



storage switch commands

ONTAP 9.7 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 Frames | Rx Octets | Tx Frames | Tx 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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