



storage bridge commands

ONTAP 9.5 commands

NetApp
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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.

[-managed-by {SNMP|in-band}] - Bridge Management Method

This parameter specifies whether the bridge uses the SNMP or in-band management method. FibreBridge 6500N uses SNMP only; FibreBridge7500 may use either.

[-name <text>] - Bridge Name

This parameter identifies the bridge being added. It is required only when the managed-by parameter is set to in-band.

[-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 (privilege: advanced)

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

```

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

[-managed-by {SNMP|in-band}] - Bridge Management Method

This parameter specifies whether the bridge uses the SNMP or in-band management method. FibreBridge 6500N uses SNMP only; FibreBridge7500 may use either.

[-node-visible-list <text>,...] - Nodes Bridge is Visible To

List of nodes with FC visibility to 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
	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 run-cli

Execute an ATTO CLI command on a bridge

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

Description

The `storage bridge run-cli` command enables you to execute an ATTO bridge command.

Parameters

-name <text> - Bridge Name

This parameter specifies the name of the bridge that the command is to be executed on.

-command <text> - ATTO CLI command to execute

This parameter specifies the command to be executed on the named bridge.

Examples

The following example executes a command on a bridge

```
sti8040mcc-201_siteA::> storage bridge run-cli -name  
ATTO_FibreBridge7500N_1 -command "Help"
```

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
- Is Bridge Secure
- Managed By

- 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.

[-managed-by {SNMP|in-band}] - Bridge Management Method

This parameter specifies whether the bridge uses the SNMP or in-band management method. FibreBridge 6500N uses SNMP only; FibreBridge7500 may use either.

[-is-bridge-secure {true|false}] - Is Security Enabled For Bridge?

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

[-node-visible-list <text>,...] - Nodes Bridge is Visible To

This parameter displays the list of nodes which have visibility to the bridge.

[-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|32Gb}]` - 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
Node Initiator Switch Port Switch Port Target Port WWN
No
-----
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  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
-------	--------	---------------	-------------

Capability

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

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

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

Capability

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

```

-----
      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
-----
-----
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 (privilege: advanced)

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 (privilege: advanced)

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

-file <text> - Config File (privilege: advanced)

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 (privilege: advanced)

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

[-file <text>] - Config File (privilege: advanced)

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

[-bridge <text>] - Bridge Name (privilege: advanced)

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

[-serial-number <text>] - Serial Number of Bridge (privilege: advanced)

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 (privilege: advanced)

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](#)

storage bridge firmware update

Download firmware onto the bridge so it can be updated

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

Description

The `storage bridge firmware update` command downloads the firmware onto the bridge. The bridge needs to be rebooted for the firmware update to occur. The firmware file to be used is specified by the `-uri` parameter.

Parameters

-bridge <text> - Bridge Name (privilege: advanced)

This specifies the bridge whose firmware needs to be updated.

-uri <text> - URI (privilege: advanced)

This parameter specifies the URI from which the firmware file is downloaded onto the bridge.

[-skip <>true>] - skip checking for port path == 2 (privilege: advanced)

Use this optional parameter to skip the bridge path checking allowing a firmware file to be downloaded onto the bridge. Note that doing so might cause multiple device failures.

Examples

The following example updates the firmware on bridge `ATTO_FibreBridge7500N_1`.

```
cluster1::*> storage bridge firmware update -name ATTO_FibreBridge7500N_1
-uri http://10.60.132.97/firmware.zbd
```


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