NetApp

system bridge commands

ONTAP 9.15.1 commands

NetApp
December 18, 2024

Table of Contents

system bridge commands

system bridge add

Add a bridge for monitoring

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

Description

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

Parameters

`-name <text>` - Bridge Name

This parameter identifies the bridge being added for in-band monitoring.

Examples

The following command adds a bridge with name ATTO_FibreBridge7600N_1 for monitoring:

```
cluster1::> system bridge add -name ATTO_FibreBridge7600N_1
cluster1::> stor br show
                              Symbolic  Is         Monitor Managed
    Bridge                    Name      Monitored  Status  By      Vendor
Model                  Bridge WWN
    ------------------------ --------- --------- ------- ------- ------
-------------------- ----------------
    ATTO_2000001086a183c0    bridge1
                                        true      ok      in-band Atto
FibreBridge 7600N    2000001086a183c0
    ATTO_FibreBridge7600N_2  -
                                        false     -       none    Atto    -
2000001086a18340
    ATTO_FibreBridge7600N_3  -
                                        false     -       none    Atto    -
2000001086a1ee40
    ATTO_FibreBridge7600N_4  -
                                        false     -       none    Atto    -
2000001086700a30
    4 entries were displayed.
cluster1::>
```

system bridge modify

Modify a bridge's configuration information

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

Description

The `system 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.

`[-node-visible-list <text>,…]` - Nodes Bridge is Visble To

    This parameter specifies nodes that are visible to the bridge.

Examples

The following command modifies 'ATTO_2000001086b0' bridge node-visible-list to 'nodeA,nodeB'

```
cluster1::> system bridge modify -name ATTO_2000001086b0 -node-visible
-list nodeA,nodeB
cluster1::>
```

system bridge refresh

Refresh bridge info

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

Description

The `system bridge refresh` command triggers a refresh of the SNMP data for the MetroCluster FC switches and FC-to-SAS bridges. There is no action if the refresh is already in progress. For systems running ONTAP 9.7 or earlier, the FC switches and FC-to-SAS bridges must have been previously added for monitoring by using the the `system switch fiber-channel add` and system bridge add commands respectectively. For systems running ONTAP 9.8 or later, the `system bridge refresh` command performs the additional task of automatically adding any bridges that have recently been added to the environment (assuming the automatic option is set).

Examples

The following command triggers a refresh for the SNMP data:

```
cluster1::*> system bridge refresh
cluster1::*>
```

Related Links

- system bridge add

system bridge remove

Remove a bridge from monitoring

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

Description

The `system 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::> system bridge remove -name ATTO_10.226.197.16
cluster1::> system bridge show
                                                             Is
Monitor
    Bridge     Symbolic Name Vendor  Model    Bridge WWN        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.
```

system bridge run-cli

Execute a 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>` - 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"
```

system bridge show

Display bridge information

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

Description

The `system 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 system bridge add command. If no parameters are specified, the default command displays the following information about the 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 bridge, use the `-name` parameter.

Parameters

{ [-fields <fieldname>,…]

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

| [-connectivity]

Displays the following details about the connectivity from different entities to the 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 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 bridge.

| [-ports]

Displays the following details about the 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 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 7500N only:

- Power supply name
- Power supply status

| [-sfp]

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

[-name <text>] - Bridge Name

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

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

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

[-model <text>] - Bridge Model

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

`[-managed-by {SNMP|in-band|none}]` - **Bridge Management Method**

This parameter specifies whether the bridge uses the SNMP or in-band management method. FibreBridge 6500N uses SNMP only; FibreBridge 7500N may use either.

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

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

`[-node-visible-list <text>,…]` - **Nodes Bridge is Visble To**

Displays information only about the bridges that are available to the node.

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

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

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

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

`[-initiator-list <text>,…]` - Initiator List

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

Examples

The following example displays information about all bridges:

```
cluster1::> system bridge show
                                                                 Is
                                                            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 bridges:

```
cluster1::> system 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
No
     ------------ --------- -------------- ----------- ----------------
----
     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 bridges:

```
cluster1::> system 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 bridges:

```
cluster1::> system 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 bridges:

```
cluster1::> system 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 bridges:

```
cluster1::> system 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 bridges:

```
cluster1::> system 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 bridges:

```
cluster1::> system 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
    ----- ---------------- ----------------- ------------------------
----------
        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
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 bridges:

```
cluster1::> system 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

- system bridge add

system bridge config-dump collect

Retrieve and save bridge dumpconfiguration

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

Description

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

Parameters

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

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

Examples

The following example retrieves a dumpconfiguration file from bridge ATTO_FibreBridge7500N_1:

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

cluster1::*>
```

system bridge config-dump delete

Delete a dumpconfiguration file

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

Description

The `system bridge config-dump delete` command deletes dumpconfiguration files previously retrieved with the system 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::*> system bridge config-dump delete -node node1 -file
dsbridge_config.FB7500N100001.2017-04-28_14_49_30.txt

cluster1::*>
```

system 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 `system bridge config-dump show` command displays information about all the dumpconfiguration files previously retrieved with the system 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 bridge that matches the specified bridge name.

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

Displays information about the dumpconfiguration files from the 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::*> system 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::*> system 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

- system bridge config-dump collect

system bridge coredump collect

Retrieve and save coredump

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

Description

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

Parameters

`-name <text>` - Bridge Name
   This parameter specifies the bridge name from which the coredump file is to be collected.

Examples

The following example retrieves a coredump from bridge ATTO_FibreBridge7500N_1:

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

cluster1::>
```

system bridge coredump delete

Delete a saved coredump file.

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

Description

The `system bridge coredump delete` command deletes a coredump file previously retrieved with the [system 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::> system bridge coredump delete -name ATTO_FibreBridge7500N_1
-corename core.FB7500N100018.1970-01-05.17_50_30.mem

cluster1::>
```

Related Links

- [system bridge coredump collect](#)

system bridge coredump show

Display a list of bridge coredumps

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

Description

The `system bridge coredump show` command displays information about all the coredump files previously retrieved with the [system 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 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 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::> system 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

- system bridge coredump collect

system 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 `system 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::*> system bridge firmware update -bridge ATTO_FibreBridge7500N_1
-uri http://10.60.132.97/firmware.zbd
```

system bridge options modify

Enable or disable configurable options for all bridges

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

Description

The `system bridge options modify` command alters the value of configurable options which affect all the ATTO FibreBridges in the cluster configuration.

Parameters

`-option-name <text>` - Option Name (privilege: advanced)

   The options supported are:

   • enable.automatic.addition

     Allowable values: {true, false}

     The enable.automatic.addition option controls whether or not ATTO FibreBridge 7500N and FibreBridge 7600N bridges are automatically added for in-band monitoring by the Fabric Health Monitor.

     If set to true, the feature is enabled and all ATTO FibreBridge 7500N and FibreBridge 7600N bridges in the cluster will automatically be added for in-band monitoring by the Fabric Health Monitor. This is the preferred and default value.

     If set to false, the feature is disabled and ATTO bridges will not automatically be added for monitoring. This value should only be used if you do not want to monitor the bridges at all, or if you want them to be monitored via SNMP.

     The ATTO FibreBridge 6500N does not have the capability to be monitored by in-band management, so this option does not apply to the 6500N.

   Note that this command is cluster-specific. To affect both clusters of a MetroCluster system, the command must be executed once on each cluster of the MetroCluster system.

`[-option-value <text>]` - Option Value (privilege: advanced)

   This parameter provides the value for each option. Allowable values for each option are specified in the option description above.

Examples

The following example sets the enable.automatic.addition option to true:

```
siteA::*> system bridge options modify -option-name
enable.automatic.addition -option-value true
siteA::*>
```

system bridge options show

Show state of configurable options for all bridges

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

Description

The system bridge options show command displays the value of configurable options which apply to all ATTO FibreBridges in the cluster configuration. If the user specifies the command without parameters, the output displays the current value of all the configurable options supported by the cluster.

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.

[-option-name <text>] - Option Name (privilege: advanced)

The options supported are:

- *enable.automatic.addition*

  Allowable values {true, false}.

  This option controls whether or not bridges are automatically added for in-band monitoring by the Fabric Health Monitor.

  If set to true, the feature is enabled and all ATTO 7500N and 7600N bridges will automatically be added for in-band monitoring by the Fabric Health Monitor.

  If set to false, the feature is disabled and ATTO FibreBridges will not be automatically added for monitoring. They can be left unmonitored, or manually added for SNMP monitoring.

Note that this command is cluster-specific. To determine the option setting on both clusters of a MetroCluster system, the command must be executed once on each cluster of the MetroCluster system.

[-option-value <text>] - Option Value (privilege: advanced)

The option-value parameter specifies the value of the option. Allowable values are described for each option supported in the list above.

Examples

The following example displays the current setting of the bridge options:

```
siteA::*> system bridge options show
  Option Name                  Option Value     Option Hint
  --------------------------  ----------------
--------------------------------
  enable.automatic.addition    true             {true,false} - enable
auto-add
siteA::*>
```