



# **storage switch commands**

## ONTAP 9.3 commands

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# storage switch commands

## storage switch add

Add a back-end switch for monitoring

**Availability:** This command is available to *cluster* administrators at the *admin* privilege level.

### Description

The `storage switch add` command enables you to add FC switches for SNMP monitoring in a MetroCluster configuration. Front end switches should not be added for monitoring and will result in a Monitor Status Error condition.

### Parameters

**-address <IP Address> - FC Switch Management IP Address**

This parameter specifies the IP address of the back-end switch that is added for monitoring.

**[-snmp-version {SNMPv1|SNMPv2c|SNMPv3}] - Supported SNMP Version**

This parameter specifies the SNMP version that Data ONTAP uses to communicate with the back-end switch that is added for monitoring. The default SNMP version is SNMPv2c.

**{ [-snmp-community <text>] - (DEPRECATED)-SNMPv2c Community or SNMPv3 Username**



This parameter is deprecated and may be removed in a future release of Data ONTAP. Use `-snmp-community-or-username` instead.

This parameter specifies the SNMPv2c community set or SNMPv3 username on the switch that is added for monitoring.

**[-snmp-community-or-username <text>] - SNMPv2c Community or SNMPv3 Username }**

This parameter specifies the SNMPv2c community set or SNMPv3 username on the switch that is added for monitoring.

**[-veto-backend-fabric-check {true|false}] - Veto Back-end Fabric Check?**

If specified, the `storage switch add` command will not check if the switch is present in the MetroCluster's back-end fabric. By default, it does not let you add switches that are not present.

**[-blades <integer>,...] - Cisco Director Class Switch Blades to Monitor**

This parameter specifies the blades to monitor on the back-end switch that is added for monitoring. It is only applicable to director-class switches.

### Examples

The following command adds a back-end switch with IP Address 10.226.197.34 for monitoring:

```

cluster1::> storage switch add -address 10.226.197.34 -snmp-community-or
-username public
cluster1::> storage switch show

```

| Monitor             | Symbolic            | Is     |                 |                  |           |        |
|---------------------|---------------------|--------|-----------------|------------------|-----------|--------|
| Switch              | Name                | Vendor | Model           | Switch WWN       | Monitored | Status |
| Cisco_10.226.197.34 | mcc-cisco-8Gb-fab-4 | Cisco  | DS-C9148-16P-K9 | 2000547fee78f088 | true      | ok     |
| mcc-cisco-8Gb-fab-1 | mcc-cisco-8Gb-fab-1 | Cisco  | -               | -                | false     | -      |
| mcc-cisco-8Gb-fab-2 | mcc-cisco-8Gb-fab-2 | Cisco  | -               | -                | false     | -      |
| mcc-cisco-8Gb-fab-3 | mcc-cisco-8Gb-fab-3 | Cisco  | -               | -                | false     | -      |

```

4 entries were displayed.
cluster1::>

```

The following command adds a Cisco Director Class switch for monitoring. Data ONTAP uses SNMPv3 and 'snmpuser1' username to communicate with this switch.

```

cluster1::> storage switch add -address 10.228.56.208 -snmp-version SNMPv3
-snmp-community-or-username snmpuser1 -blades 3,4

```

## storage switch modify

Modify information about a back-end switch's configuration

**Availability:** This command is available to *cluster* administrators at the *admin* privilege level.

### Description

The `storage switch modify` enables you to modify certain parameters for identifying and accessing the FC back-end switches added for monitoring in a MetroCluster configuration.

### Parameters

**-switch-name <text> - FC Switch Name**

This parameter specifies the name of the switch.

**[-snmp-version {SNMPv1|SNMPv2c|SNMPv3}] - SNMP Version**

This parameter specifies the SNMP version that Data ONTAP uses to communicate with the switch.

**[-switch-ipaddress <IP Address>] - Switch IP Address**

This parameter specifies the IP address of the switch.

**{ [-snmp-community <text>] - (DEPRECATED)-SNMPv2c Community or SNMPv3 Username**



This parameter is deprecated and may be removed in a future release of Data ONTAP. Use `-snmp-community-or-username` instead.

This parameter specifies the SNMPv2c community set or SNMPv3 username on the switch.

**[-snmp-community-or-username <text>] - SNMPv2c Community or SNMPv3 Username }**

This parameter specifies the SNMPv2c community set or SNMPv3 username on the switch.

**[-blades <integer>,...] - Director-Class Switch Blades to Monitor**

This parameter specifies the blades to monitor on the switch. It is only applicable to director-class switches.

## Examples

The following command modifies Cisco\_10.226.197.34 switch SNMP community to 'public':

```
cluster1::> storage switch modify -switch-name Cisco_10.226.197.34 -switch
-ipaddress 10.226.197.34 -snmp-community-or-username public
cluster1::>
```

The following command modifies the blades monitored on a director-class switch:

```
cluster1::> storage switch modify -switch-name Cisco_10.228.56.208 -blades
3,4
cluster1::>
```

The following command modifies Brocade 6505 switch SNMP version to SNMPv3 and SNMPv3 username to 'snmpuser1':

```
cluster1::> storage switch modify -switch-name Brocade6505 -switch
-ipaddress 10.226.197.34 -snmp-version SNMPv3 -snmp-community-or-username
snmpuser1
cluster1::>
```

# storage switch refresh

Refresh storage switch info

**Availability:** This command is available to *cluster* administrators at the *advanced* privilege level.

## Description

The `storage switch refresh` command triggers a refresh of the SNMP data for the MetroCluster FC switches and FC-to-SAS bridges. It does not do anything if the refresh is already going on. The FC switches and FC-to-SAS bridges must have been previously added for monitoring by using the [storage switch add](#) and [storage bridge add](#) commands respectively.

## Examples

The following command triggers a refresh for the SNMP data:

```
cluster1::*> storage switch refresh
cluster1::*>
```

## Related Links

- [storage switch add](#)
- [storage bridge add](#)

# storage switch remove

Remove a back-end switch from monitoring

**Availability:** This command is available to *cluster* administrators at the *admin* privilege level.

## Description

The `storage switch remove` enables you to remove FC back-end switches that were previously added for SNMP monitoring.

## Parameters

**-switch-name <text> - FC Switch Name**

This parameter specifies the name of the back-end switch added for monitoring.

## Examples

The following command removes 'Cisco\_10.226.197.34' switch from monitoring:

```

cluster1::> storage switch show
                Symbolic                               Is
Monitor
  Switch      Name      Vendor  Model      Switch WWN      Monitored
Status
-----
-----
Cisco_10.226.197.34
                mcc-cisco-8Gb-fab-4
                  Cisco   DS-C9148-16P-K9
                                2000547fee78f088 true      ok
mcc-cisco-8Gb-fab-1
                mcc-cisco-8Gb-fab-1
                  Cisco   -              -              false     -
mcc-cisco-8Gb-fab-2
                mcc-cisco-8Gb-fab-2
                  Cisco   -              -              false     -
mcc-cisco-8Gb-fab-3
                mcc-cisco-8Gb-fab-3
                  Cisco   -              -              false     -

```

4 entries were displayed.

```
cluster1::> storage switch remove -switch-name Cisco_10.226.197.34
```

```

cluster1::> storage switch show
                Symbolic                               Is
Monitor
  Switch      Name      Vendor  Model      Switch WWN      Monitored
Status
-----
-----
mcc-cisco-8Gb-fab-4
                mcc-cisco-8Gb-fab-4
                  Cisco
                                -              -              false     -
mcc-cisco-8Gb-fab-1
                mcc-cisco-8Gb-fab-1
                  Cisco   -              -              false     -
mcc-cisco-8Gb-fab-2
                mcc-cisco-8Gb-fab-2
                  Cisco   -              -              false     -
mcc-cisco-8Gb-fab-3
                mcc-cisco-8Gb-fab-3
                  Cisco   -              -              false     -

```

4 entries were displayed

```
cluster1::>
```

# storage switch show

Display switch information

**Availability:** This command is available to *cluster* administrators at the *admin* privilege level.

## Description

The `storage switch show` command displays information about all the storage switches in the MetroCluster configuration. The back-end switches must have been previously added for monitoring using the [storage switch add](#) command. If no parameters are specified, the default command displays the following information about the storage switches:

- Switch
- Symbolic Name
- Vendor
- Model
- Switch WWN
- Is Monitored
- Monitor Status

To display detailed profile information about a single storage switch, use the `-switch-name` parameter.

## Parameters

**{ [-fields <fieldname>,...]**

Displays the specified fields for all the storage switches, in column style output.

**| [-connectivity ]**

Displays the following details about the connectivity from the storage switch to connected entities:

- Port name
- Port operating mode
- Port world wide name
- Peer port world wide name
- Peer type
- Additional information about peer

Displays the following details about the connectivity from the node to the storage switch:

- Node name
- Adapter name
- Switch port name
- Switch port speed
- Adapter type



### | [**-cooling** ]

Displays the following details about the fans and temperature sensors on the storage switch:

- Fan name
- Fan speed in rotations per minute (RPM)
- Fan operational status
- Temperature sensor name
- Temperature sensor reading in Celsius °C
- Temperature sensor status

### | [**-error** ]

Displays the errors related to the storage switch.

### | [**-port** ]

Displays the following details about the storage switch ports:

- Port name
- Port world wide name
- Port administrative status
- Port operational status
- Port operating mode
- Whether SFP is present in the port
- Port speed in gigabits per second (Gbps)
- Port BB credit
- Peer port world wide name

### | [**-power** ]

Displays the following details about the storage switch power supplies:

- Power supply name
- Power supply serial number
- Power supply operational status

### | [**-san-config** ]

Displays the following details about the Virtual Storage Area Networks (VSAN) and Zones of the storage switch:

- VSAN identifier
- VSAN name
- VSAN operational status
- Type of load balancing configured for the VSAN
- Whether in-order-delivery set for the VSAN
- Whether the auto power reset of the PSU is enabled

- VAN member switch name and port
- Zone name
- VSAN ID of the zone
- Zone member switch name and port
- Zone member port id
- Zone member port world wide name

**| [-sfp ]**

Displays the following details about the storage switch ports Small Formfactor Pluggable (SFP):

- Port name
- Type of SFP
- SFP transmitter type
- SFP vendor
- SFP part number
- SFP serial number

**| [-stats ]**

Displays the following details about the storage switch ports:

- Port name
- Frames received through the port (Rx Frames)
- Frames transmitted through the port (Tx Frames)
- Octets received through the port (Rx Octets)
- Octets transmitted through the port (Tx Octets)
- Port error frames

**| [-instance ] }**

Displays expanded information about all the storage switches in the system. If a storage switch is specified, then this parameter displays the same detailed information for the storage switch you specify as does the -switch-name parameter.

**[-switch-name <text>] - FC Switch Name**

Displays information only about the storage switches that match the name you specify.

**[-switch-wwn <text>] - Switch World Wide Name**

Displays information only about the storage switches that match the switch wwn you specify.

**[-switch-symbolic-name <text>] - Switch Symbolic Name**

Displays information only about the storage switches that match the switch symbolic name you specify.

**[-switch-fabric-name <text>] - Fabric Name**

Displays information only about the storage switches that match the switch fabric you specify.

**[--domain-id <integer>] - Switch Domain ID**

Displays information only about the storage switches that match the switch domain id you specify.

**[--switch-role {unknown|primary|subordinate}] - Switch Role in Fabric**

Displays information only about the storage switches that match the switch role you specify.

**[--snmp-version {SNMPv1|SNMPv2c|SNMPv3}] - SNMP Version**

Displays information only about the storage switches that match the switch SNMP version you specify.

**[--switch-model <text>] - Switch Model**

Displays information only about the storage switches that match the switch model you specify.

**[--switch-vendor {unknown|Brocade|Cisco}] - Switch Vendor**

Displays information only about the storage switches that match the switch vendor you specify.

**[--fw-version <text>] - Switch Firmware Version**

Displays information only about the storage switches that match the switch firmware version you specify.

**[--serial-number <text>] - Switch Serial Number**

Displays information only about the storage switches that match the switch serial number you specify.

**[--switch-ipaddress <IP Address>] - Switch IP Address**

Displays information only about the storage switches that match the switch IP address you specify.

**[--switch-status {unknown|ok|error}] - Switch Status**

Displays information only about the storage switches that match the switch status you specify.

**[--snmp-community <text>] - (DEPRECATED)-SNMPv2c Community or SNMPv3 Username**



This parameter is deprecated and may be removed in a future release of Data ONTAP. Use `--snmp-community-or-username` instead.

Displays information only about the storage switches that match the switch SNMPv2c community or SNMPv3 username you specify.

**[--snmp-community-or-username <text>] - SNMPv2c Community or SNMPv3 Username**

Displays information only about the storage switches that match the switch SNMPv2c community or SNMPv3 username you specify.

**[--profile-data-last-successful-refresh-timestamp {MM/DD/YYYY HH:MM:SS [{+|-}hh:mm]}] - Switch Profile Data Last Successful Refresh Timestamp**

Displays information only about the storage switches that match the profile data last successful refresh timestamp you specify.

**[--is-monitoring-enabled {true|false}] - Is Monitoring Enabled for Switch**

Displays information only about the storage switches that match the switch monitoring value you specify.

**[--blades <integer>,...] - Director-Class Switch Blades to Monitor**

Displays information only about the storage switches that match the blade value you specify.

**[-engine-id <Hex String>] - Engine ID of SNMPv3 Capable Switch**

Displays information only about the storage switches that match the SNMPv3 engine-id you specify.

**[-psu-name-list <text>,...] - Switch Power Supply Name List**

Displays information only about the storage switches that have the power supply units with the names you specify.

**[-psu-serial-number-list <text>,...] - Switch Power Supply Serial Number List**

Displays information only about the storage switches that have the power supply units with the serial numbers you specify.

**[-psu-status-list {unknown|normal|warning|faulty|not-present}] - Switch Power Supply Status List**

Displays information only about the storage switches that have the power supply units with the statuses you specify.

**[-psu-data-last-successful-refresh-timestamp {MM/DD/YYYY HH:MM:SS [{+|-}hh:mm]}] - Switch Power Supply Data Last Successful Refresh Timestamp**

Displays information only about the storage switches that match the power supply unit data last successful refresh timestamp you specify.

**[-temp-sensor-name-list <text>,...] - Switch Temperature Sensor Name List**

Displays information only about the storage switches that have the temperature sensors with the names you specify.

**[-temp-sensor-reading-list <integer>,...] - Switch Temperature Sensor Reading © List**

Displays information only about the storage switches that have the temperature sensors with the readings you specify.

**[-temp-sensor-status-list {unknown|normal|warning|critical}] - Switch Temperature Sensor Status List**

Displays information only about the storage switches that have the temperature sensors with the statuses you specify.

**[-temp-data-last-successful-refresh-timestamp {MM/DD/YYYY HH:MM:SS [{+|-}hh:mm]}] - Switch Temperature Sensor Data Last Successful Refresh Timestamp**

Displays information only about the storage switches that match the temperature sensor data last successful refresh timestamp you specify.

**[-fan-name-list <text>,...] - Switch Fan Name List**

Displays information only about the storage switches that match the fans with the names you specify.

**[-fan-rpm-list <integer>,...] - Switch Fan Speed (RPM) List**

Displays information only about the storage switches that match the fans with the RPM speeds you specify.

**[-fan-status-list {unknown|operational|failed|not-operational|not-present}] - Switch Fan Operational Status List**

Displays information only about the storage switches that match the fans with the statuses you specify.

**[-fan-data-last-successful-refresh-timestamp {MM/DD/YYYY HH:MM:SS [{+|-}hh:mm] }] - Switch Fan Data Last Successful Refresh Timestamp**

Displays information only about the storage switches that match the fan data last successful refresh timestamp you specify.

**[-vsan-index-list <integer>,...] - Switch VSAN Index List**

Displays information only about the storage switches that have the VSANs with the indexes you specify.

**[-vsan-name-list <text>,...] - Switch VSAN Name List**

Displays information only about the storage switches that have the VSANs with the names you specify.

**[-vsan-oper-status-list {up|down}] - Switch VSAN Operational Status List**

Displays information only about the storage switches that have the VSANs with the operational statuses you specify.

**[-vsan-load-balancing-type-list {src-id-dest-id|src-id-dest-id-ox-id}] - Switch VSAN Load balancing Type List**

Displays information only about the storage switches that have the VSANs with the load balancing types you specify.

**[-is-vsan-iod-list {true|false}] - Is In-order Delivery Set for VSAN List**

Displays information only about the storage switches that have the VSANs with the IOD setting you specify.

**[-vsan-data-last-successful-refresh-timestamp {MM/DD/YYYY HH:MM:SS [{+|-}hh:mm] }] - Switch VSAN Data Last Successful Refresh Timestamp**

Displays information only about the storage switches that match the VSAN data last successful refresh timestamp you specify.

**[-member-switch-name-list <text>,...] - Member Switch List**

Displays information only about the storage switches that have the VSANs with the member switch names you specify.

**[-member-switch-port-name-list <text>,...] - Member Switch Port Name List**

Displays information only about the storage switches that have the VSANs with the member switch port names you specify.

**[-vsan-id-list <integer>,...] - Zone VSAN ID List**

Displays information only about the storage switches that have the VSANs with the IDs you specify.

**[-zone-name-list <text>,...] - Switch Zone Name List**

Displays information only about the storage switches that have the zones with the names you specify.

**[-zone-member-sw-domain-id-list <integer>,...] - Zone Member Switch Port Domain ID List**

Displays information only about the storage switches that have the zones with the member switch domain ids you specify.

**[-zone-member-port-name-list <text>,...] - Zone Member Port List**

Displays information only about the storage switches that have the zones with the port names you specify.

**[-zone-member-port-wwn-list <text>,...] - Zone Member WWPN List**

Displays information only about the storage switches that have the zones with the port WWNs you specify.

**[-zone-member-port-switch-name-list <text>,...] - Zone Member Switch WWN List**

Displays information only about the storage switches that have the zones with the member port hosting switch names you specify.

**[-zone-data-last-successful-refresh-timestamp {MM/DD/YYYY HH:MM:SS [{+|-}hh:mm]}]**

**- Switch Zone Data Last Successful Refresh Timestamp**

Displays information only about the storage switches that match the zone data last successful refresh timestamp you specify.

**[-zone-member-wwn-list <text>,...] - Zone Member WWN List**

Displays information only about the storage switches that have the zones with the member WWNs you specify.

**[-zone-member-port-id-list <text>,...] - Zone Member Port ID List**

Displays information only about the storage switches that have the zones with the member port ids you specify.

**[-port-wwn-list <text>,...] - Switch Port World Wide Name (WWPN) List**

Displays information only about the storage switches that have the ports with the WWNs you specify.

**[-port-name-list <text>,...] - Switch Port Name List**

Displays information only about the storage switches that have the ports with the names you specify.

**[-port-admin-status-list {unknown|enabled|disabled}] - Switch Port Admin Status List**

Displays information only about the storage switches that have the ports with administrative statuses you specify.

**[-port-oper-status-list {unknown|online|offline}] - Switch Port Operational Status List**

Displays information only about the storage switches that have the ports with operational statuses you specify.

**[-port-mode-list {unknown|auto|F-port|FL-port|E-port|TE-port|U-port|G-port}] - Switch Port Mode List**

Displays information only about the storage switches that have the ports with the operating modes you specify.

**[-port-oper-speed-list <integer>,...] - Switch Port Current Speed (in Gbits/sec) List**

Displays information only about the storage switches that have the ports with the operational speeds you specify.

**[-port-bb-credit-list <integer>,...] - Switch Port BB Credit List**

Displays information only about the storage switches that have the ports with the BB credits you specify.

**[-port-sfp-present-list {true|false}] - Switch Port Is SFP Present List**

Displays information only about the storage switches that have the ports with the SFP present values you specify.

**[-port-peer-wwpn-list <text>,...] - Switch Port Peer WWPN List**

Displays information only about the storage switches that have the ports with the peer port WWPNs you specify.

**[-port-data-last-successful-refresh-timestamp {MM/DD/YYYY HH:MM:SS [{+|-}hh:mm]}] - Switch Port Data Last Successful Refresh Timestamp**

Displays information only about the storage switches that match the port data last successful refresh timestamp you specify.

**[-port-stat-name-list <text>,...] - Switch Port Name List**

Displays information only about the storage switches that have the ports with the names you specify.

**[-port-tx-frames-list <integer>,...] - Switch Port Transmitted Frame Count List**

Displays information only about the storage switches that have the ports with the transmitted frames values you specify.

**[-port-rx-frames-list <integer>,...] - Switch Port Received Frame Count List**

Displays information only about the storage switches that have the ports with the received frames values you specify.

**[-port-tx-octets-list <integer>,...] - Switch Port Total Transmitted Octets List**

Displays information only about the storage switches that have the ports with the transmitted octets values you specify.

**[-port-rx-octets-list <integer>,...] - Switch Port Total Received Octets List**

Displays information only about the storage switches that have the ports with the received octets values you specify.

**[-port-frame-error-list <integer>,...] - Switch Port Frame Error Count List**

Displays information only about the storage switches that have the ports with the error frame values you specify.

**[-port-stat-data-last-successful-refresh-timestamp {MM/DD/YYYY HH:MM:SS [{+|-}hh:mm]}] - Switch Port Stat Data Last Update Timestamp**

Displays information only about the storage switches that match the port statistics data last successful refresh timestamp you specify.

**[-sfp-port-name-list <text>,...] - Switch Port Name List**

Displays information only about the storage switches that have the ports with the names you specify.

**[-sfp-type-list {unknown|other|gbic|embedded|glm|gbic-with-serial-id|gbic-without-serial-id|sfp-with-serial-id|sfp-without-serial-id|xfp|x2-short|x2-medium|x2-tall|xpak-short|xpak-medium|xpak-tall|xenpak|sfp-dw-dm|qsfp|x2-dw-dm|gbic-not-installed|small-form-factor}] - Switch Port SFP Type List**

Displays information only about the storage switches that have the ports with the SFP types you specify.

**[-sfp-tx-type-list {unknown|long-wave-laser|short-wave-laser|long-wave-laser-cost-reduced|electrical|ten-gig-base-sr|ten-gig-base-lr|ten-gig-base-er|ten-gig-base-lx4|ten-gig-base-sw|ten-gig-base-lw|ten-gig-base-ew}] - Switch Port SFP Transmitter Type List**

Displays information only about the storage switches that have the ports with the SFP transmitter types you specify.

**[-sfp-vendor-list <text>,...] - Switch Port SFP Vendor List**

Displays information only about the storage switches that have the ports with the SFP vendors you specify.

**[-sfp-part-number-list <text>,...] - Switch Port SFP Part Number List**

Displays information only about the storage switches that have the ports with the SFP part numbers you specify.

**[-sfp-serial-number-list <text>,...] - Switch Port SFP Serial Number List**

Displays information only about the storage switches that have the ports with the SFP serial numbers you specify.

**[-sfp-data-last-successful-refresh-timestamp {MM/DD/YYYY HH:MM:SS [{+|-}hh:mm]}] - Switch Port SFP Data Last Successful Refresh Timestamp**

Displays information only about the storage switches that match the port SFP data last successful refresh timestamp you specify.

**[-switch-error-text-list <text>,...] - Switch Error Text List**

Displays information only about the storage switches that have the errors you specify.

**[-conn-switch-port-name-list <text>,...] - Switch Port Name List**

Displays information only about the storage switches that have the ports with the names you specify.

**[-conn-switch-port-mode-list {unknown|auto|F-port|FL-port|E-port|TE-port|U-port|G-port}] - Switch Port Operating Mode List**

Displays information only about the storage switches that have the ports with the operating modes you specify.

**[-conn-switch-port-wwn-list <text>,...] - Switch Port WWN List**

Displays information only about the storage switches that have the ports with the WWNs you specify.

**[-conn-switch-port-peer-port-wwn-list <text>,...] - Switch Port Peer Port WWN List**

Displays information only about the storage switches that have the ports with the peer port WWNs you specify.

**[-conn-switch-port-peer-info-list <text>,...] - Switch Port Peer Host & Port Name List**

Displays information only about the storage switches that have the ports with the peer information values you specify.

**[-conn-data-last-successful-refresh-timestamp {MM/DD/YYYY HH:MM:SS [{+|-}hh:mm]}] - Switch Connectivity Data Last Successful Refresh Timestamp**

Displays information only about the storage switches that match the switch connectivity data last successful refresh timestamp you specify.

**[-conn-switch-port-peer-type-list {unknown|bridge|switch|fcp-adapter|fcvi-adapter}] - Switch Port Peer Type List**

Displays information only about the storage switches that have the ports connected to the peer types you specify.



**[-switch-port-name-list <text>,...] - Switch Port Name List**

Displays information only about the storage switches that have the ports with the names you specify.

**[-switch-port-speed-list <integer>,...] - Switch Port Speed (in Gbps) List**

Displays information only about the storage switches that have the ports with the speeds you specify.

**[-node-name-list <nodename>,...] - Node Name List**

Displays information only about the storage switches that are connected to the nodes you specify.

**[-adapter-name-list <text>,...] - Node Adapter Name List**

Displays information only about the storage switches that are connected to the adapters you specify.

**[-adapter-port-name-list <text>,...] - Node Adapter Port Name List**

Displays information only about the storage switches that are connected to the adapter ports you specify.

**[-adapter-type-list {unknown|FCP-Initiator|FC-VI|FCP-Target}] - Node Adapter Type List**

Displays information only about the storage switches that are connected to the types of adapters you specify.

**[-path-data-last-successful-refresh-timestamp {MM/DD/YYYY HH:MM:SS [{+|-}hh:mm]}] - Switch Path Data Last Successful Refresh Timestamp**

Displays information only about the storage switches that match the node to switch path data last successful refresh timestamp you specify.

**[-name-list <text>,...] - Switch Name List**

Displays information only about the storage switches that match the names you specify.

**[-domain-id-list <integer>,...] - Switch Domain ID List**

Displays information only about the storage switches that match the domain ids you specify.

**[-wwn-list <text>,...] - Switch WWN List**

Displays information only about the storage switches that match the switch WWNs you specify.

**[-role-list {unknown|primary|subordinate}] - Switch Role in Fabric List**

Displays information only about the storage switches that match the switch roles you specify.

**[-address-list <IP Address>,...] - Switch IP Address List**

Displays information only about the storage switches that match the switch IP addresses you specify.

## Examples

The following example displays information about all storage switches:

```

cluster::>storage switch show
                Symbolic                               Is
Monitor
  Switch      Name      Vendor  Model      Switch WWN      Monitored
Status
-----
Cisco_10.226.197.34
                mcc-cisco-8Gb-fab-4
                  Cisco   DS-C9148-16P-K9
                                2000547fee78f088 true      ok
Cisco_10.226.197.35
                mcc-cisco-8Gb-fab-3
                  Cisco   DS-C9148-16P-K9
                                2000547fee78f0f0 true      ok
Cisco_10.226.197.36
                mcc-cisco-8Gb-fab-2
                  Cisco   DS-C9148-16P-K9
                                2000547fee78efb0 true      ok
Cisco_10.226.197.37
                mcc-cisco-8Gb-fab-1
                  Cisco   DS-C9148-16P-K9
                                2000547fee78f0d8 true      ok

  4 entries were displayed.
cluster::>

```

The following example displays connectivity (switch to peer and node to switch) information about all storage switches:

```

cluster::> storage switch show -connectivity
  Switch Name: Cisco_10.226.197.36
  Switch WWN: 2000547fee78efb0
  Fabric WWN: 2001547fee78efb1
  Vendor: Cisco
  Model: DS-C9148-16P-K9
  Errors: -
  Last Update Time: 7/31/2014 14:16:42 -04:00
Connectivity:
Port Name Port Mode Port WWN      Peer Port WWN      Peer Type      Peer
Info
-----
fc1/1      F-port  2001547fee78efb0 2100001086607d34 unknown
unknown
fc1/3      F-port  2003547fee78efb0 21000024ff3dd9cb unknown

```

```

unknown
    fc1/4      F-port      2004547fee78efb0 21000024ff3dda8d unknown
unknown
    fc1/5      F-port      2005547fee78efb0 500a0980009af880 unknown
unknown
    fc1/6      F-port      2006547fee78efb0 500a0981009af370 unknown
unknown
    fc1/11     TE-port     200b547fee78efb0 200b547fee78f088 switch
Cisco_10.226.197.34:fc1/11
    fc1/12     TE-port     200c547fee78efb0 200c547fee78f088 switch
Cisco_10.226.197.34:fc1/12
    fc1/13     F-port      200d547fee78efb0 2100001086609e22 unknown
unknown
    fc1/15     F-port      200f547fee78efb0 21000024ff3dd91b unknown
unknown
    fc1/16     F-port      2010547fee78efb0 21000024ff3dbef5 unknown
unknown
    fc1/17     F-port      2011547fee78efb0 500a0981009afda0 unknown
unknown
    fc1/18     F-port      2012547fee78efb0 500a0981009a9160 unknown
unknown
    fc1/25     F-port      2019547fee78efb0 21000010866037e8 bridge
ATTO_10.226.197.17:1
    fc1/27     F-port      201b547fee78efb0 21000024ff3dd9d3 fcvi-adapter
dpg-mcc-3240-15-a1:fcvi_device_1
    fc1/28     F-port      201c547fee78efb0 21000024ff3dbe3d fcvi-adapter
dpg-mcc-3240-15-a2:fcvi_device_1
    fc1/29     F-port      201d547fee78efb0 500a0980009ae0a0 fcp-adapter
dpg-mcc-3240-15-a2:0c
    fc1/30     F-port      201e547fee78efb0 500a0981009aef40 fcp-adapter
dpg-mcc-3240-15-a1:0d
Last Update Time: 7/31/2014 14:26:48 -04:00
Path:

```

| Node               | Adapter       | Switch Port | Speed | Adapter Type  |
|--------------------|---------------|-------------|-------|---------------|
| dpg-mcc-3240-15-a1 | 0d            | fc1/30      | 4Gbps | FCP-Initiator |
| dpg-mcc-3240-15-a1 | fcvi_device_1 | fc1/27      | 8Gbps | FC-VI         |
| dpg-mcc-3240-15-a2 | 0c            | fc1/29      | 4Gbps | FCP-Initiator |
| dpg-mcc-3240-15-a2 | fcvi_device_1 | fc1/28      | 8Gbps | FC-VI         |

The following command displays cooling (temperature sensors and fans) information about all storage switches:

```

cluster::>storage switch show -cooling
Switch Name: Cisco_10.226.197.34
      Switch WWN: 2000547fee78f088
      Fabric WWN: 2001547fee78efb1
      Vendor: Cisco
      Model: DS-C9148-16P-K9
      Errors: -
      Last Update Time: 7/31/2014 14:26:58 -04:00
Fans:
  Fan              RPM Status
  -----
  Fan Module-1    - operational
  Fan Module-2    operational
  Fan Module-3    operational
  Fan Module-4    operational
Last Update Time: 7/31/2014 14:27:10 -04:00
Temperature Sensors:
Sensor           Temp (C) Status
-----
module-1 Outlet  27 normal
module-1 Outlet  29 normal
module-1 Intake  26 normal
module-1 Intake  28 normal

```

The following command displays the error information about all storage switches:

```
cluster::> storage switch show -error
Switch Name: Cisco_10.226.197.34
Switch WWN: 2000547fee78f088

-----
-----
Cisco_10.226.197.34(2000547fee78f088): Switch is Unreachable over
Management Network.
Switch Name: Cisco_10.226.197.35
Switch WWN: 2000547fee78f0f0

-----
-----
Cisco_10.226.197.35(2000547fee78f0f0): Switch is Unreachable over
Management Network.
Switch Name: Cisco_10.226.197.36
Switch WWN: 2000547fee78efb0

-----
-----
Cisco_10.226.197.36(2000547fee78efb0): Switch is Unreachable over
Management Network.
Switch Name: Cisco_10.226.197.37
Switch WWN: 2000547fee78f0d8

-----
-----
Cisco_10.226.197.37(2000547fee78f0d8): Switch is Unreachable over
Management Network.
4 entries were displayed.
```

The following command displays the detailed information about all the storage switches:

```

cluster::> storage switch show -instance
Switch Name: Cisco_10.226.197.34
  Switch Domain: -
  Switch Role: -
  Switch WWN: 2000547fee78f088
  Fabric WWN: 2001547fee78efb1
  Vendor: Cisco
  Model: DS-C9148-16P-K9
  Firmware Version: 6.2(1)
  Management IP: 10.226.197.34
  Errors: Cisco_10.226.197.34(2000547fee78f088): Switch is
Unreachable over Management Network.
  Last Update Time: 7/31/2014 14:41:28 -04:00
Fabric:
Switch Name                Domain WWN                Role                IP Address
-----
Cisco_10.226.197.34        0 2000547fee78f088      unknown
10.226.197.34
Cisco_10.226.197.36        0 2000547fee78efb0      unknown
10.226.197.36

```

The following command displays port information about all storage switches:

```

cluster::> storage switch show -port
Switch Name: Cisco_10.226.197.34
  Switch WWN: 2000547fee78f088
  Fabric WWN: 2001547fee78efb1
  Vendor: Cisco
  Model: DS-C9148-16P-K9
  Errors: -
  Last Update Time: 7/31/2014 14:26:58 -04:00
Ports:
Admin Oper SFP Speed BB
Port Name Port WWN Status Status Port Mode Present (Gbps) Credit
PeerPortWWN
-----
fc1/1      2001547fee78f088
enabled online F-port true 8 1
2100001086608b76
fc1/2      2002547fee78f088
enabled offline auto true 0 1
fc1/3      2003547fee78f088
enabled online F-port true 8 1

```

```

21000024ff48edd9
  fc1/4      2004547fee78f088
                enabled online F-port true      8      1
21000024ff3dd981
  fc1/5      2005547fee78f088
                enabled online F-port true      4      1
500a098001057f98
  fc1/6      2006547fee78f088
                enabled online F-port true      4      1
500a098101069778
  fc1/7      2007547fee78f088
                enabled offline auto true      0      1
  fc1/8      2008547fee78f088
                enabled offline auto true      0      1
  fc1/9      2009547fee78f088
                enabled offline auto true      0      1
  fc1/10     200a547fee78f088
                enabled offline auto true      0      32
  fc1/11     200b547fee78f088
                enabled offline TE-port true     8      32
200b547fee78efb0
  fc1/12     200c547fee78f088
                enabled offline TE-port true     8      32
200c547fee78efb0
  fc1/13     200d547fee78f088
                enabled online F-port true      8      32
2100001086609c2e
  fc1/14     200e547fee78f088
                enabled offline auto true      0      32
  fc1/15     200f547fee78f088
                enabled offline auto true      0      32
  fc1/16     2010547fee78f088
                enabled offline auto true      0      32
  fc1/17     2011547fee78f088
                enabled offline auto true      0      32
  fc1/18     2012547fee78f088
                enabled offline auto true      0      32
  fc1/19     2013547fee78f088
                enabled offline auto true      0      32
  fc1/20     2014547fee78f088
                enabled offline auto true      0      1
  fc1/21     2015547fee78f088
                enabled offline auto true      0      1
  fc1/22     2016547fee78f088
                enabled offline auto true      0      32
  fc1/23     2017547fee78f088

```

|                  |                  |         |         |        |      |   |    |
|------------------|------------------|---------|---------|--------|------|---|----|
|                  |                  | enabled | offline | auto   | true | 0 | 32 |
| fc1/24           | 2018547fee78f088 |         |         |        |      |   |    |
|                  |                  | enabled | offline | auto   | true | 0 | 32 |
| fc1/25           | 2019547fee78f088 |         |         |        |      |   |    |
|                  |                  | enabled | online  | F-port | true | 8 | 32 |
| 2100001086609c06 |                  |         |         |        |      |   |    |
| fc1/26           | 201a547fee78f088 |         |         |        |      |   |    |
|                  |                  | enabled | offline | auto   | true | 0 | 32 |
| fc1/27           | 201b547fee78f088 |         |         |        |      |   |    |
|                  |                  | enabled | online  | F-port | true | 8 | 32 |
| 21000024ff48ea93 |                  |         |         |        |      |   |    |
| fc1/28           | 201c547fee78f088 |         |         |        |      |   |    |
|                  |                  | enabled | online  | F-port | true | 8 | 32 |
| 21000024ff48eacf |                  |         |         |        |      |   |    |
| fc1/29           | 201d547fee78f088 |         |         |        |      |   |    |
|                  |                  | enabled | online  | F-port | true | 4 | 32 |
| 500a098101484340 |                  |         |         |        |      |   |    |
| fc1/30           | 201e547fee78f088 |         |         |        |      |   |    |
|                  |                  | enabled | online  | F-port | true | 4 | 32 |
| 500a09810147e700 |                  |         |         |        |      |   |    |
| fc1/31           | 201f547fee78f088 |         |         |        |      |   |    |
|                  |                  | enabled | offline | auto   | true | 0 | 32 |
| fc1/32           | 2020547fee78f088 |         |         |        |      |   |    |
|                  |                  | enabled | offline | auto   | true | 0 | 1  |
| fc1/33           | 2021547fee78f088 |         |         |        |      |   |    |
|                  |                  | enabled | offline | auto   | true | 0 | 1  |
| fc1/34           | 2022547fee78f088 |         |         |        |      |   |    |
|                  |                  | enabled | offline | auto   | true | 0 | 32 |
| fc1/35           | 2023547fee78f088 |         |         |        |      |   |    |
|                  |                  | enabled | offline | auto   | true | 0 | 32 |
| fc1/36           | 2024547fee78f088 |         |         |        |      |   |    |
|                  |                  | enabled | offline | auto   | true | 0 | 32 |
| fc1/37           | 2025547fee78f088 |         |         |        |      |   |    |
|                  |                  | enabled | offline | auto   | true | 0 | 32 |
| fc1/38           | 2026547fee78f088 |         |         |        |      |   |    |
|                  |                  | enabled | offline | auto   | true | 0 | 32 |
| fc1/39           | 2027547fee78f088 |         |         |        |      |   |    |
|                  |                  | enabled | offline | auto   | true | 0 | 32 |
| fc1/40           | 2028547fee78f088 |         |         |        |      |   |    |
|                  |                  | enabled | offline | auto   | true | 0 | 32 |
| fc1/41           | 2029547fee78f088 |         |         |        |      |   |    |
|                  |                  | enabled | offline | auto   | true | 0 | 32 |
| fc1/42           | 202a547fee78f088 |         |         |        |      |   |    |
|                  |                  | enabled | offline | auto   | true | 0 | 32 |
| fc1/43           | 202b547fee78f088 |         |         |        |      |   |    |
|                  |                  | enabled | offline | auto   | true | 0 | 32 |



```

fc1/44      202c547fee78f088
             enabled  offline auto    true         0         32
fc1/45      202d547fee78f088
             enabled  offline auto    true         0         32
fc1/46      202e547fee78f088
             enabled  offline auto    true         0         32
fc1/47      202f547fee78f088
             enabled  offline auto    true         0         32
fc1/48      2030547fee78f088
             enabled  offline auto    true         0         0
port-channel 1
             2401547fee78f088
             enabled  offline auto    true         0         0
port-channel 2
             2402547fee78f088
             enabled  offline auto    true         0         0
port-channel 3
             2403547fee78f088
             enabled  offline auto    true         0         0
port-channel 4
             2404547fee78f088
             enabled  offline auto    true         0         0
port-channel 5
             2405547fee78f088
             enabled  offline auto    true         0         0
port-channel 6
             2406547fee78f088
             enabled  offline auto    true         0         0
port-channel 7
             2407547fee78f088
             enabled  offline auto    true         0         0
port-channel 8
             2408547fee78f088
             enabled  offline auto    true         0         0
port-channel 9
             2409547fee78f088
             enabled  offline auto    true         0         0
port-channel 10
             240a547fee78f088
             enabled  offline auto    true         0         0
port-channel 11
             240b547fee78f088
             enabled  offline auto    true         0         0
port-channel 12
             240c547fee78f088
             enabled  offline auto    true         0         0

```

```
sup-fc0          enabled online unknown true      1      0
```

The following command displays power supply unit information about all storage switches:

```
cluster::> storage switch show -power
Switch Name: Cisco_10.226.197.34
          Switch WWN: 2000547fee78f088
          Fabric WWN: 2001547fee78efb1
          Vendor: Cisco
          Model: DS-C9148-16P-K9
          Errors: -
          Last Update Time: 7/31/2014 14:41:49 -04:00
Power Supplies:
Power Supply      Serial Number Status
-----
300.00W 110v AC PAC15494TBZ  normal
300.00W 110v AC PAC15494T4D  normal
```

The following command displays san configuration (VSANs and Zones) information about all storage switches:

```
cluster::> storage switch show -san-config
Switch Name: Cisco_10.226.197.34
          Switch WWN: 2000547fee78f088
          Fabric WWN: 2001547fee78efb1
          Vendor: Cisco
          Model: DS-C9148-16P-K9
          Errors: -
          Last Update Time: 7/31/2014 14:41:49 -04:00
VSAN Configuration:
Oper
VSAN ID Vsan Name                Status Load Balancing  isIOD
-----
   1 VSAN0001                    up      src-id-dest-id true
   2 dpg_13_storage              up      src-id-dest-id-ox-id
                                     true
   3 dpg_13_fcvi                 down    src-id-dest-id-ox-id
                                     true
  10 dpg_mcc_13_fab1_fcvi        up      src-id-dest-id true
  20 dpg_mcc_13_fab1_storage     up      src-id-dest-id-ox-id
                                     true
  30 dpg_mcc_13_fab2_fcvi        up      src-id-dest-id true
  40 VSAN0040                    up      src-id-dest-id true
  70 dpg_mcc_14_fcvi             up      src-id-dest-id true
  80 dpg_mcc_14_storage          up      src-id-dest-id-ox-id
```

```

true
110 dpg_mcc_15_fcvi      up      src-id-dest-id-ox-id
true
120 dpg_mcc_15_storage  up      src-id-dest-id-ox-id
true
4094 isolated_vsan      down    src-id-dest-id-ox-id
true

```

VSAN Membership:

```

VSAN ID Switch Name          Switch Port Name
-----
1 Cisco_10.226.197.34 fc1/2
1 Cisco_10.226.197.34 fc1/7
1 Cisco_10.226.197.34 fc1/8
1 Cisco_10.226.197.34 fc1/9
1 Cisco_10.226.197.34 fc1/10
1 Cisco_10.226.197.34 fc1/11
1 Cisco_10.226.197.34 fc1/12
1 Cisco_10.226.197.34 fc1/14
1 Cisco_10.226.197.34 fc1/19
1 Cisco_10.226.197.34 fc1/20
1 Cisco_10.226.197.34 fc1/21
1 Cisco_10.226.197.34 fc1/22
1 Cisco_10.226.197.34 fc1/23
1 Cisco_10.226.197.34 fc1/24
1 Cisco_10.226.197.34 fc1/31
1 Cisco_10.226.197.34 fc1/32
1 Cisco_10.226.197.34 fc1/33
1 Cisco_10.226.197.34 fc1/34
1 Cisco_10.226.197.34 fc1/35
1 Cisco_10.226.197.34 fc1/36
1 Cisco_10.226.197.34 fc1/37
1 Cisco_10.226.197.34 fc1/38
1 Cisco_10.226.197.34 fc1/39
1 Cisco_10.226.197.34 fc1/40
1 Cisco_10.226.197.34 fc1/41
1 Cisco_10.226.197.34 fc1/42
1 Cisco_10.226.197.34 fc1/43
1 Cisco_10.226.197.34 fc1/44
1 Cisco_10.226.197.34 fc1/45
1 Cisco_10.226.197.34 fc1/46
1 Cisco_10.226.197.34 fc1/47
1 Cisco_10.226.197.34 fc1/48
1 Cisco_10.226.197.34 port-channel 1
1 Cisco_10.226.197.34 port-channel 2
1 Cisco_10.226.197.34 port-channel 3
1 Cisco_10.226.197.34 port-channel 4

```

```
1 Cisco_10.226.197.34 port-channel 5
1 Cisco_10.226.197.34 port-channel 6
1 Cisco_10.226.197.34 port-channel 7
1 Cisco_10.226.197.34 port-channel 8
1 Cisco_10.226.197.34 port-channel 9
1 Cisco_10.226.197.34 port-channel 10
1 Cisco_10.226.197.34 port-channel 11
1 Cisco_10.226.197.34 port-channel 12
1 Cisco_10.226.197.36 fc1/2
1 Cisco_10.226.197.36 fc1/7
1 Cisco_10.226.197.36 fc1/8
1 Cisco_10.226.197.36 fc1/9
1 Cisco_10.226.197.36 fc1/10
1 Cisco_10.226.197.36 fc1/11
1 Cisco_10.226.197.36 fc1/12
1 Cisco_10.226.197.36 fc1/14
1 Cisco_10.226.197.36 fc1/19
1 Cisco_10.226.197.36 fc1/20
1 Cisco_10.226.197.36 fc1/21
1 Cisco_10.226.197.36 fc1/22
1 Cisco_10.226.197.36 fc1/23
1 Cisco_10.226.197.36 fc1/24
1 Cisco_10.226.197.36 fc1/26
1 Cisco_10.226.197.36 fc1/31
1 Cisco_10.226.197.36 fc1/32
1 Cisco_10.226.197.36 fc1/33
1 Cisco_10.226.197.36 fc1/34
1 Cisco_10.226.197.36 fc1/35
1 Cisco_10.226.197.36 fc1/36
1 Cisco_10.226.197.36 fc1/37
1 Cisco_10.226.197.36 fc1/38
1 Cisco_10.226.197.36 fc1/39
1 Cisco_10.226.197.36 fc1/40
1 Cisco_10.226.197.36 fc1/41
1 Cisco_10.226.197.36 fc1/42
1 Cisco_10.226.197.36 fc1/43
1 Cisco_10.226.197.36 fc1/44
1 Cisco_10.226.197.36 fc1/45
1 Cisco_10.226.197.36 fc1/46
1 Cisco_10.226.197.36 fc1/47
1 Cisco_10.226.197.36 fc1/48
30 Cisco_10.226.197.34 fc1/3
30 Cisco_10.226.197.34 fc1/4
30 Cisco_10.226.197.36 fc1/3
30 Cisco_10.226.197.36 fc1/4
40 Cisco_10.226.197.34 fc1/1
```

```

40 Cisco_10.226.197.34 fc1/5
40 Cisco_10.226.197.34 fc1/6
40 Cisco_10.226.197.36 fc1/1
40 Cisco_10.226.197.36 fc1/5
40 Cisco_10.226.197.36 fc1/6
70 Cisco_10.226.197.34 fc1/15
70 Cisco_10.226.197.34 fc1/16
70 Cisco_10.226.197.36 fc1/15
70 Cisco_10.226.197.36 fc1/16
80 Cisco_10.226.197.34 fc1/13
80 Cisco_10.226.197.34 fc1/17
80 Cisco_10.226.197.34 fc1/18
80 Cisco_10.226.197.36 fc1/13
80 Cisco_10.226.197.36 fc1/17
80 Cisco_10.226.197.36 fc1/18
110 Cisco_10.226.197.34 fc1/26
110 Cisco_10.226.197.34 fc1/27
110 Cisco_10.226.197.34 fc1/28
120 Cisco_10.226.197.34 fc1/25
120 Cisco_10.226.197.34 fc1/29
120 Cisco_10.226.197.34 fc1/30
120 Cisco_10.226.197.36 fc1/25
120 Cisco_10.226.197.36 fc1/29
120 Cisco_10.226.197.36 fc1/30

```

Last Update Time: 7/31/2014 14:45:40 -04:00

Zone Configuration:

| Member             | Member  | Member              |           |         |        |     |
|--------------------|---------|---------------------|-----------|---------|--------|-----|
| Zone Name          | VSAN ID | Switch Name         | Port Name | Port ID | Member | WWN |
| dpg_mcc_fcvi       | 30      | Cisco_10.226.197.36 | fc1/3     | -       |        |     |
| \$default_zone\$   | 30      | Cisco_10.226.197.36 | fc1/4     |         |        |     |
| dpg_mcc_storage    | 40      | Cisco_10.226.197.36 | fc1/1     |         |        |     |
| \$default_zone\$   | 40      | Cisco_10.226.197.36 | fc1/5     |         |        |     |
| dpg_mcc_14_fcvi    | 70      | Cisco_10.226.197.36 | fc1/15    |         |        |     |
| \$default_zone\$   | 70      | Cisco_10.226.197.36 | fc1/16    |         |        |     |
| dpg_mcc_14_storage | 80      | Cisco_10.226.197.34 | fc1/13    |         |        |     |

```

$default_zone$ 80 Cisco_10.226.197.34
                  fc1/17

dpg_mcc_15_fcvi
                  110 Cisco_10.226.197.36
                  fc1/27

$default_zone$
                  110 Cisco_10.226.197.36
                  fc1/28

dpg_mcc_15_storage
                  120 Cisco_10.226.197.34
                  fc1/25

$default_zone$
                  120 Cisco_10.226.197.34
                  fc1/29

```

The following command displays port SFP information about all storage switches:

```

cluster::> storage switch show -sfp
Switch Name: Cisco_10.226.197.34
          Switch WWN: 2000547fee78f088
          Fabric WWN: 2001547fee78efb1
          Vendor: Cisco
          Model: DS-C9148-16P-K9
          Errors: -
          Last Update Time: 7/31/2014 14:41:49 -04:00
SFP:
Port Name Type          Tx Type          Vendor          Part Number Serial
Number
-----
fc1/1      sfp-with-serial-id
          short-wave-laser CISCO-FINISAR
          FTLF8528P2BCV-CS

FNS160629J9
fc1/2      unknown          unknown
fc1/3      sfp-with-serial-id
          short-wave-laser CISCO-FINISAR
          FTLF8528P2BCV-CS

FNS160629H3
fc1/4      sfp-with-serial-id
          short-wave-laser CISCO-FINISAR
          FTLF8528P2BCV-CS

```

```

FNS160629QH
  fc1/5      sfp-with-serial-id
              short-wave-laser CISCO-FINISAR
                                      FTLF8528P2BCV-CS

FNS160628EA
  fc1/6      sfp-with-serial-id
              short-wave-laser CISCO-FINISAR
                                      FTLF8528P2BCV-CS

FNS160629QT
  fc1/7      unknown      unknown
  fc1/8      unknown      unknown
  fc1/9      unknown      unknown
  fc1/10     unknown      unknown
  fc1/11     sfp-with-serial-id
              short-wave-laser CISCO-FINISAR
                                      FTLF8528P2BCV-CS

FNS160629GP
  fc1/12     sfp-with-serial-id
              short-wave-laser CISCO-FINISAR
                                      FTLF8528P2BCV-CS

FNS16061X71
  fc1/13     sfp-with-serial-id
              short-wave-laser CISCO-FINISAR
                                      FTLF8528P2BCV-CS

FNS160629P8
  fc1/14     unknown      unknown
  fc1/15     sfp-with-serial-id
              short-wave-laser CISCO-FINISAR
                                      FTLF8528P2BCV-CS

FNS160629JP
  fc1/16     sfp-with-serial-id
              short-wave-laser CISCO-FINISAR
                                      FTLF8528P2BCV-CS

FNS160628D2
  fc1/17     sfp-with-serial-id
              short-wave-laser CISCO-FINISAR
                                      FTLF8528P2BCV-CS

FNS160629NG

```

|             |                    |                  |                  |
|-------------|--------------------|------------------|------------------|
| fc1/18      | sfp-with-serial-id |                  |                  |
|             |                    | short-wave-laser | CISCO-FINISAR    |
|             |                    |                  | FTLF8528P2BCV-CS |
| FNS160629R1 |                    |                  |                  |
| fc1/19      | unknown            | unknown          |                  |
| fc1/20      | unknown            | unknown          |                  |
| fc1/21      | unknown            | unknown          |                  |
| fc1/22      | unknown            | unknown          |                  |
| fc1/23      | sfp-with-serial-id |                  |                  |
|             |                    | short-wave-laser | CISCO-FINISAR    |
|             |                    |                  | FTLF8528P2BCV-CS |
| FNS160629NC |                    |                  |                  |
| fc1/24      | sfp-with-serial-id |                  |                  |
|             |                    | short-wave-laser | CISCO-FINISAR    |
|             |                    |                  | FTLF8528P2BCV-CS |
| FNS160628CX |                    |                  |                  |
| fc1/25      | sfp-with-serial-id |                  |                  |
|             |                    | short-wave-laser | CISCO-FINISAR    |
|             |                    |                  | FTLF8528P2BCV-CS |
| FNS160629NZ |                    |                  |                  |
| fc1/26      | unknown            | unknown          |                  |
| fc1/27      | sfp-with-serial-id |                  |                  |
|             |                    | short-wave-laser | CISCO-FINISAR    |
|             |                    |                  | FTLF8528P2BCV-CS |
| FNS16061XB0 |                    |                  |                  |
| fc1/28      | sfp-with-serial-id |                  |                  |
|             |                    | short-wave-laser | CISCO-FINISAR    |
|             |                    |                  | FTLF8528P2BCV-CS |
| FNS16061XA6 |                    |                  |                  |
| fc1/29      | sfp-with-serial-id |                  |                  |
|             |                    | short-wave-laser | CISCO-FINISAR    |
|             |                    |                  | FTLF8528P2BCV-CS |
| FNS16061XA0 |                    |                  |                  |
| fc1/30      | sfp-with-serial-id |                  |                  |
|             |                    | short-wave-laser | CISCO-FINISAR    |
|             |                    |                  | FTLF8528P2BCV-CS |
| FNS16061X9S |                    |                  |                  |
| fc1/31      | unknown            | unknown          |                  |



```

fc1/32      unknown      unknown
fc1/33      sfp-with-serial-id
              short-wave-laser CISCO-FINISAR
                                                    FTLF8528P2BCV-CS

FNS16061NL7
fc1/34      unknown      unknown
fc1/35      sfp-with-serial-id
              short-wave-laser CISCO-FINISAR
                                                    FTLF8528P2BCV-CS

FNS160629M8
fc1/36      sfp-with-serial-id
              short-wave-laser CISCO-FINISAR
                                                    FTLF8528P2BCV-CS

FNS160629KH
fc1/37      unknown      unknown
fc1/38      unknown      unknown
fc1/39      unknown      unknown
fc1/40      unknown      unknown
fc1/41      unknown      unknown
fc1/42      unknown      unknown
fc1/43      unknown      unknown
fc1/44      unknown      unknown
fc1/45      unknown      unknown
fc1/46      unknown      unknown
fc1/47      unknown      unknown
fc1/48      unknown      unknown
port-channel 1
              unknown      unknown
port-channel 2
              unknown      unknown
port-channel 3
              unknown      unknown
port-channel 4
              unknown      unknown
port-channel 5
              unknown      unknown
port-channel 6
              unknown      unknown
port-channel 7
              unknown      unknown
port-channel 8
              unknown      unknown
port-channel 9

```

```

unknown          unknown
port-channel 10
unknown          unknown
port-channel 11
unknown          unknown
port-channel 12
unknown          unknown
sup-fc0

```

The following command displays port statistics information about all storage switches:

```

cluster::> storage switch show -stats
Switch Name: Cisco_10.226.197.34
Switch WWN: 2000547fee78f088
Fabric WWN: 2001547fee78efb1
Vendor: Cisco
Model: DS-C9148-16P-K9
Errors: -
Last Update Time: 7/31/2014 14:41:49 -04:00
Port Statistics:

```

| Error | Port Name | Rx<br>Frames | Rx<br>Octets | Tx<br>Frames | Tx<br>Octets |
|-------|-----------|--------------|--------------|--------------|--------------|
| 0     | fc1/1     | 2116207233   | 3710682580   | 3906335374   | 859905888    |
| 0     | fc1/2     | 1            | 208          | 1            | 208          |
| 0     | fc1/3     | 3238899002   | 903116292    | 3079548736   | 4014304952   |
| 0     | fc1/4     | 1888758418   | 1643379900   | 2434821325   | 2997002344   |
| 0     | fc1/5     | 3719731908   | 1808138824   | 1878240211   | 3421335100   |
| 0     | fc1/6     | 2644430347   | 1042009564   | 249190625    | 2003353056   |
| 0     | fc1/7     | 1            | 228          | 1            | 228          |
| 0     | fc1/8     | 1            | 156          | 1            | 156          |
| 0     | fc1/9     | 1            | 148          | 1            | 148          |
| 0     | fc1/10    | 1            | 224          | 1            | 224          |

|   |        |            |            |            |            |
|---|--------|------------|------------|------------|------------|
| 0 |        |            |            |            |            |
|   | fc1/11 | 3617142898 | 4129927136 | 39089396   | 2595464620 |
| 0 |        |            |            |            |            |
|   | fc1/12 | 473603889  | 1560909460 | 2797562521 | 2833496016 |
| 0 |        |            |            |            |            |
|   | fc1/13 | 1852255936 | 1091902804 | 180309704  | 1769859928 |
| 0 |        |            |            |            |            |
|   | fc1/14 | 1          | 140        | 1          | 140        |
| 0 |        |            |            |            |            |
|   | fc1/15 | 4997082    | 3519688264 | 4283938    | 3370856432 |
| 0 |        |            |            |            |            |
|   | fc1/16 | 4995287    | 3519577592 | 4282173    | 3370732136 |
| 0 |        |            |            |            |            |
|   | fc1/17 | 55146756   | 178045212  | 1733567096 | 3030415436 |
| 0 |        |            |            |            |            |
|   | fc1/18 | 63005788   | 4287094736 | 1726651844 | 2640371212 |
| 0 |        |            |            |            |            |
|   | fc1/19 | 1          | 200        | 1          | 200        |
| 0 |        |            |            |            |            |
|   | fc1/20 | 1          | 104        | 1          | 104        |
| 0 |        |            |            |            |            |
|   | fc1/21 | 1          | 108        | 1          | 108        |
| 0 |        |            |            |            |            |
|   | fc1/22 | 1          | 108        | 1          | 108        |
| 0 |        |            |            |            |            |
|   | fc1/23 | 1          | 164        | 1          | 164        |
| 0 |        |            |            |            |            |
|   | fc1/24 | 1          | 216        | 1          | 216        |
| 0 |        |            |            |            |            |
|   | fc1/25 | 2810698819 | 1611009260 | 471527156  | 1900246656 |
| 0 |        |            |            |            |            |
|   | fc1/26 | 1          | 104        | 1          | 104        |
| 0 |        |            |            |            |            |
|   | fc1/27 | 4165019838 | 887421780  | 3848122102 | 2581891136 |
| 0 |        |            |            |            |            |
|   | fc1/28 | 58607737   | 1015197080 | 101621078  | 3482734024 |
| 0 |        |            |            |            |            |
|   | fc1/29 | 4266270960 | 222242144  | 3766674764 | 2400640552 |
| 0 |        |            |            |            |            |
|   | fc1/30 | 3984658378 | 1443835508 | 152597387  | 678837848  |
| 0 |        |            |            |            |            |
|   | fc1/31 | 1          | 220        | 1          | 220        |
| 0 |        |            |            |            |            |
|   | fc1/32 | 1          | 120        | 1          | 120        |
| 0 |        |            |            |            |            |
|   | fc1/33 | 1          | 132        | 1          | 132        |

|   |        |   |     |   |     |
|---|--------|---|-----|---|-----|
| 0 | fc1/34 | 1 | 144 | 1 | 144 |
| 0 | fc1/35 | 1 | 160 | 1 | 160 |
| 0 | fc1/36 | 1 | 104 | 1 | 104 |
| 0 | fc1/37 | 1 | 148 | 1 | 148 |
| 0 | fc1/38 | 1 | 184 | 1 | 184 |
| 0 | fc1/39 | 1 | 160 | 1 | 160 |
| 0 | fc1/40 | 1 | 136 | 1 | 136 |
| 0 | fc1/41 | 1 | 196 | 1 | 196 |
| 0 | fc1/42 | 1 | 128 | 1 | 128 |
| 0 | fc1/43 | 1 | 168 | 1 | 168 |
| 0 | fc1/44 | 1 | 212 | 1 | 212 |
| 0 | fc1/45 | 1 | 136 | 1 | 136 |
| 0 | fc1/46 | 1 | 224 | 1 | 224 |
| 0 | fc1/47 | 1 | 104 | 1 | 104 |
| 0 | fc1/48 | 1 | 104 | 1 | 104 |

## Related Links

- [storage switch add](#)

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