru-slot	FRU type (such as fan or power supply) and slot.
fru-error	FRU error, if any.

Examples The following example displays FRU errors on a Cisco SFS 7000.

```
SFS-270# show diagnostic fru-error
=====
                                Fru-Error
=====
fru-slot      fru-error
-----
card(1)      none
card(2)      none
card(9)      none
card(11)     _FRU_ETHERNET_ERR
card(12)     _FRU_ETHERNET_ERR
card(15)     none
card(16)     none
```

```
fan (1)          none
fan (2)          none
fan (3)          none
fan (4)          none
power-supply (1) none
power-supply (2) none
```

Related Commands [show diagnostic](#)

show diagnostic interface ethernet

To display completed or ongoing diagnostic tests for Ethernet gateway ports, enter the **show diagnostic interface ethernet** command in User Exec mode or Privileged Exec mode.

```
show diagnostic interface ethernet {port | all}
```

Syntax Description	
<i>port</i>	Ethernet port, in slot#/port# notation.
all	Specifies all Ethernet ports on the Server Switch.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 3012

Privilege Level:
Ethernet read-only user.

[Table 6-13](#) lists and describes the fields in the **show diagnostic interface ethernet** command.

Table 6-13 *show diagnostic interface ethernet Command Field Descriptions*

Field	Description
test	Test that ran or runs on the card.
port	Ethernet port number, in slot#/port# notation.
validation	Displays enabled or disabled to indicate validation status.
data-size	Size of the test data.
data-pattern	Pattern of the test data.
iterations	Number of iterations of the test.
action	Last action that an administrator performed on the test.
result	Result of the last action that an administrator performed on the test.
percentage-completed	Percentage of the test that has executed.
result-string	Result of the diagnostic test.

Examples The following example displays the completed and ongoing diagnostic tests on port 1 of Ethernet gateway 9.

```
SFS-7000P# show diagnostic interface ethernet 9/1
```

```
=====
```

```

Diagnostic Tests For Ethernet Interfaces
=====
      test : led
      port : 9/1
      validation : enabled
      data-size : 0
      data-pattern : 00:00:00:00
      iterations : 0
      action : stop
      result : none
      percentage-completed : 0
      result-string : Unknown Test Unknown status, Current report : Passed=0,
Failed=0, Total=0

```

The following example displays the diagnostic tests available:

```

SFS-7000P# (config)# diagnostic interface ethernet 2/1
SFS-7000P# (config-diag-if-ether-2/1)# ?
>diagnostic Configuration Commands:
data-pattern          - Configure a data pattern to use in traffic test
cases
  data-size           - Configure size (in octects) of payload data
  exit                - Exit current mode
  help                - Show command help
  history             - Show command history
  iterations          - Configure number of iterations the test case
should be run
  no                  - Disable a configuration or set default
  start              - Initiate a test
  stop                - Stop a test
  test                - Configure the test case to run
  validate            - Enable data validation to be performed on
received packets
SFS-7000P# (config-diag-if-ether-2/1)# test ?
  ext-loopback        - Configure External-Loopback test
  led                  - Configure LED test

```

Related Commands [show diagnostic](#)

show diagnostic interface fc

To display completed or ongoing diagnostic tests for Fibre Channel gateway ports, enter the **show diagnostic interface fc** command in User Exec mode or Privileged Exec mode.

```
show diagnostic interface fc {port | all}
```

Syntax Description	port	Ethernet port, in slot#/port# notation.
	all	Specifies all Ethernet ports on the Server Switch.

Defaults This command has no default settings.

Command Modes: User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 3012

Privilege Level:
Fibre Channel read-only user.

[Table 6-14](#) lists and describes the fields in the **show diagnostic interface fc** command.

Table 6-14 *show diagnostic card Command Field Descriptions*

Field	Description
test	Test that ran or runs on the card.
port	Fibre Channel port number, in slot#/port# notation.
validation	Displays enabled or disabled to indicate validation status.
data-size	Size of the test data.
data-pattern	Pattern of the test data.
iterations	Number of iterations of the test.
source-id	Source WWPN for the test.
target-id	Target WWPN for the test.
action	Last action that an administrator performed on the test.
result	Result of the last action that an administrator performed on the test.
percentage-completed	Percentage of the test that has executed.
result-string	Result of the diagnostic test.

Examples

The following example displays the completed and ongoing diagnostic tests on all Ethernet ports.

```
SFS-7000P# show diagnostic interface ethernet all

=====
Diagnostic Tests For Ethernet Interfaces
=====
      test : external-loopback
        port : 6/3
    validation : enabled
      data-size : 0
data-pattern : 00:00:00:00
      iterations : 0
        action : stop
        result : none
percentage-completed : 0
      result-string : External Loopback Test In-progress, Current report : Passed=0,
Failed=0, Total=0
```

The following example displays the diagnostic tests available:

```
SFS-7000P(config)# diagnostic interface fc 6/1
SFS-7000P(config-diag-if-fc-6/1)# ?
> diagnostic Configuration Commands:
> data-pattern          - Configure a data pattern to use in traffic test
> cases
> data-size             - Configure size (in octets) of payload data
> exit                  - Exit current mode
> help                  - Show command help
> history               - Show command history
> iterations            - Configure number of iterations the test case
> should be run
> no                    - Disable a configuration or set default
> source-id             - Specify source identifier for use with FC Echo test
> start                 - Initiate a test
> stop                  - Stop a test
> target-id            - Specify target identifier for use with FC Echo test
> test                  - Configure the test case to run
> validate              - Enable data validation to be performed on
> received packets
> Topspin-360(config-diag-if-fc-6/1)# test ?
> echo                  - Configure Echo test
> ext-loopback          - Configure External-Loopback test
> int-loopback          - Configure Internal-Loopback test
```

Related Commands [show diagnostic](#)

show diagnostic interface ib

To display completed or ongoing diagnostic tests for InfiniBand switch ports, enter the **show diagnostic interface ib** command in User Exec mode or Privileged Exec mode.

```
show diagnostic interface ib {port | all}
```

Syntax Description		
	<i>port</i>	Ethernet port, in slot#/port# notation.
	all	Specifies all Ethernet ports on the Server Switch.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
InfiniBand read-only user.

[Table 6-15](#) lists and describes the fields in the **show diagnostic interface ib** command.

Table 6-15 *show diagnostic card Command Field Descriptions*

Field	Description
test	Test that ran or runs on the card.
port	InfiniBand port number, in slot#/port# notation.
validation	Displays enabled or disabled to indicate validation status.
data-size	Size of the test data.
data-pattern	Pattern of the test data.
iterations	Number of iterations of the test.
source-id	Source LID for the test.
target-id	Target LID for the test.
action	Last action that an administrator performed on the test.
result	Result of the last action that an administrator performed on the test.
percentage-completed	Percentage of the test that has executed.
result-string	Result of the diagnostic test.

Examples The following example displays the completed and ongoing diagnostic tests on port 1 of InfiniBand switch card 16.

```
SFS-7000P> show diagnostic interface ib 16/1

=====
Diagnostic Tests For IB Interfaces
=====
      test : external-loopback
      port : 16/1
      validation : enabled
      data-size : 0
      data-pattern : 00:00:00:00
      iterations : 0
      source-id : 00:00:00
      target-id : 00:00:00
      action : stop
      result : none
      percentage-completed : 0
      result-string : External Loopback Test Unknown status, Current report :
      Passed=0, Failed=0, Total=0
```

The following example displays the available diagnostics tests:

```
SFS-7000P(config)# diagnostic interface ib 16/1
> SFS-7000P(config-diag-if-ib-16/1)# ?
> diagnostic Configuration Commands:
> data-pattern      - Configure a data pattern to use in traffic test
> cases
> exit              - Exit current mode
> help              - Show command help
> history           - Show command history
> iterations        - Configure number of iterations the test case
> should be run
> no                - Disable a configuration or set default
> start             - Initiate a test
> stop              - Stop a test
> test              - Configure the test case to run
> validate          - Enable data validation to be performed on
> received packets
> SFS-7000P(config-diag-if-ib-16/1)# test ?
> ext-cable         - Configure External-Cable test
> ext-loopback     - Configure External-Loopback test
> int-loopback     - Configure Internal-Loopback test
```

Related Commands [show diagnostic](#)

show diagnostic post

To display POST error messages, enter the **show diagnostic post** command in User Exec mode or Privileged Exec mode.

show diagnostic post

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 7000, Cisco SFS 7008

Privilege Level:
Unrestricted read-write user.

[Table 6-16](#) lists and describes the fields in the **show diagnostic post** command.

Table 6-16 *show diagnostic card Command Field Descriptions*

Field	Description
fru-slot	FRU type (such as fan or power supply) and slot.
post-status	Status of the POST test.
error-codes	Applicable error codes.

Examples The following example displays POST error messages on a Cisco SFS 7000.

```
SFS-270# show diagnostic post
```

```
=====
                                Post Status
=====
fru-slot      post-status   post-error
-----
card(1)      passed       none
card(2)      passed       none
card(9)      passed       none
card(11)     failed       _FRU_ETHERNET_ERR
card(12)     failed       _FRU_ETHERNET_ERR
card(15)     passed       none
card(16)     passed       none
fan(1)       passed       none
fan(2)       passed       none
```

```
fan(3)           passed           none
fan(4)           passed           none
power-supply(1) passed           none
power-supply(2) passed           none
```

Related Commands [show diagnostic](#)

show diagnostic power-supply

To display completed or ongoing diagnostic tests for power supplies, enter the **show diagnostic power-supply** command in User Exec mode or Privileged Exec mode.

```
show diagnostic power-supply {all | power-supply-selection}
```

Syntax Description	all	Specifies all fans on the Server Switch.
	<i>power-supply-selection</i>	Power supply or supplies whose tests you want to view.

Defaults This command has no default settings.

Command Modes: User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 7000, Cisco SFS 7008

Privilege Level:
Unrestricted read-write user.

[Table 6-11](#) lists and describes the fields in the **show diagnostic power-supply** command.

Table 6-17 *show diagnostic card Command Field Descriptions*

Field	Description
module-number	Power supply module number.
test	Test that ran or runs on the card.
iterations	Number of iterations that the test completed.
action	Last action that an administrator applied to the test.
result	Result of the last action that an administrator applied to the test.
percentage-completed	Percentage of the test that has executed
result-string	Diagnostic test results.

Examples The following example displays the completed and ongoing diagnostic tests on all power supplies.

```
SFS-270> show diagnostic power-supply all
```

```
=====
                        Diagnostic Tests For Power Supplies
=====
      module-number : 1
                test : none
      iterations : 1
                action : stop
```

```
        result : none
percentage-completed : 0
        result-string :
```

show diagnostic rack-locator

To display the results of the rack locator test, enter the **show diagnostic rack-locator** command in User Exec mode or Privileged Exec mode.

show diagnostic rack-locator

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 7000, Cisco SFS 7008

Privilege Level:
Unrestricted read-write user.

[Table 6-18](#) lists and describes the fields in the **show diagnostic rack-locator** command.

Table 6-18 *show diagnostic rack-locator Command Field Descriptions*

Field	Description
module-type	Type of test.
module-number	Module tested.
test	Last test executed.
iterations	Number of iterations of last test executed.
action	Last test action taken.
result	Result of test.
percentage-completed	Percentage of test completed.
result-string	Test results.

Examples The following example displays rack locator test results.

```
SFS-7000P# show diagnostic rack-locator
=====
Diagnostic Tests For Rack Locator
=====
      module-type : rack-locator
      module-number : 1
                test : led
      iterations : 1
                action : stop
```



```
          result : success
percentage-completed : 100
          result-string : LED Test, Final report : PASSED
```

Related Commands [show diagnostic](#)

show fan

To display the status of the fans in your Server Switch, enter the **show fan** command in User Exec mode or Privileged Exec mode.

show fan

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012

Privilege Level:
General read-only user.

For the health of your Server Switch, you want both fans to function while your Server Switch runs. If the operational status of a fan appears as **down**, contact customer support for a fan module replacement.

[Table 6-19](#) describes the fields in the **show fan** command output.

Table 6-19 *show fan Command Field Descriptions*

field	description
fan	Fan number. Fan 1 resides on the left-side as you are facing the front of the chassis. Fan 2 resides on the right-side of the chassis.
oper status	Operational status of the fan. The value appears as unknown, up, down, or failure. An up value indicates the fan functions correctly.
speed (%)	Speed of the fan as a percentage of the maximum speed of the fan.
product serial number	Factory-assigned product serial-number.
pca serial-number	Printed Circuit-Assembly (PCA) serial-number.
pca number	Printed Circuit-Assembly (PCA) assembly-number.
fru number	Field-replaceable unit (FRU) number.

Examples The following example displays the fan settings on the Server Switch.

```
SFS-7000P# show fan
```

```
=====
                          Fan Information
```

```

=====
fan  oper-status  speed(%)
-----
1    up           93
2    up           91
3    up           89
4    up           85

=====
                                Fan Seeprom
=====
      product          pca          pca          fru
fan  serial-number    serial-number  number      number
-----
1    PY-0323-000055   PY-0323-000055  95-00011-01  98-00004-01
2    PY-0323-000055   PY-0323-000055  95-00011-01  98-00004-01
3    PY-0323-000059   PY-0323-000059  95-00011-01  98-00004-01
4    PY-0323-000059   PY-0323-000059  95-00011-01  98-00004-01

```

Related Commands

[show power-supply](#)
[show sensor](#)

show fc srp initiator

To display the attributes of initiators that you have configured on your Server Switch, enter the **show fc srp initiator** command in User Exec mode or Privileged Exec mode.

show fc srp initiator [*guid extension*]

Syntax Description	
<i>guid</i>	GUID of the initiator to view.
<i>extension</i>	GUID extension of the initiator to view.

Defaults Enter the **show fc srp initiator** command with no arguments to display all initiators.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:
Cisco SFS 3001, Cisco SFS 3012

Privilege Level:
Fibre Channel read-only user.

This command displays active and inactive initiators.

Enter this command without any arguments to display the initiator information for all configured SRP initiators. If you specify a GUID, you must also specify the extension.



Note Initiators do not need to connect to the Server Switch to appear in the show output. As long as you configured them, they appear in the command output.

Table 6-20 *show fc srp initiator* Command Field Descriptions

Field	Description
guid	GUID of the initiator.
extension	GUID extension of the initiator.
description	User-assigned ASCII description of the initiator.
wwnn	World-wide node name (WWNN) of the initiator.
credit	Indicates the amount of traffic that the initiator can accept.
active-ports	IB ports on your Server Switch through which the initiator passes traffic.
pkeys	Partition key(s) of the initiator.
action	Displays the last action you performed using the fc srp initiator command on this initiator. Displays the last action you have performed using the config fc arp initiator command on this initiator. The action can be <i>discover-itl</i> or <i>auto-bind</i> . Possible values are: none (when no action was taken) success, in-progress, or fail.

Table 6-20 *show fc srp initiator Command Field Descriptions (continued)*

Field	Description
result	Displays the result of the action that appears in the “action” field. Possible values are: non (when no action was taken), success, in-progress, or fail. Any results other than “Operation completed successfully” occur due to interface errors.
wwpns	World-wide port names (WWPNs) of the virtual ports (NL_ports) that point to the initiator.

Examples

The following example displays the initiators that users have configured on the Server Switch.

```
SFS-7000P# show fc srp initiator
```

```
=====
                        SRP Initiators
=====
      guid: 00:05:ad:00:00:01:29:c5
      extension: 00:00:00:00:00:00:00:00
      description: Bender
      wwnn: 20:01:00:05:ad:00:40:00
      credit: 0
      active-ports: 6/1
      pkeys:
      action: none
      result: none
      wwpns: port      wwpn      fc-addr
                   2/1      20:01:00:05:ad:20:40:00  00:00:00
                   2/2      20:01:00:05:ad:24:40:00  00:00:00
                   3/1      20:01:00:05:ad:30:40:00  00:00:00
                   3/2      20:01:00:05:ad:34:40:00  00:00:00
                   4/1      20:01:00:05:ad:40:40:00  00:00:00
                   4/2      20:01:00:05:ad:44:40:00  00:00:00
                   5/1      20:01:00:05:ad:50:40:00  00:00:00
                   5/2      20:01:00:05:ad:54:40:00  00:00:00
                   6/1      20:01:00:05:ad:60:40:00  00:00:02
                   6/2      20:01:00:05:ad:64:40:00  00:00:00
                   7/1      20:01:00:05:ad:70:40:00  00:00:00
                   7/2      20:01:00:05:ad:74:40:00  00:00:00
                   8/1      20:01:00:05:ad:80:40:00  00:00:00
                   8/2      20:01:00:05:ad:84:40:00  00:00:00
                   9/1      20:01:00:05:ad:90:40:00  00:00:00
                   9/2      20:01:00:05:ad:94:40:00  00:00:00
                   10/1     20:01:00:05:ad:a0:40:00  00:00:00
                   10/2     20:01:00:05:ad:a4:40:00  00:00:00
                   11/1     20:01:00:05:ad:b0:40:00  00:00:00
                   11/2     20:01:00:05:ad:b4:40:00  00:00:00
                   12/1     20:01:00:05:ad:c0:40:00  00:00:00
                   12/2     20:01:00:05:ad:c4:40:00  00:00:00
                   13/1     20:01:00:05:ad:d0:40:00  00:00:00
                   13/2     20:01:00:05:ad:d4:40:00  00:00:00
                   14/1     20:01:00:05:ad:e0:40:00  00:00:00
                   14/2     20:01:00:05:ad:e4:40:00  00:00:00

Total: 1 initiators.
```

Related Commands

fc srp initiator auto-bind
fc srp initiator-wwpn
fc srp it
fc srp itl
fc srp lu
fc srp target
fc srp-global gateway-portmask-policy restricted
fc srp-global lun-policy restricted
speed

show fc srp initiator-wwpn-view

To display SRP targets that an initiator can access through one of its virtual ports, enter the **show fc srp initiator-wwpn-view** command in User Exec mode or Privileged Exec mode.

show fc srp initiator-wwpn-view *wwpn target*

Syntax Description	
<i>wwpn</i>	World-wide port name (WWPN) of the virtual port of the initiator.
target	Displays the targets that your initiator can access through the virtual port.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:
Cisco SFS 3001, Cisco SFS 3012

Privilege Level:
Fibre Channel read-only user.

Use this command to verify that your initiator connects to all of the targets that you configured for it. [Table 6-21](#) lists and describes the fields in the **show fc srp initiator-wwpn-view** command output.

Table 6-21 *show fc srp initiator-wwpn-view Command Field Descriptions*

Field	Description
wwpn	World-wide port name (WWPN) of the target port that the initiator can access through the virtual port.
wwnn	World-wide node name (WWNN) of the target.
description	Description of the target.
ioc-guid	GUID of the I/O controller of the target.
service-name	Service name of the target.
protocol-ids	Protocols that the target supports.
fc-address	Fibre Channel address of the target.
mtu	Maximum transmission unit (MTU), in bytes, of the target.
connection-type	Displays nl-port to indicate a virtual FC port.
physical-access	Physical FC port (in slot#/port# format) of the virtual port.

Examples

The following example displays the targets that the initiator can access through the specified virtual port.

```
SFS-7000P> show fc srp initiator-wwpn-view 20:03:00:05:ad:21:5a:5c target

=====
SRP Targets Accessible to Initiator Via Port WWN 20:03:00:05:ad:51:5a:5c
=====
      wwpn: 20:01:00:60:45:17:36:1c
      wwnn: 20:09:00:60:45:17:36:1c
description: SRP.T10:200100604517361C
      ioc-guid: 00:05:ad:00:00:01:38:80
service-name: SRP.T10:200100604517361C
protocol-ids: 04:00:00:00:00:00:00:00:00
      fc-address: 61:1b:13
           mtu: 0
connection-type: nl-port
physical-access: 5/1-5/2,7/1
```

Related Commands

[fc srp initiator](#)
[fc srp-global lun-policy restricted](#)
[show fc srp initiator](#)

show fc srp it

To display initiator-target pairs that you have configured or that your Server Switch has discovered, enter the **show fc srp it** command in User Exec mode or Privileged Exec mode.

show fc srp it [*guid extension target-wwpn*]

Syntax Description

<i>guid</i>	(Optional) GUID of the initiator in the IT pair.
<i>extension</i>	(Optional) GUID extension of the initiator in the IT pair.
<i>target-wwpn</i>	(Optional) World-wide port name (WWPN) of the target FC storage port in the IT pair.

Defaults

This command has no default settings.

Command Modes

User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:

Cisco SFS 3001, Cisco SFS 3012

Privilege Level:

Unrestricted read-write user.

Use this command to verify you successfully created IT pairs on your Server Switch.

Table 6-22 *show fc srp it* Command Output Field Descriptions

Field	Description
guid	GUID of the initiator in the initiator-target pair.
extension	GUID extension of the initiator in the initiator-target pair.
target-wwpn	WWPN of the target storage.
description	User-assigned description of the initiator-target pair.
non-restricted-ports	Ports on your Server Switch that grant the initiator of the IT pair access to storage.
active-ports	Ports on your Server Switch through which the initiator of the IT pair passes traffic.
physical-access	Physical port(s) on your Server Switch to which the initiator of the IT pair connects.
mode	Displays “normal-mode” or “test-mode.” Configure the mode to normal-mode to permit initiators to log in to storage. In test-mode, the FC gateway persistently logs into storage and blocks the initiators.

Table 6-22 *show fc srp it Command Output Field Descriptions*

Field	Description
action	Displays the last action you performed using the config fc srp it command on this initiator target. The action can be <i>discover-itl</i>
result	Displays the result of the action that appears in the “action” field. Possible values are: none (when no action was taken), success, in-progress, or fail. Any result other than “Operation completed successfully” occurs due to interface errors.

Examples

The following example displays the details of an IT pair.

```
SFS-7000P# show fc srp it
```

```
=====
                        SRP IT
=====
                        guid: 00:02:c9:02:00:40:0e:d4
                        extension: 00:00:00:00:00:00:00:00
                        target-wwpn: 21:00:00:04:cf:86:a0:1f
                        description: it
non-restricted-ports: 2/1-2/4,3/1-3/4,4/1-4/4,5/1-5/4,
                        : 6/1-6/4,7/1-7/4,8/1-8/4,9/1-9/4,
                        : 10/1-10/4,11/1-11/4,12/1-12/4,13/1-13/4
active-ports: 5/1-5/2
physical-access: 5/1-5/2,7/2
mode: normal-mode
action: none
result: none
```

Related Commands

[fc srp-global gateway-portmask-policy restricted](#)
[fc srp it](#)
[show interface fc](#)

show fc srp itl

To display all ITLs that run through your Server Switch, enter the **show fc srp itl** command in User Exec mode or Privileged Exec mode.

show fc srp itl [*guid extension wwpn LUN*]

Syntax Description	
<i>guid</i>	(Optional) Global unique identifier (GUID) of the initiator.
<i>extension</i>	(Optional) GUID extension of the initiator.
<i>wwpn</i>	(Optional) World-wide port name (WWPN) of the target port on the FC storage device.
<i>LUN</i>	(Optional) Logical unit number (LUN) of the FC storage device.

Defaults Enter the **show fc srp itl** command with not arguments to display all ITLs on your Server Switch.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:
Cisco SFS 3001, Cisco SFS 3012

Privilege Level:
Unrestricted read-write user.

Enter this command without arguments to display the ITL information for all connected Fibre Channel devices. This command displays active and inactive ITLs.

[Table 6-23](#) describes the fields in the **show fc srp itl** command output.

Table 6-23 *show fc srp itl* Command Field Descriptions

Field	Description
guid	GUID of the initiator.
extension	GUID extension of the initiator.
target-wwpn	WWPN of the target port on the FC storage device.
fc-lunid	Fibre Channel LUN ID of the storage disk/tape/stripe.
description	User-configured description.
srp-lunid	Internal SRP LUN ID. This value serves as a SRP-side alias for a FC LUN ID. By default, the srp-lunid value matches the <i>LUN</i> variable.
logical-id (raw 64 bytes)	Numeric disk LU.
logical-id (formatted display)	Alphanumeric disk LU.

Table 6-23 *show fc srp itl Command Field Descriptions (continued)*

Field	Description
gateway-port-mask-policy	Displays a list of unrestricted ports through which the ITL traffic can pass.
lun-policy	Displays restricted when you activate the LUN masking policy and non-restricted when you deactivate the policy.
hi-mark	The maximum number of outstanding requests from the initiator to the storage that the ITL can maintain.
max-retry	Configures the maximum number of retries that the initiator can send to the storage device.
min-io-timeout	Maximum amount of time, in seconds, that elapses before a SRP request times out.
dynamic-path-affinity	Displays “true” when you enable the feature, otherwise displays “false.”
dynamic-gateway-port-loadbalancing	Displays “true” when you enable the feature, otherwise displays “false.”
dynamic-storage-port-loadbalancing	Displays “true” when you enable the feature, otherwise displays “false.” If this feature does not apply to the storage, no output appears.
dynamic-gateway-port-failover	Displays “true” when you enable the feature, otherwise displays “false.”
dynamic-storage-port-failover	Displays “true” when you enable the feature, otherwise displays “false.” If this feature does not apply to the storage, no output appears.
active-slots	Slots on which ITL traffic actively runs.

Examples

The following example displays the ITLs in the configuration file on the Server Switch.

```
SFS-7000P# show fc srp itl
```

```
=====
                        SRP ITL
=====
                        guid: 00:05:ad:00:00:01:29:c5
                        extension: 00:00:00:00:00:00:00:00
                        target-wwpn: 21:00:00:04:cf:f6:c2:ab
                        fc-lunid: 00:00:00:00:00:00:00:00
                        srp-lunid: 00:00:00:00:00:00:00:00
logical-id (raw 64 bytes): 01:03:00:08:20:00:00:04:cf:f6:c2:ab:00:00:00:00
                        : 00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
                        : 00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
                        : 00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
logical-id (formatted display): 2000000000000000
                        description: itl
                        device-category: random
                        lun-policy: non restricted
non-restricted-ports: none
                        active-ports: 6/1
                        physical-access: 6/1
                        hi-mark: 16
                        max-retry: 5
```

```
        min-io-timeout: 10
        dynamic-path-affinity: false
dynamic-gateway-port-loadbalancing: true
dynamic-storage-port-loadbalancing:
    dynamic-gateway-port-failover: false
    dynamic-storage-port-failover:
        active-slots: 6
```

Total: 1 itls.

Related Commands

fc srp itl
fc srp lu
show fc srp it
show interface fc

show fc srp itl-statistics

To display ITL I/O statistics, enter the **show fc srp itl-statistics** command in User Exec mode or Privileged Exec mode.

show fc srp itl-statistics [*guid extension wwpn LUN*]

Syntax Description		
<i>guid</i>	(Optional)	Global unique identifier (GUID) of the initiator.
<i>extension</i>	(Optional)	GUID extension of the initiator.
<i>wwpn</i>	(Optional)	World-wide port name (WWPN) of the target port on the FC storage device.
<i>LUN</i>	(Optional)	Logical unit number (LUN) of the FC storage device.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:
Cisco SFS 3001, Cisco SFS 3012

Privilege Level:
Fibre Channel read-only user.

Enter this command without any arguments to display the SRP/Fibre Channel statistics for every ITL. [Table 6-24](#) lists and describes the output of the **show fc srp itl-statistics** command.

Table 6-24 *show fc srp itl-statistics* Command Field Descriptions

Field	Description
guid	GUID of the initiator.
extension	GUID extension of the initiator.
target-wwpn	WWPN of the target.
srp-lunid	LUN ID of the LUN in the ITL.
slot-id	Slot on the Server Switch in which the FC gateway resides.
srp-cmds-outstanding	Cumulative number of outstanding SRP commands.
srp-errors	Cumulative number of SRP errors.
srp-initiated-ios	Total number of SRP I/O requests.
srp-bytes-read	Cumulative number of SRP bytes read by one or all FC gateways.
srp-bytes-written	Cumulative number of SRP bytes written by one or all FC gateways.
fc-cmds-outstanding	Cumulative number of outstanding FC commands.

Table 6-24 *show fc srp itl-statistics Command Field Descriptions (continued)*

Field	Description
fcpcmds-completed	Cumulative number of commands that one or all FC gateways executed.
fcpc-errors	Cumulative number of FC errors on one or all gateways.
fcpc-initiated-ios	Total number of FC I/O requests.
fcpc-bytes-read	Cumulative number of FC bytes read by one or all FC gateways.
fcpc-bytes-written	Cumulative number of FC bytes written by one or all FC gateways.

Examples

The following example displays ITL traffic statistics for the ITLs in the configuration file on the Server Switch.

```
SFS-7000P# show fc srp itl-statistics
=====
                        SRP ITL statistics
=====
                        guid: 00:02:c9:00:01:1d:aa:00
                        extension: 00:00:00:00:00:00:00:00
                        target-wwpn: 20:01:00:60:45:17:36:1c
                        srp-lunid: 00:00:00:00:00:00:00:00
                        slot-id: 5
srpcmds-outstanding: 0
srpc-errors: 0
srpc-initiated-ios: 0
srpc-bytes-read: 0
srpc-bytes-written: 0
fcpcmds-outstanding: 0
fcpcmds-completed: 0
fcpc-errors: 0
fcpc-initiated-ios: 0
fcpc-bytes-read: 0
fcpc-bytes-written: 0
```

Related Commands

[fc srp itl](#)
[show fc srp statistics](#)

show fc srp lu

To display attributes of logical units, enter the **show fc srp lu** command in User Exec mode or Privileged Exec mode.

show fc srp lu [*logical-id*]

Syntax Description	<i>logical-id</i>	LU identifier, in 64-byte, hexadecimal format OMITTING ALL COLONS.
---------------------------	-------------------	---

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 3012

Privilege Level:
Fibre Channel read-only user.

[Table 6-25](#) describes the fields in the **show fc srp lu** command output.

Table 6-25 *show fc srp lu Command Field Descriptions*

Field	Description
logical-id (formatted display)	ID of the LUN.
description	User-defined LU description.
device-category	Displays “random” or “sequential” to identify the type of LUN.
targets	Displays the WWPN of the target in which the LUN resides.
hi-mark	The maximum number of outstanding requests from the initiator to the storage that the ITL can maintain.
max-retry	Displays the number of failed communication attempts that must occur before the LUN identifies the initiator as inaccessible.
min-io-timeout	Maximum amount of time that elapses before a SRP request times out.
dynamic-path-affinity	Displays “true” if you enable the feature and “false” if you disable the feature.
dynamic-gateway-port-loadbalancing	Displays “true” if you enable the feature and “false” if you disable the feature.

Table 6-25 *show fc srp lu Command Field Descriptions (continued)*

Field	Description
dynamic-storage-port-loadbalancing	Displays “true” if you enable the feature and “false” if you disable the feature.
vendor-id	Vendor-assigned ID of the LUN.
product-id	Vendor-assigned product ID of the LUN.
product-revision	Manufacturer-assigned product revision number.
physical-access	FC gateway Ports on your Server Switch that connect to the LU.

Examples

The following example displays the LUs (storage disks) that connect to the Server Switch.

```
SFS-7000P# show fc srp lu
```

```

=====
                              SRP LUs
=====
           logical-id (raw 64 bytes): 01:03:00:08:20:00:00:04:cf:f6:c2:ab:00:00:00:00
                                         : 00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
                                         : 00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
                                         : 00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
logical-id (formatted display): 2000000000000000
          description: lu-SEAGATE -ST336753FC      -0005
          device-category: random
          targets: 21:00:00:04:cf:f6:c2:ab
          hi-mark: 16
          max-retry: 5
          min-io-timeout: 10
          dynamic-path-affinity: false
dynamic-gateway-port-loadbalancing: true
dynamic-gateway-port-failover: false
          vendor-id: SEAGATE
          product-id: ST336753FC
          product-revision: 0005
          physical-access: 6/1

Total: 1 lus.
```

The following example displays details about one LU.

```
SFS-7000P# show fc srp lu
```

```
0103000820000004cf86a01f000000000000000000000000000000000000000000000000000000000000000000000000000000
00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
```

```

=====
                              SRP LUs
=====
           logical-id (raw 64 bytes): 01:03:00:08:20:00:00:04:cf:86:a0:1f:00:00:00:00
                                         : 00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
                                         : 00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
                                         : 00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
logical-id (formatted display): 2000000000000000
          description: lu-SEAGATE -ST336753FC      -0005
          device-category: random
          targets: 21:00:00:04:cf:86:a0:1f
```

```
show fc srp lu
```

```
                hi-mark: 16
                max-retry: 5
                min-io-timeout: 10
dynamic-path-affinity: false
dynamic-gateway-port-loadbalancing: true
dynamic-gateway-port-failover: false
                vendor-id: SEAGATE
                product-id: ST336753FC
product-revision: 0005
                physical-access: 5/1-5/2,7/2

SFS-7000P#
```

Related Commands

[fc srp lu](#)
[show fc srp initiator](#)
[show fc srp itl](#)
[show interface fc](#)

show fc srp statistics

To display aggregate SRP I/O statistics for all ITLs on your Server Switch, enter the **show fc srp statistics** command in User Exec mode or Privileged Exec mode.

show fc srp statistics

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes: User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 3012

Privilege Level:
Fibre Channel read-only user.

Use the **show fc srp statistics** command to determine load and error count.

The statistical information consists of the following:

- SRP and Fibre Channel commands initiated, outstanding, and completed.
- SRP and Fibre Channel bytes read and written.
- SRP and Fibre Channel errors reported.

[Table 6-26](#) describes the fields in the **show fc srp statistics** command output.

Table 6-26 *show fc srp statistics Command Field Descriptions*

Field	Description
link-events	Total number of link events (e.g., link up, link down) processed by the Fibre Channel interface gateway(s).
srp-cmds-outstanding	Total number of SRP commands outstanding on the Fibre Channel interface gateway(s).
srp-cmds-completed	Total number of SRP commands completed on the Fibre Channel interface gateway(s).
srp-errors	Total number of SRP errors encountered on the Fibre Channel interface gateway(s).
srp-initiated-ios	Total number of I/O transactions requested by the SRP initiator.
srp-bytes-read	Total number of I/O bytes read by the SRP initiator that connects to this chassis.
srp-bytes-written	Total number of I/O bytes written by the SRP initiator.

Table 6-26 *show fc srp statistics Command Field Descriptions (continued)*

Field	Description
srp-connections	Total number of connections used by the SRP initiator.
fcpcmds-outstanding	Total number of FCP commands outstanding on the Fibre Channel interface gateway(s).
fcpcmds-completed	Total number of FCP commands completed on the Fibre Channel interface gateway(s).
fcpc-errors	Total number of FCP errors encountered on the Fibre Channel interface gateway(s).
fcpc-initiated-ios	Total number of I/O responses by the Fibre Channel device to SRP initiator requests.
fcpc-bytes-read	Total number of I/O bytes read by the target device.
fcpc-bytes-written	Total number of I/O bytes written by the target device.

Examples

The following example displays traffic statistics for all of the ITLs on your Server Switch.

```
SFS-7000P# show fc srp statistics
```

```
=====
                        SRP Global Statistics
=====
      link-events: 1410805
    srp-cmds-outstanding: 0
      srp-cmds-completed: 4
          srp-errors: 0
    srp-initiated-ios: 4
      srp-bytes-read: 288
    srp-bytes-written: 0
      srp-connections: 2
    fcpcmds-outstanding: 0
    fcpcmds-completed: 2
          fcpc-errors: 0
    fcpc-initiated-ios: 2
          fcpc-bytes-read: 0
    fcpc-bytes-written: 0
```

Related Commands

[show fc srp initiator](#)
[show fc srp itl](#)
[show interface fc](#)

show fc srp target

To display the properties of targets (that you manually configured or your Server Switch discovered), enter the **show fc srp target** command in User Exec mode or Privileged Exec mode.

show fc srp target [*wwpn*]

Syntax Description	<i>wwpn</i> World-wide port name (WWPN) of the target port.
Defaults	This command has no default settings.
Command Modes	User Execute mode, Privileged Execute mode.
Usage Guidelines	<p>Platform Availability: Cisco SFS 3001, Cisco SFS 3012</p> <p>Privilege Level: Fibre Channel read-only user.</p> <p>Enter this command without any arguments to display all the target devices known to the Server Switch. Table 6-27 describes the fields in the show fc srp target command output.</p>

Table 6-27 *show fc srp target* Command Field Descriptions

Field	Description
wwpn	Fibre Channel interface port name of the SRP target.
wwnn	World-wide node name of the target.
description	Text label used to identify the service in the Element Manager GUI or CLI output. If you do not apply a description, the system defaults to the service name.
ioc-guid	InfiniBand I/O controller (IOC) through which the initiator accesses the target. On the Cisco SFS 3012 and Cisco SFS 3001 platforms, the IOC identifies a Fibre Channel gateway slot.
service-name	Name of the service to associate with the target.
protocol-ids	Protocols that the target supports.
fc-address	3-byte Fibre Channel Protocol address of the target.
mtu	Maximum transmission unit, in bytes, of the target.
connection-type	Displays “down” if the connection cannot pass traffic. Displays “nl-port” when the target communicates with the virtual port on the Fibre Channel gateway.
physical -access	Fibre Channel port that physically connects to the target.

Examples

The following example displays the targets that connect to the Server Switch.

```
SFS-7000P# show fc srp target
=====
                        SRP Targets
=====
      wwnn: 20:09:00:60:45:17:36:1c
      wwpn: 20:01:00:60:45:17:36:1c
description: SRP.T10:200100604517361C
      ioc-guid: 00:05:ad:00:00:01:38:80
service-name: SRP.T10:200100604517361C
protocol-ids: 04:00:00:00:00:00:00:00:00
      fc-address: 61:1b:13
           mtu: 0
connection-type: nl-port
physical-access: 5/1-5/2
```

Related Commands

[fc srp target](#)
[show fc srp initiator](#)

show fc srp-global

To display the permissions that automatically apply to all new ITs and ITLs, enter the **show fc srp-global** command in User Exec mode or Privileged Exec mode.

show fc srp-global

Syntax Description This command has no arguments or keywords.

Defaults See the [fc srp-global itl](#) command for defaults.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 3012

Privilege Level:
Fibre Channel read-only user.

Examples: The following example displays the default attributes of new ITLs:

```
SFS-7000P# show fc srp-global
```

```
=====
                        SRP Global Information
=====
                        default-gateway-portmask-policy : restricted
                                default-lun-policy : restricted
                                default-itl-hi-mark : 16
                                default-itl-max-retry : 5
                                default-itl-min-io-timeout : 10
                                default-itl-dynamic-path-affinity : false
default-itl-dynamic-gateway-port-load-balancing : true
                                default-itl-dynamic-gateway-port-failover : false
                                default-seq-itl-hi-mark : 1
                                default-seq-itl-max-retry : 1
                                default-seq-itl-min-io-timeout : 60
                                default-seq-itl-dynamic-path-affinity : false
default-seq-itl-dynamic-gateway-port-load-balancing : false
                                default-seq-itl-dynamic-gateway-port-failover : true
```

Related Commands [fc srp-global gateway-portmask-policy restricted](#)
[fc srp-global itl](#)
[fc srp-global lun-policy restricted](#)

show host

To display the DNS name servers and domain name that your Server Switch uses, enter the **show host** command in User Exec mode or Privileged Exec mode.

show host

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
Fibre Channel read-only user.

Use this command to display the network domain of the chassis and the DNS servers that your Server Switch uses to resolve network names to IP addresses.

[Table 6-28](#) lists and describes the fields in the **show host** command output.

Table 6-28 *show host Command Field Descriptions*

Field	Description
name-server-one	IP address of the primary name server.
name-server-two	IP address of the backup name server.
domain-name	Host name of the Server Switch.

Examples The following example displays the IP addresses of the DNS servers that the Server Switch uses to resolve host names.

```
SFS-7000P# show host
=====
                        Host Information
=====
name-server-one : 10.3.106.20
name-server-two : 0.0.0.0
domain-name    : shasta
SFS-7000P#
```


Related Commands [hostname](#)
[ip](#)

show ib dm ioc

To display the Device Manager input/output controller (IOC) configuration, enter the **show ib dm ioc** command in User Exec mode or Privileged Exec mode.

show ib dm ioc [*ioc-guid* | **all**] [**services**]

Syntax Description		
	<i>ioc-guid</i>	(Optional) GUID of the controller that you want to view.
	all	(Optional) Displays all controllers on the IB fabric.
	services	(Optional) Displays the services that run on the IOC(s).

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 3012

Privilege Level:
General read-only user.

[Table 6-29](#) describes the fields in the **show ib dm ioc** command output.

Table 6-29 *show ib dm ioc Command Field Descriptions*

Field	Description
guid	GUID of the controller
description	User-assigned description.
vendor-id	Organization Unique Identifier (OUI) of the vendor.
ioc-device-id	Vendor-assigned device identifier.
device-version	Vendor-assigned device version.
subsystem-vendor-id	Vendor-assigned subsystem vendor identifier
subsystem-id	Vendor-assigned subsystem identifier.
io-class	I/O class that the IOC supports.
io-subclass	Subclass of the I/O class protocol of the IOC.
protocol	Standard protocol definition that the IOC supports.
protocol-version	Protocol version that the IOC supports.
send-msg-q-depth	Maximum number of messages that the send message queue supports.
rdma-read-q-depth	Maximum depth of the per-channel RDMA Read Queue.
send-msg-size	Maximum size, in bytes, of send messages.

Table 6-29 *show ib dm ioc Command Field Descriptions (continued)*

Field	Description
rdma-transfer-size	Maximum size, in bytes, of outbound RDMA transfers that the IOC initiates.
controller-op-cap	Integer value (from 8 cumulative bits) between 1 and 255 that represents the operation type(s) that the IOC supports. <ul style="list-style-type: none"> • bit 0: ST; Send Messages To IOCs • bit 1: SF; Send Messages From IOCs • bit 2: RT; RDMA Read Requests To IOCs • bit 3: RF; RDMA Read Requests From IOCs • bit 4: WT; RDMA Write Requests To IOCs • bit 5: WF; RDMA Write Requests From IOCs • bit 6: AT; Atomic Operations To IOCs • bit 7: AF; Atomic Operations From IOCs
service-entries	Number of services that the IOC provides.

Table 6-30 describes the fields in the services keyword output.

Table 6-30 *services Keyword Display Output*

Field	Description
ioc-guid	GUID of the node that provides the service.
service-name	ASCII identifier of the service.
service-id	Numeric identifier that nodes use to call the service.

Examples

The following example displays the configuration of all IOCs on the fabric.

```
SFS-7000P> show ib dm ioc
```

```

=====
                        IB Device Manager I/O Controller
=====
                        guid: 00:05:ad:00:00:00:14:fe
                        description:
                        vendor-id: 0x5ad
                        ioc-device-id: 0x5ad
                        device-version: 1
                        subsystem-vendor-id: 0x5ad
                        subsystem-id: 0x5ad
                        io-class: 256
                        io-subclass: 24734
                        protocol: 264
                        protocol-version: 1
                        send-msg-q-depth: 65535
                        rdma-read-q-depth: 65535

```

```

    send-msg-size: -1
rdma-transfer-size: -1
controller-op-cap: 255
service-entries: 14

```

The following example displays all of the services on all of the IOCs in the fabric (output abridged).

```
SFS-7000P> show ib dm ioc services
```

```

=====
                        IB Device Manager Services
=====
                ioc-guid: 00:05:ad:00:00:00:14:fe
                service-name: SRP.T10:2200000C5002CA21
                service-id: 00:00:00:00:00:00:00:66

                ioc-guid: 00:05:ad:00:00:00:14:fe
                service-name: SRP.T10:2200000C50056281
                service-id: 00:00:00:00:00:00:00:66

```

Related Commands [show ib dm iou](#)

show ib dm iou

To display the Device Manager input/output unit (IOU) configuration, enter the **show ib dm iou** command in User Exec mode or Privileged Exec mode.

show ib dm iou

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012

Privilege Level:
General read-only user.

[Table 6-31](#) describes the fields in the **show ib dm** command output.

Table 6-31 *show ib dm Command Output Fields*

Field	Description
change-id	Cumulative number of changes to the controller list since the device last booted.
max-controllers	Maximum number of controllers that your device can support.
diag-device-id	Displays “1” if diagnostics can provide IOC details, otherwise displays “0.”
option-rom	Indicates the presence or absence of Option ROM.
controllers	Lists the virtual slots on your Server Switch that run IOC controllers. Note All references to “slot” in this field refer to virtual slots, not physical slots on the Server Switch.

Examples The following example displays the DM I/O details for the Server Switch.

```
SFS-7000P> show ib dm iou
=====
                        IB Device Manager I/O Unit
=====
                        change-id: 2352
                        max-controllers: 1
                        diag-device-id: 0
                        option-rom: absent
                        controllers: slot-1 IOC present
```

■ show ib dm iou

Related Commands [show ib dm ioc](#)

show ib pm config

To view the performance monitoring configuration on an IB subnet, enter the **show ib pm config** command in User Execute mode or Privileged Execute mode.

show ib pm config subnet-prefix *prefix*

Syntax Description	Parameter	Description
	subnet-prefix	Specifies the subnet prefix of the IB subnet for which you want to view performance monitoring.
	<i>prefix</i>	Subnet prefix of the IB subnet for which you want to view performance monitoring

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:
Cisco SFS 7000, Cisco SFS 7008

Privilege Level:
General read-only user.

[Table 6-32](#) lists and describes the fields in the show ib pm config command output.

Table 6-32 *show ib pm config Command Output Descriptions*

Field	Description
subnet-prefix	Subnet prefix of the IB subnet whose performance monitoring configuration you are viewing.
state	State of performance monitoring (enabled or disabled).
polling period	Interval at which the feature polls ports and connections (in seconds).
start-delay	Time that elapses before performance managing executes (in seconds).

Examples The following example displays the output of the show ib pm config command.

```
SFS-120# show ib pm config subnet-prefix fe:80:00:00:00:00:00
=====
                        IB PM Configuration
=====
    subnet-prefix : fe:80:00:00:00:00:00
      state      : enable
  polling-period : 10
    start-delay  : 60
```

■ show ib pm config

Related Commands [ib pm](#)

show ib pm connection counter

To view the performance monitoring counters on a connection, enter the **show ib pm connection counter** command in User Execute mode or Privileged Execute mode.

show ib pm connection counter subnet-prefix *prefix* **src-lid** *source* **dst-lid** *destination*

Syntax Description	Parameter	Description
	subnet-prefix	Specifies the subnet prefix of the IB subnet for which you want to view performance monitoring.
	<i>prefix</i>	Subnet prefix of the IB subnet for which you want to view performance monitoring
	src-lid	Specifies the source Local Identifier (LID) of the connection.
	<i>source</i>	Source LID of the connection
	dst-lid	Specifies the destination Local Identifier (LID) of the connection.
	<i>destination</i>	Destination LID of the connection.

Defaults

This command has no default settings.

Command Modes

User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:

Cisco SFS 7000, Cisco SFS 7008

Privilege Level:

General read-only user.

Examples

The following example displays performance monitoring counters on a connection.

```
SFS-120# show ib pm connection counter subnet-prefix fe:80:00:00:00:00:00:00 src-1
id 2 dst-lid 2
```

```
=====
                        IB PM Port Counter Table
=====
      subnet-prefix : fe:80:00:00:00:00:00:00
        node-guid  : 00:05:ad:00:00:01:73:bf
           port-num : 1
      chassis-guid : 00:05:ad:00:00:01:73:bf
         slot-num  : 1
      ext-port-num : 1
    data-is-valid : false
      symbol-errors : 0
 link-recovery-errors : 0
           link-downs : 0
             rcv-errors : 0
rcv-remote-phy-errors : 0
rcv-switch-relay-errors : 0
```

show ib pm connection counter

```
xmit-discards : 0
xmit-constraint-errors : 0
rcv-constraint-errors : 0
local-link-integrity-errors : 0
excessive-buf-overflow-errors : 0
v115-dropped : 0
xmit-data : 0
rcv-data : 0
xmit-pkts : 0
rcv-pkts : 0
```

Related Commands [ib pm](#)

show ib pm connection monitor

To view the performance monitoring connection monitor, enter the **show ib pm connection monitor** command in User Execute mode or Privileged Execute mode.

show ib pm connection monitor subnet-prefix *prefix* **src-lid** *source* **dst-lid** *destination*

Syntax Description	Parameter	Description
	subnet-prefix	Specifies the subnet prefix of the IB subnet for which you want to view performance monitoring.
	<i>prefix</i>	Subnet prefix of the IB subnet for which you want to view performance monitoring
	src-lid	Specifies the source Local Identifier (LID) of the connection.
	<i>source</i>	Source LID of the connection
	dst-lid	Specifies the destination Local Identifier (LID) of the connection.
	<i>destination</i>	Destination LID of the connection.

Defaults

This command has no default settings.

Command Modes

User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:
Cisco SFS 7000, Cisco SFS 7008

Privilege Level:
General read-only user.

Examples

The following example displays the connection monitor table of a connection.

```
SFS-120# show ib pm connection monitor subnet-prefix fe:80:00:00:00:00:00 src-lid 2 dst-lid 2
```

```
=====
                        IB PM Connection Monitor Table
=====
 subnet-prefix : fe:80:00:00:00:00:00
      src-lid  : 2
      dst-lid  : 2
 error-status  : unknown
 util-status  : unknown
```

Related Commands

[ib pm](#)

show ib pm port counter

To show the performance monitoring port counter configuration, enter the **show ib pm port counter** command in User Execute mode or Privileged Execute mode.

show ib pm port counter [**config**] **subnet-prefix** *prefix*

Syntax Description	config	(Optional) Displays the port counter configuration.
	subnet-prefix	Specifies the subnet prefix of the counters to view.
	<i>prefix</i>	Subnet prefix of the counters to view.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 7000, Cisco SFS 7008

Privilege Level:
General read-only user.

Examples The following example shows the configuration of the performance monitoring port counter.

```
SFS-120# show ib pm port counter config subnet-prefix fe:80:00:00:00:00:00
```

```
=====
                        IB PM Port Counter Configuration
=====
subnet-prefix : fe:80:00:00:00:00:00
state        : enabled
```

show ib pm port monitor

To show the performance monitoring port monitor configuration, enter the **show ib pm port monitor** command in User Execute mode or Privileged Execute mode.

show ib pm port monitor [**config** | **error-counter**] **subnet-prefix** prefix [**node-guid** guid]

Syntax Description		
config	(Optional)	Displays the port monitor configuration.
error-counter	(Optional)	Shows the performance monitoring port with monitored error information.
subnet-prefix		Specifies the subnet prefix of the port monitor.
<i>prefix</i>		Subnet prefix of the port monitor.
node-guid	(Optional)	Specifies the GUID of the device whose ports you want to view.
<i>guid</i>	(Optional)	GUID of the device whose ports you want to view.

Defaults

This command has no default settings.

Command Modes

User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:

Cisco SFS 7000, Cisco SFS 7008

Privilege Level:

General read-only user.

Examples

The following example displays the port monitor configuration.

```
SFS-120# show ib pm port monitor subnet-prefix fe:80:00:00:00:00:00:00
```

```
=====
                        IB PM Port Monitor Configured Ports Table
=====
subnet-prefix : fe:80:00:00:00:00:00:00
node-guid    : 00:05:ad:00:00:01:73:bf
port-num     : 2

subnet-prefix : fe:80:00:00:00:00:00:00
node-guid    : 00:05:ad:00:00:01:73:bf
port-num     : 3
```

Related Commands

[ib pm](#)

show ib pm threshold

To view performance monitoring thresholds, enter the **show ib pm threshold** command in User Execute mode or Privileged Execute mode.

show ib pm threshold subnet-prefix *prefix*

Syntax Description	subnet-prefix	Specifies the subnet prefix of the thresholds to view.
	<i>prefix</i>	Subnet prefix of the thresholds to view.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 7000, Cisco SFS 7008

Privilege Level:
General read-only user.

Examples The following example displays performance monitoring thresholds.

```
SFS-120# show ib pm threshold subnet-prefix fe:80:00:00:00:00:00
```

```
=====
                                IB PM Thresholds
=====
      subnet-prefix : fe:80:00:00:00:00:00
      symbol-errors : none
      link-recovery-errors : none
      link-downs : 1
      rcv-errors : none
      rcv-remote-phy-errors : none
      rcv-switch-relay-errors : none
      xmit-discards : none
      xmit-constraint-errors : none
      rcv-constraint-errors : none
      local-link-integrity-errors : none
      excessive-buf-overflow-errors : none
      vl15-dropped : none
      xmit-rate : 1
      rcv-rate : 1
```

Related Commands [ib pm](#)

show ib sm configuration

To display information about the subnet managers on your InfiniBand fabric, enter the **show ib sm configuration** command in User Exec mode or Privileged Exec mode.

show ib sm configuration {**subnet-prefix** *prefix* | **all**} [**summary**]

Syntax Description	Field	Description
	subnet-prefix	Specifies the subnet prefix of the subnet manager that you want to view.
	<i>prefix</i>	Subnet prefix of the subnet manager that you want to view.
	all	Displays the attributes of all the subnet managers that are currently configured and running on the InfiniBand fabric.
	summary	Displays an abridged form of the command output. The abridged information includes the subnet prefix, GUID, priority, and SM key of the subnet managers.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
InfiniBand read-only user.

[Table 6-33](#) describes the fields in the **show ib sm configuration** command output.

Table 6-33 *show ib sm configuration Command Field Descriptions*

Field	Description
subnet-prefix	64-bit value used that identifies the InfiniBand subnet. This is a unique subnet identifier and joins with the GUID to form the global identifier (GID) of the port. All GIDs within a subnet have the same subnet prefix.
guid	GUID of this subnet manager.
priority	User-assigned priority for this subnet manager. You must enter an integer between 0 and 15. The value defaults to 10. Note When the chassis boots, the SM priority defaults to 10. When you add the SM manually, the priority defaults to 10.
sm-key	64-bit subnet management key assigned to the subnet manager. The sm-key defaults to 00:00:00:00:00:00:00:00. The SM key serves as the prefix of all GIDs and “brands” nodes as members of this subnet.

Table 6-33 *show ib sm configuration Command Field Descriptions (continued)*

Field	Description
oper-status	Operational status of the subnet manager. Self-detection determines this status. The value appears as “notActive,” “discovering,” “standby,” or “master.” If “notActive” appears, the subnet manager has not been enabled or has been disabled. The “discovering” output appears when the subnet manager sweeps the fabric. If “standby” appears, the SM servers as a a slave subnet manager. If only one subnet manager runs on the fabric, it serves as the “master.”
act-count	Activity counter that increments each time the subnet manager issues an subnet management packet (SMP) or performs other management activities.
status	Status of the subnet manager. It appears as “active” or “inactive.” If “active,” it is actively managing subnets. If “inactive,” it is not managing subnets.
master-poll-interval	Interval at which the slave SM polls the master to see if the master is still alive.
master-poll-retries	Number of unanswered polls that cause the slave to identify the master as dead.
max-active-sms	Maximum number of standby SMs that the master supports.
LID-mask-control	Number of path bits present in the base LID to each channel adapter port. Increasing the LMC value increases the number of LIDs assigned to each port to increase the number of potential paths to reach each port.
switch-life-time	The packet life time inside a Server Switch.
switch-hoq-life-time	The packet life time at the head-of-queue of a switch port.
host-hoq-life-time	The life time of a packet at the head-of-queue of the host port.

Examples

The following example shows the detailed configuration of a subnet manager.

```
SFS-7000P# show ib sm configuration subnet-prefix fe:80:00:00:00:00:00
```

```

=====
                          Subnet Manager Information
=====
 subnet-prefix : fe:80:00:00:00:00:00
      guid    : 00:05:ad:00:00:00:13:f5
      priority : 10
      sm-key   : 00:00:00:00:00:00:00:00
      oper-status : master
      act-count : 787224
      sweep-interval(sec) : 10
      response-timeout(msec) : 400
      master-poll-intval(sec) : 3
      master-poll-retries : 2
      max-active-sms : 0
      LID-mask-control : 0
      switch-life-time : 20
      switch-hoq-life-time : 20
      host-hoq-life-time : 20

```

The following example shows the summary configuration of a subnet manager.

```
SFS-7000P# show ib sm configuration subnet-prefix fe:80:00:00:00:00:00 summary
```

```

=====
                          Subnet Manager Configuration Summary
=====

```



```
=====
subnet-prefix          guid                priority sm-key
-----
fe:80:00:00:00:00:00 00:05:ad:00:00:01:1e:82 10          00:00:00:00:00:00:00
```

Related Commands

ib sm
ib-agent
show ib-agent switch
name

show ib sm db-sync

To display subnet manager synchronization information, enter the **show ib sm db-sync** command in User Exec mode or Privileged Exec mode.

```
show ib sm db-sync subnet-prefix {prefix | all}
```

Syntax Description	Field	Description
	subnet-prefix	Specifies the subnet prefix of the subnet manager whose sync status you want to view.
	<i>prefix</i>	Prefix of the subnet manager whose sync status you want to view.
	all	Displays sync data for all SMs on the fabric.

Defaults This command has no default settings.

Command Modes User Exec mode, Privileged Exec mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
InfiniBand read-only user.

Use this command to determine

- If the database of the master subnet manager synchronizes with one or more standby databases.
- The frequency with which the databases synchronize.

Table 6-34 *show ib sm db-sync* Command Field Descriptions

Field	Description
subnet-prefix	Subnet prefix of the subnet whose synchronization information you want to view.
enable	Displays true if an administrator has enabled synchronization, otherwise displays false .
max-backup-sms	The maximum number of backup subnet managers that the master subnet manager supports.
session-timeout	The interval, in seconds, during which a synchronization session status MAD packet must arrive at the master SM to maintain synchronization.
poll-interval	Interval at which the master SM polls an active slave SM to verify synchronization.
cold-sync-timeout	Maximum amount of time in which SMs can perform a cold sync. During the cold sync, the master SM copies all out-of-sync tables to the standby.
cold-sync-limit	Maximum number of cold syncs that may take place during the cold sync period.
cold-sync-period	Length of the interval during which cold syncs may occur.

Table 6-34 *show ib sm db-sync Command Field Descriptions*

Field	Description
new-session-delay	Amount of time that the master SM waits before it attempts to initiate a synchronization session with a new SM.
resync-interval	Specifies the interval at which the master SM sends a re-synchronization request to all active sync sessions.
state	Specifies whether or not the Subnet Manager is in sync with the backup.

Examples

the following example displays subnet manager synchronization information.

```
show ib sm db-sync subnet-prefix fe:80:00:00:00:00:00
```

```
=====
Subnet Manager Database Synchronization Information
=====

subnet-prefix : fe:80:00:00:00:00:00
enable        : false
max-backup-sms : 1
session-timeout : 10
poll-interval  : 3
cold-sync-timeout : 10
cold-sync-limit : 2
cold-sync-period : 900
new-session-delay : 120
resync-interval : 3600
state         : not in-sync
```

Related Commands [ib sm db-sync](#)

show ib sm sm-info

To display subnet manager information maintained by the SM on this device, enter the **show ib sm sm-info** command in User Exec mode or Privileged Exec mode.

show ib sm sm-info subnet-prefix *subnet-prefix* [**port-guid** *port-guid*] [**summary**]

Syntax Description	Field	Description
	subnet-prefix	Displays the discovered Subnet Managers in the fabric for one Subnet Manager you want to view.
	<i>subnet-prefix</i>	Prefix of the IB subnet manager you want to view. For example, fe:80:00:00:00:00:00:00
	port-guid	(Optional) Displays the discovered Subnet Managers in the fabric
	<i>port-guid</i>	(Optional) Specifies the port ID for a discovered Subnet Managers in the fabric
	summary	(Optional) Displays a summary of the discovered Subnet Managers in the fabric

Defaults This command has no default settings.

Command Modes User Exec mode, Privileged Exec mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
InfiniBand read-only user.

Use this command to display the SM information data maintained by the Subnet Managers on this device.

Table 6-35 *show ib sm db-sync Command Field Descriptions*

Field	Description
subnet-prefix	Subnet prefix of the subnet whose synchronization information you want to view.
port-guid	GUID of the port that connects the node to the Server Switch. A port within a node can return the node GUID as its PortGUID if the port serves as an integral part of the node and you cannot replace the port in the field (not swappable).

Examples

This example displays subnet manager information.

```
SFS-270# show ib sm sm-info subnet-prefix fe:80:00:00:00:00:00 summary
=====
                Summary of Discovered Subnet Managers in Fabric
=====
subnet-prefix          port-guid              priority state
-----
```

Related Commands

[ib sm db-sync](#)

show ib sm multicast

To display attributes of the multicast groups on your Server Switch, enter the **show ib sm multicast** command in User Exec or Privileged Exec mode.

```
show ib sm multicast {subnet-prefix prefix [mgid multicast-group-GID] [summary] |
summary}
```

Syntax Description	Field	Description
	subnet-prefix	Specifies the subnet prefix of the subnet manager that you want to view.
	<i>prefix</i>	Subnet prefix of the subnet manager that you want to view.
	mgid	(Optional) Specifies the global identifier (GID) of the multicast group.
	<i>multicast-group-GID</i>	(Optional) Global identifier (GID) of the multicast group.
	summary	(Optional) Displays an abridged form of the data. The abridged information includes the subnet prefix, GUID, priority, and SM key of the subnet managers.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
InfiniBand read-only user.

Troubleshoot with this command when a host does not receive a broadcast packet. Use this command to verify that the multicast group includes the host. The subnet manager dynamically configures all multicast groups.

[Table 6-36](#) describes the fields in the **show ib sm configuration** command output.

Table 6-36 *show ib sm multicast Command Field Descriptions*

Field	Description
subnet-prefix	Subnet prefix of the subnet manager.
MGID	Multicast group identifier.
port-GID	GID of a port that belongs to the multicast group.
member-join-state	Type of membership that the member has in the multicast group. Members qualify as full members, non-members, or send-only members.
proxy-join-status	This field displays false except for trusted requests. For details, refer to <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1.

Examples

The following example displays a summary of the multicast groups on the Server Switch.

```
SFS-7000P# show ib sm multicast summary
=====
                Summary of Multicast-Groups on Device
=====
 subnet-prefix : fe:80:00:00:00:00:00:00
           MGID : ff:12:40:1b:ff:f1:00:00:00:00:00:00:00:00:ff:ff:ff:ff

 multicast-group-members :
   port-GID : fe:80:00:00:00:00:00:00:00:05:ad:00:00:00:12:bf
 member-join-state : full-member
 proxy-join-status : false
```

Related Commands [ib sm](#)

show ib sm neighbor

To display the InfiniBand devices that directly connect to your Server Switch, enter the **show ib sm neighbor** command in User Exec mode or Privileged Exec mode.

show ib sm neighbor

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
InfiniBand read-only user.

[Table 6-37](#) describes the fields in the **show ib sm neighbor** command output.

Table 6-37 *show ib sm neighbor Command Field Descriptions*

Field	Description
subnet-prefix	64-bit value that identifies the InfiniBand subnet to which this neighbor node belongs.
local-node-guid	64-bit GUID of the InfiniBand node.
local-port-id	Port ID of the InfiniBand node. You must enter an integer between 0 and 255.
local-node-type	Type of the InfiniBand node. The value appears as channel-adapter, switch, or router.
remote-node-guid	64-bit GUID of the neighboring InfiniBand node to which the local node links.
remote-port-id	Port ID of the neighboring InfiniBand node to which the local node links. You must enter an integer between 0 and 255.
remote-node-type	Type of the neighboring InfiniBand node. The value appears as channel-adapter, switch, or router.
link-state	State of the link between the local and neighboring nodes. The value appears as noStateChange, down, initialize, armed, or active.
link-width-active	Active link width. This parameter, with LinkSpeedActive, determines the link rate between the two connected nodes. The value appears as width1x, width4x, or width12x.

Examples

The following example displays the GUIDs that connect to your Server Switch and the GUIDs within your Server Switch.

**Note**

Truncated output appears here.

```
SFS-7000P# show ib sm neighbor
=====
                        Subnet Management Neighbors
=====
      subnet-prefix : fe:80:00:00:00:00:00
      local-node-guid : 00:05:ad:00:00:00:11:97
      local-port-id : 2
      local-node-type : channel-adapter
      remote-node-guid : 00:05:ad:00:00:00:13:da
      remote-port-id : 1
      remote-node-type : switch
      link-state : active
      link-width-active : width4x
```

Related Commands [ib sm](#)

show ib sm node

To display the configuration and attributes of subnet management nodes in a subnet, enter the **show ib sm node** command in User Exec mode or Privileged Exec mode.

show ib sm node subnet-prefix *prefix* [**node-guid** *guid*] [**summary**]

Syntax Description	Field	Description
	subnet-prefix	Specifies the subnet prefix of the nodes that you want to view.
	<i>prefix</i>	Subnet prefix of the nodes that you want to view.
	node-guid	(Optional) Specifies the GUID of an individual node that you want to view.
	<i>guid</i>	(Optional) GUID of an individual node that you want to view.
	summary	(Optional) Displays abridged command output.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
InfiniBand read-only user.

All nodes that the subnet manager on your Server Switch actively manages qualify as subnet management nodes.

Use this command to display the configuration of all the nodes on a subnet, or to display the configuration of an individual node. The output may also be displayed in summary form. The summary comprises the subnet-manager prefix, the node GUID and type, and vendor identification.

[Table 6-38](#) describes the fields in the **show ib sm node** command output.

Table 6-38 *show ib sm node Command Field Descriptions*

Field	Description
subnet-prefix	64-bit value that identifies the InfiniBand subnet to which this node belongs.
node-guid	GUID of the node.
base-version	Supported base management datagram (MAD) version. Indicates that this channel adapter, switch, or router supports versions up to and including this version. See section 13.4.2, Management Datagram Format, in <i>InfiniBand Architecture®, Vol. 1, Release 1.1</i> , for more information.
class-version	Supported MAD class format version. Indicates that this channel adapter, switch, or router supports versions up to, and including, this version.

Table 6-38 *show ib sm node Command Field Descriptions (continued)*

Field	Description
type	Type of node being managed. The value appears as channel adapter , switch , router , or error . An error entry indicates an unknown type.
num-ports	Number of physical ports on the node.
port-guid	GUID of the port that connects the node to the Server Switch. A port within a node can return the node GUID as its PortGUID if the port serves as an integral part of the node and you cannot replace the port in the field (not swappable).
partition-cap	Capacity of entries in the partition table for channel adapter, router, and the switch management port. The value appears the same for all ports on the node. This defaults to at least 1 for all nodes including switches. You cannot configure this value.
device-id	Manufacturer-assigned device identification.
revision	Manufacturer-assigned device revision.
local-portnum	The link port number from which this subnet management packet (SMP) arrived. The value appears the same for all ports on the node.
vendor-id	Device vendor ID. The value appears the same for all ports on the node.
system-image-guid	GUID of an associated supervisory node. No supervisory node exists if the command output displays 00:00:00:00:00:00:00:00.

Examples

The following example (output abridged) displays the configuration of all the nodes on all the subnets on the InfiniBand fabric.

```
SFS-7000P# show ib sm node subnet-prefix fe:80:00:00:00:00:00:00
```

```
=====
                          Subnet Management Nodes
=====
 subnet-prefix : fe:80:00:00:00:00:00:00
   node-guid  : 00:00:2c:90:01:1b:ba:80
   description: swfc5 HCA-1 (Topspin HCA)
   base-version : 1
   class-version : 1
     type      : channel adapter
   num-ports  : 2
   port-guid  : 00:00:2c:90:01:1b:ba:81
   partition-cap : 64
   device-id  : 0
   revision   : 0
   local-portnum : 1
   vendor-id  : 00:2c:90
   system-image-guid : 00:00:00:00:00:00:00:00

 subnet-prefix : fe:80:00:00:00:00:00:00
   node-guid  : 00:05:ad:00:00:00:13:da
   description: Topspin Switch - U1
   base-version : 1
   class-version : 1
     type      : switch
   num-ports  : 8
   port-guid  : 00:05:ad:00:00:00:13:da
   partition-cap : 32
```

■ show ib sm node

```

        device-id : 0
        revision : 0
    local-portnum : 6
        vendor-id : 00:05:ad
system-image-guid : 00:00:00:00:00:00:00:00

```

The following example displays a node configuration in summary form.

```

SFS-7000P# show ib sm node subnet-prefix fe:80:00:00:00:00:00:00 node-guid
00:05:ad:00:00:00:13:80 summary
=====
                Subnet Manager Node Summary
=====
subnet-prefix          node-guid              node-type              vendor-id
-----
fe:80:00:00:00:00:00 00:05:ad:00:00:00:13:80 channel adapter      00:05:ad
SFS-7000P#

```

Related Commands [ib sm](#)

show ib sm partition

To display the partitions that the subnet manager on your Server Switch manages, enter the **show ib sm partition** command in User Exec mode or Privileged Exec mode.

show ib sm partition

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
InfiniBand read-only user.

In the output, ff:ff refers to the default partition, which cannot be altered. Members of partitions are identified by their Node GUID and port-number, as displayed below.

A single partition can have members that have full-membership, as well as members that have limited membership.

Refer to the *Element Manager User Guide* for more detailed partition information.

[Table 6-39](#) lists and describes the fields in the show ib sm partition command output.

Table 6-39 *show ib sm partition Command Field Descriptions*

Field	Description
subnet-prefix	Subnet prefix of the subnet whose partitions you want to view.
p_key	Partition key of the partition whose members the display prints below.
node-guid	GUID of the node in the partition.
port-number	Port on the node that belongs to the partition.
member-type	Type of membership that an administrator assigned to the node, either full or limited.

Examples The following example displays the configuration of all nodes on all subnets on the InfiniBand fabric.

```
SFS-7000P# show ib sm partition
=====
                Partitions Managed By The Subnet Managers
=====
subnet-prefix : fe:80:00:00:00:00:00:00
p_key : ff:ff
```

```
partition-members :
  node-guid : 00:05:ad:00:00:00:02:40
port-number : 0
member-type : full-member

  node-guid : 00:05:ad:00:00:00:02:42
port-number : 0
member-type : full-member
```

Related Commands [ib sm](#)

show ib sm port

To display all InfiniBand ports on the fabric, the nodes to which the ports belong, the capabilities of the ports, and the link statistics of the ports, enter the **show ib sm port** command in User Exec mode or Privileged Exec mode.

show ib sm port subnet-prefix *prefix* [**node-guid** *guid*] [**summary**]

Syntax Description	Field	Description
	subnet-prefix	Specifies the subnet prefix of the subnet manager that manages the ports that you want to view.
	<i>prefix</i>	Subnet prefix of the subnet manager that manages the ports that you want to view.
	node-guid	(Optional) Specifies the GUID of an individual node whose ports you want to view.
	<i>guid</i>	(Optional) GUID of an individual node whose ports you want to view.
	summary	(Optional) Displays abridged command output.

Defaults

This command has no default settings.

Command Modes

User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:

Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:

InfiniBand read-only user.

Use this command to verify that all of the ports in your fabric came up when the SM initialized them.

Port information may be reported for all the ports on a specific subnet or all the ports comprising a specific node. The output may also be displayed in summary form.

[Table 6-40](#) describes the fields in the **show ib sm port** command output.

Table 6-40 *show ib sm port Command Field Descriptions*

Field	Description
subnet-prefix	64-bit value that identifies the InfiniBand subnet to which this port belongs.
node-guid	64-bit GUID of the node to which this port belongs.
if-index	Port number (integer) on the node (host).
mkey	64-bit management key for this port. See section 14.2.4, Management Key and 3.5.3, Keys, <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, for more information.

Table 6-40 show ib sm port Command Field Descriptions (continued)

Field	Description
gid-prefix	64-bit GID prefix for this port. The subnet manager assigns this prefix based upon the port router and the rules for local identifiers. See section 4.1.3, Local Identifiers, <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, for more information.
lid	16-bit base-LID of this port.
master-sm-lid	16-bit base LID of the master subnet manager managing this port.
cap-mask	The capability mask identifies the functions that the host supports. 32-bit bitmask that specifies the supported capabilities of the port. A bit value of 1 (one) indicates a supported capability. The bits are: 0, 11-15, 18, 21-31 (Reserved and always 0.), 1 IsSM, 2 IsNoticeSupported, 3 IsTrapSupported, 4 IsResetSupported, 5 IsAutomaticMigrationSupported, 6 IsSLMappingSupported, 7 IsMKeyNVRAM (supports M_Key in NVRAM), 8 IsPKeyNVRAM (supports P_Key in NVRAM), 9 Is LED Info Supported, 10 IsSMdisabled, 16 IsConnectionManagementSupported, 17 IsSNMPTunnelingSupported, 19 IsDeviceManagementSupported, 20 IsVendorClassSupported. Values are expressed in hexadecimal.
diag-code	16-bit diagnostic code. See section 14.2.5.6.1 Interpretation of Diagcode, <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, for more information. This field does not currently apply to your Server Switch.
mkey-lease-period	Initial value of the lease-period timer, in seconds. The lease period is the length of time that the M_Key protection bits are to remain non-zero after a SubnSet (PortInfo) fails an M_Key check. After the lease period expires, clearing the M_Key protection bits allows any subnet manager to read (and then set) the M_Key. Set this field to 0 to indicate that the lease period never expires. Refer to <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, section 14.2.4, "Management Key."
link-width-enabled	Enabled link width (bandwidth). The value (an integer) indicates the enabled link-width sets for this port. The value may be <ul style="list-style-type: none"> • 0 (no state change), • 1 (1x), • 2 (4x), • 3 (1x or 4x), • 8 (12x), • 9 (1x or 12x), • 10 (4x or 12x), • 11 (1x, 4x or 12x), • 255 (set this parameter to the link-width-supported value).
link-width-supported	Supported link width. The value appears as 1 (1x), 3 (1x or 4x), or 11 (1x, 4x, or 12x).
link-width-active	Active link width. Used in conjunction with LinkSpeedActive to determine the link rate between two nodes. The value appears as 1 (1x), 2 (4x), or 8 (12x).

Table 6-40 *show ib sm port Command Field Descriptions (continued)*

Field	Description
link-speed-supported	Supported link speed. The value appears as 1 (2.5 Gbps).
state	A higher form of addressing than PhyState, state determines that the nodes can actually communicate and indicates the state transition that has occurred. A transition identifies a port change from down to initialize, initialize to down, armed to down, or active to down as a result of link state machine logic. Changes to the port state resulting from SubnSet have no affect on this parameter value. The value appears as noStateChange, down, initialize, armed, or active.
phy-state	Indicates the physical state of the port. This determines that electricity flows between nodes and they can perform a handshake. The value appears as noStateChange, sleeping, polling, disabled, portConfigurationTraining, linkup, or linkErrorRecovery. The state, upon power-up, defaults to polling .
link-down-def-state	Default LinkDown state to return to. The value appears as noStateChange, sleeping, or polling. See section 5.5.2, Status Outputs (MAD GET), <i>InfiniBand Architecture®, Vol. 1, Release 1.1</i> , for more information.
mkey-prot-bits	Management key protection bits for the port. The bits are 0, 1, 2, and 3. See section 14.2.4.1, Levels of Protection, <i>InfiniBand Architecture®, Vol. 1, Release 1.1</i> , for more information.
lmc	Local-identifier mask control (LMC) for multipath support. A LMC resides on each channel adapter and router port on the subnet. It provides multiple virtual ports within a single physical port. The value of the LMC specifies the number of path bits in the LID. A value of 0 (zero) indicates one LID can apply to this port. See sections 3.5.10, Addressing, and 4.1.3, Local Identifiers, <i>InfiniBand Architecture®, Vol. 1, Release 1.1</i> , for more information.
link-speed-active	Speed of an active link. The value appears as 1 (2.5 Gbps).
link-speed-enabled	Maximum speed that the link can handle. The value appears as 0 (No state change), 1 (2.5 Gbps), or 3 (value derived from link-speed-supported).
neighbor-mtu	Active maximum transmission unit enabled on this port for transmit. Check the mtu-cap value at both ends of every link and use the lesser speed. The value appears as mtu256, mtu512, mtu1024, mtu2048, or mtu4096.
master-sm-SL	Administrative service level required for this port to send a non-SMP message to the subnet manager.
VL-cap	Maximum range of data virtual lanes supported by this port. The value appears as v10, v10ToV11, v10ToV13, v10ToV17, or v10ToV114. See also oper-VL. Each port can support up to fifteen virtual lanes (VLs 0 - 15). The VL-cap field displays the range of those lanes (e.g. lanes 0 - 7) that the port currently supports.
VL-high-limit	Maximum high-priority limit on the number of bytes allowed for transmitting high-priority packets when both ends of a link operate with multiple data virtual-lanes. Used with the virtual-lane arbitration table. The maximum high-limit matches the vl-arb-high-cap on the other side of the link and then negotiating downward.

Table 6-40 show ib sm port Command Field Descriptions (continued)

Field	Description
VL-arb-high-cap	Highest arbitration value allowed by the arbiter in determining the next packet in a set of packets to send across the link. Used with the virtual-lane arbitration table and specified as a VL/Weight pair. See section 14.2.5.9, VL Arbitration Table, <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, for more information.
VL-arb-low-cap	Lowest arbitration value allowed by the arbiter in determining the next packet in a set of packets to send across the link. Used with the virtual-lane arbitration table and specified as a VL/Weight pair. See section 14.2.5.9, VL Arbitration Table, <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, for more information.
mtu-cap	Used in conjunction with neighbor-mtu to determine the maximum transmission size supported on this port. The lesser of mtu-cap and neighbor-mtu determines the actual MTU used. The value appears as 256, 512, 1024, 2048, or 4096
VL-stall-count	Number of sequentially dropped packets at which the port enters a VLStalled state. The virtual lane exits the VLStalled state (8 * HLL) units after entering it. See section 18.2.5.4, Transmitter Queuing, <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, for a description of HLL.
HOQ-life	Maximum duration allowed to packets at the head of a virtual-lane queue. Used with VL-stall-count to determine the outgoing packets to discard.
oper-VL	Administrative limit for the number of virtual lanes allowed to the link. Do not set this above the VL-cap value. The value appears as v10, v10-V11, v10-V13, v10-V17, or v10-V114.
in-part-enforce	Boolean value that indicates whether or not to support optional partition enforcement for the packets received by this port. No default value applies.
out-part-enforce	Boolean value that indicates whether or not to support optional partition enforcement for the packets transmitted by this port. No default value applies.
in-filter-raw-pkt-enforce	Boolean value that indicates whether or not to support optional raw packet enforcement for the raw packets received by this port. No default value applies.
out-filter-raw-pkt-enforce	Boolean value that indicates whether or not to support optional raw packet enforcement for the raw packets transmitted by this port. No default value applies.
mkey-violation	Number of subnet management packets (SMPs) that have been received on this port with invalid M_Keys since initial power up or the last reset. See section 14.2.4, Management Key, <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, for more information.
pkey-violation	Number of subnet management packets that have been received on this port with invalid P_Keys since initial power up or the last reset. See section 9.2.7, partition key (P_KEY), <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, for more information.

Table 6-40 show ib sm port Command Field Descriptions (continued)

Field	Description
qkey-violation	Number of subnet management packets that have been received on this port with invalid Q_Keys since initial power up or the last reset. See section 10.2.4, Q Keys, <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, for more information.
guid-cap	Number of GUID entries allowed for this port in the port table. Any entries that exceed this value are ignored on write and read back as zero. See section 14.2.5.5, GUIDCap, <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, for more information.
subnet-timeout	Maximum propagation delay allowed for this port to reach any other port in the subnet. This value also affects the maximum rate at which traps can be sent from this port. Switch configuration affects delay. Requestors may use this parameter to determine the interval to wait for a response to a request. Duration matches (4.096 ms * 2^SubnetTimeout).
resp-time	Maximum time allowed between the port reception of a subnet management packet and the transmission of the associated response. See section 13.4.6.2, Timers and Timeouts, <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, for more information.
local-phy-error	Threshold at which ICRC, VCRC, FCCRC, and all physical errors result in an entry into the BAD PACKET or BAD PACKET DISCARD states of the local packet receiver. See section 7.12.2, Error Recovery Procedures, <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, for more information.
local-overflow-error	Threshold at which the count of buffer overruns, across consecutive flow-control update periods, result in an overflow error. A possible cause of such errors is when an earlier packet has physical errors and the buffers are not immediately reclaimed.

Examples

The following example displays the details of the ports that the specified subnet manager manages.

```
SFS-7000P> show ib sm port subnet-prefix fe:80:00:00:00:00:00
```

```
=====
                          Subnet Management Ports
=====
 subnet-prefix : fe:80:00:00:00:00:00
   node-guid  : 00:02:c9:01:07:e4:41:d0
   if-index   : 1
     mkey     : 00:00:00:00:00:00:00
   gid-prefix : fe:80:00:00:00:00:00
     lid     : 2
 master-sm-lid : 1
   cap-mask  : 00:10:02:48
   diag-code : 10:26
 mkey-lease-period : 15
 link-width-enabled : 3
 link-width-supported : 3
   link-width-active : 2
 link-speed-supported : 1
```

```

state : active
phy-state : no state change
link-down-def-state : polling
mkey-prot-bits : 0
lmc : 0
link-speed-active : 1
link-speed-enabled : 1
neighbor-mtu : 2048
master-sm-SL : 0
VL-cap : vl0-vl7
VL-high-limit : 0
VL-arb-high-cap : 8
VL-arb-low-cap : 8
mtu-cap : 2048
VL-stall-count : 16
HOQ-life : 7
oper-VL : vl0-vl7
in-part-enforce : false
out-part-enforce : false
in-filter-raw-pkt-enf : false
out-filter-raw-pkt-enf : false
mkey-violation : 0
pkey-violation : 0
qkey-violation : 0
guid-cap : 32
subnet-timeout : 8
resp-time : 8
local-phy-error : 0
local-overrun-error : 0

```

The following example displays a summary of the ports that the specified subnet manager manages.

```
SFS-7000P> show ib sm port subnet-prefix fe:80:00:00:00:00:00:00 summary
```

```

=====
Subnet Manager Port Summary
=====
subnet-prefix          node-guid              if-index    lid    state
-----
fe:80:00:00:00:00:00:00 00:02:c9:01:07:e4:41:d0 1            2     active
fe:80:00:00:00:00:00:00 00:02:c9:01:07:e4:41:d0 2            3     active
fe:80:00:00:00:00:00:00 00:02:c9:01:07:e4:57:b0 1            6     active
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:60 0            1     active
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:60 1            0     active
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:60 2            0     active
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:60 3            0     active
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:60 4            0     active
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:60 5            0     active
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:60 6            0     down
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:60 7            0     active
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:60 8            0     active
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:62 0            4     active
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:62 1            0     active
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:62 2            0     active
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:62 3            0     active
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:62 4            0     active
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:62 5            0     down
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:62 6            0     down
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:62 7            0     active
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:62 8            0     down
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:64 0            5     active
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:64 1            0     active
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:64 2            0     active

```

```
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:64 3      0      active
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:64 4      0      active
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:64 5      0      down
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:64 6      0      down
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:64 7      0      down
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:1c:64 8      0      down
fe:80:00:00:00:00:00:00 00:05:ad:00:00:01:29:8f 1      7      active
SFS-7000P>
```

Related Commands

ib sm
show ib sm configuration
show ib sm multicast
show ib sm neighbor
show ib sm partition
show ib sm port

show ib sm service

To display services on your subnet, enter the **show ib sm service** command in User Exec mode or Privileged Exec mode.

```
show ib sm service [subnet-prefix {prefix | all}] [p_key pkey | service-gid GID | service-id
ID] [summary]
```

Syntax Description		
subnet-prefix	(Optional) Specifies the subnet prefix of the subnet managers that you want to display.	
<i>prefix</i>	Subnet prefix of the subnet managers that you want to display.	
all	Specifies all subnet prefixes on your IB network.	
p_key	(Optional) Specifies a partition whose nodes run services that you want to view.	
<i>pkey</i>	(Optional) Partition that contains nodes that run services that you want to view.	
service-gid	(Optional) Specifies the GID of the service (the GID of the node that provides the service).	
<i>GID</i>	(Optional) GID of the service (node).	
service-id	(Optional) Specifies the ID of the service to display.	
<i>ID</i>	(Optional) ID of the service to display.	
summary	(Optional) Displays a summarized version of the command output.	

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module
User Execute mode, Privileged Execute mode.

Privilege Level:
InfiniBand read-only user.

Services represent actions or functions that a node can perform across the network at the request of another node. Nodes register their services with the subnet manager so other nodes can discover and use these services. The GID of a service matches the GID of the host that provides the service.

Switch information may be reported for all the switches on a specific subnet or for a specific switch. The output may also be displayed in summary form.

Table 6-41 lists and describes the fields in the **show ib sm service** command output.

Table 6-41 *show ib sm service Command Field Descriptions*

Field	Description
subnet-prefix	Subnet prefix of the service.
service-id	Service ID of the service.
GID	GID of the service.
p_key	Partition key of the service.
lease	Specifies the lease service.
service-key	Specifies the service key.
service-name	Name of the service.
service-data	Header of the data types: 8, 16, 32, and 64.
data-8	Specifies data type 8.
data-16	Specifies data type 16.
data-32	Specifies data type 32.
data-64	Specifies data type 64.

Examples

The following example displays the services on the Server Switch.

```
SFS-120# show ib sm service subnet-prefix fe:80:00:00:00:00:00:00
```

```
=====
                        Summary of Services on Device
=====
subnet-prefix : fe:80:00:00:00:00:00:00
  service-id  : 10:00:0c:e1:00:41:54:53
    GID       : fe:80:00:00:00:00:00:00:00:02:c9:02:00:00:24:41
    p_key     : ff:ff
    lease     : indefinite
  service-key : 00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
  service-name : DAPL Address Translation Service
  service-data :
    data-8    : 00:00:00:00:00:00:00:00:00:00:00:00:c0:a8:01:02
    data-16   : 0000:0000:0000:0000:0000:0000:0000:0000
    data-32   : 00000000:00000000:00000000:00000000
    data-64   : 0000000000000000:0000000000000000

subnet-prefix : fe:80:00:00:00:00:00:00
  service-id  : 10:00:0c:e1:00:41:54:53
    GID       : fe:80:00:00:00:00:00:00:00:02:c9:02:00:00:24:7d
    p_key     : ff:ff
    lease     : indefinite
  service-key : 00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
  service-name : DAPL Address Translation Service
  service-data :
    data-8    : 00:00:00:00:00:00:00:00:00:00:00:00:c0:a8:01:01
    data-16   : 0000:0000:0000:0000:0000:0000:0000:0000
    data-32   : 00000000:00000000:00000000:00000000
    data-64   : 0000000000000000:0000000000000000
```

The following example displays a summary of the services on the Server Switch.

```
SFS-120# show ib sm service subnet-prefix fe:80:00:00:00:00:00 summary

=====
                        Summary of Services on Device
=====
subnet-prefix : fe:80:00:00:00:00:00
  service-id  : 10:00:0c:e1:00:41:54:53
      GID     : fe:80:00:00:00:00:00:00:02:c9:02:00:00:24:41
  service-data :
    data-8    : 00:00:00:00:00:00:00:00:00:00:00:c0:a8:01:02
    data-16   : 0000:0000:0000:0000:0000:0000:0000:0000
    data-32   : 00000000:00000000:00000000:00000000
    data-64   : 0000000000000000:0000000000000000

subnet-prefix : fe:80:00:00:00:00:00
  service-id  : 10:00:0c:e1:00:41:54:53
      GID     : fe:80:00:00:00:00:00:00:02:c9:02:00:00:24:7d
  service-data :
    data-8    : 00:00:00:00:00:00:00:00:00:00:00:c0:a8:01:01
    data-16   : 0000:0000:0000:0000:0000:0000:0000:0000
    data-32   : 00000000:00000000:00000000:00000000
    data-64   : 0000000000000000:0000000000000000
```

Related Commands

- [ib sm](#)
- [show ib sm configuration](#)
- [show ib sm multicast](#)
- [show ib sm neighbor](#)
- [show ib sm partition](#)
- [show ib sm port](#)

show ib sm subscription

To display event subscriptions or information records managed by yourssubnet manager on this device, enter the **show ib sm subscription** command in User Exec mode or Privileged Exec mode.

```
show ib sm subscription [subnet-prefix {subnet-prefix}] [lid LID] [node-guid GUID]
[port-num port-num] [summary]
```

Syntax Description	Parameter	Description
	subnet-prefix	(Optional) Specifies the subnet prefix of the subnet managers that you want to display.
	<i>subnet-prefix</i>	(Optional) Subnet prefix of the subnet managers that you want to display.
	lid	(Optional) Specifies the LID of the service (the LID of the node that provides the service).
	<i>LID</i>	(Optional) LID of the service (node). For example: aa:aa:aa:aa:aa:aa:aa:aa
	node-guid	(Optional) Specifies the GUID of the node (the GUID of the node that provides the service).
	<i>GUID</i>	(Optional) GUID of the service (node).
	port-num	(Optional) Specifies the port number
	<i>port-num</i>	(Optional) Port number.
	summary	(Optional) Displays a summarized version of the command output.

Defaults

This command has no default settings.

Command Modes

User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:

Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:

InfiniBand read-only user.

Subscriptions represent The LID of a node matches the LID of the host that provides the service. The GUID of a service matches the GUID of the host that provides the service.

Switch information may be reported for all the switches on a specific subnet or for a specific switch. The output may also be displayed in summary form.

[Table 6-41](#) lists and describes the fields in the **show ib sm service** command output.

Table 6-42 *show ib sm subscription Command Field Descriptions*

Field	Description
LID	LID of the node.
node-guid	GUID of the host.

Table 6-42 show ib sm subscription Command Field Descriptions (continued)

Field	Description
port-num	Port number.
LID range	Specifies the LID range.
is-generic	Specifies the is generic value.
trap-num-device-id	Name of the service.

Examples

The following example displays a summary of the event subscriptions managed on the Server Switch.

```
SFS-120#
```

The following example displays a summary of the event subscriptions managed on the Server Switch.

```
SFS-120# show ib sm subscription subnet-prefix fe:80:00:00:00:00:00 node-
guid aa:aa:aa:aa:aa:aa:aa:aa summary
```

```
=====
                          Summary of Event Subscriptions Managed
=====
LID   node-guid                port-num LID-range  is-generic trap-num-device-id
-----
```

Related Commands

ib sm
show ib sm configuration
show ib sm multicast
show ib sm neighbor
show ib sm partition
show ib sm port

show ib sm switch

To display the attributes of all IB switches in your fabric (for debug purposes), enter the **show ib sm switch** command in User Exec mode or Privileged Exec mode.

show ib sm switch {**subnet-prefix** *prefix* | **all**} [**node-guid** *guid*][**summary**]

Syntax Description		
subnet-prefix		Specifies the subnet prefix of the subnet managers that you want to view.
<i>prefix</i>		Subnet prefix of the subnet managers that you want to view.
all		Displays the attributes of all subnet managers that run on your IB fabric.
node-guid		(Optional) Specifies the GUID of the switch that you want to view.
<i>guid</i>		(Optional) GUID of the switch that you want to view.
summary		(Optional) Displays a summarized version of the command output.

Defaults

This command has no default settings.

Command Modes

User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:

Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:

InfiniBand read-only user.

Switch information may be reported for all the switches on a specific subnet or all the switches comprising a specific node. The output may also be displayed in summary form.

[Table 6-43](#) lists and describes the fields in the **show ib sm switch** command output.

Table 6-43 *show ib sm switch* Command Field Descriptions

Field	Description
subnet-prefix	64-bit value that identifies the InfiniBand subnet to which this node belongs.
node-guid	64-bit GUID of the node.
linear-fdb-cap	Maximum number of entries allowed in the linear unicast forwarding table. 0 (zero) indicates the absence of a linear forwarding database.
random-fdb-cap	Maximum number of entries allowed in the random unicast forwarding table. 0 (zero) indicates an absence of a random forwarding database.
mcast-fdb-cap	Maximum number of entries allowed in the multicast forwarding table.
linear-fdb-top	Specifies the top of the linear forwarding table. Packets received with unicast LIDs greater than this value are discarded by the switch. This parameter applies only to switches that implement linear forwarding tables. Switches that implement random forwarding tables ignore this parameter.

Table 6-43 show ib sm switch Command Field Descriptions (continued)

Field	Description
default-port	Specifies the default port to which to forward all the unicast packets from other ports whose destination location ID (DLID) does not exist in the random forwarding table.
default-pri-mcast-port	Specifies the default port to which to forward all the multicast packets from other ports whose DLID does not exist in the multicast forwarding table.
def-non-pri-mcast-port	Specifies the port to which to forward all the multicast packets from default-pri-mcast-port whose DLID does not exist in the multicast forwarding table.
life-time-value	Specifies the duration a packet can live in the switch. Time units are in milliseconds. See section 18.2.5.4, Transmitter Queueing, <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, for more information.
port-state-change	Indicates a change in port state. The value changes from NotInTransition to PortInTransition anytime the State parameter of a port changes from down to initialize, initialize to down, armed to down, or active to down, as a result of link state machine logic.
lid-per-port	Number of LID/LMC combinations that may be assigned to a given external port for switches that support the random forwarding table. This value is always 0. 0 indicates one LID per port.
partition-enf-cap	Number of entries in this partition enforcement table per physical port. 0 (zero) indicates that the Server Switch does not support partition enforcement.
in-enf-cap	Indicates if the switch can enforce partitions on received packets. The value appears as true or false.
out-enf-cap	Indicates if the Server Switch can enforce partitions on transmitted packets. The value appears as true or false.
in-filter-raw-pkt-cap	Indicates if the Server Switch can enforce raw packets on received packets. The value appears as true or false.
out-filter-raw-pkt-cap	Indicates if the switch enforces raw packets on transmitted packets. The value appears as true or false.

Examples

The following example displays attributes of the IB switch with a guid of 00:05:ad:00:00:00:13:81.

```
SFS-7000P# show ib sm switch subnet-prefix fe:80:00:00:00:00:00:00 node-guid
00:05:ad:00:00:00:13:81
```

```
=====
Subnet Management Switches
=====
subnet-prefix : fe:80:00:00:00:00:00:00
node-guid    : 00:05:ad:00:00:00:13:81
linear-fdb-cap : 49152
random-fdb-cap : 0
mcast-fdb-cap  : 1024
linear-fdb-top  : 1024
default-port   : 255
def-pri-mcast-port : 255
def-non-pri-mcast-port : 255
life-time-value : 11
```

```

port-state-change : port in transition
  lid-per-port : 0
partition-enf-cap : 64
  in-enf-cap : false
  out-enf-cap : false
in-filter-raw-pkt-cap : true
out-filter-raw-pkt-cap : true
SFS-7000P#

```

The following example displays the switches of a subnet in summary form.

```

SFS-7000P# show ib sm switch subnet-prefix fe:80:00:00:00:00:00:00 summary
=====
                        Subnet Manager Switch Summary
=====
subnet-prefix          node-guid
-----
fe:80:00:00:00:00:00:00 00:05:ad:00:00:00:13:7f
fe:80:00:00:00:00:00:00 00:05:ad:00:00:00:13:81
fe:80:00:00:00:00:00:00 00:05:ad:00:00:00:13:83
fe:80:00:00:00:00:00:00 00:05:ad:00:00:00:13:85
fe:80:00:00:00:00:00:00 00:05:ad:00:00:00:13:87
fe:80:00:00:00:00:00:00 00:05:ad:00:00:00:13:89
SFS-7000P#

```

Related Commands

```

ib sm
show ib sm configuration
show ib sm multicast
show ib sm neighbor
show ib sm partition
show ib sm port

```

show ib sm switch-elem-route

To display the SM route switch element table, enter the **show ib sm switch-elem-route** command in User Exec mode or Privileged Exec mode.

```
show ib sm switch-elem-route subnet-prefix {prefix [src-lid srclid dst-lid dstlid] | all}
      [summary]
```

Syntax Description

subnet-prefix	Specifies the subnet prefix of the route.
<i>prefix</i>	Subnet prefix of the route.
src-lid	(Optional) Specifies the source LID of the route.
<i>srclid</i>	(Optional) Source LID of the route.
dst-lid	(Optional) Specifies the destination LID of the route.
<i>dstlid</i>	(Optional) Destination LID of the route.
all	(Optional) Specifies all routes in the subnet.
summary	(Optional) Displays fewer output fields.

Defaults

This command has no default settings.

Command Modes

User Execute mode, Privileged Execute mode

Usage Guidelines

Platform Availability:

Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:

InfiniBand read-only user.

This command displays the internal ports through which traffic enters and exits the Server Switch as it travels from the source LID to the destination LID.

[Table 6-44](#) lists and describes the field of this command output.

Table 6-44 *show ib sm switch-elem-route* Command Output Field Descriptions

Field	Description
chassis-GUID	Chassis that runs the route.
input-port	Input port of the route.
output-port	Output port of the route.
subnet-prefix	Subnet prefix of the route.
src-lid	Source LID of the route.
dst-lid	Destination LID of the route.
last-change	Time of the last change to the route.

Examples

The following example displays the SM route switch element table for one source and destination.

```
SFS-7000P# show ib sm switch-elem-route subnet-prefix fe:80:00:00:00:00:00:00 src-lid 858
dst-lid 857
```

```
=====
SM Route Switch Element Table by Subnet w/ Src and Dest LID
=====
subnet-prefix : fe:80:00:00:00:00:00:00
src-lid       : 858
dst-lid       : 857
chassis-GUID  : 00:05:ad:00:00:00:03:00
input-port    : 0/7
output-port   : 0/8
```

The following example displays a summary of the SM route switch element table for one source and destination.

```
SFS-7000P# show ib sm switch-elem-route subnet-prefix fe:80:00:00:00:00:00:00 src-lid 889
dst-lid 9 summary
```

```
=====
Summary of SM Route Switch Element Table by Subnet w/ Src and Dest LID
=====
subnet-prefix : fe:80:00:00:00:00:00:00
src-lid       : 1
dst-lid       : 1
last-change   : Tue Jan 27 22:51:56 2004
```

Related Commands [ib sm](#)

show ib sm switch-route

The complete path that traffic takes through the IB fabric from the source LID to the destination LID, enter the **show ib sm switch-route** command in User Exec mode or Privileged Exec mode.

```
show ib sm switch-route subnet-prefix {prefix [src-lid srclid dst-lid dstlid] | all}
    [summary]
```

Syntax Description	Field	Description
	subnet-prefix	Specifies the subnet prefix of the route.
	<i>prefix</i>	Subnet prefix of the route.
	src-lid	(Optional) Specifies the source LID of the route.
	<i>srclid</i>	(Optional) Source LID of the route.
	dst-lid	(Optional) Specifies the destination LID of the route.
	<i>dstlid</i>	(Optional) Destination LID of the route.
	all	Specifies all routes in the subnet.
	summary	(Optional) Displays fewer output fields.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:

InfiniBand read-only user.

This command displays the ports within Server Switches through which traffic travels from a source LID to a destination LID.

[Table 6-45](#) lists and describes the fields in the command output.

Table 6-45 *show ib sm switch-route* Command Output Field Descriptions

Field	Description
node-GUID	Node that runs the route.
input-port	Input port of the route.
output-port	Output port of the route.
subnet-prefix	Subnet prefix of the route.
src-lid	Source LID of the route.
dst-lid	Destination LID of the route.
last-change	Last change to the route.

Examples

The following example displays the switch route for one source/destination LID pair.

```
SFS-7000P# show ib sm switch-route subnet-prefix fe:80:00:00:00:00:00 src-lid 858
dst-lid 857
```

```
=====
SM Route Switch Table by Subnet with Source LID and Dest LID
=====
subnet-prefix : fe:80:00:00:00:00:00
src-lid       : 858
dst-lid       : 857
node-GUID     : 00:05:ad:00:00:00:03:00
input-port    : 7
output-port   : 8

last-change   : Sun Jul 13 20:36:39 1930
```

Related Commands [ib sm](#)

show ib-agent channel-adapter

To view the attributes of IB agents for channel adapters on your Server Switch, enter the **show ib-agent channel-adapter** command in Privileged Exec mode or User Exec mode.

show ib-agent channel-adapter { **node-guid** *guid* | **all** } **node-info**

Syntax Description	node-guid	Description
	<i>guid</i>	Specifies the GUID of a specific gateway or controller on your switch.
	<i>guid</i>	GUID of a specific gateway or controller on your switch.
	all	Displays the attributes of all channel adapters on your Server Switch.
	node-info	Displays IB information for the channel adapter (CA).

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:

InfiniBand read-only user.

Each system channel adapter runs its own subnet-management agent.

[Table 6-46](#) lists and describes the fields in the **show ib-agent channel-adapter** command output.

Table 6-46 *show ib-agent channel-adapter Command Field Descriptions*

Field	Description
guid	Globally unique identifier of the CA as an 8-byte string.
type	Type of device this SMA supports. The field always displays “adapter.”
lid	LID of the channel-adapter port.
base-version	Supported base management datagram version supported.
class-version	Supported subnet-management class.
port-guid	Globally unique identifier of the node port.
partition-cap	Number of entries in the partition table for channelAdapter, router, and switch management ports. This displays, at a minimum, 1 for all nodes including switches.
device-id	Device ID information, as assigned by the device manufacturer.
revision	Device revision, as assigned by the device manufacturer.
local-port-num	Number of the link port which received this request, otherwise the field displays 0.
vendor-id	Device vendor, per the IEEE standard.

Table 6-46 *show ib-agent channel-adapter Command Field Descriptions (continued)*

Field	Description
trap-buffer	Special purpose string buffer for InfiniBand trap data.
num-ports	Number of physical ports on this node.
string	Node description string. Unicode characters are 16 bits.

Examples

The following example displays the attributes of the IB host with a GUID of 00:05:ad:00:00:00:13:17.

```
SFS-3012# show ib-agent channel-adapter 00:05:ad:00:00:00:13:17 node-info
=====
                        SMA Node Information
=====
                        guid : 00:05:ad:00:00:00:13:17
                        type  : adapter
                        lid   : 14
                        base-version : 1
                        class-version : 1
                        port-guid : 00:05:ad:00:00:00:13:18
                        partition-cap : 64
                        device-id  : 5a:44
                        revision  : 00:00:00:a0
                        local-port-num : 1
                        vendor-id  : 00:05:ad
                        trap-buffer :
                        num-ports  : 2
                        string    : slot 7: /dev/ts_ua0

                        guid : 00:05:ad:00:00:00:13:17
                        type  : adapter
                        lid   : 0
                        base-version : 1
                        class-version : 1
                        port-guid : 00:05:ad:00:00:00:13:18
                        partition-cap : 64
                        device-id  : 5a:44
                        revision  : 00:00:00:a0
                        local-port-num : 1
                        vendor-id  : 00:05:ad
                        trap-buffer :
                        num-ports  : 2
                        string    : slot 7: /dev/ts_ua0
```

Related Commands [ib-agent](#)

show ib-agent summary

To view the attributes of all IB agents on your Server Switch, enter the **show ib-agent summary** command in Privileged Exec mode or User Exec mode.

show ib-agent summary

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
InfiniBand read-only user.

Subnet-management agent information may be displayed in a summary form. This summary helps you assign IP addresses to Ethernet interface gateways because the summary supplies much of the important information you need to configure gateways, such as GUID and LID values.

This command is also useful for gathering information about which GUIDs are present in which switch chassis. Also, use this command when working with output that is presented in terms of GUIDs, for example, output from the **show sm** commands. Having a list of GUIDs for each switch chassis in the network is necessary for locating a GUID.

[Table 6-46](#) lists and describes the fields in the **show ib-agent summary** command output.

Table 6-47 *show ib-agent summary Command Field Descriptions*

Field	Description
slot	Chassis slot to which the HCA or switch connects.
type	Type of node being managed. The value appears as adapter, switch, router, or error. The error value indicates an unknown type.
state	Logical state of the port. The value appears as “down” or “active.”
port	SMA-node port-number.
guid	Globally unique identifier of the IB node (switch or channel adapter).
string	Node description string. Defaults to the chassis slot and internal device name used by the chassis OS to communicate with the device. This can be overridden with the ib-agent configuration command
lid	LID, in decimal format, of this port.

Examples

The following example displays a summary of all the SMA nodes.

```
SFS-7000P# show ib-agent summary
=====
SMA Node Information Summary
=====
slot  type      state  port  guid                                string                                lid
-----
7      adapter    active  1     00:05:ad:00:00:00:13:17  slot 7: /dev/ts_ua0 14
7      adapter    down   2     00:05:ad:00:00:00:13:17  slot 7: /dev/ts_ua0 0
16     switch     active  0     00:05:ad:00:00:00:13:7f  slot 16: /dev/ts_ua0 2
16     switch     active  0     00:05:ad:00:00:00:13:81  slot 16: /dev/ts_ua1 4
16     switch     active  0     00:05:ad:00:00:00:13:83  slot 16: /dev/ts_ua2 6
16     switch     active  0     00:05:ad:00:00:00:13:85  slot 16: /dev/ts_ua3 8
16     switch     active  0     00:05:ad:00:00:00:13:87  slot 16: /dev/ts_ua4 10
16     switch     active  0     00:05:ad:00:00:00:13:89  slot 16: /dev/ts_ua5 12
1      adapter    down   1     00:05:ad:00:00:00:13:f3  slot 1: /dev/ts_ua0 0
1      adapter    active  2     00:05:ad:00:00:00:13:f3  slot 1: /dev/ts_ua0 1
4      adapter    active  1     00:05:ad:00:00:00:14:14  slot 4: /dev/ts_ua0 15
4      adapter    down   2     00:05:ad:00:00:00:14:14  slot 4: /dev/ts_ua0 0
SFS-7000P#
```

Related Commands

ib sm
ib-agent
show ib sm configuration
show ib sm multicast
show ib sm neighbor
show ib sm partition
show ib sm port

show ib-agent switch

To view the attributes of IB agents for switches on your Server Switch, enter the **show ib-agent switch** command in Privileged Exec mode or User Exec mode.

```
show ib-agent switch { guid | all } { linear-frd-info lid { lids | all } | mcast-info lid { lids | all }
| node-info | pkey-info | port-info | sl-vl-map | switch-info }
```

Syntax Description

<i>guid</i>	GUID of the switch that you want to view.
all	<ul style="list-style-type: none"> When the all keyword follows the show b-agent switch command, it displays statistics for all switches in the chassis. When the all keyword follows the lid keyword, it displays the attributes of all applicable ports.
linear-frd-info	Displays the linear forwarding tables of specified switches.
lid	Specifies the LID(s) of the port(s) that you want to view.
<i>lids</i>	LID, list of LIDs, or range of LIDs that you want to view.
mcast-info	Displays the multicast forwarding tables of specified switches.
node-info	Displays attributes of nodes that connect to the switch.
pkey-info	Displays the partition key table index.
port-info	Displays the port attributes of switches.
sl-vl-map	Displays service level (SL) to virtual lane (VL) mapping table for nodes on the IB fabric.
switch-info	Displays IB information for switches, but not channel adapters (CAs).

Defaults

This command has no default settings.

Command Modes

User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:

Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:

InfiniBand read-only user.

- linear-frd-info

[Table 6-48](#) lists and describes the fields in the **linear-frd-info** keyword output.

Table 6-48 *linear-frd-info* Keyword Output Field Descriptions

Field	Description
switch-guid	GUID of the switch.

Table 6-48 *linear-frd-info Keyword Output Field Descriptions (continued)*

Field	Description
lid	LID of the port.
0 - 7	Represents ports 0 - 7 on an IB switch card.

- mcast-info

[Table 6-49](#) lists and describes the fields in the **mcast-info** keyword output.

Table 6-49 *mcast-info Keyword Output Field Descriptions*

Field	Description
node-guid	GUID of the switch whose LIDs immediately follow.
block-index	Determines which multicast LIDs and ports on the current switch chip are displayed in the following table. See the MulticastForwardingTable section of the Subnet Management chapter of the IB spec for details.
lid	LIDs of the ports on the switch.
port-mask	Shows to which ports a multicast packet for the given LID will be transmitted.

- node-info

[Table 6-50](#) lists and describes the fields in the **node-info** keyword output.

Table 6-50 *node-info Keyword Output Field Descriptions*

Field	Description
guid	GUID of the node.
type	Type of SMA node. This value always appears as switch.
lid	LID of the port that connects to the node.
base-version	Base management datagram version that the switch supports.
class-version	Subnet management class that the switch supports.
port-guid	GUID of the port that connects to the node.
partition-cap	Number of partitions that the node supports.
device-id	Manufacturer-assigned device ID.
revision	Manufacturer-assigned device revision.
local-port-num	Number of the link port that received this show request.
vendor-id	Device vendor ID, as per the IEEE standard.
trap-buffer	Number of traps that the node supports.
num-ports	Number of physical ports on the SMA node.
string	SMA node description string.

- pkey-info: Displays the partition key (P_KeyTable) information for given ports.
- port-info

Table 6-51 lists and describes the fields in the **port-info** keyword output.

Table 6-51 port-info Keyword Output Field Descriptions

Field	Description
node-guid	64-bit GUID of the SMA node to which this port belongs.
port	Number of the port on the SMA node.
mkey	64-bit management key for the port. For more information, refer to sections 14.2.4, “Management Key” and 3.5.3, “Keys” in <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1.
gid-prefix	64-bit GID prefix for this port. The subnet manager assigns this prefix. For more information, refer to section 4.1.3, “Local Identifiers” in <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1.
lid	16-bit base LID of the port.
master-SML-id	16-bit base LID of the master subnet manager that manages this port.
capability-mask	32-bit bitmask that specifies the supported capabilities of the port. A bit value of 1 (one) indicates a supported capability. The bits are: <ul style="list-style-type: none"> • 0, 11-15, 18, 21-31 (Reserved and always 0.), • 1 IsSM, • 2 IsNoticeSupported, • 3 IsTrapSupported, • 4 IsResetSupported, • 5 IsAutomaticMigrationSupported, • 6 IsSLMappingSupported, • 7 IsMKeyNVRAM (supports M_Key in NVRAM), • 8 IsPKeyNVRAM (supports P_Key in NVRAM), • 9 IsLEDInfoSupported, • 10 IsSMdisabled, • 16 IsConnectionManagementSupported, • 17 IsSNMPTunnelingSupported, • 19 IsDeviceManagementSupported, • 20 IsVendorClassSupported. Values are expressed in hexadecimal.
diag-code	16-bit diagnostic code. For more information, refer to section 14.2.5.6.1, “Interpretation of Diagcode” in <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1.

Table 6-51 port-info Keyword Output Field Descriptions (continued)

Field	Description
mkey-lease-period	Initial value of the lease-period timer, in seconds. The lease period indicates the length of time that the M_Key protection bits remain non-zero after a SubnSet (Portinfo) fails an M_Key check. After the lease period expires, clearing the M_Key protection bits allows any subnet manager to read (and then set) the M_Key. Set this field to 0 to indicate that the lease period never expires. For more information, refer to section 14.2.4, Management Key in <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1.
local-port-num	Number of the link port that received this SNMP request.
link-width-enabled	Integer value that indicates the enabled link-width sets for this port. The value may be any of the following: <ul style="list-style-type: none"> • 0 (no state change) • 1 (1x) • 2 (4x) • 3 (1x or 4x) • 8 (12x) • 9 (1x or 12x) • 10 (4x or 12x) • 11 (1x, 4x, or 12x) • 255 (sets this parameter to the LinkWidthSupported value)
link-width-supported	Supported link width. Value may be any of the following: <ul style="list-style-type: none"> • 1x • 1x or 4x • 1x, 4x, or 12x
link-width active	Active width of the link. Value may be 1x, 4x, or 12x.
link-speed-supported	Supported link speed. This value always appears as 2.5 Gbps
state	Displays the logical state of the port. If this parameter is anything other than down, it indicates that the port has successfully completed link negotiation, and is physically communicating with another port in the subnet. The most common states are down, init, and active. Init means that the port has completed its physical negotiation, but the SM has not yet brought it to the active state, so it cannot yet transmit or receive data traffic. Active means the port is fully operational. See the PortInfo section of the Subnet Management chapter of the IB specification for more information.
port-phys	Displays the physical state of the port. This parameter indicates the state of the low-level hardware link negotiation. The most common states are polling, disabled and linkup. Polling means that the port is enabled, but is not communicating with another port. Disabled means that the port is shut down and will not communicate with another port, even if connected. Linkup means that the port has complete link negotiations with another port, and is physically ready to pass traffic. See the PortInfo section of the Subnet Management chapter of the IB specification for more information.

Table 6-51 port-info Keyword Output Field Descriptions (continued)

Field	Description
link-down-def	LinkDown state to return to. The value appears as noStateChange, sleeping, or polling. For more information, refer to section 5.5.2, “Status Outputs” in <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1.
mkey-protect-bits	Management key protection bits for the port. The bits are 0, 1, 2, and 3. For more information, refer to section 14.2.4.1, “Levels of Protection” of <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1.
lmc	Local-identifier mask control (LMC) for multipath support. A LMC resides on each channel adapter and router port on the subnet. It provides multiple virtual ports within a single physical port. The value of the LMC specifies the number of path bits in the LID. A value of 0 allows one LID on the port. For more information, refer to sections 3.5.10, “Addressing” and 4.1.3, “Local Identifiers” in <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1.
ls-active	Speed of an active link. The field displays 2.5 Gbps.
ls-active-enabled	Maximum speed that the link can handle. The value can be 0 (no state change), 1 (2.5 Gbps), or 3 (value derived from LinkSpeedSupported).
neighbor-MTU	Active maximum transmission unit (MTU) enabled on this port for transmission. The SM is responsible for checking the MTUCap on both ends of a link and setting the neighbor-MTU on both sides appropriately. The value appears as 256, 512, 1024, 2048, or 4096.
master-SMSL	Administrative service level required for this port to send a non-SMP message to the subnet manager.
VL-cap	Maximum range of data virtual lanes (VLs) supported by this port.
VL-high-limit	Maximum high-priority limit on the number of bytes allowed for transmitting high-priority packets when both ends of a link operate with multiple data virtual lanes. Used with the virtual-lane arbitration table. The maximum high-limit is determined by checking the vl-arbitration-high-cap on the other side of the link and then negotiating downward.
VL-arbitration-high-cap	Highest arbitration value allowed by the arbiter in determining the next packet in a set of packets to transmit across the link. Used with the virtual-lane arbitration table and specified as a VL/Weight pair. For more information, refer to section 14.2.5.9, “VL Arbitration Table” of <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1.
VL-arbitration-low-cap	Lowest arbitration value allowed by the arbiter in determining the next packet in a set of packets to transmit across the link. Used with the virtual-lane arbitration table and specified as a VL/Weight pair. For more information, refer to section 14.2.5.9, “VL Arbitration Table” of <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1.
MTU-cap	Determines, with neighbor-mtu, the maximum transmission size supported on this port. The lesser of MTUCap and NeighborMTU determines the actual MTU used. The value appears as 256, 512, 1024, 2048, or 4096.
VL-stall-count	Number of sequentially dropped packets at which the port enters a VLStalled state. For more information, refer to section 18.2.5.4, “Transmitter Queuing” in <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1.
HOQ-life	Maximum duration allowed to packets at the head of a virtual-lane queue. Used with VLStallCount to determine the outgoing packets to discard.

Table 6-51 port-info Keyword Output Field Descriptions (continued)

Field	Description
op-VLs	Administrative limit for the number of virtual lanes allowed to the link. Do not set this above the VLCap value.
pkey-enf-in	Boolean value that indicated whether or not to support optional partition enforcement for the packets received by this port.
pkey-enf-out	Boolean value that indicates whether or not to support optional partition enforcement for the packets transmitted by this port.
filter-raw-pkt-in	Boolean value that indicates whether or not so support optional raw packet enforcement for the raw packets received by this port.
filter-raw-pkt-out	Boolean value that indicates whether or not so support optional raw packet enforcement for the raw packets transmitted by this port.
mkey-violations	Number of subnet management packets (SMPs) that have been received on this port with invalid M_Keys since initial power-up or last reset. For more information refer to section 14.2.4, "Management Key" in <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1.
pkey-violations	Number of subnet management packets that have been received on this port with invalid P_Keys since initial power-up or the last reset. For more information, refer to section 9.2.7, "Partition Key" in <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1.
qkey-violations	Number of subnet management packets that have been received on this port with invalid Q_Keys since initial power up or the last reset. For more information, refer to <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, section 10.2.4, "Q Keys."
guid-cap	Number of GUID entries allowed for this port in the port table. For more information, refer to <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, section 14.2.5.5, "GUIDCap."
subnet-timeout	Maximum propagation delay allowed for this port to reach any other port in the subnet. This value also affects the maximum rate at which traps can be sent from this port.
resp-time-value	Maximum time allowed between the port reception of a subnet management packet and the transmission of the associated response. For more information, refer to <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, section 13.4.6.2, "Timers and Timeouts."
local-phys-err	Threshold at which ICRC, VCRC, FCCRC, and all physical errors result in an entry into the BAD PACKET or BAD PACKET DISCARD states of the local packet receiver. For more information, refer to <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, section 7.12.2, "Error Recovery Procedures."
overrun-err	Threshold at which the count of buffer overruns across consecutive flow-control update periods results in an overrun error.

- sl-vl-map

Table 6-52 lists and describes the fields in the **sl-vl-map** keyword output.

Table 6-52 *sl-vl-map* Keyword Output Field Descriptions

Field	Description
node-guid	GUID of the SMA node.
in-ib-port	The ingress port of an IB data packet.
out-ib-port	The egress port of an IB data packet.
SL to VL mapping	For each SL, show the underlying VL which will be used for a packet on the given ingress port which will be routed out the given egress port.

Examples

The following example displays the linear forwarding details of the IB switch.

```
SFS-7000P# show ib-agent switch 00:05:ad:00:00:00:13:7f linear-frd-info lid 2
=====
                        Linear Forwarding Information
=====
switch-guid : 00:05:ad:00:00:00:13:7f
lid   0     1     2     3     4     5     6     7
---  - - - - - - - - - - - - - - - - - - - - - - - - - - -
0          0
SFS-7000P#
```

The following example displays the multicast information of the IB switch.

```
SFS-7000P# show ib-agent switch 00:05:ad:00:00:00:13:7f mcast-info lid all
=====
                        Multicast Information
=====
node-guid   : 00:05:ad:00:00:00:13:7f
block-index : 0
lid         port-mask
49152      00:00
49153      00:00
49154      00:00
49155      00:00
49156      00:00
49157      00:00
49158      00:00
49159      00:00
49160      00:00
49161      00:00
49162      00:00
49163      00:00
49164      00:00
...
```

The following example displays attributes of the IB nodes that connect to the switch.

```
SFS-7000P# show ib-agent switch all node-info
=====
                        SMA Node Information
=====
guid : 00:05:ad:00:00:00:13:7f
type : switch
lid  : 2
```

```

base-version : 1
class-version : 1
  port-guid : 00:05:ad:00:00:00:13:7f
partition-cap : 1
  device-id : a8:7c
  revision : 00:00:00:a0
local-port-num : 255
  vendor-id : 00:05:ad
trap-buffer :
  num-ports : 9
  string : slot 16: /dev/ts_ua0

```

The following example displays the port attributes of the switch.

```
SFS-7000P# show ib-agent switch 00:05:ad:00:00:00:13:7f port-info
```

```

=====
Port Information
=====
node-guid : 00:05:ad:00:00:00:13:7f
  port : 0
  mkey : 00:00:00:00:00:00:00:00
gid-prefix : 00:00:00:00:00:00:00:00
  lid : 2
master-SML-id : 1
capability-mask : 00:00:02:08
  diag-code : 00:00
mkey-lease-period : 00:00
  local-port-num : 255
link-width-enabled : 1x, 4x
link-width-supported : 1x, 4x
  link-width-active : 1x
link-speed-supported : 2.5 Gbps
  state : active
  port-phys : nop
  link-down-def : polling
mkey-protect-bits : 0
  LMC : 0
  ls-active : 2.5 Gbps
ls-active-enabled : 2.5 Gbps
  neighbor-MTU : 256
  master-SMSL : 0
  VL-cap : VL0 - VL7
  VL-high-limit : 0
VL-arbitration-high-cap : 8
VL-arbitration-low-cap : 8
  MTU-cap : 1024
  VL-stall-count : 0
  HOQ-life : 7
  op-VLs : VL0 - VL7
  pkey-enf-in : 0
  pkey-enf-out : 0
  filter-raw-pkt-in : 0
  filter-raw-pkt-out : 0
  mkey-violations : 0
  pkey-violations : 0
  qkey-violations : 0
  guid-cap : 1
  subnet-timeout : 31
  resp-time-value : 8
  local-phys-err : 4
  overrun-err : 0

```

The following example displays the service level to virtual lane mapping table on the switch.

```
SFS-7000P# show ib-agent switch 00:05:ad:00:00:00:13:7f sl-vl-map
=====
                        SLVL-Map Table
=====
node-guid : 00:05:ad:00:00:00:13:7F
in-ib-port : 0
out-ib-port : 0
sl0toVl : 0
sl1toVl : 0
sl2toVl : 0
sl3toVl : 0
sl4toVl : 0
sl5toVl : 0
sl6toVl : 0
sl7toVl : 0
sl8toVl : 0
sl9toVl : 0
sl10toVl : 0
sl11toVl : 0
sl12toVl : 0
sl13toVl : 0
sl14toVl : 0
sl15toVl : 0
...

```

The following example displays SMA switch information.

```
SFS-7000P# show ib-agent switch all switch-info
=====
                        SMA Switch Information
=====
guid : 00:05:ad:00:00:00:02:40
lft-cap : 49152
rft-cap : 0
mft-cap : 1024
lft-top : 1024
default-port : 255
def-mcast-pri-port : 255
def-mcast-NP-port : 255
life-time-value : 11
port-state-change : 0
lids-per-port : 0
partition-enf-cap : 64
inbound-enf-cap : 1
outbound-enf-cap : 1
filter-raw-pkt-in-cap : 1
filter-raw-pkt-out-cap : 1

```

Related Commands

ib sm
show ib sm configuration
show ib sm neighbor
show ib sm partition
show ib sm port

show interface ethernet

To display the attributes of Ethernet ports, enter the **show interface ethernet** command in User Exec mode or Privileged Exec mode.

```
show interface ethernet {port-selection | all} [ip {ip-address | all} ip-info | ip-backup
{backup-address | all} | statistics]
```

Syntax Description	Description
<i>port-selection</i>	Port, list of port, or range of ports that you want to view.
all	<ul style="list-style-type: none"> Displays the attributes of all the Ethernet ports on your Server Switch when you enter it after the show interface ethernet command. Displays details on all IP addresses when you enter it after the ip keyword. (Optional) Displays details on all backup IP addresses when you enter it after the ip-backup keyword.
ip	(Optional) Displays IP address table of the port(s) that you specify.
<i>ip-address</i>	(Optional) IP address whose details you want to view.
ip-info	(Optional) Displays statistical data of the transmissions that occur on IP addresses.
ip-backup	(Optional) Displays statistical data of the transmissions that occur on the backup IP addresses.
<i>backup-address</i>	(Optional) Backup IP address whose details you want to view.
statistics	(Optional) Displays Ethernet interface statistics for diagnostic purposes.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:
Cisco SFS 3001, Cisco SFS 3012

Privilege Level:
Ethernet read-only user.

Use this command to help diagnose Ethernet connectivity problems.

[Table 6-53](#) lists and describes the fields in the **show interface ethernet** command output.

Table 6-53 *show interface ethernet Command Field Descriptions*

Field	Description
port	Port number, in slot#/port# format.
name	Administratively-configured port name.

Table 6-53 *show interface ethernet Command Field Descriptions (continued)*

Field	Description
type	Type of port.
desc	Name that you assign with the name command.
last-change	Time of the most recent configuration change that a user made to the port.
mac-address	MAC address of the port.
mtu	Maximum transmission unit (MTU) of the port, in bytes.
auto-negotiate-supported	Displays “yes” if the port supports auto-negotiation.
auto-negotiate	Displays “enabled” if you have configured auto-negotiation to run on the port.
admin-status	Administrative status of the port.
oper-status	Operational status of the port.
admin-speed	Administrative speed that you configured on the port.
oper-speed	Operational (actual) speed at which the port runs. Actual speed differs from admin speed if the port on the other end of the connection cannot support the speed that you configured.
admin-duplex	Administrative duplex type (half or full) that you configured to run on the port.
oper-duplex	Operational (actual) duplex type at which the port runs. Actual duplex type differs from admin duplex type if the port on the other end of the connection cannot support the type that you specified.
link-trap	Displays “enabled” if you configured the port to send link traps with the link-trap command.
action	Action (such as flushing the ARP table) that you had the interface perform.
result	Status of the action that you had the interface perform.

[Table 6-54](#) lists and describes the fields in the **ip** keyword output.

Table 6-54 *ip Keyword Output Field Descriptions*

Field	Description
port	Port number, in card#port# format. A port# of 0 represents the gateway port of the interface card.
address	IP address that you assigned to the port.
mask	Subnet mask that you assigned to the port.
bcast-addr format	IP broadcast address format that the port uses.
reasm max-size	Size of the largest IP datagram which this port can receive and reassemble from incoming fragmented IP datagrams.

Table 6-54 *ip Keyword Output Field Descriptions (continued)*

Field	Description
type	Displays “primary” or “backup” to indicate that the interface card acts as the primary or backup interface for the IP address that appears in the address field.
status	Displays “active” or “inactive” to indicate that the card actively services IP packets addressed to the IP address in the address field or does not service packets to the specified address.

[Table 6-55](#) lists and describes the fields in the **ip-info** keyword output.

Table 6-55 *ip-info Keyword Output Field Descriptions*

Field	Description
port	Port number, in slot#/port# format.
default-ttl	Default time-to-live value, in seconds.
in-receives	Cumulative number of input datagrams (including errors) that interfaces received for the IP address that you specified with the ip keyword.
in-hdr-errors	Cumulative number of datagrams that interfaces discarded. Reasons to discard a datagram include the following: <ul style="list-style-type: none"> • bad checksums • version number mismatches • format errors • exceeded time-to-live values • IP option processing errors
in-addr-errors	Cumulative number of input datagrams that ports discarded because the IP address in the destination field of the header of the datagram was not a valid address to be received by the port.
forw-datagrams	Cumulative number of datagrams that arrived at the port en-route to a final destination. For non-IP-gateway ports, this value includes only packets that the port Source-Routed successfully.
in-unknown-protocols	Cumulative number of datagrams that the port successfully received but discarded due to an unknown or unsupported protocol.
in-discards	Cumulative number of datagrams that the port discarded for a reason other than a problem with the datagram (e.g., lack of buffer space).
in-delivers	Cumulative number of input datagrams that the port successfully delivered to IP user-protocols, including Internet Control-Message Protocol (ICMP).
out-requests	Cumulative number of IP datagrams that local IP user-protocols (including ICMP) supplied to IP in-requests. This counter does not include any datagrams counted as forw-datagrams.
out-discards	Cumulative number of output IP datagrams that the port discarded for a reason other than a problem with the datagram (e.g., lack of buffer space).

Table 6-55 *ip-info Keyword Output Field Descriptions (continued)*

Field	Description
out-no-routes	Cumulative number of IP datagrams that the port discarded because a route could not be found to transmit them to their destination. This counter includes any packets counted in forw-datagrams that still qualify. This counter also includes any datagrams that a Server Switch cannot route because all of the gateways on the Server Switch are down.
frag-OKs	Cumulative number of IP datagrams that the port has successfully fragmented.
frag-fails	Cumulative number of IP datagrams that the port discarded because the port could not fragment them. (For instance, this occurs when the Don't Fragment flag of the datagram is set.)
frag-creates	Cumulative number of IP datagram fragments that the port has generated.

[Table 6-56](#) lists and describes the fields in the **ip-backup** keyword output.

Table 6-56 *ip-backup Keyword Output Field Descriptions*

Field	Description
if-index	Port number.
priority	Priority of the backup address that you applied with the ip command.

[Table 6-56](#) lists and describes the fields in the **statistics** keyword output.

Table 6-57 *statistics Keyword Output Field Descriptions*

Field	Description
port	Port identifier, in slot#/port# format.
name	Administrative port name that you configured with the name command. The parenthetical identifier represents the SNMP identifier.
in-octets	Cumulative number of octets that arrived at the port, including framing characters.
in-ucast-pkts	Cumulative number of incoming packets destined for a single port.
in-multicast-pkts	Cumulative number of incoming packets destined for the ports of a multicast group.
in-broadcast-pkts	Cumulative number of incoming packets destined for all ports on the fabric.
in-discards	Cumulative number of inbound packets that the port discarded for a reason other than a packet error (e.g. lack of buffer space).
in-errors	Number of inbound packets with errors that the port discarded.

Table 6-57 *statistics Keyword Output Field Descriptions (continued)*

Field	Description
in-unknown-protos	For packet-oriented interfaces, the number of packets received via the interface which were discarded because of an unknown or unsupported protocol. For character-oriented or fixed-length interfaces that support protocol multiplexing, the number of transmission units received via the interface which were discarded because of an unknown or unsupported protocol. For any interface that does not support protocol multiplexing, this counter is always 0.
out-octets	Total number of octets transmitted out of the interface, including framing characters.
out-ucast-pkts	Total number of packets that higher-level protocols requested be transmitted, and which were not addressed to a multicast or broadcast address at this sub-layer, including those that were discarded or not sent.
out-multicast-pkts	Total number of packets that higher-level protocols requested be transmitted, and which were addressed to a multicast address at this sub-layer, including those that were discarded or not sent. For a MAC layer protocol, this includes both Group and Functional addresses.
out-broadcast-pkts	Total number of packets that higher-level protocols requested to be transmitted, and which were addressed to a broadcast address at this sub-layer, including those that were discarded or not sent.
out-discards	Number of outbound packets which were chosen to be discarded even though no errors had been detected to prevent their being transmitted. One possible reason for discarding such a packet could be to free-up buffer space.
our-errors	For packet-oriented interfaces, the number of outbound packets that could not be transmitted because of errors. For character-oriented or fixed-length interfaces, the number of outbound transmission units that could not be transmitted because of errors.
alignment-errors	A count of frames received on a particular interface that are not an integral number of octets in length and do not pass the FCS check. The count represented by an instance of this object is incremented when the alignmentError status is returned by the MAC service to the LLC (or other MAC user). Received frames for which multiple error conditions obtain are counted exclusively according to the error status presented to the LLC. This counter does not increment for 8-bit wide group encoding schemes.
fcs-errors	A count of frames received on a particular interface that are an integral number of octets in length but do not pass the FCS check. This count does not include frames received with frame-too-long or frame-too-short error. The count represented by an instance of this object is incremented when the frameCheckError status is returned by the MAC service to the LLC (or other MAC user). Received frames for which multiple error conditions obtain are counted exclusively according to the error status presented to the LLC. Coding errors detected by the physical layer for speeds above 10 Mbps will cause the frame to fail the FCS check.

Table 6-57 statistics Keyword Output Field Descriptions (continued)

Field	Description
single-collision-frames	A count of successfully transmitted frames on a particular interface for which transmission is inhibited by exactly one collision. A frame that is counted by an instance of this object is also counted by the corresponding instance of the out-ucast-pkts, out-multicast-pkts, or out-broadcast-pkts, and is not counted by the corresponding instance of the multiple-collision-frames object. This counter does not increment when the interface is operating in full-duplex mode.
multiple-collision-frames	A count of successfully transmitted frames on a particular interface for which transmission is inhibited by more than one collision. A frame that is counted by an instance of this object is also counted by the corresponding instance of the out-ucast-pkts, out-multicast-pkts, or out-broadcast-pkts, and is not counted by the corresponding instance of the single-collision-frames object. This counter does not increment when the interface is operating in full-duplex mode.
sqe-test-errors	A count of times that the SQE TEST ERROR message is generated by the PLS sublayer for a particular interface. The SQE TEST ERROR is set in accordance with the rules for verification of the SQE detection mechanism in the PLS Carrier Sense Function, as described in IEEE Std. 802.3, 1998 Edition, section 7.2.4.6. This counter does not increment on interfaces operating at speeds greater than 10 Mbps, or on interfaces operating in full-duplex mode.
deferred-transmissions	A count of frames for which the first transmission attempt on a particular interface is delayed because the medium is busy. The count represented by an instance of this object does not include frames involved in collisions. This counter does not increment when the interface is operating in full-duplex mode.
late-collisions	The number of times that a collision is detected on a particular interface later than one Ethernet slot-time unit into the transmission of a packet. A late collision included in a count represented by an instance of this object is also considered as a generic collision for purposes of other collision-related statistics. This counter does not increment when the interface is operating in full-duplex mode.
excessive-collisions	A count of frames for which transmission on a particular interface fails due to excessive collisions. This counter does not increment when the interface is operating in full-duplex mode.
internal-mac-transmit-errors	A count of frames for which transmission on a particular interface fails due to an internal MAC sublayer transmit error. A frame is only counted by an instance of this object if it is not counted by the corresponding instance of the late-collisions object, the excessive-collisions object, or the carrier-sense-errors object. The precise meaning of the count represented by an instance of this object is implementation-specific. In particular, an instance of this object may represent a count of transmission errors on a particular interface that is not otherwise counted.

Table 6-57 *statistics Keyword Output Field Descriptions (continued)*

Field	Description
carrier-sense-errors	Number of times that the carrier sense condition was lost or never asserted when attempting to transmit a frame on a particular interface. The count represented by an instance of this object is incremented at most once per transmission attempt, even if the carrier sense condition fluctuates during a transmission attempt. This counter does not increment when the interface is operating in full-duplex mode.
frame-too-longs	A count of frames received on a particular interface that exceed the maximum permitted frame size. The count represented by an instance of this object is incremented when the frame-too-longs status is returned by the MAC service to the LLC (or other MAC user). Received frames for which multiple error conditions obtain are counted exclusively according to the error status presented to the LLC.
internal-mac-receive-errors	A count of frames for which reception on a particular interface fails due to an internal MAC sublayer receive error. A frame is only counted by an instance of this object if it is not counted by the corresponding instance of the frame-too-longs, alignment-errors, or fcs-errors object. The precise meaning of the count represented by an instance of this object is implementation-specific. In particular, an instance of this object may represent a count of receive errors on a particular interface that is not otherwise counted.

Examples

The following example shows the general information about a specific IP address on an Ethernet interface port.

```
SFS-7000P# show inter ether 4/1 ip 10.3.22.4
=====
                        IP Address Table
=====
port  address          mask          bcast-addr reasm    type    status
-----  -
         format          max-size
-----  -
4/1    10.3.22.4           255.255.255.0  1         0        primary active
SFS-7000P#
```

The following examples displays statistical data regarding the IP transactions of all the IP addresses on an interface port. Statistical data is comprised of transmission errors, requests, discards, packet fragments, etc.

```
SFS-7000P# show inter ether 4/1 ip all ip-info
=====
                        IP Information
=====
port : 4/1
default-ttl : 0
in-receives : 0
in-hdr-errors : 0
in-addr-errors : 0
forw-datagrams : 0
in-unknown-protos : 0
in-discards : 0
in-delivers : 0
```

```

        out-requests : 0
        out-discards : 0
    out-no-routes : 0
        frag-OKs : 0
        frag-fails : 0
        frag-creates : 0
SFS-7000P#

```

The following example displays traffic statistics for port 4/1.

```

SFS-7000P# show interface ethernet 4/1 statistics
=====
                        Ethernet Interface Statistics
=====
        port : 4/1
        name : 4/1 (257)
        in-octets : 0
        in-ucast-pkts : 0
        in-multicast-pkts : 0
        in-broadcast-pkts : 0
        in-discards : 0
        in-errors : 0
        in-unknown-protos : 0
        out-octets : 0
        out-ucast-pkts : 0
        out-multicast-pkts : 0
        out-broadcast-pkts : 0
        out-discards : 0
        out-errors : 0

        alignment-errors : 0
        fcs-errors : 0
        single-collision-frames : 0
        multiple-collision-frames : 0
        sqe-test-errors : 0
        deferred-transmissions : 0
        late-collisions : 0
        excessive-collisions : 0
        internal-mac-transmit-errors : 0
        carrier-sense-errors : 0
        frame-too-longs : 0
        internal-mac-receive-errors : 0
SFS-7000P#

```

Related Commands

[half-duplex](#)
[ip](#)
[trunk-group](#)

show interface fc

To display the attributes of Fibre Channel ports, enter the **show interface fc** command in User Exec mode or Privileged Exec mode.

show interface fc {*port-selection* | **all**} [**statistics** | **targets** | **virtual-ports**]

Syntax Description	
<i>port-selection</i>	Port, list of ports, or range of ports to display.
all	Displays all Fibre Channel ports on your Server Switch.
statistics	(Optional) Displays traffic statistics for the port(s) that you specify.
targets	(Optional) Displays the targets that the port(s) that you specify can access.
virtual-ports	(Optional) Displays the virtual ports that the FC gateway mapped to the port(s) that you specify.

Defaults

This command has no default settings.

Command Modes

User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:

Cisco SFS 3001, Cisco SFS 3012

Privilege Level:

Fibre Channel read-only user.

The administrative (admin) status, speed, and connection-type reflect the values you had assigned. The operational (oper) status, speed, and connection-type reflect the values derived from the physical hardware and its connections. This allows you to verify your configuration settings against the actual hardware. The admin/oper pairs do not have to match for you to use the card. However, if there is a mismatch, the oper value is used.

[Table 6-58](#) lists and describes the fields in the **show interface fc** command output.

Table 6-58 *show interface fc Command Field Descriptions*

Field	Description
port	Fibre Channel gateway port number, in slot#/port# format.
name	Administrative port name that you configure with the name command.
type	Identifies the type of the port. All type identifiers begin with “fc” for Fibre Channel ports.
desc	Text description of the interface port. The default is the port identifier in the form slot#/port#. The parenthetical number to the right of the description is the SNMP identifier. The SNMP identifier is useful if you are running your own SNMP software.

Table 6-58 show interface fc Command Field Descriptions (continued)

Field	Description
last-change	Time of the most recent configuration change that a user made to the port.
fc-address	Fibre Channel Protocol address of the port.
wwnn	World-wide node name of the port. The WWNN defaults to 00:00:00:00:00:00:00:00.
wwpn	World-wide port name of the port. The WWPN defaults to 00:00:00:00:00:00:00:00.
mtu	Maximum Transmission Unit (MTU) of the port. The MTU value defaults to 2080 bytes.
auto-negotiate-supported	Displays yes if the port supports auto-negotiation or no if the port does not support auto-negotiation.
auto-negotiate	Indicates if the Fibre Channel port on the interface card is configured to automatically negotiate connection parameters when it connects with a Fibre Channel device. If auto-negotiation is enabled, the connection speed and mode (duplex, half-duplex) are determined at the time of connection. If the device does not support auto-negotiation, this field still displays a value, but the value does not apply. The value is enabled or disabled . The default is disabled. This field is set by the auto-negotiate command.
admin-status	Indicates if you have enabled the port for configuration and use. The value of this field may be up or down . The default is down . The field is set by the shutdown command.
oper-status	Indicates if the port is physically ready for configuration and use. The value of this field may be up or down . If this field is down but the admin-status is up, check that the Fibre Channel interface card is securely seated in the slot and a cable is attached between the port and the target FC device.
admin-speed	Indicates the speed administratively assigned to the Fibre Channel port. The value of this field may be 2 Gbps or 1 Gbps. Speed defaults to 2 Gbps. You can configure this setting with the speed command.
oper-speed	Indicates the maximum speed of the Fibre Channel port, based upon the attached Fibre Channel cable and polling the connected Fibre Channel device.
admin-connection-type	Indicates the type of connection administratively assigned to the interface port. The value may be forceNLPort for the fc2port2G, force-e, force-f, auto-e, or auto-f for the fc4port2G, forceBPort, or none. The default is forceNLPort. This field is set by the type command.
oper-connection-type	Indicates the type of connection dynamically discovered for the interface port.
link-trap	Indicates if connection link errors are to be captured and sent to trap recipients. The value may be either enabled or disabled. This field is set by the link-trap command.

Table 6-59 lists and describes the fields in the **statistics** keyword output.

Table 6-59 *statistics Keyword Output Field Descriptions*

Field	Description
port	Fibre Channel gateway port number, in slot#/port# format.
name	Administratively assigned or default name of the port. The default name is the port name in the form slot#/port#. Configure this field with the name command. The number in parentheses to the right of the name is the SNMP identifier. The SNMP identifier is useful if you are running your own SNMP software.
in-octets	Cumulative number of octets received on the interface, including framing characters.
in-ucast-pkts	Cumulative number of packets, delivered by this sub-layer to a higher layer, which were not addressed to a multicast or broadcast address at this sub-layer.
in-multicast-pkts	Cumulative number of packets, delivered by this sub-layer to a higher layer, that were addressed to a multicast address at this sub-layer. For a MAC layer protocol, this includes both Group and Functional addresses.
in-broadcast-pkts	Cumulative number of packets, delivered by this sub-layer to a higher layer, that were addressed to a broadcast address at this sub-layer.
in-discards	Cumulative number of inbound packets that were discarded even though no errors had been detected to prevent their being delivered to a higher-layer protocol. One possible reason for discarding such a packet can be to free-up buffer space.
in-errors	For packet-oriented interfaces, the cumulative number of inbound packets that contained errors that prevented them from being delivered to a higher-layer protocol. For character-oriented or fixed-length interfaces, the number of inbound transmission units that contained errors preventing them from being delivered to a higher-layer protocol.
in-unknown-protos	For packet-oriented interfaces, the cumulative number of packets received via the interface which were discarded because of an unknown or unsupported protocol. For character-oriented or fixed-length interfaces that support protocol multiplexing, the number of transmission units received via the interface which were discarded because of an unknown or unsupported protocol. For any interface that does not support protocol multiplexing, this counter is always 0.
out-octets	Cumulative number of octets transmitted out of the interface, including framing characters.
out-ucast-pkts	Cumulative number of packets that higher-level protocols requested be transmitted, and which were not addressed to a multicast or broadcast address at this sub-layer, including those that were discarded or not sent.
out-multicast-pkts	Cumulative number of packets that higher-level protocols requested be transmitted, and which were addressed to a multicast address at this sub-layer, including those that were discarded or not sent. For a MAC layer protocol, this includes both Group and Functional addresses.

Table 6-59 *statistics Keyword Output Field Descriptions (continued)*

Field	Description
out-broadcast-pkts	Cumulative number of packets that higher-level protocols requested to be transmitted, and which were addressed to a broadcast address at this sub-layer, including those that were discarded or not sent.
out-discards	Cumulative number of outbound packets which were chosen to be discarded even though no errors had been detected to prevent their being transmitted. One possible reason for discarding such a packet could be to free-up buffer space.
out-errors	For packet-oriented interfaces, the cumulative number of outbound packets that could not be transmitted because of errors. For character-oriented or fixed-length interfaces, the number of outbound transmission units that could not be transmitted because of errors.
link-events	Cumulative number of link events processed by the Fibre Channel interface port.
fc-cmds-outstanding	Cumulative number of FCP commands outstanding on the Fibre Channel interface port.
fc-cmds-completed	Cumulative number of FCP commands completed on the Fibre Channel interface port.
fc-errors	Cumulative number of FCP errors encountered on the Fibre Channel interface port.
fc-initiator-IO	Cumulative number of transactions between the Fibre Channel initiator and this port.

Table 6-60 lists and describes the fields in the **targets** keyword output.

Table 6-60 *targets Keyword Output Field Descriptions*

Field	Description
wwpn	World-wide port name (WWPN) of the target.
wwnn	World-wide node name (WWNN) of the target.
description	Dynamically-assigned or administratively-assigned description of the target. Enter the fc srp target command with the description keyword to configure this field.
ioc-guid	I/O controller (IOC) GUID of the FC gateway that accesses the target.
service-name	Name of the service that the target runs.
protocol-ids	Lists the protocols that the target supports.
fc-address	Fibre Channel protocol address of the target.
mtu	Maximum transmission unit (MTU) of the target, in bytes.
connection-type	For this release, all targets connect to NL_Ports.
physical-access	Port, in slot#/port# format, on your Server Switch to which the target connects.

Table 6-61 lists and describes the fields in the **virtual-ports** keyword output.

Table 6-61 *virtual-ports Keyword Output Field Descriptions*

Field	Description
guid	GUID of the physical initiator.
extension	GUID extension of the physical initiator.
initiator-description	Administratively-assigned description of the initiator.
wwnn	World-wide node name (WWNN) of the initiator.
port	Physical port on your Server Switch to which the virtual port maps.
wwpn	World-wide port name (WWPN) of the virtual port.
fc-address	Fibre Channel protocol address of the virtual port.

Examples

The following example shows the output of the **show interface fc** command without the **statistics** keyword.

```
SFS-7000P# show interface fc 5/1
=====
                        Fibre Channel Interface Info
=====
                        port : 5/1
                        name : 5/1
                        type : fc2GFX
                        desc : 5/1 (321)
last-change : none
fc-address : 00:00:00
wwnn : 00:00:00:00:00:00:00:00
wwpn : 00:00:00:00:00:00:00:00
mtu : 2080
auto-negotiate-supported : yes
auto-negotiate : enabled
admin-status : up
oper-status : down
admin-speed : 2gbps
oper-speed : unknown
oper-duplex : unknown
admin-connection-type : force-NL
oper-connection-type : down
link-trap : enabled
```

The following example displays all FC targets that the FC interfaces see.

```
SFS-7000P# show interface fc all targets
=====
                        Fc Targets
=====
wwpn: 50:06:01:60:10:20:4e:31
wwnn: 50:06:01:60:90:20:4e:31
description: SRP.T10:5006016010204E31
ioc-guid: 00:05:ad:00:00:01:38:80
service-name: SRP.T10:5006016010204E31
protocol-ids: 04:00:00:00:00:00:00:00:00:00:00
fc-address: 61:07:13
mtu: 0
connection-type: nl-port
physical-access: 9/2
```

```

        wwpn: 50:06:01:68:10:20:4e:31
        wwnn: 50:06:01:60:90:20:4e:31
    description: SRP.T10:5006016810204E31
        ioc-guid: 00:05:ad:00:00:01:38:80
    service-name: SRP.T10:5006016810204E31
    protocol-ids: 04:00:00:00:00:00:00:00:00:00
<output truncated>

```

The following example displays all virtual ports on the interface.

```

SFS-7000P# show interface fc all virtual-ports
=====
                        Fc Virtual Ports
=====
        guid: 00:05:ad:00:00:12:34:56
    extension: 00:00:00:00:00:00:00:00
    initiator-description: kauai
        wwnn: 20:01:00:05:ad:01:5a:5c
        port: 9/1
        wwpn: 20:01:00:05:ad:91:5a:5c
    fc-address: 61:0a:02

        guid: 00:05:ad:00:00:12:34:56
    extension: 00:00:00:00:00:00:00:00
    initiator-description: kauai
        wwnn: 20:01:00:05:ad:01:5a:5c
        port: 9/2
        wwpn: 20:01:00:05:ad:95:5a:5c
    fc-address: 61:05:02

```

Related Commands

[fc srp-global gateway-portmask-policy restricted](#)
[fc srp-global itl](#)
[fc srp it](#)
[fc srp target](#)
[show fc srp initiator](#)
[show interface fc](#)
[type](#)

show interface gateway

To display attributes of the internal IB gateway ports of Fibre Channel and Ethernet expansion modules, enter the **show interface gateway** command in User Exec mode or Privileged Exec mode.

```
show interface gateway slot-selection [fc srp initiator-target guid extension | {ip | ip-backup} {ip-address | all} | sma {node-info | port-info [details]} | statistics]
```

Syntax Description	
<i>slot-selection</i>	Internal gateway port that you want to view.
fc srp initiator-target	(Optional) Displays FC targets that an initiator can access.
<i>guid</i>	(Optional) GUID of the initiator.
<i>extension</i>	(Optional) GUID extension of the initiator.
ip	(Optional) Displays attributes of IP addresses on the card.
ip-backup	Displays attributes of backup IP addresses on the card.
ip-address	Individual IP address whose attributes you want to view.
all	Displays attributes of all addresses.
sma	Displays SMA information.
node-info	Displays SMA node information.
port-info	Displays SMA port information.
details	(Optional) Displays detailed SMA port information.
statistics	(Optional) Displays gateway statistics of the card.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:
Cisco SFS 3012, Cisco SFS 3001

Privilege Level:
Fibre Channel read-only user.

Use this command to troubleshoot connectivity issues. Verify that the show output matches the configuration file.

[Table 6-62](#) lists and describes the fields in the **show interface gateway** command output.

Table 6-62 *show interface gateway Command Field Descriptions*

Field	Description
gateway	Number of the slot in which the gateway resides.
name	Administrative name that you configure with the name command.

Table 6-62 *show interface gateway Command Field Descriptions (continued)*

Field	Description
type	Type of interface card, either Ethernet or Fibre Channel.
desc	Description of the port, in slot#/port# format. The port identifier appears as zero (0) to indicate an internal port. The number in parentheses serves as the SNMP identifier.
last-change	Time of the most recent configuration change that a user made to the port.
mtu	Maximum transmission unit (MTU) of the internal gateway port.
admin-status	Administrative status of the gateway that you configure with the shutdown command.
oper-status	Actual status of the gateway.

Table 6-63 lists and describes the fields that appear when you use the **fc srp initiator-target** argument with the **show interface gateway** command.

Table 6-63 *fc srp initiator-target Keyword Output Field Descriptions*

Field	Description
wwpn	World-wide port name (WWPN) of the target that the initiator can access.
wwnn	World-wide node name (WWNN) of the target that the initiator can access.
description	Description of the target.
ioc-guid	GUID of the IOC assigned to the target.
service-name	Service that the target runs.
protocol-ids	Lists the protocols that the target supports.
fc-address	Fibre Channel protocol address of the target.
mtu	Maximum transmission unit (MTU) of the target.
connection-type	Type of connection between the storage and the IB host. The field will always display nl-port , because all storage-to-IB host connections occur over a virtual port, or NL_Port.
physical-access	Port or ports through which the target connects to the initiator.

Table 6-64 lists and describes the fields that appear when you use the **ip** keyword with the **show interface gateway** command.

Table 6-64 *ip Keyword Output Field Descriptions*

Field	Description
port	Port number, in card#port# format. A port# of 0 represents the gateway port of the interface card.
address	IP address that you assigned to the port.
mask	Subnet mask that you assigned to the port.
bcast-addr format	IP broadcast address format that the port uses.

Table 6-64 *ip Keyword Output Field Descriptions (continued)*

Field	Description
reasm max-size	Size of the largest IP datagram which this port can receive and reassemble from incoming fragmented IP datagrams.
type	Displays “primary” or “backup” to indicate that the interface card acts as the primary or backup interface for the IP address that appears in the “address” field.
status	Displays “active” or “inactive” to indicate that the card actively services IP packets addressed to the IP address in the “address” field or does not service packets to the specified address.

[Table 6-65](#) lists and describes the fields that appear when you use the **ip-backup** keyword with the **show interface gateway** command.

Table 6-65 *ip-backup Keyword Output Field Descriptions*

Field	Description
if-index	Numeric identifier, or “interface index,” of the port, in slot#/port# notation.
priority	Displays the priority of each backup address.

**Note**

This keyword applies only to Fibre Channel cards.

Table 6-66 *statistics Keyword Output Field Descriptions*

Field	Description
slot-id	Chassis slot that contains the gateway that you want to display.
link-events	Cumulative number of link events that the gateway has processed.
srp-cmds-outstanding	Cumulative number of unresolved SRP commands on the gateway.
srp-cmds-completed	Cumulative number of SRP commands that the gateway executed.
srp-errors	Cumulative number of SRP errors that the gateway encountered.
srp-initiated-ios	Cumulative number of I/O transactions that initiators requested of FC devices through the gateway.
srp-bytes-read	Cumulative number of I/O bytes that the gateway has read.
srp-bytes-written	Cumulative number of I/O bytes that the gateway has written.
srp-connections	Cumulative number of I/O connections that the gateway has used.
fcp-cmds-outstanding	Cumulative number of unresolved FCP commands on the gateway.
fcp-cmds-completed	Cumulative number of FCP commands that the gateway executed.
fcp-errors	Cumulative number of FCP errors that the gateway encountered.
fcp-initiated-ios	Cumulative number of I/O replies that FC devices sent through the gateway in response to SRP requests from initiators.

Table 6-66 statistics Keyword Output Field Descriptions (continued)

Field	Description
fcg-bytes-read	Cumulative number of Fibre Channel Protocol bytes that the card has read since it came up.
fcg-bytes-written	Cumulative number of Fibre Channel Protocol bytes that the card has written since it came up.

Examples

The following example displays the attributes of the IP address of the gateway port.

```
SFS-7000P# show interface gateway 5 ip all
=====
                        IP Address Table
=====
port  address          mask                bcast-addr reasm   type   status
      address          mask                format    max-size
-----
4/0   10.3.22.0          255.255.255.0      1         0      primary active
SFS-7000P#
```

The following example uses the **show interface gateway** command to display general gateway properties. The information fields displayed depend upon the interface type. The example below displays the properties of a Fibre Channel gateway port. To see the properties of an Ethernet port, refer to the description of “[show interface ethernet](#)” section on page 6-135.

```
SFS-7000P# show interface gateway 4
=====
                        Gateway Information
=====
gateway : 4
name : 4/0
type : fc-gateway
desc : 4/0 (320)
last-change : none
mtu : 0
admin-status : up
oper-status : up
SFS-7000P#
```

The following example displays traffic statistics for the internal gateway port.

```
SFS-7000P# show inter gateway 2 stat
=====
                        Gateway Statistics
=====
slot-id: 2
link-events: 0
srp-cmds-outstanding: 0
srp-cmds-completed: 0
srp-errors: 0
srp-initiated-ios: 0
srp-bytes-read: 0
srp-bytes-written: 0
srp-connections: 0
fcg-cmds-outstanding: 0
fcg-cmds-completed: 0
```



```
        fcp-errors: 0
    fcp-initiated-ios: 0
        fcp-bytes-read: 0
    fcp-bytes-written: 0
SFS-7000P#
```

Related Commands

fc srp initiator
fc srp it
show ip

show interface ib

To display attributes of InfiniBand ports, enter the **show interface ib** command in User Exec mode or Privileged Exec mode.

```
show interface ib port-selection [sma {node-info | port-info [detail]} | statistics]
```

Syntax Description		
	<i>port-selection</i>	Port, list of ports, or range of ports that you want to view.
	sma	(Optional) Displays subnet management agent (SMA) information.
	node-info	(Optional) Displays node-based SMA information.
	port-info	(Optional) Displays port-based SMA information.
	detail	(Optional) Displays detailed, port-based SMA information.
	statistics	(Optional) Displays IB interface traffic statistics.

Defaults See [Table 6-67](#) through [Table 6-71](#).

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
InfiniBand read-only user.

Without the optional **sma** or **statistics** keywords, the **show interface ib** command displays general information about the InfiniBand interface port, such as its administrative status, its operational speed and status, and duplex mode.

[Table 6-67](#) lists and describes the fields in the **show interface ib** command output.

Table 6-67 *show interface ib Command Field Descriptions*

Field	Description
port	Identifies the InfiniBand interface card and port. The format is slot#/port#.
name	User assigned name. If no name is assigned, the port name is displayed instead. This field is set by the name command.
type	Identifies the type of the InfiniBand card. Supported cards are ib1xTX, ib1xFX, ib4xTX, ib4xFX, and ib4xTXP. This field is set by the type command.

Table 6-67 *show interface ib Command Field Descriptions (continued)*

Field	Description
desc	Description of the port, in slot#/port# format. The number in parentheses serves as the SNMP identifier.
last-change	Time at which the InfiniBand port configuration was last changed.
mtu	Maximum Transmission Unit for the InfiniBand port. Used to configure the MTU size of IP network traffic.
auto-negotiate supported (select Server Switches)	Displays yes if the port supports auto-negotiation or no if the port does not support auto-negotiation.
auto-negotiate (select Server Switches)	Indicates if the InfiniBand port on the interface card is configured to automatically negotiate connection parameters when it connects with an InfiniBand device. If auto-negotiation is enabled, the connection speed is determined at the time of connection. If the device does not support auto-negotiation, this field still displays a value, but the value does not apply. The value is enabled or disabled . The default is disabled. This field is set by the auto-negotiate command.
admin-status	Indicates if you have enabled the port for configuration and use. The value of this field may be up or down. The default is down. The field is set by the shutdown command.
oper-status	Indicates if the port is physically ready for configuration and use. The value of this field may be up or down. If this field is down but the admin-status is up, check that the InfiniBand interface card is securely seated in the slot and a cable is attached between the port and the target InfiniBand host.
admin-speed (select Server Switches)	Indicates the speed administratively assigned to the InfiniBand port. You can configure this setting with the speed command.
oper-speed (select Server Switches)	Indicates the maximum speed of the InfiniBand port, based upon the attached InfiniBand cable and polling the connected InfiniBand device.
link-trap	Indicates if connection link errors are to be captured and sent to trap recipients. The value may be either enabled or disabled. This field is set by the link-trap command.
dongle-type	Displays the port power connector dongle type variable.

The administrative (admin) status, speed, and connection-type reflect the values you had assigned. The operational (oper) status, speed, and connection-type reflect the values derived from the physical hardware and its connections. This allows you to verify your configuration settings against the actual hardware. The admin/oper pairs do not have to match for you to use the card. However, if there is a mismatch, the oper value is used.

[Table 6-68](#) lists and describes the fields that appear when you use the **sma node-info** argument with the **show interface ib** command.

Table 6-68 *sma node-info Keyword Output Field Descriptions*

Field	Description
guid	GUID of the host.
type	Type of SMA node. This value always appears as switch.
lid	Base Local Identifier (LID) of the port.
base-version	Base management datagram version that the switch supports.
class-version	Subnet management class that the switch supports.
port-guid	GUID of the port(s) that you specified with the <i>port-selection</i> variable.
partition-cap	Maximum number of partitions that the port supports.
device-id	Manufacturer-assigned device ID.
revision	Manufacturer-assigned device revision.
local-port-num	Number of the link port that received this show request.
vendor-id	Device vendor ID, as per the IEEE standard.
trap-buffer	Special purpose string buffer for InfiniBand Trap Data.
num-ports	Number of physical ports on the SMA node.
string	SMA node description string.

[Table 6-69](#) lists and describes the fields that appear when you use the **sma port-info** argument with the **show interface ib** command.

Table 6-69 *sma port-info Keyword Output Field Descriptions*

Field	Description
node-guid	GUID of the IB host that connects to the port.
port	Host port that connects to your Server Switch.
mkey	64-bit management key for this port. See section 14.2.4, Management Key and 3.5.3, Keys, <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, for more information.
gid-prefix	64-bit GID prefix for this port. This prefix is assigned by the subnet manager, based upon the port router and the rules for local identifiers. See section 4.1.3, Local Identifiers, <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, for more information.
lid	16-bit base-LID of this port.

Table 6-69 *sma port-info Keyword Output Field Descriptions*

Field	Description
capability-mask	32-bit bitmask that specifies the supported capabilities of the port. A bit value of 1 (one) indicates a supported capability. The bits are: 0, 11-15, 18, 21-31 (Reserved and always 0.), 1 IsSM, 2 IsNoticeSupported, 3 IsTrapSupported, 4 IsResetSupported, 5 IsAutomaticMigrationSupported, 6 IsSLMappingSupported, 7 IsMKeyNVRAM (supports M_Key in NVRAM), 8 IsPKeyNVRAM (supports P_Key in NVRAM), 9 Is LED Info Supported, 10 IsSMdisabled, 16 IsConnectionManagementSupported, 17 IsSNMPTunnelingSupported, 19 IsDeviceManagementSupported, 20 IsVendorClassSupported. Values are expressed in hexadecimal.
state	A higher form of addressing than PhyState, state determines that the nodes can actually communicate and indicates the state transition that has occurred. A transition is a port change from down to initialize, initialize to down, armed to down, or active to down as a result of link state machine logic. Changes to the port state resulting from SubnSet have no affect on this parameter value. The value is noStateChange, down, initialize, armed, or active.

Table 6-70 lists and describes the fields that appear when you use the **sma port-info details** argument with the **show interface ib** command.

Table 6-70 *sma port-info details Keyword Output Field Descriptions*

Field	Description
node-guid	GUID of the IB host that connects to the port.
port	Host port that connects to your Server Switch.
mkey	64-bit management key for this port. See section 14.2.4, Management Key and 3.5.3, Keys, <i>InfiniBand Architecture®, Vol. 1, Release 1.1</i> , for more information.
gid-prefix	64-bit GID prefix for this port. This prefix is assigned by the subnet manager, based upon the port router and the rules for local identifiers. See section 4.1.3, Local Identifiers, <i>InfiniBand Architecture®, Vol. 1, Release 1.1</i> , for more information.
lid	16-bit base-LID of this port.
master-sm-lid	16-bit base LID of the master subnet manager managing this port.
capability-mask	32-bit bitmask that specifies the supported capabilities of the port. A bit value of 1 (one) indicates a supported capability. The bits are: 0, 11-15, 18, 21-31 (Reserved and always 0.), 1 IsSM, 2 IsNoticeSupported, 3 IsTrapSupported, 4 IsResetSupported, 5 IsAutomaticMigrationSupported, 6 IsSLMappingSupported, 7 IsMKeyNVRAM (supports M_Key in NVRAM), 8 IsPKeyNVRAM (supports P_Key in NVRAM), 9 Is LED Info Supported, 10 IsSMdisabled, 16 IsConnectionManagementSupported, 17 IsSNMPTunnelingSupported, 19 IsDeviceManagementSupported, 20 IsVendorClassSupported. Values are expressed in hexadecimal.

Table 6-70 sma port-info details Keyword Output Field Descriptions (continued)

Field	Description
diag-code	16-bit diagnostic code. For more information, refer to <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, section 14.2.5.6.1, “Interpretation of Diagcode.”
mkey-lease-period	Initial value of the lease-period timer in seconds. The lease period is the length of time that the M_Key protection bits are to remain non-zero after a SubnSet (PortInfo) fails an M_Key check. After the lease period expires, clearing the M_Key protection bits allows any subnet manager to read (and then set) the M_Key. Set this field to 0 to indicate that the lease period is never to expire. Refer to <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, section 14.2.4, “Management Key.”
local-port-num	Number of the link port which received this request, otherwise the value is 0.
link-width-enabled	Enabled link width (speed). The value is an integer that indicates the enabled link-width sets for this port. The value may be <ul style="list-style-type: none"> • 0 (no state change), • 1 (1x), • 2 (4x), • 3 (1x or 4x), • 8 (12x), • 9 (1x or 12x), • 10 (4x or 12x), • 11 (1x, 4x or 12x), • 255 (set this parameter to the link-width-supported value).
link-width-supported	Supported link width. The value is 1 (1x), 3 (1x or 4x), or 11 (1x, 4x, or 12x).
link-width-active	Active link width. This parameter is used with LinkSpeedActive to determine the link rate between the two connected nodes. The value is width1x, width4x, or width12x.
link-speed-supported	Speed that the link between the host and your device supports.
state	A higher form of addressing than PhyState, state determines that the nodes can actually communicate and indicates the state transition that has occurred. A transition is a port change from down to initialize, initialize to down, armed to down, or active to down as a result of link state machine logic. Changes to the port state resulting from SubnSet have no affect on this parameter value. The value is noStateChange, down, initialize, armed, or active.
port-phys	Indicates the actual state of the port. Determines that electricity flows between nodes so they can hand-shake. The value is noStateChange, sleeping, polling, disabled, portConfigurationTrainig, linkup, or linkErrorRecovery.

Table 6-70 sma port-info details Keyword Output Field Descriptions (continued)

Field	Description
link-down-def	Default LinkDown state to return to. The value is noStateChange, sleeping, or polling. See section 5.5.2, Status Outputs (MAD GET), <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, for more information.
mkey-protect-bits	Management key protection bits for the port. The bits are 0, 1, 2, and 3. See section 14.2.4.1, Levels of Protection, <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, for more information.
lmc	Local-identifier mask control (LMC) for multipath support. A LMC is assigned to each channel adapter and router port on the subnet. It provides multiple virtual ports within a single physical port. The value of the LMC specifies the number of path bits in the LID. A value of 0 (zero) indicates one LID is allowed on this port. See sections 3.5.10, Addressing, and 4.1.3, Local Identifiers, <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, for more information.
ls-active	Speed of an active link. The value is 1 (2.5 Gbps).
ls-active-enabled	Maximum speed the link is capable of handling. The value is 0 (No state change), 1 (2.5 Gbps), or 3 (value derived from link-speed-supported).
neighbor-mtu	Active maximum transmission unit enabled on this port for transmit. Check the mtu-cap value at both ends of every link and use the lesser speed. The value is mtu256, mtu512, mtu1024, mtu2048, or mtu4096.
master-sm-sl	Administrative service level required for this port to send a non-SMP message to the subnet manager.
vl-cap	Maximum range of data virtual lanes supported by this port. The value is vl0, vl0ToV11, vl0ToV13, vl0ToV17, or vl0ToV114. See also oper-VL.
vl-high-limit	Maximum high-priority limit on the number of bytes allowed for transmitting high-priority packets when both ends of a link operate with multiple data virtual-lanes. Used with the virtual-lane arbitration table. The maximum high-limit is determined by checking the vl-arb-high-cap on the other side of the link and then negotiating downward.
vl-arbitration-high-cap	Highest arbitration value allowed by the arbiter in determining the next packet in a set of packets to send across the link. Used with the virtual-lane arbitration table and specified as a VL/Weight pair. See section 14.2.5.9, VL Arbitration Table, <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, for more information.
vl-arbitration-low-cap	Lowest arbitration value allowed by the arbiter in determining the next packet in a set of packets to send across the link. Used with the virtual-lane arbitration table and specified as a VL/Weight pair. See section 14.2.5.9, VL Arbitration Table, <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, for more information.
mtu-cap	Used in conjunction with neighbor-mtu to determine the maximum transmission size supported on this port. The lesser of mtu-cap and neighbor-mtu determines the actual MTU used. The value is 256, 512, 1024, 2048, or 4096.

Table 6-70 sma port-info details Keyword Output Field Descriptions (continued)

Field	Description
vl-stall-count	Number of sequentially dropped packets at which the port enters a VLStalled state. The virtual lane exits the VLStalled state (8 * HLL) units after entering it. See section 18.2.5.4, Transmitter Queuing, <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, for a description of HLL.
hoq-life	Maximum duration allowed to packets at the head of a virtual-lane queue. Used with VL-stall-count to determine the outgoing packets to discard.
op-vls	Administrative limit for the number of virtual lanes allowed to the link. Do not set this above the VL-cap value. The value is vl0, vl0-V11, vl0-V13, vl0-V17, or vl0-V114.
pkey-enf-in	Boolean value that indicated whether or not to support optional partition enforcement for the packets received by this port.
pkey-enf-out	Boolean value that indicates whether or not to support optional partition enforcement for the packets transmitted by this port.
filter-raw-pkt-in	Boolean value that indicates whether or not so support optional raw packet enforcement for the raw packets received by this port.
filter-raw-pkt-out	Boolean value that indicates whether or not so support optional raw packet enforcement for the raw packets transmitted by this port.
mkey-violations	Number of subnet management packets (SMPs) that have been received on this port with invalid M_Keys since initial power-up or last reset. For more information refer to section 14.2.4, “Management Key” in <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1.
pkey-violations	Number of subnet management packets that have been received on this port with invalid P_Keys since initial power-up or the last reset. For more information, refer to section 9.2.7, “Partition Key” in <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1.
qkey-violations	Number of subnet management packets that have been received on this port with invalid Q_Keys since initial power up or the last reset. For more information, refer to <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, section 10.2.4, “Q Keys.”
guid-cap	Number of GUID entries allowed for this port in the port table. For more information, refer to <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, section 14.2.5.5, “GUIDCap.”
subnet-timeout	Maximum propagation delay allowed for this port to reach any other port in the subnet. This value also affects the maximum rate at which traps can be sent from this port.
resp-timeout	Maximum time allowed between the port reception of a subnet management packet and the transmission of the associated response. For more information, refer to <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, section 13.4.6.2, “Timers and Timeouts.”

Table 6-70 *sma port-info details Keyword Output Field Descriptions (continued)*

Field	Description
local-phys-err	Threshold at which ICRC, VCRC, FCCRC, and all physical errors result in an entry into the BAD PACKET or BAD PACKET DISCARD states of the local packet receiver. For more information, refer to <i>InfiniBand Architecture®</i> , Vol. 1, Release 1.1, section 7.12.2, “Error Recovery Procedures.”
overrun-err	Threshold at which the count of buffer overruns across consecutive flow-control update periods results in an overrun error.

Table 6-71 lists and describes the fields that appear when you use the **statistics** keyword with the **show interface ib** command.

Table 6-71 *statistics Keyword Output Field Descriptions*

Field	Description
port	Port identifier, in slot#/port# format.
name	Administrative port name that you configured with the name command.
in-octets	Cumulative number of octets that arrived at the port, including framing characters.
in-ucast-pkts	Cumulative number of incoming packets destined for a single port.
in-multicast-pkts	Cumulative number of incoming packets destined for the ports of a multicast group.
in-broadcast-pkts	Cumulative number of incoming packets destined for all ports on the fabric.
in-discards	Cumulative number of inbound packets that the port discarded for a reason other than a packet error (e.g. lack of buffer space).
in-errors	Number of inbound packets with errors that the port discarded.
in-unknown-protos	For packet-oriented interfaces, the number of packets received via the interface which were discarded because of an unknown or unsupported protocol. For character-oriented or fixed-length interfaces that support protocol multiplexing, the number of transmission units received via the interface which were discarded because of an unknown or unsupported protocol. For any interface that does not support protocol multiplexing, this counter is always 0.
out-octets	Total number of octets transmitted out of the interface, including framing characters.
out-ucast-pkts	Total number of packets that higher-level protocols requested be transmitted, and which were not addressed to a multicast or broadcast address at this sub-layer, including those that were discarded or not sent.
out-multicast-pkts	Total number of packets that higher-level protocols requested be transmitted, and which were addressed to a multicast address at this sub-layer, including those that were discarded or not sent.
out-broadcast-pkts	Total number of packets that higher-level protocols requested to be transmitted, and which were addressed to a broadcast address at this sub-layer, including those that were discarded or not sent.

Table 6-71 *statistics Keyword Output Field Descriptions (continued)*

Field	Description
out-discards	Number of outbound packets which were chosen to be discarded even though no errors had been detected to prevent their being transmitted. One possible reason for discarding such a packet could be to free-up buffer space.
out-errors	For packet-oriented interfaces, the number of outbound packets that could not be transmitted because of errors. For character-oriented or fixed-length interfaces, the number of outbound transmission units that could not be transmitted because of errors.

Examples

The following example shows the output of the **show interface ib** command without the **sma** or **statistics** keywords.

```
SFS-270# show interface ib 4/7
=====
                        InfiniBand Interface Information
=====
                        port : 1
                        name : 1
                        type : ib4xTXP
                        desc : 1 (65)
                        last-change : none
                        mtu : 0
auto-negotiate-supported : yes
auto-negotiate : disabled
admin-status : up
oper-status : down
admin-speed : 10gbps
oper-speed : unknown
link-trap : enabled
phy-state : polling
dongle-type : ib4xFX
```

The following example shows the output of the **show interface ib** command with the **statistics** keyword.

```
SFS-270# show interface ib 4/7 statistics
=====
                        InfiniBand Interface Statistics
=====
                        port : 4/7
                        name : 4/7
                        in-octets : 0
                        in-ucast-pkts : 0
                        in-multicast-pkts : 0
                        in-broadcast-pkts : 0
                        in-discards : 0
                        in-errors : 0
                        in-unknown-protos : 0
                        out-octets : 0
                        out-ucast-pkts : 0
                        out-multicast-pkts : 0
                        out-broadcast-pkts : 0
                        out-discards : 0
                        out-errors : 0
```

Related Commands **ib-agent
name**

show interface mgmt-ethernet

To show the configuration of the Ethernet Management port on the controller card of your Server Switch, enter the **show interface mgmt-ethernet** command in User Exec mode or Privileged Exec mode.

show interface mgmt-ethernet

Syntax Description This command has no arguments or keywords.

Defaults The gateway address value defaults to 0.0.0.0.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
General read-only user.

The Ethernet Management port is an Out-of-Band Management (OBM) port that provides network access to the system chassis in order to run remote CLI and Element Manager sessions. The port must be configured before it can be used.

This command displays the administrative status of the interface port, its assigned IP address and subnet mask, plus the IP address of the gateway port used to connect to the Ethernet Management port. If the Ethernet host is directly connected to the Ethernet Management port, without having to go through Ethernet switches, the default gateway-addr value is 0.0.0.0.

On the Cisco SFS 3012, you may only access the Ethernet Management port on the currently active controller card. The CLI always defaults to port 2 on the active controller card.

[Table 6-72](#) lists and describes the fields that appear in the **show interface mgmt-ethernet** command output.

Table 6-72 *show interface mgmt-ethernet Command Output Fields*

Field	Description
port	Ethernet management port number, in slot#/port# format.
mac-address	MAC address of the Ethernet management port.
auto-negotiate	Displays enabled if the port automatically negotiates link speed.
admin-status	Displays up if you enabled the port and down if you disabled the port.
ip-addr	IP address of the port.
mask	Subnet mask of the port.
gateway-addr	Gateway configured for the port.
addr-option	Address option of the port (see the command: addr-option , page 2-5).

Examples

The following example displays the configuration of the Ethernet Management port on the active controller.

```
SFS-270# show interface mgmt-ethernet
```

```
=====
                                     Mgmt-Ethernet Information
=====

      port : 15/1
      mac-address : 00:05:ad:00:19:16
      auto-negotiate : enabled
      admin-status : up
      ip-addr : 10.3.108.43
      mask : 255.255.0.0
      gateway-addr : 10.3.0.1
      addr-option : static
```

Related Commands [gateway](#)

show interface mgmt-ib

To display the status and address information for the virtual InfiniBand Management port, enter the **show interface mgmt-ib** command in User Exec mode or Privileged Exec mode.

show interface mgmt-ib

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
General read-only user.

Use this command to verify that you have configured your InfiniBand Management port successfully. Compare this output to the configuration file and check for discrepancies. You must configure the InfiniBand Management port successfully to run telnet, SSH, and Element Manager.

Examples The following example displays the status and address information of the IB Management port.

```
SFS-7000P# show interface mgmt-ib
=====
                        Mgmt-InfiniBand Information
=====
      descr : Inband Management Port
      admin-status : up
      ip-addr : 192.168.2.200
      mask : 255.255.255.0
      gateway-addr : 0.0.0.0
SFS-7000P#
```

Related Commands [gateway](#)
[telnet](#)

show interface mgmt-serial

To display the configuration of the Serial Console port on the controller card of your Server Switch, enter the **show interface mgmt-serial** command in User Exec mode or Privileged Exec mode.

show interface mgmt-serial

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:

General read-only user.

This command displays the default configuration. This configuration cannot be changed.

The Serial Console port is the initial connection point with the system chassis and is used to configure the Ethernet Management and Infiniband Management ports. This port must be configured and a management station attached before any interaction with the system chassis is possible.

For the Cisco SFS 3012, you may only access the Serial Console port on the currently active controller card.

Examples

```
SFS-7000P# show interface mgmt-serial
=====
                        Mgmt-Serial Information
=====
      baud-rate : 9600
      data-bits  : 8
      stop-bits  : 1
      parity     : off
SFS-7000P#
```

Related Commands [show interface mgmt-ethernet](#)
[show interface mgmt-ib](#)
[shutdown](#)

show ip

To display IP configuration data, enter the **show ip** command in User Exec mode or Privileged Exec mode.

```
show ip [address-table | route | http [server secure]]
```

Syntax Description	address-table	(Optional) This keyword displays the address information of Ethernet interface ports, Ethernet interface cards, and InfiniBand interface cards. It lists the IP addresses, netmasks, broadcast formats, reassembly sizes, and whether or not the IP address is a primary or backup.
	route	(Optional) This keyword displays the Classless Inter-Domain Routing (CIDR) forwarding records or routes (both static and dynamic) of all IP routes to system ports. Included in this information are the route destination, route type, route protocol, next hop, and port used.
	http	(Optional) Displays current HTTP settings.
	server secure	(Optional) Displays current secure HTTP server settings.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 3012

Privilege Level:
Ethernet read-only user.

Use this command to view the results of the **ip** command.

Examples The example below shows the output of the **show ip address-table** command. Note that port 0 always indicates the gateway port of the interface card.

```
SFS-7000P# show ip address-table
=====
                        IP Address Table
=====
port  address          mask                bcast-addr  reasm   type   status
      address          mask                format      max-size
-----
4/0  192.168.2.1         255.255.255.0      1           0       primary active
4/1  192.168.1.1         255.255.255.0      1           0       primary active
4/2  192.168.3.1         255.255.255.0      1           0       primary active
SFS-7000P#
```


The example below shows the local Ethernet routes for the system chassis. Local routes are automatically generated whenever you assign an IP address to a system card or port. The codes shown in the **proto** column are explained in the output header. A next-hop value of 0.0.0.0 always indicates a local route.

```
SFS-7000P# show ip route
=====
                                 IP Routes
=====
Protocol Codes: OT - other      L - local      NM - netmgmt   IC - icmp
E - egp      G - ggp      H - hello      R - rip      IS - ISIS     ES - ES_IS,
CI - ciscoIgrp  BS - bbnSpfIgp  O - OSPF      B - BGP      ID - IDPR

dest          mask          next-hop      port  type  proto metric
-----
10.10.0.3     255.255.255.0  192.168.1.0  4/1   remote NM    0
192.168.1.0   255.255.255.0  0.0.0.0      4/1   local  L     0
192.168.2.0   255.255.255.0  0.0.0.0      4/0   local  L     0
192.168.3.0   255.255.255.0  0.0.0.0      4/2   local  L     0
SFS-7000P#
```

Related Commands [ip](#)

show ip http

To view the configuration of the HTTP server on your Server Switch, enter the **show ip http** command in User Exec mode or Privileged Exec mode.

show ip http

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
Ethernet read-only user.

Use this command to determine if your HTTP server actively runs on your Server Switch, and to determine the HTTP port number that it uses.

[Table 6-73](#) lists and describes the fields in the command output.

Table 6-73 *show ip http Command Output Field Descriptions*

Field	Description
server	Displays “enabled” if you have activated the server with the ip http server command. Displays “disabled” if you have deactivated the server with the no ip http server command.
port	Displays the HTTP port number that the HTTP server uses.
polling	Displays “enabled” or “disabled” to indicate polling status.

Examples The following example displays the configuration of the HTTP server on the Server Switch.

```
SFS-270# show ip http
=====
                        IP HTTP Info
=====
      server : enabled
        port : 80
      polling : enabled
```

Related Commands [ip http](#)

show ip http server secure

To view the HTTPS configuration on your Server Switch, enter the **show ip http secure server** command in User Exec mode or Privileged Exec mode.

show ip http secure server

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:

Ethernet read-only user.

Use this command to determine if HTTPS actively runs on your Server Switch, and to determine the HTTPS port number that it uses.

[Table 6-74](#) lists and describes the fields in the command output.

Table 6-74 *show ip http Command Output Field Descriptions*

Field	Description
secure-server	Displays “enabled” if you have activated the server with the ip http server command. Displays “disabled” if you have deactivated the server with the no ip http server command.
secure-port	Displays the HTTP port number that the HTTP server uses.
secure-cert-common-name	Certificate name of the secure server.

Examples The following example displays the HTTPS configuration on the Server Switch.

```
SFS-270# show ip http server secure
=====
                        IP HTTP Secure Info
=====
      secure-server : enabled
      secure-port   : 443
      secure-cert-common-name : useMgmtEnetIpAddr
```

Related Commands [ip http](#)

show location

To display the location data on your Server Switch, enter the **show location** command in User Exec mode or Privileged Exec mode.

show location

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
General read-only user.

The **show location** command displays some contact information to the user, however, it may be configured to display any desired text string.

Examples The following example displays the location information that you configured with the **location** command.

```
SFS-7000P# show location
515 Ellis Street, Mountain View, CA 94043
SFS-7000P#
```

Related Commands [location](#)
[snmp-server](#)
[show version](#)

show logging

To display the active system log file, enter the **show logging** command in User Exec mode or Privileged Exec mode.

show logging [end]

Syntax Description	end	(Optional) Displays approximately the last 10 entries in the system log and then continues to display log entries as they occur.
--------------------	-----	--

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:

General read-only user.

Use this command to view any of the following:

- warnings
- errors
- notifications
- alerts

You may want to set the number of lines displayed per screen using the **terminal length** command. You can also use the **more** command on ts_log instead of the **show logging** command.

The **show logging end** command is the equivalent of using the UNIX **tail -f** command. The CLI continues to display log entries as they occur until you enter **Ctrl-c**. No other CLI commands may be entered until **Ctrl-c** is used to stop the log display.

It is recommended you set the terminal page length to 0 when using the end argument. Otherwise, you will have to keep pressing the space bar to continue each time the maximum display length is reached. Once you set the page length, do not change the terminal window size. Changing window size restores the terminal length to that of the window and restarts paging.

The system log file on the chassis controller is /var/log/topspin.

Examples: The following example displays the last 10 log entries.

```
SFS-7000P# show logging end
Jan  3 11:09:58 igr-cc ib_sm.x[597]: [INFO]: Successfully add pgid
fe800000000000000000000000000005ad0000001199 to mgid ff18a01b000000000000000005ad00000002
Jan  3 17:02:56 igr-cc port_mgr.x[535]: [INFO]: port down - port=16/7, type=ib4xFX
Jan  3 17:02:58 igr-cc port_mgr.x[535]: [INFO]: port up - port=16/7, type=ib4xFX
```

■ show logging

```
Jan  3 18:21:46 igr-cc port_mgr.x[535]: [INFO]: port down - port=16/2, type=ib4xFX
Jan  3 18:21:48 igr-cc port_mgr.x[535]: [INFO]: port up - port=16/2, type=ib4xFX
Jan  3 19:35:55 igr-cc chassis_mgr.x[523]: [CONF]: [super]: config snmp trap-receiver
10.10.253.47
Jan  3 19:35:55 igr-cc chassis_mgr.x[523]: [CONF]: [super]: config snmp trap-receiver
10.10.253.47 version v2c
Jan  3 19:35:55 igr-cc chassis_mgr.x[523]: [CONF]: [super]: config snmp trap-receiver
10.10.253.47 community public
Jan  3 19:35:55 igr-cc chassis_mgr.x[523]: [CONF]: [super]: config snmp trap-receiver
10.10.253.47 community public
```

Related Commands

[copy](#)
[logging](#)
[show fan](#)
[telnet](#)
[terminal](#)

show ntp

To display

- the current date and time of your Server Switch,
- the Network Time Protocol (NTP) servers that your Server Switch uses to set the system clock,

enter the **show ntp** command in User Exec mode or Privileged Exec mode.

show ntp

Syntax Description

This command has no arguments or keywords.

Defaults

This command has no default settings.

Command Modes

User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:

Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:

General read-only user.

Use the **clock set** command to set the time and date. Use the **ntp** command to set the NTP servers that are to maintain the system clock.

Examples

The following example displays the current date and time, as well as NTP server details.

```
SFS-7000P> show ntp
=====
                        NTP Information
=====
                        Date : 04/16/03
                        Time : 16:02:43
                        Server One : 10.3.120.55
                        Server Two : 10.3.120.56
                        Server Three : 10.3.120.57
SFS-7000P>
```

Related Commands

[ntp](#)
[clock set](#)

show power-supply

To display the status of the power supplies on your Server Switch, enter the **show power-supply** command in User Exec mode or Privileged Exec mode.

show power-supply

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012

Privilege Level:
General read-only user.

Use this command to monitor the power supply. This command primarily serves to help management tools continuously monitor power supply status. Errors in the ts_log file may prompt you to check power supply status.

Table 6-75 *show power-supply Command Field Descriptions*

Field	Description
type	Indicates AC power.
oper-status	Displays “up” or “down” to indicate the status of the power supply.
utilization	Displays percentage of power utilization when multiple power supplies provide power. Displays “n/a” when one power supply runs.
voltage	Voltage of the power supply.
product serial-number	Factory-assigned product serial number.
pca serial-number	Printed circuit assembly (PCA) serial number.
pca number	Printed Circuit Assembly (PCA) assembly number.
fru number	Field replaceable unit (FRU) number for the actual switch (select chassis) or chassis (select chassis).

Examples

The following example displays power supply details.

```
SFS-270> show power-supply
```

```
=====
                        Power-supply Information
=====
ps      type      oper-status  utilization  voltage
-----
1       AC        up           n/a         48
2       AC        down        n/a         48

=====
                        Power-supply Seeprom
=====
ps      product      pca          pca          fru
      serial-number  serial-number  number      number
-----
1       -            -            -            -
2
```

Related Commands

[show backplane](#)
[show fan](#)
[show sensor](#)

show redundancy-group

To display redundancy group information, enter the **show redundancy-group** command in User Exec mode or Privileged Exec mode.

show redundancy-group [*rlb-id*]

Syntax Description	<i>rlb-id</i>	Number of the redundancy group that you want to view.
---------------------------	---------------	---

Defaults	This command displays all redundancy groups by default.	
-----------------	---	--

Command Modes	User Execute mode, Privileged Execute mode.	
----------------------	---	--

Usage Guidelines	<p>Platform Availability: Cisco SFS 3001, Cisco SFS 3012</p> <p>Privilege Level: Ethernet read-only user.</p> <p>Use this command to view redundancy groups and attributes of redundancy groups. Table 6-76 lists and describes the fields in the command output.</p>	
-------------------------	---	--

Table 6-76 *show redundancy-group* Command Field Descriptions

Field	Description
rlb-id	Redundancy group ID.
name	Redundancy group name.
group-p_key	Partition key of the group.
load-balancing	Displays “enabled” if load balancing runs, otherwise displays “disabled.”
broadcast-forwarding	Displays “true” if broadcast forwarding is enabled, otherwise displays “false.”
multicast	Displays “true” if multicast forwarding is enabled, otherwise displays “false.”
num-members	Number of members in the redundancy group.
new-member-force-reelection	Displays “true” if the group is configured to reelect a new primary when a new member joins, otherwise displays “false.”

Examples

The following example displays the redundancy groups on the chassis.

```
SFS-7000P# show redundancy-group
```

```
=====
                                Redundancy Groups
=====
      rlb-id : 1
        name : QA_Test_1
    group-p_key : ff:ff
    load-balancing : enabled
 broadcast-forwarding : false
         multicast : true
         num-members : 2
 new-member-force-reelection : false

=====
                                Redundancy Group Members
=====
bridge-group src-addr          last-receive
-----
1             192.168.3.248    Thu Jan  1 08:41:19 1970
3             192.168.3.248    Thu Jan  1 09:21:47 1970
```

Related Commands [redundancy-group](#)

show running-status

To execute a thorough range of show commands for a particular technology, enter the **show running-status** command in User Exec mode or Privileged Exec mode.

show running-status { **all** | **ethernet** | **fc** | **ib** } [**to-file**]

Syntax Description		
all		Runs show commands for Ethernet, Fibre Channel, and InfiniBand technologies.
ethernet		Runs show commands for Ethernet only.
fc		Runs show commands for Fibre Channel only.
ib		Runs show command for InfiniBand only.
to-file		(Optional) Saves the output of the show commands to a file in the syslog directory on your Server Switch and displays the name of the file.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
General read-only user.

This command can generate a large amount of data. Data is displayed per **terminal length** command settings. When executed, this command first prompts you to verify your desire to generate the data. Enter **y** to continue or **n** to cancel.

The default output file is **syslog:igr_interface_runningstatus**, where *interface* may be ether, fc, ib, or all. If the file already exists, it will be overwritten. This text file may be uploaded to another system using the **copy** command or viewed using the **more** command.

Examples The following example runs all Ethernet show commands.

```
SFS-7000P> show running-status ethernet
Are you sure you want to continue? [yes/no] y
Gathering system-wide information, please wait....
SFS-7000P> show arp ethernet
=====
                        ARP Information
=====
port    physical-address    net-address    type
-----
SFS-7000P> show arp ib
=====
```

```

=====
                        ARP Information
=====
port physical-address                               net-address   type
-----
SFS-7000P> show backplane
=====
                        Backplane Seeprom
=====
base-mac-addr      chassis-id
-----
1a:0:a:3a:0:a      0x600000000
...
...

```

Related Commands See most of the other “show” commands.

[show interface ethernet](#)
[show interface fc](#)

show sensor

To display the temperature at several key locations in your Server Switch, enter the **show sensor** command in User Exec mode or Privileged Exec mode.

show sensor

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
General read-only user.

The **show sensor** command identifies the temperature sensors in the system chassis. It also reports their location in the chassis and the current temperature at that location. Chassis temperature should be monitored to verify the cooling efficiency of the blowers and your data center air-conditioning.

Temperatures are in degrees Celsius and vary depending upon their location.

Normal temperature levels for the Cisco SFS 3001 remain 10 to 20 degrees Celsius above the ambient temperature.

75 C would be an alarm temp. and the system will reset itself at 85 C

Table 6-77 *show sensor Command Field Descriptions*

Field	Descriptions
sensor	Number of the temperature sensor.
oper-status	Operational status of the sensor (“up” or “down”).
oper-code (select Server Switches)	Operational code of the sensor.
temperature	Temperature that the sensor reads, in degrees Celsius.
alarm-temp (select Server Switches)	Temperature at which the sensor sounds an alarm.
shutdown-temp (select Server Switches)	Temperature at which the sensor shuts down the Server Switch.

Examples

The following example displays the temperature sensor information on the Server Switch.

```
SFS-270# show sensor
```

```
=====
                          Sensor Information
=====
sensor oper-status oper-code  temperature(c)  alarm-temp(c)  shutdown-temp(c)
-----
10/1   up           normal         35             75             85
11/1   up           normal         31             75             85
12/1   up           normal         29             75             85
13/1   up           normal         31             75             85
15/1   up           normal         38             70             80
16/1   up           normal         37             70             80
```

Related Commands

[show fan](#)

[show power-supply](#)

show snmp

To display the SNMP receivers for link traps on your Server Switch, enter the **show snmp** command in User Exec mode or Privileged Exec mode.

```
show snmp [user {all | user-name}]
```

Syntax Description	user	(Optional) Displays SNMP information for all users or for one particular user if you specify that user with the <i>user-name</i> variable.
	<i>user-name</i>	(Optional) User whose SNMP information you want to display.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
Unrestricted read-write user.

Use this command to verify the SNMP servers that you configure with the **snmp-server** command.

Examples The following example displays the SNMP trap receivers configured on the Server Switch.

```
SFS-270# show snmp

=====
                        SNMP Information
=====
                contact : support@topspin.com
                location : 515 Ellis Street, Mountain View, CA 94043

=====
                        Trap Receivers
=====
ipaddr          version  community      recv-events
-----
-----
```

The following example displays the SNMP trap receivers for all users.

```
SFS-270# show snmp user

=====
                        SNMPv3 User Information
=====
engine-id : 80:00:18:3b:05:05:00:30:30:30:30:30:31:39:37:64
```



```
username : admin
auth-type : sha
auth-password : C568FC22657A9EF602C0B81EEC159554B89DD75A
priv-type : des56
priv-password : C568FC22657A9EF602C0B81EEC159554
permission-level : ib-rw, ip-ethernet-rw, fc-rw
enable : disabled
```

```
username : guest
auth-type : none
priv-type : none
permission-level : ib-ro, ip-ethernet-ro, fc-ro
enable : disabled
```

```
username : super
auth-type : md5
auth-password : C447A2DCD5FE2AD2167DF19401881AE0
priv-type : des56
priv-password : C447A2DCD5FE2AD2167DF19401881AE0
permission-level : unrestricted-rw
enable : disabled
```

Related Commands

[link-trap](#)
[location](#)
[logging](#)
[snmp-server](#)

show system

To display the current system global settings, enter the **show system** command in User Execute mode or Privileged Execute mode.

show system

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:

Unrestricted read-write user.

Use this command to verify that the SRP configuration is locked or unlocked.

Examples The following example indicates that the ib counter reset is enabled.

```
SFS-7000P# show system
=====
                        System Global Settings
=====
enable ib counter reset : enabled
```

Related Commands [system-mode](#)

show system-mode

To display the current system mode (normal or VFrame), enter the show system-mode command in User Execute mode or Privileged Execute mode.

show system-mode

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
Unrestricted read-write user.
Use this command to verify that the SRP configuration is locked or unlocked.

Examples The following example indicates that the Server Switch is in normal (“unlocked”) mode.

```
SFS-7000P# show system-mode
```

```
=====
                        System Operation Mode
=====
oper-mode : normal
```

Related Commands [system-mode](#)

show system-services

To display system services such as FTP and telnet, enter the **show system-services** command in User Exec mode or Privileged Exec mode.

show system-services

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012

Privilege Level:
Unrestricted read-write user.

Use this command to discover what system services (e.g. telnet, ftp, and syslog) run on your Server Switch. You can configure any or all of these services to manage your Server Switch.

Examples The following example displays the system services that run on the Server Switch.

```
SFS-7000P# show system-services
=====
                        System Services
=====
      ftp service : disabled
      telnet service : enabled
      syslog server : 0.0.0.0
=====
                        NTP Information
=====
      date : 09/30/03
      time : 09:57:19
      server-one : 0.0.0.0
      server-two : 0.0.0.0
      server-three : 0.0.0.0
=====
                        Host Information
=====
      name-server-one : 0.0.0.0
      name-server-two : 0.0.0.0
      domain-name :
```

Related Commands

[ftp-server enable](#)
[history](#)
[radius-server](#)
[snmp-server](#)
[ntp](#)
[hostname](#)
[ip](#)
[telnet](#)
[terminal](#)

show terminal

To display terminal parameters, enter the **show terminal** command in User Exec mode or Privileged Exec mode.

show terminal

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
General read-only user.

Use this command to view information about your CLI session. The command provides useful information such as timeout parameters, output-screen length, and history-buffer size.

Examples

```
SFS-7000P# show terminal
Console is enabled
Connection host address is 10.10.253.128
Length: 25 lines, Width: 80 columns
Timeouts: enabled, Value: 15 minutes
Session limit is set to 3
History is enabled, history size is 30
Maximum command length is 512 characters
Maximum login attempts is 5
```

Related Commands [telnet](#)
[terminal](#)

show trace

To display the system program modules that your Server Switch calls, enter the **show trace** command in User Exec mode or Privileged Exec mode.

show trace app *application-number* [**module** *module-number*] [**card** *card-number*]

Syntax	Description
app	Specifies the application to trace.
application-number	Number of the application to trace. Use the online help (?) to view a list of applications and application numbers.
module	Specifies the module to trace.
module-number	Number of the module to trace. Use the online help (?) to view a list of modules and module numbers.
card	Specifies the card to trace.
card-number	Number of the card to trace. Use the online help (?) to view a list of cards and card numbers.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:
General read-only user.

This command is intended primarily for program debug under the direction of Support personnel. Recommend hiding this command from customers.

Examples The following example traces application 9, module 1, card 2.

```
SFS-7000P> show trace app 9 mod 1 card 2
AMF                1    0x0        0x0
```

Related Commands [show logging trace](#)

show trunk

To display the current configuration of trunk groups, enter the **show trunk** command in User Exec mode or Privileged Exec mode.

```
show trunk [trunk id]
```

Syntax Description	<i>trunk id</i> (Optional) ID of the trunk group.
---------------------------	---

Defaults	This command has no default settings.
-----------------	---------------------------------------

Command Modes	User Execute mode, Privileged Execute mode.
----------------------	---

Usage Guidelines	<p>Platform Availability: Cisco SFS 3001, Cisco SFS 3012</p> <p>Privilege Level: Unrestricted read-write user.</p> <p>Use this command to view the trunk groups that you have configured on your Server Switch. You can verify trunk-group related changes that you have made to the configuration file with the show trunk command.</p>
-------------------------	---

Examples	The following example displays the trunk groups on the Server Switch.
-----------------	---

```
SFS-7000P# show trunk
```

```
=====
                          Trunks Groups
=====

      trunk-group-id : 1
      trunk-group-name :
      distribution-type : src-dst-mac
      port-members :
          enable : false
          mtu : 0
      mac-addr : 00:00:00:00:00:00
      ifindex : 45057
```

Related Commands	distribution-type trunk-group
-------------------------	--

show user

To display user information for yourself or one or more users on the Server Switch, enter the **show user** command in User Exec mode or Privileged Exec mode.

show user [*user* | **all**]

Syntax Description

user	(Optional) User to display.
all	(Optional) Displays all users in the user database.

Defaults

The **show user** command without arguments displays the account information for the user who executes the command.

Command Modes

User Execute mode, Privileged Execute mode.

Usage Guidelines

Platform Availability:

Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:

General read-only and unrestricted read-write user.

Enter the **show user** command with no arguments to display your current user information. The command lists user name, access level, status, and login statistics. All users may view their own user information, however, only an unrestricted read-write user may view the user information of others. The **show user** command tracks statistics that start from the last time the Server Switch booted.

[Table 6-78](#) lists and describes the fields in the **show user** command output.

Table 6-78 *show user Command Field Descriptions*

Field	Description
username	Login name of the user.
password	Encrypted user password.
snmp-community	The SNMP community string that the user needs to run SNMP commands and the Element Manager GUI.
permission-level	Permission restrictions that define the commands in the CLI that the user can access.
admin-status	Displays enabled if the user account can log in and execute commands. Displays disabled if an unrestricted user has suspended the account so no one can use it. Enable or disable an account with the username command.
num-logins	Number of times the login logged in since the Server Switch booted.
num-unsuccessful-logins	Number of times the login failed to log in successfully since the Server Switch booted.

Table 6-78 *show user Command Field Descriptions (continued)*

Field	Description
last-login	Most recent login with the username.
last-unsuccessful-login	Most recent failed login with the username.

Examples

The following example displays the admin user.

```
SFS-7000P> show user admin
=====
                        User Information
=====
      username : admin
      password : $1$IJ5..U6.$1Sxb8uqVuUG7kOmiRsxHt1
      snmp-community : private
      permission-level : ib-rw, ip-ethernet-rw, fc-rw
      admin-status : enabled
      num-logins : 1
      num-unsuccessful-logins : 0
      last-login : Thu Apr 10 22:06:48 2003
      last-unsuccessful-login :
SFS-7000P>
```

The following example shows the login information of the current user.

```
SFS-7000P> show user
=====
                        User Information
=====
      username : super
      password : $1$IJ5..U6.$ES3pIhx/ccUaCKgM65vp6.
      snmp-community : secret
      permission-level : unrestricted-rw
      admin-status : enabled
      num-logins : 4
      num-unsuccessful-logins : 0
      last-login : Thu Apr 10 22:06:59 2003
      last-unsuccessful-login :
SFS-7000P>
```

Related Commands [username](#)

show version

To display a general, high-level description of your Server Switch, enter the **show version** command in User Exec mode or Privileged Exec mode.

show version

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes User Execute mode, Privileged Execute mode.

Usage Guidelines **Platform Availability:**
Cisco SFS 3001, Cisco SFS 7000, Cisco SFS 7008, Cisco SFS 3012, IB Server Switch Module

Privilege Level:

General read-only user.

This command provides the software version, contact information, system up-time, time of last configuration change, and the last action performed on the Server Switch. lists and describes the fields in the command output.

Table 6-79 *show version Command Field Descriptions*

Field	Description
system-version	OS version that the Server Switch runs.
contact	Displays the contact information that you configure with the snmp-server command (<Link>“snmp-server” on page 64<Link>).
name	Displays the device name that you configure with the hostname command (“hostname” section on page 2-39).
location	Displays the location information that you configure with the snmp-server command (“snmp-server” section on page 2-64).
up-time	Amount of time since last boot.
last-change	Date and time of last configuration change.
last-config-save	Date and time that an administrator last saved the running configuration.
action	Executed action (see “action” section on page 2-3).
result	Result of executed action.

Table 6-79 *show version Command Field Descriptions (continued)*

Field	Description
oper-mode	System mode of the Server Switch (see “ system-mode ” section on page 2-69).
sys-sync-state (select chassis only)	Displays the synchronization state between the primary controller card and the hot standby controller card.

Examples

The following example displays the system version.

```
SFS-7000P# show version
```

```

=====
                        System Version Information
=====
      system-version : SFS-7000P TopspinOS 2.4.0 releng #14 05/26/2
005 09:20:57
      contact : support@topspin.com
      name : SFS-7000P
      location : 515 Ellis Street, Mountain View, CA 94043
      up-time : 1 (d) :13 (h) :45 (m) :12 (s)
      last-change : Sat May 28 20:58:21 2005
      last-config-save : Fri May 27 08:12:03 2005
      action : none
      result : none
      oper-mode : normal

```

On the Cisco SFS 7008, the output includes the **sys-sync-state** field to display the synchronization state between the primary controller card and the hot standby controller card.

```
SFS-270# show version
```

```

=====
                        System Version Information
=====
      system-version : TS 96-Port 4x Fabric Copper Switch (3xxxxx-001) Release
2.2.0 releng #9 01/15/2005 10:38:47
      contact : Local TS support representative
      name : SFS-7000P
      location : 515 Ellis St Mountain View CA 94043
      rack-uid : 0x0
      up-time : 0 (d) :0 (h) :4 (m) :12 (s)
      last-change : none
      last-config-save : none
      action : none
      result : none
      sys-sync-state : complete

```

Related Commands

[hostname](#)
[location](#)
[snmp-server](#)
[show boot-config](#)