storage shelf commands
ONTAP 9.13.1 commands
NetApp
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storage shelf show

Display a list of storage shelves

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

**Description**

The `storage shelf show` command displays information about all the storage shelves in the storage system. If no parameters are specified, the default command displays the following information about the storage shelves:

- Shelf Name
- Shelf ID
- Serial Number
- Model
- Module Type
- Status

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

**Parameters**

`{ [-fields <fieldname>,…]` displays the specified fields for all the storage shelves, in column style output.

`[-bay ]` displays the following details about the disk bays in the storage shelf:

- The unique positional identifier of the disk bay
- Whether a disk drive is installed in the bay
- Bay type
- Operational status of the disk bay

`[-connectivity ]` displays the following details about the connectivity from the node to the storage shelf:

- Node name
- Initiator side switch port
- Target side switch port
- World-wide port name
- Target Port Group Number (TPGN)
[-cooling ]
Displays the following details about the cooling elements and temperature sensors of the storage shelf:

- Element ID of the cooling fan
- The current speed of the cooling fan in revolutions per minute (rpm)
- Operational status of the cooling fan
- Sensor ID of the temperature sensor element
- Temperature at the sensor in degrees Celsius
- Whether the current temperature at the sensor is the ambient temperature
- Low critical threshold value for the temperature sensor
- Low warning threshold value for the temperature sensor
- High critical threshold value for the temperature sensor
- High warning threshold value for the temperature sensor
- Operational status for the temperature sensor

[-errors ]
Displays the following error status information about the storage shelves that have errors:

- Error type
- Error description

[-module ]
Displays the following details about the I/O modules attached to the storage shelf:

- Module ID
- Module part number
- Serial number of the Enclosure Services Controller Electronics element
- Whether monitoring is enabled on this module
- Whether this module is the SAS expander master module
- Whether this module is the element reporting
- Version of the firmware installed on the module
- Latest firmware revision
- Number of times, since the last boot, that this module has been swapped
- Operational status of the module

[-port ]
Displays the following details about the storage shelf ports:

- Expander phy element identifier
- SAS shelf port type
- World-wide Port Name of the SAS port
- Operational physical link rate of the SAS port in Gb/s
• Negotiated physical link rate of the SAS port in Gb/s
• Power status of the SAS port
• Status of the SAS port
• Fibre Channel shelf port ID
• Fibre Channel shelf port type
• Fibre Channel shelf port status

|--power |
Displays the following details about the power supplies, voltage sensors, and current sensors of the storage shelf:

• Power Supply Unit (PSU) number
• PSU type
• PSU part number
• PSU serial number
• PSU power rating in watts
• PSU crest factor
• Power drawn from the PSU in watts
• Whether the PSU can be reset via software control
• Whether the auto power reset of the PSU is enabled
• PSU firmware revision
• Operational status of the PSU
• Voltage sensor number
• Voltage detected by the voltage sensor, in volts (V)
• Operational status of the voltage sensor
• Current sensor number
• Current detected by the current sensor, in milliamps (mA)
• Operational status of the current sensor

|--instance |
Displays expanded information about all the storage shelves in the system.

|--shelf <text> - Shelf Name
Displays information only about the storage shelves that match the names you specify.

|--node {<nodename>|local} - Node
Displays information only about the storage shelves that are attached to the node you specify.

|--shelf-uid <text> - Shelf UID
Displays information only about the storage shelf that matches the shelf UID you specify. Example: `50:05:0c:c0:02:10:64:26`
[-stack-id {<integer>|-}] - Stack ID
   Displays information only about the storage shelves that are attached to the stack that matches the stack ID you specify.

[-shelf-id <text>] - Shelf ID
   Displays information only about the storage shelves that match the shelf ID you specify.

[-module-type {unknown|atf|esh4|iom3|iom6|iom6e|iom12|iom12e|iom12f|nsm100|nsm8e|psm3e|iom12b|iom12g}] - Shelf Module Type
   Displays information only about the storage shelves that match the module-type you specify.

[-connection-type {unknown|fc|sas|nvme}] - Shelf Connection Type
   Displays information only about the storage shelves that match the connection type you specify. Example: FC or SAS.

[-is-local-attach {true|false}] - Is the Shelf Local to This Cluster?
   Displays information only about the storage shelves that are local (TRUE) or remote (FALSE) to this cluster.

[-vendor <text>] - Shelf Vendor
   Displays information only about the storage shelves that match the vendor you specify.

[-product-id <text>] - Shelf Product Identification
   Displays information only about the storage shelves that match the product ID you specify.

[-serial-number <text>] - Shelf Serial Number
   Displays information only about the storage shelf that matches the serial number you specify.

[-disk-count {<integer>|-}] - Disk Count
   Displays information only about the storage shelves that have the disk count you specify.

[-state {unknown|no-status|init-required|online|offline|missing}] - Shelf State
   Displays information only about the storage shelves that are in the state you specify.

[-op-status {unknown|normal|warning|error|critical|standby-power}] - Shelf Operational Status
   Displays information only about the storage shelves that are currently operating under the status condition you specify.

[-bay-id {<integer>|-}] - Bay ID
   Displays information only about the storage shelves that have bays that match the bay ID you specify.

[-bay-type {unknown|single-disk|multi-lun}] - Bay Type
   Displays information only about the storage shelves that have bays that match the type of bay you specify.

[-bay-has-disk {true|false}] - Bay Has Disk
   Displays information only about the storage shelves that have bays with disk drives inserted in them (true) or empty bays (false).
[-current-sensor-reading {<integer>|-}] - Current Sensor Reading
Displays information only about the storage shelves with current sensors that match the current reading you specify.

[-current-op-status {unknown|normal|over-current-critical|under-current-critical|not-supported|not-installed}] - Operational Status
Displays information only about the storage shelves with current sensors that match the operational status you specify.

[-fan-id {<integer>|-}] - Fan ID
Displays information only about the storage shelves with cooling fans that match the fan IDs you specify.

[-fan-location <text>,...] - Fan Location
Displays information only about the storage shelves with cooling fans installed.

[-fan-rpm {<integer>|-}] - Fan Rotation Per Minute
Displays information only about the storage shelves with cooling fans that match the rpm rate you specify.

[-fan-op-status {unknown|normal|off|error|not-supported|not-installed}] - Fan Operational Status
Displays information only about the storage shelves with cooling fans that match the operational status you specify.

[-module-id <text>,...] - Module ID
Displays information only about the storage shelves with an I/O module that matches the module ID you specify.

[-module-location <text>,...] - Module Location
Displays information only about the storage shelves with I/O modules in the specified shelf module slots.

[-module-part-number <text>,...] - Module Part Number
Displays information only about the storage shelves with I/O modules that match the module part numbers you specify.

[-is-sas-master-module {true|false}] - Is SAS Expander Master Module?
Displays information only about the storage shelves with a SAS master I/O module (true) or an I/O module that is not a SAS master (false). This parameter applies only to SAS shelves.

[-is-monitor-active {true|false}] - Is Monitor Active?
Displays information only about the storage shelves whose monitoring is enabled (true) or disabled (false).

[-enclosure-type <text>,...] - Module Enclosure Type
Displays information only about the storage shelves that match the enclosure types you specify.

[-es-serial-number <text>,...] - ES Electronics Element Serial Number
Displays information only about the storage shelves with I/O modules that match the electronics serial numbers you specify.
[-module-fru-id <text>,…] - Field Replaceable Unit ID
   Displays information only about the storage shelves with I/O modules that match the field replaceable unit (FRU) IDs you specify.

[-module-is-reporting-element {true|false}] - Is Reporting Element?
   Displays information only about the storage shelves with element reporting I/O modules (true) or not (false).

[-module-fw-revision <text>,…] - Firmware Revision
   Displays information only about the storage shelves with I/O modules that match the firmware revision you specify.

[-module-latest-fw-revision <text>,…] - Latest Firmware Revision
   Displays information only about the storage shelves with I/O modules that match the latest firmware revision you specify.

[-module-fw-progress {not-available|ready|in-progress|failed}] - Module Firmware Progress
   Displays information only about the storage shelves with I/O modules that match the specified firmware update progress.

[-module-swap-count {<integer>|-}] - Module Swap Count
   Displays information only about the storage shelves whose I/O modules have been swapped the specified number of times.

[-module-op-status {unknown|normal|warning|error|not-installed}] - Module Operational Status
   Displays information only about the storage shelves with I/O modules that match the operational status you specify.

[-sas-port-id <text>,…] - Port ID
   Displays information only about the storage shelves with SAS Ports that match the port IDs you specify.

[-sas-port-type {unknown|circle|square|sil|disk|in|out|unused|host|dcm|aux1|aux2|hihoa_to_b|b_to_a}] - Port Type
   Displays information only about the storage shelves with SAS Ports that match the SAS port type you specify.

[-sas-port-wwpn <text>,…] - Port World Wide Port Name
   Displays information only about the storage shelves with SAS Ports that match the World-Wide Port Names you specify.

[-sas-port-speed <text>,…] - Port Speed
   Displays information only about the storage shelves with SAS Ports that match the port speed you specify.

[-sas-negotiated-port-speed <text>,…] - Negotiated Port Speed
   Displays information only about the storage shelves with SAS Ports that match the negotiated port speed you specify.
[-sas-port-power-status <text>,... ] - Port Power Status

Displays information only about the storage shelves with SAS Ports that match the power status you specify.

[-sas-port-op-status {error|normal|off|unknown|byp-bad-term|bad-zone-recovery|byp_clk_thr|byp_comma_los|byp_crc_brst_thr|byp_data_timeout|byp_drv_fault|byp_drv_pcycle|byp_drv_pwr|byp_drv_self|byp_gen|byp_init|byp_lip_brst_thr|byp_lip_f8|byp_lip_rate_thr|byp_lipf7|byp_ltb|i|byp_man|byp_no_drive|byp_osc|byp_otherThr|byp_rec_loss|byp_rport|byp_stall_thr|byp_wr_brst_thr|byp_wr_rate_thr|byp_xmt_fault|diag_transmit|inserted|loopback|status_unknown|warn_high_clk_delta|warn_high_crc_rate|warn_high_lip|warn_high_wr_rate|term|phy_dis_clk_fault|phy_dis_crc_err|phy_dis_crc_err_burst|phy_dis_disparity|phy_dis_disparity_burst|phy_dis_emulate_reserve|phy_dis_inval_dword|phy_dis_inval_dword_burst|phy_dis_loss_dword|phy_dis_loss_dword_burst|phy_dis_man_smp|phy_dis_manual|phy_dis_mirrored|empty|phy_dis_phy_change|phy_dis_phy_change_burst|phy_dis_phy_reset|phy_dis_phy_reset_burst|phy_dis_phy_unused|phy_ena|phy_ena_notAttach|phy_ena_unknown|phy_unknown|phy_dis_illegal} ] - Port Operational Status

Displays information only about the storage shelves with SAS Ports that match the operational status you specify.

[-sas-port-module-id {A|B}] - Port Module ID

Displays information only about the storage shelves with SAS Ports that match the module ID you specify.

[-fc-port-id <text>,...] - Fibre Channel Port ID

Displays information only about the storage shelves with FC Ports that match the port IDs you specify.

[-fc-port-mode {unknown|circle|square|si|disk|in|out|unused|host|dcm|aux1|aux2|hi_w|hi_h|a_to_b|b_to_a}] - Fibre Channel Port Mode

Displays information only about the storage shelves with FC Ports that match the port modes you specify.

[-fc-port-op-status {error|normal|off|unknown|byp-bad-term|bad-zone-recovery|byp_clk_thr|byp_comma_los|byp_crc_brst_thr|byp_data_timeout|byp_drv_fault|byp_drv_pcycle|byp_drv_pwr|byp_drv_self|byp_gen|byp_init|byp_lip_brst_thr|byp_lip_f8|byp_lip_rate_thr|byp_lipf7|byp_ltb|i|byp_man|byp_no_drive|byp_osc|byp_otherThr|byp_rec_loss|byp_rport|byp_stall_thr|byp_wr_brst_thr|byp_wr_rate_thr|byp_xmt_fault|diag_transmit|inserted|loopback|status_unknown|warn_high_clk_delta|warn_high_crc_rate|warn_high_lip|warn_high_wr_rate|term|phy_dis_clk_fault|phy_dis_crc_err|phy_dis_crc_err_burst|phy_dis_disparity|phy_dis_disparity_burst|phy_dis_emulate_reserve|phy_dis_inval_dword|phy_dis_inval_dword_burst|phy_dis_loss_dword|phy_dis_loss_dword_burst|phy_dis_man_smp|phy_dis_manual|phy_dis_mirrored|empty|phy_dis_phy_change|phy_dis_phy_change_burst|phy_dis_phy_reset|phy_dis_phy_reset_burst|phy_dis_phy_unused|phy_ena|phy_ena_notAttach|phy_ena_unknown|phy_unknown|phy_dis_illegal} ] - Fibre Channel Port Operational Status

Displays information only about the storage shelves with FC Ports that match the operational status you specify.

[-psu-id {<integer>|-}] - Power Supply Unit ID

Displays information only about the storage shelves with power supply units (PSU) that match the unit IDs you specify.
[[-psu-location <text>,...]] - Power Supply Unit Location
Displays information only about the storage shelves with PSUs that are located at the specified location inside the shelf.

[[-psu-type <text>,...]] - Power Supply Unit Type
Displays information only about the storage shelves with PSUs that match the PSU types you specify.

[[-psu-part-number <text>,...]] - Power Supply Unit Part Number
Displays information only about the storage shelves with PSUs that match the PSU part number you specify.

[[-psu-serial-number <text>,...]] - Power Supply Unit Serial Number
Displays information only about the storage shelves with PSUs that match the PSU serial numbers you specify.

[[-psu-reset-capable {true|false}]] - Power Supply Unit Reset Capability
Displays information only about the storage shelves with reset capable PSUs (true) or reset incapable PSUs (false).

[[-psu-is-enabled {true|false}]] - Power Supply Unit Enable/Disable Status
Displays information only about the storage shelves with PSUs that are enabled (true) or disabled (false).

[[-psu-fw-version <text>,...]] - Power Supply Unit Firmware Version
Displays information only about the storage shelves with PSUs that have the firmware version you specify.

[[-psu-op-status {unknown|normal|error|dc-over-voltage|dc-under-voltage|dc-over-current|over-temperature-error|failed|off|not-supported|not-installed}]] - Operational Status
Displays information only about the storage shelves with PSUs that match the operational status you specify.

[[-psu-power-rating {<integer>|-}]] - Power Supply Power Ratings In Watts
Displays information only about the storage shelves with PSUs that match the power rating you specify.

[[-psu-crest-factor {<integer>|-}]] - Power Supply Crest Factor
Displays information only about the storage shelves with PSUs that match the crest factor value you specify.

[[-psu-power-drawn {<integer>|-}]] - Power Drawn From PSU In Watts
Displays information only about the storage shelves with PSUs that match the drawn power you specify.

[[-temp-sensor-id {<integer>|-}]] - Sensor Name
Displays information only about the storage shelves with temperature sensors that match the sensor IDs you specify.

[[-temp-sensor-location <text>,...]] - Sensor Location
Displays information only about the storage shelves with temperature sensors that match the specified sensor locations inside the shelf.
[-temp-sensor-reading {<integer>|-}] - Temperature Reading
  Displays information only about the storage shelves with temperature sensors that match the temperature reading you specify.

[-temp-is-ambient {true|false}] - Temperature Reading at Ambient Value
  Displays information only about the storage shelves with temperature sensors whose current temperature reading is ambient (true) or not (false).

[-temp-high-critical-threshold {<integer>|-}] - High Critical Threshold
  Displays information only about the storage shelves with temperature sensors that match the high critical threshold you specify.

[-temp-high-warning-threshold {<integer>|-}] - High Warning Threshold
  Displays information only about the storage shelves with temperature sensors that match the high warning threshold you specify.

[-temp-low-warning-threshold {<integer>|-}] - Low Warning Threshold
  Displays information only about the storage shelves with temperature sensors that match the low warning threshold you specify.

[-temp-low-critical-threshold {<integer>|-}] - Low Critical Threshold
  Displays information only about the storage shelves with temperature sensors that match the low critical threshold you specify.

[-temp-op-status {unknown|normal|under-temperature|over-temperature|error|not-supported|not-installed}] - Operational Status
  Displays information only about the storage shelves with temperature sensors that match the operational status you specify.

[-voltage-sensor-id {<integer>|-}] - Voltage Sensor ID
  Displays information only about the storage shelves with voltage sensors that match the sensor IDs you specify.

[-voltage-sensor-location <text>,...] - Voltage Sensor Location
  Displays information only about the storage shelves with voltage sensors that match the specified sensor locations inside the shelf.

[-voltage-sensor-reading <text>,...] - Voltage Current Reading
  Displays information only about the storage shelves with voltage sensors that match the voltage reading you specify.

[-voltage-op-status {unknown|normal|over-voltage-critical|under-voltage-critical|not-supported|not-installed|not-recoverable}] - Operational Status
  Displays information only about the storage shelves with voltage sensors that match the operational status you specify.

[-nsm-port-module-id {A|B}] - Port Module ID
  Displays information only about the storage shelves with PCIe Ports from the specified module.
[-nsm-port-id <integer>,...] - Port ID
Displays information only about the storage shelves with PCIe Ports that match the specified ID.

[-nsm-port-type {cpu|disk|cx|ethernet}] - Port Type
Displays information only about the storage shelves with PCIe Ports that match the specified type.

[-nsm-port-state {ok|off-link-disabled|off-dll-link|link-down|no-drive}] - Port State
Displays information only about the storage shelves with PCIe Ports that match the specified state.

[-nsm-port-bay <integer>,...] - Port Bay
Displays information only about the storage shelves with PCIe Ports that match the specified bay.

[-nsm-port-disk-id <integer>,...] - Port Disk ID
Displays information only about the storage shelves with PCIe Ports that match the specified disk ID.

[-nsm-port-is-installed {true|false}] - Port Is Disk Installed
Displays information only about the storage shelves with PCIe Ports that have a disk installed.

[-nsm-port-is-error {true|false}] - Port Has Error
Displays information only about the storage shelves with PCIe Ports that have errors.

[-nsm-port-speed {2.5|5.0|8.0}] - Port Speed
Displays information only about the storage shelves with PCIe Ports that match the specified speed.

[-nsm-port-speed-max {2.5|5.0|8.0}] - Max Port Speed
Displays information only about the storage shelves with PCIe Ports that match the specified maximum speed.

[-nsm-port-lane-width <integer>,...] - Port Lane Width
Displays information only about the storage shelves with PCIe Ports that match the specified lane width.

[-nsm-port-lane-width-max <integer>,...] - Max Port Lane Width
Displays information only about the storage shelves with PCIe Ports that match the specified maximum lane width.

[-dimm-module-id {A|B}] - DIMM Module ID
Displays information only about the storage shelves with DIMMs from the specified module.

[-dimm-id <integer>,...] - DIMM ID
Displays information only about the storage shelves with DIMMs that match the specified ID.

[-dimm-serial-number <text>,...] - DIMM Serial Number
Displays information only about the storage shelves with DIMMs that match the specified serial number.

[-dimm-part-number <text>,...] - DIMM Part Number
Displays information only about the storage shelves with DIMMs that match the specified part number.

[-dimm-vendor <text>,...] - DIMM Vendor
Displays information only about the storage shelves with DIMMs that match the specified vendor.
[-dimm-type <text>,...] - DIMM Type
Displays information only about the storage shelves with DIMMs that match the specified type.

[-dimm-size <text>,...] - DIMM Size
Displays information only about the storage shelves with DIMMs that match the specified size.

[-dimm-speed <text>,...] - DIMM Speed
Displays information only about the storage shelves with DIMMs that match the specified speed.

[-dimm-location <text>,...] - DIMM Location
Displays information only about the storage shelves with DIMMs that match the specified location.

[-dimm-op-status {unknown|normal|error|not-supported|not-installed}] - DIMM Operational Status
Displays information only about the storage shelves with DIMMs that match the specified operational status.

[-boot-device-module-id {A|B}] - Boot Device Module ID
Displays information only about the storage shelves with boot devices from the specified module.

[-boot-device-id <integer>,...] - Boot Device ID
Displays information only about the storage shelves with boot devices that match the specified ID.

[-boot-device-serial-number <text>,...] - Boot Device Serial Number
Displays information only about the storage shelves with boot devices that match the specified serial number.

[-boot-device-part-number <text>,...] - Boot Device Part Number
Displays information only about the storage shelves with boot devices that match the specified part number.

[-boot-device-vendor <text>,...] - Boot Device Vendor
Displays information only about the storage shelves with boot devices that match the specified vendor.

[-boot-device-type <text>,...] - Boot Device Type
Displays information only about the storage shelves with boot devices that match the specified type.

[-boot-device-size <text>,...] - Boot Device Size
Displays information only about the storage shelves with boot devices that match the specified size.

[-boot-device-op-status {unknown|normal|error|not-supported|not-installed}] - Boot Device Operational Status
Displays information only about the storage shelves with boot devices that match the specified operational status.

[-coin-battery-module-id {A|B}] - Coin Battery Module ID
Displays information only about the storage shelves with coin batteries from the specified module.

[-coin-battery-id <integer>,...] - Coin Battery ID
Displays information only about the storage shelves with coin batteries that match the specified ID.
[-coin-battery-voltage <integer>,…] - Coin Battery Voltage (mV)
Displays information only about the storage shelves with coin batteries that match the specified voltage.

[-coin-battery-op-status {unknown|normal|error|low|high|not-supported|not-installed}] - Coin Battery Operational Status
Displays information only about the storage shelves with coin batteries that match the specified operational status.

[-error-type
{Unknown|ACPP|Bootdevice|Coinbattery|Configuration|Current|Dimm|Expander|Fan|Module|PCM|Power|Temperature|Voltage}] - Error Type
Displays information only about the storage shelves with errors that match the error type you specify.

[-error-severity {unknown|notice|warning|error|critical}] - Error Severity
Displays information only about the storage shelves with errors that match the error severity you specify.

Examples
The following example displays information about all storage shelves:

```
cluster1::> storage shelf show
Module   Operational
Status   Shelf Name  Shelf ID  Serial Number    Model        Type
----------  ---------  -----------  ---------------  -----------  ------
-----------
Critical
  1.1         1  6000832415       DS2246       IOM6
Normal
  1.2         2  6000647652       DS2246       IOM6
Normal
  1.3         3  6000003844       DS2246       IOM6
Normal
  1.4         4  SHJ0000000013A9E  DS4246       IOM6
Normal
  1.5         5  SHJ0000000013A84  DS4246       IOM6
Normal
  1.6         6  6000005555       DS2246       IOM6
-----------
6 entries were displayed.
cluster1::>
```

The following example displays expanded information about a storage shelf named 1.2:

```
cluster1::> storage shelf show -shelf 1.2 -instance
Shelf Name: 1.2
            Stack ID: 1
```

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Shelf ID: 2
Shelf UID: 50:0a:09:80:01:b9:75:41
Serial Number: 6000647652
Module Type: IOM6
Model: DS2246
Shelf Vendor: NETAPP
Disk Count: 12
Connection Type: SAS
Shelf State: Online
Status: Normal

Modules:

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<tr>
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<td></td>
</tr>
<tr>
<td>ID Part No.</td>
<td>ES Serial No.</td>
</tr>
<tr>
<td>FW Rev.</td>
<td>FW Rev. Count</td>
</tr>
<tr>
<td>---------</td>
<td>--------------</td>
</tr>
<tr>
<td>a 111-00190+A0 8006437891</td>
<td>true</td>
</tr>
<tr>
<td>b 111-00190+A0 8006435180</td>
<td>true</td>
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<th>Target Side Switch Port</th>
<th>Target Port</th>
<th>TPGN</th>
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<th>IOPS</th>
</tr>
</thead>
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<tr>
<td>stsw-8020-01</td>
<td>0a</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>stsw-8020-01</td>
<td>2b</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>stsw-8020-02</td>
<td>0a</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>stsw-8020-02</td>
<td>2b</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tr>
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<td>Capable Enabled Firmware Status</td>
<td>PSU Location</td>
<td></td>
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<tr>
<td>----</td>
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</tr>
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---

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<table>
<thead>
<tr>
<th>Voltage Sensors:</th>
<th>Voltage Operational</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID (V) Status</td>
<td>Sensor Location</td>
</tr>
<tr>
<td>1 5.70 normal</td>
<td>rear of the shelf on the lower left power supply</td>
</tr>
<tr>
<td>2 12.300 normal</td>
<td>rear of the shelf on the lower left power supply</td>
</tr>
<tr>
<td>3 5.70 normal</td>
<td>rear of the shelf on the lower right power supply</td>
</tr>
<tr>
<td>4 12.180 normal</td>
<td>rear of the shelf on the lower right power supply</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current Sensors:</th>
<th>Current Operational</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID (mA) Status</td>
<td>Sensor Location</td>
</tr>
<tr>
<td>1 0 normal</td>
<td>rear of the shelf on the lower left power supply</td>
</tr>
<tr>
<td>2 0 normal</td>
<td>rear of the shelf on the lower left power supply</td>
</tr>
<tr>
<td>3 0 normal</td>
<td>rear of the shelf on the lower right power supply</td>
</tr>
<tr>
<td>4 0 normal</td>
<td>rear of the shelf on the lower right power supply</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fans:</th>
<th>Speed Operational</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>Fan Location</td>
</tr>
<tr>
<td>1</td>
<td>rear of the shelf on the lower left power supply</td>
</tr>
<tr>
<td>2</td>
<td>rear of the shelf on the lower left power supply</td>
</tr>
<tr>
<td>3</td>
<td>rear of the shelf on the lower right power supply</td>
</tr>
<tr>
<td>4</td>
<td>rear of the shelf on the lower right power supply</td>
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<table>
<thead>
<tr>
<th>Temperature:</th>
<th>-- Thresholds °C --</th>
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</thead>
<tbody>
<tr>
<td>Temp Is</td>
<td>Low Low High High Operational</td>
</tr>
<tr>
<td>ID °C Ambient Crit Warn Crit Warn Status</td>
<td>Sensor</td>
</tr>
</tbody>
</table>
Location
--- ---- ------- ---- ---- ---- ---- ------------------
--------------------------------
1   23 true       0    5   42   40 normal             front of the
shelf on the left, on the OPS panel
2   26 false      5   10   55   50 normal             inside of the
shelf on the midplane
3   24 false      5   10   55   50 normal             rear of the
shelf on the lower left power supply
4   39 false      5   10   70   65 normal             rear of the
shelf on the lower left power supply
5   25 false      5   10   55   50 normal             rear of the
shelf on the lower right power supply
6   36 false      5   10   70   65 normal             rear of the
shelf on the lower right power supply
7   25 false      5   10   60   55 normal             rear of the
shelf at the top left, on shelf module A
8   26 false      5   10   60   55 normal             rear of the
shelf at the top right, on shelf module B
SAS Ports:
-- Port Speeds Gb/s -- Power
Port
Phy # IOM Port Type WWPN              Operational Negotiated Status
Status
----- --- --------- ----------------- ----------- ---------- ------
-------
0  A  Square    500a098004b063b0          6.0          - - Enabled
1  A  Square    500a098004b063b0          6.0          - - Enabled
2  A  Square    500a098004b063b0          6.0          - - Enabled
3  A  Square    500a098004b063b0          6.0          - - Enabled
4  A  Circle    500a09800569f03f          6.0          - - Enabled
5  A  Circle    500a09800569f03f          6.0          - - Enabled
6  A  Circle    500a09800569f03f          6.0          - - Enabled
7  A  Circle    500a09800569f03f          6.0          - - Enabled
8  A  Disk      500605ba00c1cb8d          6.0        6.0 on Enabled
9  A  Disk      500605ba00c1ea8d          6.0        6.0 on Enabled
<table>
<thead>
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<th></th>
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<th>Numer</th>
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<td>500605ba00c1d111</td>
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<tr>
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<td>500605ba00c1cddf</td>
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<td>6.0 on</td>
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<td>Disk</td>
<td>500605ba00c1c531</td>
<td>6.0</td>
<td>6.0 on</td>
</tr>
<tr>
<td>14</td>
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<td>500605ba00c1eb05</td>
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<td>Disk</td>
<td>500605ba00c039a9</td>
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<tr>
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<td>33</td>
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<td>500605ba00c1eb06</td>
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<td>Status</td>
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</tbody>
</table>

**Bays:**

<table>
<thead>
<tr>
<th>Has</th>
<th>Operational</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>ID Disk</th>
<th>Bay Type</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>true single-disk</td>
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<tr>
<td>1</td>
<td>true single-disk</td>
<td>normal</td>
</tr>
<tr>
<td>2</td>
<td>true single-disk</td>
<td>normal</td>
</tr>
<tr>
<td>3</td>
<td>true single-disk</td>
<td>normal</td>
</tr>
<tr>
<td>4</td>
<td>true single-disk</td>
<td>normal</td>
</tr>
</tbody>
</table>
The following example displays information about the power supplies, voltage sensors and current sensors of the storage shelf 1.1:

```bash
cluster1::> storage shelf show -shelf 1.1 -power
```

```
Shelf Name: 1.1

Stack ID: 1
Shelf ID: 1
Shelf UID: 50:0a:09:80:01:cb:d6:84
Serial Number: 6000832415
Module Type: IOM6
Model: DS2246
Shelf Vendor: NETAPP
Disk Count: 12
Connection Type: SAS
Shelf State: Online
Status: Normal

Power Supply Units:

<table>
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<tr>
<th>Reset</th>
<th>PSU ID</th>
<th>Type</th>
<th>Part#</th>
<th>Serial#</th>
<th>Power Rating</th>
<th>Factor Drawn</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>9C</td>
<td>114-00065+A1</td>
<td>XXT132835072</td>
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</table>
```
<table>
<thead>
<tr>
<th>Voltage Sensors:</th>
<th>Voltage Operational</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>(V)</td>
</tr>
<tr>
<td>---</td>
<td>-----</td>
</tr>
<tr>
<td>1</td>
<td>5.70</td>
</tr>
<tr>
<td>2</td>
<td>12.180</td>
</tr>
<tr>
<td>3</td>
<td>5.70</td>
</tr>
<tr>
<td>4</td>
<td>12.300</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Current Sensors:</th>
<th>Current Operational</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>(mA)</td>
</tr>
<tr>
<td>---</td>
<td>-----</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>3900</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

Errors:

-----

Critical condition is detected in storage shelf power supply unit "1". The unit might fail.

Critical over temperature failure for temperature sensor "1". Current temperature: "75" C ("167" F).
cluster1::> storage shelf show -shelf 1.2 -cooling
Shelf Name: 1.2
    Stack ID: 1
    Shelf ID: 2
    Shelf UID: 50:0a:09:80:01:b9:75:41
    Serial Number: 6000647652
    Module Type: IOM6
    Model: DS2246
    Shelf Vendor: NETAPP
    Disk Count: 12
    Connection Type: SAS
    Shelf State: Online
    Status: Normal

Fans:
    Speed Operational
    ID (RPM) Status
    -- ----- ------------
    1  3000 normal
    2  3000 normal
    3  3000 normal
    4  2970 normal

Temperature:
    -- Thresholds °C --
    Temp Is  °C Ambient Crit Warn Crit Warn Status
    -- ----- ------- ---- ---- ---- ---- ---------------
    1   23   true  0   5   42   40 normal
    2   26   false 5  10  55  50 normal
    3   24   false 5  10  55  50 normal
    4   39   false 5  10  70  65 normal
    5   25   false 5  10  55  50 normal
    6   36   false 5  10  70  65 normal
    7   25   false 5  10  60  55 normal
    8   27   false 5  10  60  55 normal

Errors:
    -------
    -
cluster1::>

The following example displays information about the connectivity from the node to the storage shelf 1.2:
cluster1::> storage shelf show -shelf 1.2 -connectivity

    Shelf Name: 1.2
    Stack ID: 1
    Shelf ID: 2
    Shelf UID: 50:0a:09:80:01:b9:75:41
    Serial Number: 6000647652
    Module Type: IOM6
        Model: DS2246
    Shelf Vendor: NETAPP
    Disk Count: 12
    Connection Type: SAS
    Shelf State: Online
        Status: Normal

Paths:

<table>
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<th>Initiator</th>
<th>Initiator Side Switch</th>
<th>Port</th>
<th>Target Port</th>
<th>TPGN</th>
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</thead>
<tbody>
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</tr>
<tr>
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<td>0a</td>
<td>-</td>
<td></td>
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</tr>
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<td>0a</td>
<td>-</td>
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</tr>
<tr>
<td>stsw-8020-02</td>
<td>2b</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Errors:

------
------
cluster1::>

The following example displays information about the disk bays of the storage shelf 1.2:
cluster1::> storage shelf show -shelf 1.2 -bay
Shelf Name: 1.2
  Stack ID: 1
  Shelf ID: 2
  Shelf UID: 50:0a:09:80:01:b9:75:41
  Serial Number: 6000647652
  Module Type: IOM6
    Model: DS2246
  Shelf Vendor: NETAPP
  Disk Count: 12
  Connection Type: SAS
  Shelf State: Online
  Status: Normal

Bays:
Has Operational
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<thead>
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<th>Disk</th>
<th>Bay Type</th>
<th>Status</th>
</tr>
</thead>
<tbody>
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<td>normal</td>
</tr>
<tr>
<td>1</td>
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<td>single-disk</td>
<td>normal</td>
</tr>
<tr>
<td>2</td>
<td>true</td>
<td>single-disk</td>
<td>normal</td>
</tr>
<tr>
<td>3</td>
<td>true</td>
<td>single-disk</td>
<td>normal</td>
</tr>
<tr>
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<td>normal</td>
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</tr>
<tr>
<td>23</td>
<td>false</td>
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<td>normal</td>
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</table>

Errors:
--------

cluster1::>
The following example displays information about the ports of the storage shelf 1.2:

```bash
cluster1::> storage shelf show -shelf 1.2 -port
Shelf Name: 1.2
    Stack ID: 1
    Shelf ID: 2
    Shelf UID: 50:0a:09:80:01:b9:75:41
    Serial Number: 6000647652
    Module Type: IOM6
        Model: DS2246
    Shelf Vendor: NETAPP
    Disk Count: 12
    Connection Type: SAS
    Shelf State: Online
    Status: Normal

SAS Ports:

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The following example displays error information about the storage shelves that have errors:
cluster1::> storage shelf show -errors
Shelf Name: 1.1
    Shelf UID: 50:0a:09:80:01:cb:d6:84
    Serial Number: 6000832415
Error Type          Description
------------------  ---------------------------
   Power               Critical condition is detected in storage shelf
   power supply unit "1". The unit might fail.
   Temperature         Critical over temperature failure for temperature
   sensor "1". Current temperature: "75" C ("167" F).

storage shelf acp configure
Configure alternate control path (ACP)

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

Description
Configure the ACP connectivity on the cluster. Enabling ACP connectivity is non-disruptive to the cluster.

Parameters
- **-is-enabled {true|false}** - Is Enabled?
  Configures the connectivity to the specified state.

  [-subnet <IP Address>] - Subnet
  Configures the connectivity to the specified subnet.

  [-netmask <IP Address>] - Netmask
  Configures the connectivity to the specified netmask.

  [-channel {out-of-band|in-band}] - Channel
  Configures the connectivity to the specified channel.

Examples
The following example configures out-of-band ACP connectivity on each node:

```
cluster1::> storage shelf acp configure -is-enabled true -channel out-of-
    band -subnet 192.168.0.1 -netmask 255.255.255.0
```

The following example configures in-band ACP connectivity on each node:
The following example disables ACP connectivity on each node:

```
cluster1::> storage shelf acp configure -is-enabled false
```

storage shelf acp show

Show connectivity information

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

**Description**

Displays information about the ACP connectivity on each node

**Parameters**

```bash
[-fields <fieldname>,…]
If you specify the -fields <field-name>, … parameter, the command output also includes the specified field or fields. You can use -fields ? to display the fields to specify.

[-errors ]
If you specify the -errors parameter, the command displays detailed information about all modules with errors.

[-instance ]
If you specify the -instance parameter, the command displays detailed information about all fields.

[-node {<nodename>|local}] - Node
Selects the nodes that match this parameter value.

[-is-enabled {true|false}] - Is Enabled?
Selects the nodes that are enabled or disabled.

[-port <text>] - Port
Selects the nodes that match the specified port on which ACP is configured.

[-address <IP Address>] - IP Address
Selects the nodes with the specified IP address.

[-subnet <IP Address>] - Subnet
Selects the nodes with the specified subnet.

[-netmask <IP Address>] - Netmask
Selects the nodes with the specified netmask.
[-connection-status {no-connectivity|partial-connectivity|full-connectivity|additional-connectivity|unknown-connectivity|not-available|connection-disabled}] - Connection Status

Selects the nodes with the specified connection status.

[-error-id <integer>] - Error ID

Selects the node with the specified error ID.

[-error-type {No-Error|Connection-Issue|Connection-Activity|Module-Error|Shelf-Error}] - Error Type

The error type, in case of a connection error.

[-error-severity {unknown|notice|warning|error|critical}] - Error Severity

The error severity, in case of a connection error.

[-error-text <text>] - Error Text

Selects the node with the specified error text.

[-corrective-action <text>] - Corrective Action

Selects the node with the specified corrective action.

[-channel {unknown|out-of-band|in-band}] - Channel

Selects the nodes that has channel configured out-of-band or in-band.

Examples

The following example displays ACP connectivity on each node (in-band):

```
fas2750-2n-rtp-1::> storage shelf acp show
Node                Channel                Connectivity
-------------------- --------------------   ----------------------
fas2750-rtp-1a      in-band                active
fas2750-rtp-1b      in-band                active
2 entries were displayed.
```

The following example displays ACP connectivity on each node (out of band):

```
fas2750-2n-rtp-1::> storage shelf acp show
Node                Channel                Connectivity
-------------------- --------------------   ----------------------
fas2750-rtp-1a      out-of-band            full-connectivity
fas2750-rtp-1b      out-of-band            full-connectivity
2 entries were displayed.
```

The following example displays the -instance output of the storage acp show (in-band) command. Use this command to display details on connectivity and configuration.
fas2750-2n-rtp-1::> storage shelf acp show -instance
Node: fas2750-rtp-1a
  Channel: in-band
  Enable Status: true
  Connection Status: active
Node: fas2750-rtp-1b
  Channel: in-band
  Enable Status: true
  Connection Status: active
2 entries were displayed.

The following example displays the -instance output of the storage acp show (out-of-band) command. Use this command to display details on connectivity and configuration.

fas2750-2n-rtp-1::> storage shelf acp show -instance
Node: fas2750-rtp-1a
  Channel: out-of-band
  Enable Status: true
  Port: e0P
  IP Address: 192.168.1.74
  Subnet: 192.168.0.1
  Netmask: 255.255.252.0
  Connection Status: full-connectivity
Node: fas2750-rtp-1b
  Channel: out-of-band
  Enable Status: true
  Port: e0P
  IP Address: 192.168.1.75
  Subnet: 192.168.0.1
  Netmask: 255.255.252.0
  Connection Status: full-connectivity
2 entries were displayed.

storage shelf acp module show

Show modules connected to the cluster

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

Description
Displays information about the modules connected to each node
Parameters

\{-fields <fieldname>,…\}
If you specify the -fields <field-name>" , … parameter, the command output also includes the specified field or fields. You can use -fields ? to display the fields to specify.

\{-errors \}
If you specify the -errors parameter, the command displays detailed information about all modules with errors.

\{-instance \}
If you specify the -instance parameter, the command displays detailed information about all fields.

\{-node {<nodename>|local}\} - Node
Selects the modules that match this parameter value.

\{-mac-address <text>\} - MAC Address
Selects the module that matches the specified MAC address.

\{-module-name <text>\} - Module name
Selects the module that matches the specified module name.

\{-module-address <IP Address>\} - IP Address
Selects the module that matches the specified IP address.

\{-protocol-version <text>\} - Protocol Version
Selects the modules that match the specified protocol version.

\{-firmware-version <text>\} - Firmware Version
Selects the modules that match the specified firmware version.

\{-acpa-id <integer>\} - ACPA assigner ID
Selects the modules that match the specified ACPA ID.

\{-shelf-serial-number <text>\} - Shelf Serial Number
Selects the modules that match the specified shelf serial number.

\{-iom-type \{Unknown|iom3|iom6|iom6e|iom12|iom12e|iom12f|iom12b|iom12g\}\} - IOM Type
Selects the modules that match the specified IOM type (IOM3/IOM6/IOM6E).

\{-last-contact <integer>\} - Last Contact (secs)
Selects the modules that match the specified last contact.

\{-state \{unknown|initializing|discovery-complete|awaiting-inband|no-inband|active|awaiting-bootp|updating-firmware|connection-error|firmware-update-required|rebooting|fail|unsupported|degraded|shelf-off\}\} - Local Node State
Selects the modules that match the specified state.
[-stack-id <integer>|-]] - Stack ID
  Selects the modules that match the specified stack ID.

[-shelf-id <text>] - Shelf ID
  Selects the modules that match the specified shelf ID.

[-adapter-name <text>] - Adapter Name
  Selects the modules that match the specified adapter name.

[-error-id <integer>,…] - Error ID
  Selects the modules that match the specified error ID.

[-error-text <text>,…] - Error Text
  The error text, in case of a module error.

[-corrective-action <text>,…] - Corrective Action
  The corrective action, in case of a module error.

[-error-type {No-Error|Connection-Issue|Connection-Activity|Module-Error|Shelf-Error}] - Error Type
  Selects the modules that match the specified error type.

[-error-severity {unknown|notice|warning|error|critical}] - Error Severity
  Selects the modules that match the specified error severity.

[-power-cycle-count <integer>] - Power Cycle count
  Number of times a shelf power cycle has been performed on a shelf

[-power-off-count <integer>] - Power Off count
  Number of times a shelf power off has been performed on a shelf

[-power-on-count <integer>] - Power On count
  Number of times a shelf power on has been performed on a shelf

[-expander-reset-count <integer>] - Expander reset count
  Number of times an expander reset has been performed on a module

[-expander-power-cycle-count <integer>] - Expander power cycle count
  Number of times an expander power cycle has been performed on a module

**Examples**

The following example displays the ACP modules connected to each node:
cluster1::> storage shelf acp module show

Node               Module Name        State
-----------------  -----------------  ----------------------
stor-v4-1a-1b-01   1.10.A             Active
                  1.10.B             Active
                  1.254.B            Active
                  1.254.A            Active
stor-v4-1a-1b-02   1.10.A             Active
                  1.10.B             Active
                  1.254.B            Active
                  1.254.A            Active
8 entries were displayed.

The following example displays the -instance output of the storage shelf acp module show. More details on each module can be seen here.

cluster1::> storage shelf acp module show -instance
Node: stor-v4-1a-1b-01
   Module Name: 1.10.A
   Mac Address: 00:a0:98:19:53:ee
   IOM Type: IOM6E
   Shelf Serial Number: SHJMS000000001A
   IP Address: 192.168.3.239
   Protocol Version: 2.1.1.21
   Assigner ID: 2.1.1.21
   State: Active
   Last Contact: 203
   Power Cycle Count: 0
   Power Off Count: 0
   Power On Count: 0
   Expander Reset Count: 0
   Expander Power Cycle Count: 0
Node: stor-v4-1a-1b-01
   Module Name: 1.10.B
   Mac Address: 00:a0:98:19:55:16
   IOM Type: IOM6E
   Shelf Serial Number: SHJMS000000001A
   IP Address: 192.168.1.23
   Protocol Version: 2.1.1.21
   Assigner ID: 2.1.1.21
   State: Active
   Last Contact: 206
   Power Cycle Count: 0
   Power Off Count: 0
Power On Count: 0
Expander Reset Count: 0
Expander Power Cycle Count: 0
Node: stor-v4-1a-1b-01
   Module Name: 1.254.B
   Mac Address: 00:a0:98:32:d6:ac
   IOM Type: IOM6
   Shelf Serial Number: 6000368103
   IP Address: 192.168.2.173
   Protocol Version: 1.2.2. 8
   Assigner ID: 1.2.2. 8
   State: Active
   Last Contact: 215
   Power Cycle Count: 0
   Power Off Count: 0
   Power On Count: 0
   Expander Reset Count: 0
Expander Power Cycle Count: 0
Node: stor-v4-1a-1b-01
   Module Name: 1.254.A
   Mac Address: 00:a0:98:32:d6:dc
   IOM Type: IOM6
   Shelf Serial Number: 6000368103
   IP Address: 192.168.2.221
   Protocol Version: 1.2.2. 8
   Assigner ID: 1.2.2. 8
   State: Active
   Last Contact: 218
   Power Cycle Count: 0
   Power Off Count: 0
   Power On Count: 0
   Expander Reset Count: 0
Expander Power Cycle Count: 0
Node: stor-v4-1a-1b-02
   Module Name: 1.106.A
   Mac Address: 00:a0:98:19:53:ee
   IOM Type: IOM6E
   Shelf Serial Number: SHJMS000000001A
   IP Address: 192.168.3.239
   Protocol Version: 2.1.1.21
   Assigner ID: 2.1.1.21
   State: Initializing
   Last Contact: 206
   Power Cycle Count: 0
   Power Off Count: 0
   Power On Count: 0
Expander Reset Count: 0
Expander Power Cycle Count: 0
Node: stor-v4-la-1b-02
  Module Name: 1.106.B
  Mac Address: 00:a0:98:19:55:16
  IOM Type: IOM6E
  Shelf Serial Number: SHJMS000000001A
  IP Address: 192.168.1.23
  Protocol Version: 2.1.1.21
  Assigner ID: 2.1.1.21
  State: Initializing
  Last Contact: 209
  Power Cycle Count: 0
  Power Off Count: 0
  Power On Count: 0
  Expander Reset Count: 0
Expander Power Cycle Count: 0
Node: stor-v4-la-1b-02
  Module Name: 1.10.B
  Mac Address: 00:a0:98:32:d6:ac
  IOM Type: IOM6
  Shelf Serial Number: 6000368103
  IP Address: 192.168.2.173
  Protocol Version: 1.2.2.8
  Assigner ID: 1.2.2.8
  State: Initializing
  Last Contact: 217
  Power Cycle Count: 0
  Power Off Count: 0
  Power On Count: 0
  Expander Reset Count: 0
Expander Power Cycle Count: 0
Node: stor-v4-la-1b-02
  Module Name: 1.10.A
  Mac Address: 00:a0:98:32:d6:dc
  IOM Type: IOM6
  Shelf Serial Number: 6000368103
  IP Address: 192.168.2.221
  Protocol Version: 1.2.2.8
  Assigner ID: 1.2.2.8
  State: Initializing
  Last Contact: 220
  Power Cycle Count: 0
  Power Off Count: 0
  Power On Count: 0
  Expander Reset Count: 0
storage shelf drawer show-phy

Display a list of PHYs per drawer

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

Description

The storage shelf drawer show-phy command displays information for drawer PHYs in the storage system. If no parameters are specified, the default command displays the following information about PHYs:

• Shelf Name
• Drawer Number
• PHY Number
• Type
• SAS Address
• State

To display detailed information about a single PHY, use the -shelf, -drawer, and -phy parameters.

Parameters

{-fields <fieldname>,…}
Displays the specified fields for all drawer PHYs, in column style output.

[-instance ]
Displays expanded information for all drawer PHYs in the system. If a shelf, drawer, and PHY are specified, then this parameter displays the same detailed information for the PHY you specify as does the -shelf, -drawer, and -phy parameters.

[-shelf <text>] - Shelf Name
Displays the PHYs in the storage shelf that matches the specified shelf name.

[-drawer <integer>] - Drawer Number
Displays the PHYs in the drawers that match the specified drawer number.

[-phy <integer>] - PHY Number
Displays the PHYs that match the specified PHY number.

[-node {<nodename>|local}] - Node Name
Displays the PHYs that are present for the specified node.
[-type {unknown|disk|virtual|input}] - Type
Displays the PHYs with the specified type.

[-physical-id <integer>] - Physical ID
Displays the PHYs that match the specified physical-id.

[-sas-address <text>] - Attached SAS Address
Displays the PHYs with the specified attached sas address.

[-state-a {unknown|enabled|disabled}] - State Module A
Displays the PHYs for which module A has the specified state.

[-state-b {unknown|enabled|disabled}] - State Module B
Displays the PHYs for which module B has the specified state.

[-status-a <Drawer PHY Status>] - Status Module A
Displays the PHYs with module A currently operating under the specified status.

[-status-b <Drawer PHY Status>] - Status Module B
Displays the PHYs with module B currently operating under the specified status.

Examples
The following example displays information about all drawer PHYs:

```bash
cluster1::> storage shelf drawer show-phy
Shelf Drawer PHY #  Type     SAS Address         PHY State A/B
----- ------ -----  -------- ----------------- -----------------
2.5     1  disk     00c5005079183f85   enabled/enabled
1  disk     -                  enabled/enabled
2  disk     -                  enabled/enabled
3  disk     00c50050e1183f85   enabled/enabled
4  disk     -                  enabled/enabled
5  disk     -                  enabled/enabled
6  disk     00c50050dd183f85   enabled/enabled
7  disk     -                  enabled/enabled
8  disk     -                  enabled/enabled
9  disk     00c500502d163f85   enabled/enabled
10  disk     -                  enabled/enabled
11  disk     -                  enabled/enabled
12  input    80090a5045e46f06   enabled/enabled
13  input    80090a5045e46f06   enabled/enabled
14  input    80090a5045e46f06   enabled/enabled
15  input    80090a5045e46f06   enabled/enabled
16  virtual  8a090a503dd01b17   enabled/enabled
```
<table>
<thead>
<tr>
<th></th>
<th>Type</th>
<th>Identifier</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>disk</td>
<td>00c500503d0e3d85</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>1</td>
<td>disk</td>
<td>-</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>2</td>
<td>disk</td>
<td>-</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>3</td>
<td>disk</td>
<td>00c50050e9173f85</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>4</td>
<td>disk</td>
<td>-</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>5</td>
<td>disk</td>
<td>-</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>6</td>
<td>disk</td>
<td>00c50050a9163f85</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>7</td>
<td>disk</td>
<td>-</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>8</td>
<td>disk</td>
<td>-</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>9</td>
<td>disk</td>
<td>00c5005021173f85</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>10</td>
<td>disk</td>
<td>-</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>11</td>
<td>disk</td>
<td>-</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>12</td>
<td>input</td>
<td>80090a5045e46f06</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>13</td>
<td>input</td>
<td>80090a5045e46f06</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>14</td>
<td>input</td>
<td>80090a5045e46f06</td>
<td>enabled/enabled</td>
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<tr>
<td>15</td>
<td>input</td>
<td>80090a5045e46f06</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>16</td>
<td>virtual</td>
<td>8a090a503d90fd16</td>
<td>enabled/enabled</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Type</th>
<th>Identifier</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>disk</td>
<td>00c500503d163f85</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>1</td>
<td>disk</td>
<td>-</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>2</td>
<td>disk</td>
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<td>enabled/enabled</td>
</tr>
<tr>
<td>3</td>
<td>disk</td>
<td>00c50050bd163f85</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>4</td>
<td>disk</td>
<td>-</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>5</td>
<td>disk</td>
<td>-</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>6</td>
<td>disk</td>
<td>00c50050c1d44085</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>7</td>
<td>disk</td>
<td>-</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>8</td>
<td>disk</td>
<td>-</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>9</td>
<td>disk</td>
<td>00c50050f1d54085</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>10</td>
<td>disk</td>
<td>-</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>11</td>
<td>disk</td>
<td>-</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>12</td>
<td>input</td>
<td>80090a5045e46f06</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>13</td>
<td>input</td>
<td>80090a5045e46f06</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>14</td>
<td>input</td>
<td>80090a5045e46f06</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>15</td>
<td>input</td>
<td>80090a5045e46f06</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>16</td>
<td>virtual</td>
<td>8a090a503d202a17</td>
<td>enabled/enabled</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Type</th>
<th>Identifier</th>
<th>Status</th>
</tr>
</thead>
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<td>00c50050fdd54085</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>1</td>
<td>disk</td>
<td>-</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>2</td>
<td>disk</td>
<td>-</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>3</td>
<td>disk</td>
<td>00c50050d9d44085</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>4</td>
<td>disk</td>
<td>a0cc0050e5973712</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>5</td>
<td>disk</td>
<td>-</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>6</td>
<td>disk</td>
<td>00c500506dd34085</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>7</td>
<td>disk</td>
<td>-</td>
<td>enabled/enabled</td>
</tr>
<tr>
<td>8</td>
<td>disk</td>
<td>-</td>
<td>enabled/enabled</td>
</tr>
</tbody>
</table>
The following example displays expanded information for PHY 0 of drawer 1 in shelf 2.5:

```bash
cluster1::> storage shelf drawer show-phy -shelf 2.5 -drawer 1 -phy 0
```

Shelf: 2.5
Drawer ID: 1
PHY Number: 0
Type: disk
Physical ID: 1
SAS Address: 00c5005079183f85
State A: enabled
State B: enabled
Status A: enabled-12gbs
Status B: enabled-12gbs

```
cluster1::>
```
**storage shelf drawer show-slot**

Display a map between bay number and drawer/slot number

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

**Description**

The `storage shelf drawer show-slot` command maps each drawer and slot number to the corresponding bay number.

**Parameters**

{
  [-fields <fieldname>,...]
  
  Displays the specified fields in column style output.

  | [-instance ]
  
  Displays all slot information.

  [-shelf <text>] - Shelf Name
  
  Displays the slots in the shelf that matches the specified shelf name.

  [-bay <integer>] - Bay Number
  
  Displays the slots that have the specified bay number.

  [-node {<nodename>|local}] - Node Name
  
  Displays the slots that are present for the specified node.

  [-drawer <integer>] - Drawer Number
  
  Displays the slots in the drawers that match the specified drawer number.

  [-slot <integer>] - Slot Number
  
  Displays the slots that match the specified slot number.

  [-is-installed {yes|no}] - Is Disk Installed
  
  Displays the slots that have a disk installed.

**Examples**

The following example displays the mapping from drawer and slot number to bay number:

```
cluster1::> storage shelf drawer show-slot
Shelf  Drawer  Slot  Bay  Installed?
       -----  ----  ---  ----------
2.5
     1
          0  0  yes
     1
          1  1  no
```
<table>
<thead>
<tr>
<th>2</th>
<th>2</th>
<th>no</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
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<tr>
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<td>9</td>
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</tr>
<tr>
<td>11</td>
<td>11</td>
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</table>

<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
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<td>11</td>
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<table>
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<tbody>
<tr>
<td>0</td>
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<tr>
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</tr>
<tr>
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</tr>
<tr>
<td>4</td>
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<td>5</td>
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<td>6</td>
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<td>7</td>
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<td>11</td>
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</tbody>
</table>

<table>
<thead>
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</tr>
</thead>
<tbody>
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</tr>
<tr>
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<tr>
<td>7</td>
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<tr>
<td>8</td>
</tr>
</tbody>
</table>
## storage shelf drawer show

Display a list of drawers

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

**Description**

The `storage shelf drawer show` command displays information for storage shelf drawers in the storage system. If no parameters are specified, the default command displays the following information for the drawers:

- Shelf Name
- Drawer Number
- Status
- Closed/Open
- Disk Count
- Firmware

To display detailed information for a single drawer, use the `-shelf` and `-drawer` parameters.

**Parameters**

```bash
[-fields <fieldname>,...]
```

Displays the specified fields for all drawers, in column style output.
| [-errors ] |
| Displays the following error status information about the drawers that have errors: |
| • Status |
| • Error Description |

| [-instance ] |
| Displays expanded information for all drawers in the system. If a shelf and drawer are specified, then this parameter displays the same detailed information for the specified drawer as does the -shelf and -drawer parameters. |

| [-shelf <text>] - Shelf Name |
| Displays the drawers in the storage shelf that matches the specified shelf name. |

| [-drawer <integer>] - Drawer Number |
| Displays the drawers that match the specified drawer number. |

| [-node {<nodename>|local}] - Node Name |
| Displays the drawers that are present for the specified node. |

| [-disk-count <integer>] - Drawer Disk Count |
| Displays the drawers that have the specified disk count. |

| [-part-number <text>] - Part Number |
| Displays the drawers that have the specified part number. |

| [-serial-number <text>] - Serial Number |
| Displays the drawer that matches the specified serial number. |

| [-is-closed {open|closed}] - Drawer is Closed? |
| Displays the drawers that are closed or open. |

| [-firmware-a <text>] - Firmware A |
| Displays the drawers for which module A has the specified firmware version. |

| [-firmware-b <text>] - Firmware B |
| Displays the drawers for which module B has the specified firmware version. |

| [-path-a {unknown|ok|degraded|none}] - Path A |
| Displays the drawers for which module A has the specified path status. |

| [-path-b {unknown|ok|degraded|none}] - Path B |
| Displays about drawers for which module B has the specified path status. |

| [-is-supported {yes|no}] - Drawer is Supported? |
| Displays the drawers that are supported (TRUE) or not supported (FALSE). |

| [-vendor <text>] - Vendor Name |
| Displays the drawers that match the specified vendor. |
[-mfg-date <text>] - Mfg. Date
Displays the drawers that match the specified manufactured date.

[-fru-type <text>] - FRU Type
Displays the drawers that match the specified FRU type.

[-status-a {unknown|normal|warning|error|critical}] - Status A
Displays the drawers with module A currently operating under the specified status.

[-status-b {unknown|normal|warning|error|critical}] - Status B
Displays the drawers with module B currently operating under the specified status.

[-error <text>] - Error
Displays the drawers that match the specified error description.

Examples
The following example displays information about all drawers:

class1::> storage shelf drawer show
Drawer   Disk
Shelf Drawer    Status A/B     Closed? Count   Firmware A/B
----- ------ ----------------- ------- ----- ------------------
2.5
1   normal/normal   closed      4 00000634/00000634
2   normal/normal   closed      4 00000634/00000634
3   normal/normal   closed      4 00000634/00000634
4   normal/normal   closed      5 00000634/00000634
5   normal/normal   closed      4 00000634/00000634
5 entries were displayed.
class1::>

The following example displays expanded information about drawer 1 in shelf 2.5:
The following example displays error information about the drawers that have errors:

```
cluster1::> storage shelf drawer show -errors
Shelf Drawer    Status A/B     Error Description
----- ------ ----------------- -----------------------------
                                    -----------------------------------------------
                                    Path A: ok
                                    Path B: ok
                                    Status A: normal
                                    Status B: normal
                                    Drawer is Supported?: yes
                                    Vendor Name: NETAPP
                                    Mfg. Date: 02/2016
                                    FRU Type: SASDRWR
                                    Error Description: -
```

### storage shelf firmware show-update-status

Display the Shelf Firmware Update (SFU) Status.

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

**Description**

The `storage shelf firmware show-update-status` command displays the state of the Shelf Firmware Update process.

**Parameters**
{ [-fields <fieldname>,...] 
  If you specify the -fields <fieldname>, ... parameter, the command output also includes the specified field or fields. You can use `-fields ?' to display the fields to specify.

| [-instance ] |
  If you specify the -instance parameter, the command displays detailed information about all fields.

[-node <nodename>] - Node (privilege: advanced)
  Selects the node that matches this parameter value.

[-update-status {running|idle}] - Disk Shelf Firmware Update Status (privilege: advanced)
  Selects the nodes whose SFU process status matches this parameter value. Possible values are:
  - running - Disk shelf firmware update is in progress.
  - idle - Disk shelf firmware update is not in progress.

[-in-progress-count <integer>] - Number of Shelves with Earlier Revisions Being Updated (privilege: advanced)
  Selects the nodes that matches the number of shelves the SFU process is updating to this parameter value. This specifies the number of shelves with earlier revisions that are being updated.

Examples

```
cluster1::>* storage shelf firmware show-update-status

<table>
<thead>
<tr>
<th>Node</th>
<th>Status</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>cluster-n1</td>
<td>running</td>
<td>10</td>
</tr>
<tr>
<td>cluster-n2</td>
<td>idle</td>
<td>-</td>
</tr>
<tr>
<td>cluster-n3</td>
<td>running</td>
<td>7</td>
</tr>
</tbody>
</table>
```

storage shelf firmware update

Update Shelf Firmware

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

**Description**

The `storage shelf firmware update` command updates the firmware on one or more shelves. You can download the latest firmware by using the `storage firmware download` command. You can specify a shelf whose firmware is to be updated by using the -shelf parameter. You can update the firmware on all the shelves by not providing the -shelf parameter. All the shelves of a specific module type can be updated by providing a value to the -module-type parameter.
Parameters

{-shelf <text>} - Shelf Name (privilege: advanced)
This specifies the name of the shelf whose firmware is to be updated.

{-module-type}
{atfx|esh4|iom3|iom6|iom6e|iom12|iom12e|iom12b|nsm100|nsm8e|iom12g|nsml6e} - Shelf Module Type (privilege: advanced)
Update the firmware on the shelves that match the module-type you specify.

{-refresh <true>} - Refresh (privilege: advanced)
Forces an update on the shelf with the highest revision of the applicable firmware, resulting in a refresh of the firmware image already present on the shelf.

Examples

The following example updates the firmware on all the shelves in the cluster:

```
cluster1::*> storage shelf firmware update
```

The following example updates the firmware on all shelves with the IOM6 module type:

```
cluster1::*> storage shelf firmware update -module-type IOM6
```

The following example updates the firmware on shelf 1.2:

```
cluster1::*> storage shelf firmware update -shelf 1.2
```

The following example refreshes the firmware on all shelves with the IOM6 module type:

```
cluster1::*> storage shelf firmware update -refresh -module-type IOM6
```

The following example refreshes the firmware on shelf 1.2:

```
cluster1::*> storage shelf firmware update -refresh -shelf 1.2
```

Related Links

- storage firmware download

storage shelf location-led modify

Modify the state of the shelf Location LED
Availability: This command is available to cluster administrators at the admin privilege level.

Description

The `storage shelf location-led modify` command modifies the on/off state of the shelf location LED.

Parameters

- `-shelf-name <text>` - Shelf Name
  This parameter specifies the shelf whose LED is to be turned on or turned off.

- `[-led-status {on|off}]` - Location LED
  This parameter specifies whether the shelf location LED needs to be turned on or turned off.

Examples

The following example turns on the shelf location LED of the specified shelf.

```
cluster1::> storage shelf location-led modify -shelf-name 1.0 -led-status on
Info: Shelf locate request successful for shelf "1.0".
```

The following example turns off the shelf location LED of the specified shelf.

```
cluster1::> storage shelf location-led modify -shelf-name 1.0 -led-status off
Info: Shelf locate request successful for shelf "1.0".
```

`storage shelf location-led show`

Display the Location LED status

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

Description

The `storage shelf location-led show` command displays the state of shelf location LED.

Parameters

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

If you specify the `-fields <fieldname>, ...` parameter, the command output also includes the specified field or fields. You can use `-fields ?` to display the fields to specify.
If you specify the `-instance` parameter, the command displays detailed information about all fields.

[-shelf-name <text>] - Shelf Name
Selects the shelves whose shelf-name matches this parameter value.

[-node {<nodename>|local}] - Node Name
Selects the nodes that match this parameter value.

[-stack-id <integer>] - Stack ID
Selects the shelves whose stack-id matches this parameter value.

[-shelf-id <integer>] - Shelf ID
Selects the shelves whose shelf-id matches this parameter value.

[-led-status {on|off}] - Location LED
Shows the state of the shelf location LED.

**Examples**

The following example shows the state of the shelf location LED for each shelf.

```
cluster1::> storage shelf location-led show

Shelf Name  Stack ID  Shelf ID  LED Status
----------  --------  --------  -----------
  8.2       8        2        off
  8.3       8        3        off
  6.0       6        0  unsupported
  8.1       8        1        off

4 entries were displayed.
```

**storage shelf port show**

Display storage shelf ports

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

**Description**

The `storage shelf port show` command displays information for storage shelf ports in the storage system. If no parameters are specified, the default command displays the following information for the ports:

- Shelf Name
- ID
- Module
- State
To display detailed information for a single port, use the `-shelf` and `-id` parameters.

**Parameters**

```plaintext
[-fields <fieldname>,…]  
Displays output in column style about the specified fields for all shelf ports.

[-cables ]  
Displays information about all cables connected to the shelf ports.

[-instance ]  
Displays expanded information for all shelf ports in the system. If a shelf and ID are specified, then this parameter displays the same detailed information for the specified port as does the -shelf and -id parameters.

[-shelf <text>] - Shelf Name  
Displays the ports in the storage shelf that matches the specified shelf name.

[-id <integer>] - Port ID  
Displays the ports that match the specified ID.

[-node {<nodename>|local}] - Node Name  
Displays the ports that are present for the specified node.

[-module-id {A|B}] - Module ID  
Displays the ports from the specified shelf module ID.

[-is-internal {true|false}] - Is Port Internal?  
Displays the ports that are internal.

[-location <text>] - Location  
Displays the ports with the specified location.

[-is-cable-connected {true|false}] - Is Cable Connected?  
Displays the ports that have cables connected to them.

[-is-error {true|false}] - Any Errors?  
Displays the ports for which errors have been logged.

[-connector-state {connected|disconnected|error}] - Connector State  
Displays the ports with the specified connector state.

[-connector-serial-number <text>] - Connector Serial Number  
Displays the ports with the specified connector serial number.

[-connector-type {QSFP|QSFP+|QSFP28|Mini-SAS-HD}] - Connector Type  
Displays the ports with the specified connector type.
[-cable-vendor <text>] - Cable Vendor
Displays the ports that are connected to a cable from the specified vendor.

[-cable-part-number <text>] - Cable Part Number
Displays the ports that are connected to a cable with the specified part number.

[-cable-technology {active-copper|passive-copper|optical}] - Cable Technology
Displays the ports that are connected to a cable with the specified technology.

[-cable-length <text>] - Cable Length
Displays the ports that are connected to a cable with the specified length.

[-cable-id <text>] - Cable ID
Displays the ports that are connected to a cable with the specified ID.

[-cable-end {end_0|end_1}] - Cable End
Displays the ports that are connected to a cable with the specified cable end.

[-designator <text>] - Designator
Displays the ports with the specified designator.

[-wwn <text>] - Local Device WWN
Displays the ports with the specified WorldWide Name (WWN).

[-remote-wwn <text>] - Remote Device WWN
Displays the ports connected to the specified remote WorldWide Name (WWN).

[-remote-phy <text>] - Remote Phy
Displays the ports connected to the specified remote PHY.

[-swap-count <integer>] - Swap Count
Displays the ports with the specified swap count.

[-mac <MAC Address>] - Local MAC Address
Displays the ports with the specified MAC address.

[-remote-mac <MAC Address>] - Remote MAC Address
Displays the ports connected to the specified MAC address.

[-remote-port <text>] - Remote Port
Displays the ports connected to the specified port.

[-remote-chassis <text>] - Remote Chassis
Displays the ports connected to the specified chassis.

[-remote-device <text>] - Remote Device
Displays the ports connected to the specified device.
[-vlan-id <integer>] - VLAN ID
  Displays the ports with the specified Virtual LAN (VLAN) ID.

[-link-state {unknown|online|offline}] - Link State
  Displays the ports with the specified link state.

Examples

The following example displays information about all shelf ports:

```bash
cluster1::> storage shelf port show

<table>
<thead>
<tr>
<th>Shelf ID</th>
<th>Module</th>
<th>State</th>
<th>Internal?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.4</td>
<td>0 A</td>
<td>connected</td>
<td>false</td>
</tr>
<tr>
<td>1 A</td>
<td>connected</td>
<td>false</td>
<td></td>
</tr>
<tr>
<td>2 B</td>
<td>connected</td>
<td>false</td>
<td></td>
</tr>
<tr>
<td>3 B</td>
<td>connected</td>
<td>false</td>
<td></td>
</tr>
</tbody>
</table>

4 entries were displayed.
```

The following example displays expanded information about port 0 in shelf 1.4:
cluster1::> storage shelf port show -shelf 1.4 -id 0
Shelf Name: 1.4
    Port ID: 0
    Module ID: A
    Is Port Internal?: false
        Location: rear of the shelf at the top left, on shelf module A
    Is Cable Connected?: true
    Any Errors?: false
    Connector State: connected
Connector Serial Number: 616930439
    Connector Type: qsfp+
    Cable Vendor: Molex Inc.
    Cable Part Number: 112-00431+A0
    Cable Technology: passive-copper
    Cable Length: 5m
        Cable ID: 500a0980000b6c3f-50000d1703544b80
        Cable End: end_1
        Designator: sqr
    Local Device WWN: 500A0980000B6C3F
    Remote Device WWN: 50000D1703544B80
    Remote Phy: 12
    Swap Count: 0

The following example displays information about the cables:

cluster1::> storage shelf port show -cables
Shelf: 1.4

<table>
<thead>
<tr>
<th>ID</th>
<th>Vendor</th>
<th>Part Number</th>
<th>Technology</th>
<th>Length</th>
<th>Type</th>
<th>Serial Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Molex Inc.</td>
<td>112-00431+A0</td>
<td>passive-copper</td>
<td>5m</td>
<td>qsfp+</td>
<td>616930439</td>
</tr>
<tr>
<td>1</td>
<td>Molex Inc.</td>
<td>112-00431+A0</td>
<td>passive-copper</td>
<td>5m</td>
<td>qsfp+</td>
<td>616930364</td>
</tr>
<tr>
<td>2</td>
<td>Molex Inc.</td>
<td>112-00431+A0</td>
<td>passive-copper</td>
<td>5m</td>
<td>qsfp+</td>
<td>616930452</td>
</tr>
<tr>
<td>3</td>
<td>Molex Inc.</td>
<td>112-00431+A0</td>
<td>passive-copper</td>
<td>5m</td>
<td>qsfp+</td>
<td>616930474</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4 entries were displayed.
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