



# **storage bridge commands**

## **ONTAP 9.3 commands**

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# storage bridge commands

## storage bridge add

Add a bridge for monitoring

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

### Description

The `storage bridge add` command enables you to add FC-to-SAS bridges for SNMP monitoring in a MetroCluster configuration.

### Parameters

**-address <IP Address> - Bridge Management Port IP Address**

This parameter specifies the IP address of the bridge that is being added for monitoring.

**[-snmp-community <text>] - SNMP Community**

This parameter specifies the SNMP community set on the bridge that is being added for monitoring.

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

If specified, the `storage bridge add` command will not check if the bridge is present in the MetroCluster's backend fabric. By default, it does not let you add bridges that are not present.

### Examples

The following command adds a bridge with IP address '10.226.197.16' for monitoring:

```

cluster1::> storage bridge add -address 10.226.197.16
cluster1::> storage bridge show

```

Monitor	Bridge	Symbolic Name	Vendor	Model	Bridge WWN	Is Monitored
	ATTO_10.226.197.16	Bridge Number 16	Atto	FibreBridge 6500N	2000001086603824	true
	ATTO_FibreBridge6500N_2	Not Set	Atto	FibreBridge 6500N	20000010866037e8	false
	ATTO_FibreBridge6500N_3	Not Set	Atto	FibreBridge 6500N	2000001086609e0e	false
	ATTO_FibreBridge6500N_4	Not Set	Atto	FibreBridge 6500N	2000001086609c06	false

```

4 entries were displayed.
cluster1::>

```

## storage bridge modify

Modify a bridge's configuration information

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

### Description

The `storage bridge modify` enables you to modify certain parameters for identifying and accessing the FC-to-SAS bridges added for monitoring in a MetroCluster configuration.

### Parameters

**-name <text> - Bridge Name**

This parameter specifies the name of the bridge.

### **[`-address <IP Address>`] - Bridge IP Address**

This parameter specifies the IP address of the bridge.

### **[`-snmp-community <text>`] - SNMP Community Set on the Bridge**

This parameter specifies the SNMP community set on the bridge.

## **Examples**

The following command modifies 'ATTO\_10.226.197.16' bridge SNMP community to 'public':

```
cluster1::> storage bridge modify -name ATTO_10.226.197.16 -address
10.226.197.16 -snmp-community public
cluster1::>
```

## **storage bridge refresh**

Refresh storage bridge info

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

### **Description**

The `storage bridge 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 bridge refresh
cluster1::*>
```

### **Related Links**

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

## **storage bridge remove**

Remove a bridge from monitoring

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

## Description

The `storage bridge remove` enables you to remove FC-to-SAS bridges that were previously added for SNMP monitoring.

## Parameters

### `-name <text>` - Bridge Name

This parameter specifies the name of the bridge added for monitoring.

## Examples

The following command removes 'ATTO\_10.226.197.16' bridge from monitoring:

```
cluster1::> storage bridge remove -name ATTO_10.226.197.16
cluster1::> storage bridge show
```

Monitor	Bridge	Symbolic Name	Vendor	Model	Bridge WWN	Is Monitored
						Is Monitored
Status						
	ATTO_FibreBridge6500N_1	Bridge Number 16	Atto	FibreBridge 6500N	2000001086603824	false
-	ATTO_FibreBridge6500N_2	Not Set	Atto	FibreBridge 6500N	20000010866037e8	false
-	ATTO_FibreBridge6500N_3	Not Set	Atto	FibreBridge 6500N	2000001086609e0e	false
-	ATTO_FibreBridge6500N_4	Not Set	Atto	FibreBridge 6500N	2000001086609c06	false
-	4 entries were displayed.					

## storage bridge show

Display bridge information

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

## Description

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

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

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

## Parameters

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

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

**| [-connectivity ]**

Displays the following details about the connectivity from different entities to the storage bridge:

- Node
- Initiator
- Initiator Side Switch Port
- Target Side Switch Port
- Target Port WWN
- Target Port Number

**| [-cooling ]**

Displays the following details about the chassis temperature sensor(s) on the storage bridge:

- Sensor Name
- Reading in degree Celsius ©
- Fan operational status
- Minimum Safe Operating Temperature in degree Celsius ©
- Maximum Safe Operating Temperature in degree Celsius ©
- Sensor Status

**| [-error ]**

Displays the errors related to the storage bridge.

### | [-ports ]

Displays the following details about the storage bridge FC ports:

- Port number
- Port administrative status
- Port operational status
- Port operating mode
- Port negotiated speed
- Peer world wide name

Displays the following details about the storage bridge SAS ports:

- Port number
- Port negotiated data rate
- Port data rate capability
- Port PHY1 operational status
- Port PHY2 operational status
- Port PHY3 operational status
- Port PHY4 operational status
- Port administrative status
- Port operational status
- Peer world wide name

### | [-power ]

Displays the status of the replaceable power supplies for the FibreBridge 7500 only:

- Power supply name
- Power supply status

### | [-sfp ]

Displays the following details about the storage bridge FC ports Small Form-factor Pluggable (SFP):

- Port number
- SFP vendor
- SFP serial number
- SFP part number
- SFP speed capability

Displays the following details about the storage bridge SAS ports Quad Small Form-factor Pluggable (QSFP):

- Port number
- QSFP vendor
- QSFP serial number



- QSFP type
- QSFP part number

Displays the following details about the storage bridge SAS ports Mini-SAS HD:

- Port number
- Mini-SAS HD vendor
- Mini-SAS HD serial number
- Mini-SAS HD type
- Mini-SAS HD part number

#### | [-stats ]

Displays the following details about the storage bridge FC ports:

- Port number
- Port operational status
- Port operational mode
- Port negotiated speed
- Port link failure count
- Port synchronization loss count
- Port CRC error count
- Port operational mode
- Port received word count (Rx)
- Port transmitted word count (Tx)

Displays the following details about the storage bridge SAS ports:

- Port number
- PHY port number
- Port negotiated speed
- Port speed capability
- Port invalid DWORD count
- Port disparity error count
- Port synchronization loss count
- Port PHY reset count
- Port link changed count
- Port CRC error count

#### | [-instance ] }

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

**[-name <text>] - Bridge Name**

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

**[-wwn <text>] - Bridge World Wide Name**

Displays information only about the storage bridges that match the bridge wwn you specify.

**[-model <text>] - Bridge Model**

Displays information only about the storage bridges that match the bridge model you specify.

**[-vendor {unknown|Atto}] - Bridge Vendor**

Displays information only about the storage bridges that match the bridge vendor you specify.

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

Displays information only about the storage bridges that match the bridge firmware version you specify.

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

Displays information only about the storage bridges that match the bridge serial number you specify.

**[-address <IP Address>] - Bridge IP Address**

Displays information only about the storage bridges that match the bridge IP address you specify.

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

Displays information only about the storage bridges that match the bridge monitoring value you specify.

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

Displays information only about the storage bridges that match the bridge monitoring status you specify.

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

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

**[-symbolic-name <text>] - Bridge Symbolic Name**

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

**[-snmp-community <text>] - SNMP Community Set on the Bridge**

Displays information only about the storage bridges that match the bridge SNMP community you specify.

**[-error-text-list <text>,...] - Bridge Error Description List**

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

**[-temp-sensor-name <text>] - Temperature Sensor Name**

Displays information only about the storage bridges that have the temperature sensor with the name you specify.

**[-min-safe-oper-temp <integer>] - Minimum Safe Operating Temperature in Degree Celsius**

Displays information only about the storage bridges that have the temperature sensor with the minimum safe operating temperature you specify.

**[-max-safe-oper-temp <integer>] - Maximum Safe Operating Temperature in Degree Celsius**

Displays information only about the storage bridges that have the temperature sensor with the maximum safe operating temperature you specify.

**[-temp-reading <integer>] - Chassis Temperature Sensor Reading in Degree Celsius**

Displays information only about the storage bridges that have the temperature sensors with the reading you specify.

**[-temp-sensor-status {normal|warning|critical}] - Chassis Temperature Sensor Status**

Displays information only about the storage bridges that have the temperature sensor with the status you specify.

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

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

**[-fc-port-index-list <integer>,...] - Bridge FC Port Index List**

Displays information only about the storage bridges that have the ports with the indexes you specify.

**[-fc-port-oper-state-list {unknown|online|offline}] - Bridge FC Port Operational State List**

Displays information only about the storage bridges that have the ports with the operational states you specify.

**[-fc-port-admin-state-list {unknown|disabled|enabled}] - Bridge FC Port Admin State List**

Displays information only about the storage bridges that have the ports with the administrative states you specify.

**[-fc-port-negotiated-data-rate-list {unknown|2|4|8|16}] - Bridge FC Port Negotiated Data Rate List**

Displays information only about the storage bridges that have the ports with the negotiated data rates you specify.

**[-fc-port-negotiated-conn-mode-list {unknown|loop|n-port}] - Bridge FC Port Negotiated Connection Mode List**

Displays information only about the storage bridges that have the ports with the negotiated connection modes you specify.

**[-fc-port-wwn-list <text>,...] - Bridge FC Port WWN List**

Displays information only about the storage bridges that have the ports with the world wide names you specify.

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

Displays information only about the storage bridges that match the FC ports data last successful refresh timestamp you specify.

**[-fc-port-stats-index-list <integer>,...] - Bridge FC Port Index List**

Displays information only about the storage bridges that have the ports with the indexes you specify.

**[-fc-port-tx-words-list <integer>,...] - Bridge FC Port Transmitted Word Count List**

Displays information only about the storage bridges that have the ports with the number of transmitted words you specify.

**[-fc-port-rx-words-list <integer>,...] - Bridge FC Port Received Word Count List**

Displays information only about the storage bridges that have the ports with the number of received words you specify.

**[-fc-port-link-failures-list <integer>,...] - Bridge FC Port Link Failure Count List**

Displays information only about the storage bridges that have the ports with the number of link failures you specify.

**[-fc-port-sync-losses-list <integer>,...] - Bridge FC Port Sync Loss Count List**

Displays information only about the storage bridges that have the ports with the number of synchronization losses you specify.

**[-fc-port-invalid-crc-list <integer>,...] - Bridge FC Port Invalid CRC Count List**

Displays information only about the storage bridges that have the ports with the number of invalid CRCs you specify.

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

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

**[-sas-port-index-list <integer>,...] - Bridge SAS Port Index List**

Displays information only about the storage bridges that have the SAS ports with the indexes you specify.

**[-sas-port-oper-state-list {unknown|online|offline|degraded}] - Bridge SAS Port Operational State List**

Displays information only about the storage bridges that have the SAS ports with the operational states you specify.

**[-sas-port-phy1-oper-state-list {unknown|online|offline}] - Bridge SAS Port PHY1 Operational State List**

Displays information only about the storage bridges that have the SAS ports with the PHY1 operational states you specify.

**[-sas-port-phy2-oper-state-list {unknown|online|offline}] - Bridge SAS Port PHY2 Operational State List**

Displays information only about the storage bridges that have the SAS ports with the PHY2 operational states you specify.

**[-sas-port-phy3-oper-state-list {unknown|online|offline}] - Bridge SAS Port PHY3 Operational State List**

Displays information only about the storage bridges that have the SAS ports with the PHY3 operational states you specify.

**[-sas-port-phy4-oper-state-list {unknown|online|offline}] - Bridge SAS Port PHY4 Operational State List**

Displays information only about the storage bridges that have the SAS ports with the PHY4 operational

states you specify.

**[-sas-port-admin-state-list {unknown|disabled|enabled}] - Bridge SAS Port Administrative State List**

Displays information only about the storage bridges that have the SAS ports with the administrative states you specify.

**[-sas-port-data-rate-capability-list {unknown|1.5Gbps|3Gbps|6Gbps|12Gbps}] - Bridge SAS Port Data Rate Capability List**

Displays information only about the storage bridges that have the SAS ports with the data rate capabilities you specify.

**[-sas-port-negotiated-data-rate-list {unknown|1.5Gbps|3Gbps|6Gbps|12Gbps}] - Bridge SAS Port Negotiated Data Rate List**

Displays information only about the storage bridges that have the SAS ports with the negotiated data rates you specify.

**[-sas-port-wwn-list <text>,...] - Bridge SAS Port WWN List**

Displays information only about the storage bridges that have the SAS ports with the world wide names you specify.

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

Displays information only about the storage bridges that match the SAS ports data last successful refresh timestamp you specify.

**[-sas-port-stats-phy-index-list <integer>,...] - Bridge SAS Port PHY Index List**

Displays information only about the storage bridges that have the SAS ports with the PHY indexes you specify.

**[-sas-port-link-changed-list <integer>,...] - Bridge SAS Port Link Changed Count List**

Displays information only about the storage bridges that have the SAS ports with the link changed count you specify.

**[-sas-port-invalid-crc-list <integer>,...] - Bridge SAS Port Invalid CRC Count List**

Displays information only about the storage bridges that have the SAS ports with the invalid CRCs you specify.

**[-sas-port-phy-reset-list <integer>,...] - Bridge SAS Port PHY Reset Count List**

Displays information only about the storage bridges that have the SAS ports with the PHY reset count you specify.

**[-sas-port-sync-losses-list <integer>,...] - Bridge SAS Port Sync Loss Count List**

Displays information only about the storage bridges that have the SAS ports with the synchronization losses you specify.

**[-sas-port-disparity-count-list <integer>,...] - Bridge SAS Port Disparity Count List**

Displays information only about the storage bridges that have the SAS ports with the disparity count you specify.

**[-sas-port-invalid-dword-list <integer>,...] - Bridge SAS Port Invalid DWORD Count List**

Displays information only about the storage bridges that have the SAS ports with the invalid DWORD count you specify.

**[-sas-port-stats-index-list <integer>,...] - Bridge SAS Port Index List**

Displays information only about the storage bridges that have the SAS ports with the indexes you specify.

**[-sas-port-stats-data-rate-capability-list {unknown|1.5Gbps|3Gbps|6Gbps|12Gbps}] - Bridge SAS Port Data Rate Capability List**

Displays information only about the storage bridges that have the SAS ports with the data rate capabilities you specify.

**[-sas-port-stats-negotiated-data-rate-list {unknown|1.5Gbps|3Gbps|6Gbps|12Gbps}] - Bridge SAS Port Negotiated Data Rate List**

Displays information only about the storage bridges that have the SAS ports with the negotiated data rates you specify.

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

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

**[-fc-sfp-port-index-list <integer>,...] - Bridge FC Port Index List**

Displays information only about the storage bridges that have the FC ports with the indexes you specify.

**[-fc-port-sfp-vendor-list <text>,...] - Bridge FC Port SFP Vendor List**

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

**[-fc-port-sfp-serial-number-list <text>,...] - Bridge FC Port SFP Serial Number List**

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

**[-fc-port-sfp-part-number-list <text>,...] - Bridge FC Port SFP Part Number List**

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

**[-fc-port-sfp-data-rate-capability-list {2Gb|4Gb|8Gb|16Gb}] - Bridge FC Port SFP Data Rate Capability List**

Displays information only about the storage bridges that have the FC ports with the SFP data rate capabilities you specify.

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

Displays information only about the storage bridges that match the FC ports SFP data last successful refresh timestamp you specify.

**[-sas-qsfp-port-index-list <integer>,...] - Bridge SAS Port Index List**

Displays information only about the storage bridges that have the SAS ports with the indexes you specify.

**[-sas-port-qsfp-vendor-list <text>,...] - Bridge SAS Port QSFP Vendor List**

Displays information only about the storage bridges that have the SAS ports with the QSFP vendors you specify.

**[-sas-port-qsfp-serial-number-list <text>,...] - Bridge SAS Port QSFP Serial Number List**

Displays information only about the storage bridges that have the SAS ports with the QSFP serial numbers you specify.

**[-sas-port-qsfp-type-list {unknown|optical|active-copper|passive-copper}] - Bridge SAS Port QSFP Type List**

Displays information only about the storage bridges that have the SAS ports with the QSFP types you specify.

**[-sas-port-qsfp-part-number-list <text>,...] - Bridge SAS Port QSFP Part Number List**

Displays information only about the storage bridges that have the SAS ports with the QSFP part numbers you specify.

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

Displays information only about the storage bridges that match the SAS ports QSFP data last successful refresh timestamp you specify.

**[-mini-sas-hd-index-list <integer>,...] - Bridge Mini-SAS HD Index List**

Displays information only about the storage bridges that have SAS ports with the Mini-SAS HD indexes that you specify.

**[-mini-sas-hd-vendor-list <text>,...] - Bridge Mini-SAS HD Vendor List**

Displays information only about the storage bridges that have SAS ports with the Mini-SAS HD vendors that you specify.

**[-mini-sas-hd-serial-number-list <text>,...] - Bridge Mini-SAS HD Serial Number List**

Displays information only about the storage bridges that have SAS ports with the Mini-SAS HD serial numbers that you specify.

**[-mini-sas-hd-type-list <text>,...] - Bridge Mini-SAS HD Type List**

Displays information only about the storage bridges that have SAS ports with the Mini-SAS HD types that you specify.

**[-mini-sas-hd-part-number-list <text>,...] - Bridge Mini-SAS HD Part Number List**

Displays information only about the storage bridges that have SAS ports with the Mini-SAS HD part numbers that you specify.

**[-mini-sas-hd-data-last-successful-refresh-timestamp {MM/DD/YYYY HH:MM:SS [{+|-}hh:mm]}] - Bridge Mini-SAS HD Data Last Successful Refresh Timestamp**

Displays information only about the storage bridges that match the SAS ports Mini-SAS HD data with the last successful refresh timestamp that you specify.

**[-power-supply-index-list <integer>,...] - Bridge Power Supply Index List**

Displays information only about the storage bridges that have power supplies with the indexes that you specify.

**[-power-supply-name-list <text>,...] - Bridge Power Supply Name List**

Displays information only about the storage bridges that have power supplies with the name that you specify.

**[-power-supply-status-list {unknown|down|up}] - Bridge Power Supply Status List**

Displays information only about the storage bridges that have power supplies with the status that you specify.

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

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

**[-node-list {<nodename>|local}] - Node Name List**

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

**[-initiator-list <text>,...] - Initiator List**

Displays information only about the storage bridges that are connected to the nodes hosting the initiators you specify.

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

Displays information only about the storage bridges that are connected to the initiator side switch ports you specify.

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

Displays information only about the storage bridges that are connected to the target side switch ports you specify.

**[-target-port-wwn-list <text>,...] - Target Port WWN List**

Displays information only about the storage bridges that match the target ports with world wide names you specify.

**[-target-port-index-list <integer>,...] - Target Port Index List**

Displays information only about the storage bridges that match the target ports with indexes you specify.

## Examples

The following example displays information about all storage bridges:



```

cluster1::> storage bridge show
Monitor
Bridge      Symbolic Name Vendor  Model  Bridge WWN  Monitored
Status
-----
ATTO_10.226.197.16
      Bridge Number 16 retyped
      Atto  FibreBridge 6500N
      2000001086603824 true
ok
ATTO_10.226.197.17
      Not Set      Atto  FibreBridge 6500N
      20000010866037e8 true
ok
ATTO_10.226.197.18
      Not Set      Atto  FibreBridge 6500N
      2000001086609e0e true
ok
ATTO_10.226.197.19
      Not Set      Atto  FibreBridge 6500N
      2000001086609c06 true
ok
4 entries were displayed.
cluster1::>

```

The following example displays connectivity (node to bridge) information about all storage bridges:

```

cluster1::> storage bridge show -connectivity
Bridge Name: ATTO_10.226.197.16
    Bridge WWN: 2000001086603824
    Vendor: Atto
    Model: FibreBridge 6500N
    Serial Number: FB6500N101405
    Firmware Version: 1.60 A68E 51.01
    Management IP: 10.226.197.16
    Errors: -
Initiator Side Target Side          Port
Node          Initiator    Switch Port Switch Port Target Port WWN
-----
-----
-----
-----
-----
1
dpg-mcc-3240-15-b1  0c mcc-cisco-8Gb-fab-3:1-29
                                mcc-cisco-8Gb-fab-1:1-25
                                2100001086603824
1
dpg-mcc-3240-15-b2  0c mcc-cisco-8Gb-fab-3:1-30
                                mcc-cisco-8Gb-fab-1:1-25
                                2100001086603824
1

```

The following command displays cooling (temperature sensors) information about all storage bridges:

```

cluster1::> storage bridge show -cooling
Bridge Name: ATTO_10.226.197.16
    Bridge WWN: 2000001086603824
    Vendor: Atto
    Model: FibreBridge 6500N
    Serial Number: FB6500N101405
    Firmware Version: 1.60 A68E 51.01
    Management IP: 10.226.197.16
    Errors: -
Chassis Temperature Sensor:
                                Min Safe  Max Safe
Sensor Name Reading Oper Temp Oper Temp Status
-----
Chassis          42          0          70 normal
Temperature
Sensor

```

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

```

cluster1::> storage bridge show -error
Bridge Name: ATTO_10.226.197.16
  Bridge WWN: 2000001086603824

-----
----
      ATTO_10.226.197.16(2000001086603824):Bridge is Unreachable over
Management Network.
Bridge Name: ATTO_10.226.197.17
  Bridge WWN: 20000010866037e8

-----
----
      ATTO_10.226.197.17(20000010866037e8):Bridge is Unreachable over
Management Network.
Bridge Name: ATTO_10.226.197.18
  Bridge WWN: 2000001086609e0e

-----
----
      ATTO_10.226.197.18(2000001086609e0e):Bridge is Unreachable over
Management Network.
Bridge Name: ATTO_10.226.197.19
  Bridge WWN: 2000001086609c06

-----
----
      ATTO_10.226.197.19(2000001086609c06):Bridge is Unreachable over
Management Network.
4 entries were displayed.

```

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

```

cluster1::> storage bridge show -instance
Bridge Name: ATTO_10.226.197.16
  Bridge WWN: 2000001086603824
    Vendor: Atto
      Model: FibreBridge 6500N
    Serial Number: FB6500N101405
  Firmware Version: 1.60 A68E 51.01
  Management IP: 10.226.197.16
    Errors: -

```

The following command displays power supply information about all storage bridges:

```

cluster1::> storage bridge show -power
    Bridge Name: ATTO_10.226.197.47
      Bridge WWN: 2000001086601506
        Vendor: Atto
          Model: FibreBridge 6500N
            Serial Number: FB6500N100526
      Firmware Version: 1.60 069G 51.01
    Management IP: 10.226.197.47
      Errors: -
    Last Update Time: -

Bridge Power Supplies:

Power Supply Name Status
-----
- -

    Bridge Name: ATTO_10.226.197.48
      Bridge WWN: 20000010867002d0
        Vendor: Atto
          Model: FibreBridge 7500N
            Serial Number: FB7500N100018
      Firmware Version: 2.00 006U 105.01
    Management IP: 10.226.197.48
      Errors: -
    Last Update Time: 10/22/2015 13:37:37 -04:00

Bridge Power Supplies:

Power Supply Name Status
-----
    A up
    B down

```

The following command displays port information about all storage bridges:

```

cluster1::> storage bridge show -ports
Bridge Name: ATTO_10.226.197.16
    Bridge WWN: 2000001086603824
    Vendor: Atto
    Model: FibreBridge 6500N
    Serial Number: FB6500N101405
    Firmware Version: 1.60 A68E 51.01
    Management IP: 10.226.197.16
    Errors: -
FC Ports:
    Admin      Oper      Neg
    Ports Status  Status  Port Mode      Speed WWPN
    -----
    1 enabled  online  n-port      8gb 2100001086603824
    2 enabled  offline unknown      unknown 2200001086603824
Last Update Time: 8/12/2014 12:34:36 -04:00
SAS Ports:
    Neg Data
    Data Rate PHY1    PHY2    PHY3    PHY4    Admin  Oper
    Ports Rate  Cap Status  Status  Status  Status Status WWPN
    -----
    1
    3Gbps
    6Gbps online  online  online  online  enabled  online
5001086000603824
    2
    6Gbps
    6Gbps offline offline offline offline disabled offline
0000000000000000

```

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

```

cluster1::> storage bridge show -sfp
Bridge Name: ATTO_10.226.197.47
    Bridge WWN: 2000001086601506
    Vendor: Atto
    Model: FibreBridge 6500N
    Serial Number: FB6500N100526
    Firmware Version: 1.60 069G 51.01
    Management IP: 10.226.197.47
    Errors: -
    Last Update Time: 10/22/2015 13:27:37 -04:00

FC SFP:

```

Speed

Ports	Vendor	Serial Number	Part Number
-------	--------	---------------	-------------

-----  
-----

1	AVAGO	AD1020A01FC	AFBR-57D7APZ
8Gbps			
2	AVAGO	AD1020A01F7	AFBR-57D7APZ
8Gbps			

Last Update Timestamp: 10/22/2015 13:27:37 -04:00

SAS QSFP:

Ports	Vendor	Serial Number	SFP Type	Part Number
-------	--------	---------------	----------	-------------

-----  
-----

1	Molex Inc.	005820292	passive-copper	112-00176
2	-	-	unknown	-

Last Update Timestamp: -

Mini-SAS HD:

Ports	Vendor	Serial Number	SFP Type	Part Number
-------	--------	---------------	----------	-------------

-----  
-----

-	-	-	-	-
---	---	---	---	---

Bridge Name: ATTO\_10.226.197.48

Bridge WWN: 20000010867002d0

Vendor: Atto

Model: FibreBridge 7500N

Serial Number: FB7500N100018

Firmware Version: 2.00 006U 105.01

Management IP: 10.226.197.48

Errors: -

Last Update Time: 10/22/2015 13:27:37 -04:00

FC SFP:

Speed

Ports	Vendor	Serial Number	Part Number
-------	--------	---------------	-------------

-----  
-----

```

-----
      1 AVAGO          AC1442J00L5          AFBR-57F5MZ
16Gbps
      2 AVAGO          AC1442J00L0          AFBR-57F5MZ
16Gbps

```

Last Update Timestamp: -

SAS QSFP:

Ports	Vendor	Serial Number	SFP Type	Part Number
- -	-	-	-	-

Last Update Timestamp: 10/22/2015 13:27:37 -04:00

Mini-SAS HD:

Ports	Vendor	Serial Number	SFP Type	Part Number
1	Amphenol	APF14510026548	Passive Copper	1m ID:00 112-00429
2	-	-	-	-
3	-	-	-	-
4	-	-	-	-

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

```

cluster1::> storage bridge show -stats
Bridge Name: ATTO_10.226.197.16
      Bridge WWN: 2000001086603824
      Vendor: Atto
      Model: FibreBridge 6500N
      Serial Number: FB6500N101405
      Firmware Version: 1.60 A68E 51.01
      Management IP: 10.226.197.16
      Errors: -
FC Ports:
      Oper          Neg      Link      Sync      CRC          Rx
Tx
      Ports Status  Port Mode      Speed Failure Losses Error      Words
Words
-----
-----

```

```

1 online n-port 8gb 0 0 0 2721271731
3049186605
2 offline unknown unknown 1 1 0 0
0
Last Update Time: 8/12/2014 12:34:37 -04:00
SAS Ports:
Invalid Disparity Sync PHY Link
CRC
SAS PHY Neg Speed Dword Error Loss Reset Changed
Error
Port Port Speed Capability Count Count Count Count Count
Count
-----
-----
0 1 0 3Gbps 6Gbps 28262 26665 2 0 1
0 1 1 3Gbps 6Gbps 2110 1794 20 0 1
0 1 2 3Gbps 6Gbps 20435 18857 13 0 1
0 1 3 3Gbps 6Gbps 4573 3353 16 0 1
0 2 0 6Gbps 6Gbps 66 53 0 0 0
0 2 1 6Gbps 6Gbps 27478 25137 2 0 0
0 2 2 6Gbps 6Gbps 20537 17322 9 0 0
0 2 3 6Gbps 6Gbps 23629 21767 10 0 0
0

```

## Related Links

- [storage bridge add](#)

## storage bridge config-dump collect

Retrieve and save bridge dumpconfiguration

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

### Description

The `storage bridge config-dump collect` command retrieves a dumpconfiguration file from a storage bridge.



## Parameters

### **-bridge <text> - Bridge Name**

Use this parameter to retrieve a dumpconfiguration file from the specified storage bridge.

## Examples

The following example retrieves a dumpconfiguration file from storage bridge ATTO\_FibreBridge7500N\_1:

```
cluster1::*> storage bridge config-dump collect -bridge
ATTO_FibreBridge7500N_1
[Job 883] Job is queued: Collect the dumpconfiguration file from bridge
"ATTO_FibreBridge7500N_1".

cluster1::*>
```

## storage bridge config-dump delete

Delete a dumpconfiguration file

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

## Description

The `storage bridge config-dump delete` command deletes dumpconfiguration files previously retrieved with the [storage bridge config-dump collect](#) command.

## Parameters

### **-node {<nodename>|local} - Node**

Use this parameter to delete a dumpconfiguration file stored on the specified node.

### **-file <text> - Config File**

Use this parameter to delete the dumpconfiguration file with the specified file name.

## Examples

The following example deletes `dsbridge_config.FB7500N100001.2017-04-28_14_49_30.txt` from node1:

```
cluster1::*> storage bridge config-dump delete -node node1 -file
dsbridge_config.FB7500N100001.2017-04-28_14_49_30.txt

cluster1::*>
```

## Related Links

- [storage bridge config-dump collect](#)

# storage bridge config-dump show

Display a list of bridge dumpconfiguration files

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

## Description

The `storage bridge config-dump show` command displays information about all the dumpconfiguration files previously retrieved with the [storage bridge config-dump collect](#) command. If no parameters are specified, the default command displays the following information about the dumpconfiguration files:

- Node
- File Name
- Timestamp
- Bridge
- Bridge Serial Number

To display detailed information about a single dumpconfiguration file, use the `-node` and `-file` parameters.

## 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>|local}] - Node**

Displays information about the dumpconfiguration files stored on the node that matches the specified node name.

**[-file <text>] - Config File**

Displays information about the dumpconfiguration files that match the specified file name.

**[-bridge <text>] - Bridge Name**

Displays information about the dumpconfiguration files from the storage bridge that matches the specified bridge name.

**[-serial-number <text>] - Serial Number of Bridge**

Displays information about the dumpconfiguration files from the storage bridge that matches the specified serial number.

## **[-timestamp <MM/DD/YYYY HH:MM:SS>] - Time of Collection**

Displays information about the dumpconfiguration files that were collected at the specified time.

## **Examples**

The following example displays information about all dumpconfiguration files:

```
cluster1::*> storage bridge config-dump show

Bridge: ATTO_FibreBridge7500N_1

Node   File Name                                                    Timestamp
-----
-----
node1
      dsbridge_config.FB7500N100001.2017-05-01_09_53_53.txt 5/1/2017
09:53:53
node2
      dsbridge_config.FB7500N100001.2017-04-28_14_48_35.txt 4/28/2017
14:48:35
      dsbridge_config.FB7500N100001.2017-04-28_15_50_20.txt 4/28/2017
15:50:20
3 entries were displayed.

cluster1::*>
```

The following example displays detailed information about all dumpconfiguration files:

```
cluster1::*> storage bridge config-dump show -instance
Node: node1
    Bridge Name: ATTO_FibreBridge7500N_1
    Filename: dsbridge_config.FB7500N100001.2017-05-
01_09_53_53.txt
    Timestamp: 5/1/2017 09:53:53
Bridge Serial Number: FB7500N100001
Node: node2
    Bridge Name: ATTO_FibreBridge7500N_1
    Filename: dsbridge_config.FB7500N100001.2017-04-
28_14_48_35.txt
    Timestamp: 4/28/2017 14:48:35
Bridge Serial Number: FB7500N100001
Node: node2
    Bridge Name: ATTO_FibreBridge7500N_1
    Filename: dsbridge_config.FB7500N100001.2017-04-
28_15_50_20.txt
    Timestamp: 4/28/2017 15:50:20
Bridge Serial Number: FB7500N100001
3 entries were displayed.

cluster1::*>
```

## Related Links

- [storage bridge config-dump collect](#)

## storage bridge coredump collect

Retrieve and save coredump

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

### Description

The `storage bridge coredump collect` command retrieves a core file from a storage bridge.

### Parameters

**-name <text> - Bridge Name**

This parameter specifies the storage bridge name from which the coredump file is to be collected.

### Examples

The following example retrieves a coredump from storage bridge `ATTO_FibreBridge7500N_1`:

```
cluster1::> storage bridge coredump collect -bridge
ATTO_FibreBridge7500N_1
[Job 883] Job is queued: Collect the coredump from bridge
"ATTO_FibreBridge7500N_1".

cluster1::>
```

## storage bridge coredump delete

Delete a saved coredump file.

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

### Description

The `storage bridge coredump delete` command deletes a coredump file previously retrieved with the [storage bridge coredump collect](#) command.

### Parameters

**-name <text> - Bridge Name**

This parameter specifies the name of the bridge that the coredump file belongs to.

**-corename <text> - Coredump Filename**

This parameter specifies the name of the coredump file to be deleted.

### Examples

The following example deletes coredump file `core.FB7500N100018.1970-01-05.17_50_30.mem` collected from bridge `ATTO_FibreBridge7500N_1`:

```
cluster1::> storage bridge coredump delete -name ATTO_FibreBridge7500N_1
-corename core.FB7500N100018.1970-01-05.17_50_30.mem

cluster1::>
```

### Related Links

- [storage bridge coredump collect](#)

## storage bridge coredump show

Display a list of bridge coredumps

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

## Description

The `storage bridge coredump show` command displays information about all the coredump files previously retrieved with the `storage bridge coredump collect` command. If no parameters are specified, the default command displays the following information about the coredump files:

- Bridge Name
- Bridge Serial Number
- Coredump Filename
- Located on Node
- Panic Timestamp
- Panic String

To display detailed information about a single coredump file, use the `-node` and `-corename` parameters.

## 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.

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

Use this parameter to select the coredump files from the storage bridge that matches the specified bridge serial number.

**[-corename <text>] - Coredump Filename**

Use this parameter to select the coredump files that matches the specified file name.

**[-name <text>] - Bridge Name**

Use this parameter to select the coredump files from the storage bridge that matches the specified bridge name.

**[-node <nodename>] - Located on Node**

Use this parameter to select the coredump the coredump files that are located on the specified node.

**[-panic-time <MM/DD/YYYY HH:MM:SS>] - Panic Timestamp**

Use this parameter to select the coredump files that were collected at the specified time.

**[-panic-string <text>] - Panic String**

Use this parameter to select the coredump files that matches the specified panic string.

## Examples

The following example displays information about all coredump files:

```
cluster1::> storage bridge coredump show
Bridge Name: ATTO_FibreBridge7500N_1
Bridge Serial Number: FB7500N100018
  Coredump Filename: core.FB7500N100018.1970-01-05.17_50_30.mem
  Located on Node: stg-8020-6a
  Panic Timestamp: 7/6/2017 11:03:37
    Panic String: CoreDumpGenerate CLI Command

cluster1::>
```

## Related Links

- [storage bridge coredump collect](#)

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