system cluster-switch commands

ONTAP commands

NetApp
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system cluster-switch configure-health-monitor

Cluster-switch health-monitor no-ontap-dependency(NOD) configuration setup

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

Description

The `system cluster-switch configure-health-monitor` command downloads non-legacy cluster-switch's no-ontap-dependency(NOD) configuration file in the zip format, where it contains the XML file and a signed version. After download, ONTAP will do security signing check. If passed, cluster-switch health-monitor restarts to use the new cluster-switch configuration file.

Parameters

`-node {<nodename>|local}` - Node (privilege: advanced)

This specifies the node or nodes on which the NOD configuration file is to be updated.

`-package-url <text>` - Package URL (privilege: advanced)

This parameter specifies the URL that provides the location of the package to be fetched. Standard URL schemes, including HTTP, HTTPS, FTP and FILE, are accepted.

Examples

The following example downloads NOD configuration file to node1 from a web server and enables cshmd to process it:

```
cluster1::*> system cluster-switch configure-health-monitor -node node1
-package-url
http://example.com/nod_config.zip
```

system cluster-switch create

Add information about a cluster switch or management switch

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

Description

The `system cluster-switch create` command adds information about a cluster switch or management switch. The cluster switch health monitor uses this information to monitor the health of the switch.

Use this command if ONTAP cannot automatically discover a cluster or management switch. ONTAP relies on the Cisco Discovery Protocol (CDP) to discover the switches. CDP is always enabled on all cluster ports of a node by default, disabled on all non-cluster ports of a node. If the CDP is also enabled on your cluster switches, they will be automatically discovered.

If you want ONTAP to discover and monitor management switches, the CDP must be enabled on non-cluster ports. To verify whether the CDP is enabled or disabled, use the command system node run`-node` *<node_name>* `-command` *options cdpd.enable* .

Use the system cluster-switch show command to identify switches that the cluster switch health monitor is monitoring.

Parameters

`-device <text>` - Device Name

Specifies the device name of the switch that you want to monitor. Data ONTAP uses the device name of the switch to identify the SNMP agent with which it wants to communicate.

`-address <IP Address>` - IP Address

Specifies the IP address of switch's management interface.

`-snmp-version {SNMPv1|SNMPv2c|SNMPv3}` - SNMP Version

Specifies the SNMP version that Data ONTAP uses to communicate with the switch. The default is SNMPv2c.

{ `-community <text>` - DEPRECATED-Community String or SNMPv3 Username

This parameter is deprecated and may be removed in a future release of Data ONTAP. Use `-community-or-username` instead.

Specifies the community string for SNMPv2 authentication or SNMPv3 user name for SNMPv3 security. The default community string for SNMPv2 authentication is cshm1!.

| `-community-or-username <text>` - Community String or SNMPv3 Username }

Specifies the community string for SNMPv2 authentication or SNMPv3 user name for SNMPv3 security. The default community string for SNMPv2 authentication is cshm1!.

`-model {NX5010|NX5020|CAT2960|OTHER|NX5596|CN1610|CN1601|NX3132|NX5548|NX3132V|OT9332|NX3132XL|NX3232C}` - Model Number

Specifies the model number of the switch. You should not set this parameter to OTHER. Data ONTAP does not monitor switches that match this value. Data ONTAP sets this parameter to OTHER if a switch that it automatically discovers is not supported for health monitoring.

`-type {cluster-network|management-network}` - Switch Network

Specifies the switch type.

`[-is-monitoring-enabled-admin {true|false}]` - Enable Switch Monitoring

Specifies the switch admin monitoring status.

Examples

```
cluster1::> system cluster-switch create -device SwitchA -address 1.2.3.4
-snmp-version SNMPv2c -community-or-username cshm1! -model NX55596 -type
cluster-network
```

Creates a new switch configuration for a switch named SwitchA.

```
cluster2::> system cluster-switch create -device SwitchB -address 5.6.7.8
-snmp-version SNMPv3 -community-or-username snmpv3u1 -model CN1601 -type
management-network
```

Creates a new switch configuration for a switch named SwitchB.

Related Links

- system node run
- system cluster-switch show

system cluster-switch delete

Delete information about a cluster switch or management switch.

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

Description

The `system cluster-switch delete` command disables switch health monitoring for a cluster or management switch.

Parameters

`-device <text>` - Device Name

Specifies the name of the switch.

`[-force <true>]` - Force Delete (privilege: advanced)

Specifies if force delete or not.

Examples

```
cluster1::> system cluster-switch delete -device SwitchA
```

Disables monitoring for the switch named SwitchA.

```
cluster1::> system cluster-switch delete -device SwitchA -force
```

Forcefully disables monitoring for the switch named SwitchA. (privilege: advanced)

system cluster-switch modify

Modify information about a switch's configuration

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

Description

The ` system cluster-switch modify ` command modifies information about a cluster switch or management switch. The cluster switch health monitor uses this information to monitor the switch.

Parameters

`-device <text>` - Device Name

Specifies the device name of switch that you want to monitor.

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

Specifies the IP address of switch's management interface.

`[-snmp-version {SNMPv1|SNMPv2c|SNMPv3}]` - SNMP Version

Specifies the SNMP version that Data ONTAP uses to communicate with the switch. The default is SNMPv2c.

`{ [-community <text>]` - DEPRECATED-Community String or SNMPv3 Username

This parameter is deprecated and may be removed in a future release of Data ONTAP. Use `-community-or-username` instead.

Specifies the community string for SNMPv2 authentication or SNMPv3 username for SNMPv3 security.

`| [-community-or-username <text>]` - Community String or SNMPv3 Username }

Specifies the community string for SNMPv2 authentication or SNMPv3 username for SNMPv3 security.

`[-type {cluster-network|management-network}]` - Switch Network

Specifies the switch type.

`[-is-monitoring-enabled-admin {true|false}]` - Enable Switch Monitoring

Specifies the switch admin monitoring status.

Examples

```
cluster1::> system cluster-switch modify -device SwitchA -address 2.3.4.5
```

Modifies the IP address for the switch named SwitchA.

```
cluster1::> system cluster-switch modify -device SwitchB -snmp-version
SNMPv3 -community-or-username snmpv3u1
```

Modifies the SNMP parameters for the switch named SwitchB.

system cluster-switch prepare-to-downgrade

Remove unsupported switches in preparation for downgrade

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

Description

The `system cluster-switch prepare-to-downgrade` command changes switch information, so that it is compatible with older versions of ONTAP. When executed, it removes cluster switch entries that are not supported in versions earlier than ONTAP 9.1.

Examples

cluster1::> system cluster-switch prepare-to-downgrade

system cluster-switch show-all

Displays the list of switches that were added and deleted

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

Description

The `system cluster-switch show-all` command displays configuration details for discovered monitored cluster switches and management switches, including switches that are user-deleted. From the list of deleted switches, you can delete a switch permanently from the database to re-enable automatic discovery of that switch.

Parameters

{ [-fields <fieldname>,…]

Selects the fields that have the specified name.

| [-instance] }

Selects detailed information for all the switches.

[-device <text>] - Device Name (privilege: advanced)

Selects the switches that match the specified device name.

[-address <IP Address>] - IP Address (privilege: advanced)

Selects the switches that match the specified IP address.

[-snmp-version {SNMPv1|SNMPv2c|SNMPv3}] - SNMP Version (privilege: advanced)

Selects the switches that match the specified SNMP version.

[-community <text>] - DEPRECATED-Community String or SNMPv3 Username (privilege: advanced)

> This parameter is deprecated and may be removed in a future release of Data ONTAP. Use `-community-or-username` instead.

Selects the switches that match the specified community string or SNMPv3 username.

[-community-or-username <text>] - Community String or SNMPv3 Username (privilege: advanced)

Selects the switches that match the specified community string or SNMPv3 username.

[-discovered {true|false}] - Is Discovered (privilege: advanced)

Selects the switches that match the specified discovery setting.

[-type {cluster-network|management-network}] - Switch Network (privilege: advanced)

Selects the switches that match the specified switch type.

[-sw-version <text>] - Software Version (privilege: advanced)

Selects the switches that match the specified software version.

[-is-monitoring-enabled-operational {true|false}] - Switch Monitoring Status (privilege: advanced)

Selects the switches that match the specified operational monitoring status.

[-reason <text>] - Reason For Not Monitoring (privilege: advanced)

Selects the switches that match the specified reason.

[-version-source <text>] - Source Of Switch Version (privilege: advanced)

Selects the switches that match the specified version source (for example, from SNMP, CDP or ISDP).

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

Selects the switches that match the specified serial number.

[-model <text>] - Model to display (privilege: advanced)

Selects the switches that match the specified model number.

Examples

```
cluster1::> system cluster-switch show-all
  Switch                      Type               Address          Model
  --------------------------- ------------------ ----------------
---------------
  SwitchA                     cluster            1.2.3.4
Nexus5010

        Is Monitored: yes
              Reason:
    Software Version: Cisco IOS 4.1N1
      Version Source: CDP
```

The example above displays the configuration of all cluster switches and management switches.

system cluster-switch show

Display the configuration for cluster and management switches

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

Description

The `system cluster-switch show` command displays configuration details for the monitored cluster switches and management switches.

Parameters

{ [-fields <fieldname>,…]

Selects the fields that have the specified name.

| [-snmp-config]

Displays the following information about a switch:

- Device Name
- SNMPv2c Community String or SNMPv3 Username
- SNMP Version

| [-status]

Displays the following status information about a switch:

- Is Discovered
- SNMPv2c Community String or SNMPv3 Username
- Model Number
- Switch Network
- Software Version

- Reason For Not Monitoring
- Source Of Switch Version
- Is Monitored ?

| [-instance] }

Selects detailed information for all the switches.

[-device <text>] - Device Name

Selects the switches that match the specified device name.

[-address <IP Address>] - IP Address

Selects the switches that match the specified IP address.

[-snmp-version {SNMPv1|SNMPv2c|SNMPv3}] - SNMP Version

Selects the switches that match the specified SNMP version.

[-is-discovered {true|false}] - Is Discovered

Selects the switches that match the specified discovery setting.

[-community <text>] - DEPRECATED-Community String or SNMPv3 Username

> This parameter is deprecated and may be removed in a future release of Data ONTAP. Use `-community-or-username` instead.

Selects the switches that match the specified SNMPv2c community string or SNMPv3 username.

[-community-or-username <text>] - Community String or SNMPv3 Username

Selects the switches that match the specified SNMPv2c community string or SNMPv3 username.

[-model {NX5010|NX5020|CAT2960|OTHER|NX5596|CN1610|CN1601|NX3132|NX5548|NX3132V|OT9332|NX3132XL|NX3232C}] - Model Number

Selects the switches that match the specified model number.

[-type {cluster-network|management-network}] - Switch Network

Selects the switches that match the specified switch type.

[-sw-version <text>] - Software Version

Selects the switches that match the specified software version.

[-reason <text>] - Reason For Not Monitoring

Selects the switches that match the specified reason.

[-version-source <text>] - Source Of Switch Version

Selects the switches that match the specified version source (for example, from SNMP, CDP or ISDP).

[-is-monitoring-enabled-operational {true|false}] - Is Monitored ?

Selects the switches that match the specifed operational monitoring status.

[-serial-number <text>] - Serial Number of the Device

Selects the switches that match the specified serial number.

Examples

```
cluster1::> system cluster-switch show
  Switch                      Type               Address          Model
  --------------------------- ------------------ ----------------
---------------
  cn1610-143--234             cluster-network    10.238.143.234   CN1610
       Serial Number: 20211200007
        Is Monitored: true
              Reason:
    Software Version: 1.1.0.1
      Version Source: ISDP
cn1601--143-230             management-network 10.238.143.230   CN1601
       Serial Number: 20210200019
        Is Monitored: false
              Reason: Monitoring Disabled by Default
    Software Version: 1.1.0.1
      Version Source: ISDP
cn1601--143-232             management-network 10.238.143.232   CN1601
       Serial Number: 20210200017
        Is Monitored: false
              Reason: Monitoring Disabled by Default
    Software Version: 1.1.0.1
      Version Source: ISDP
cn1610-143--231             cluster-network    10.238.143.231   CN1610
       Serial Number: 20211200002
        Is Monitored: true
              Reason:
    Software Version: 1.1.0.1
      Version Source: ISDP
```

The example above displays the configuration of all cluster switches and management switches.

```
cluster1::> system cluster-switch show -snmp-config
                SNMPv2c Community
  Switch        or SNMPv3 Username    SNMP Version
  ------------- --------------------- ------------
  SwitchA       public                SNMPv2c
```

The example above displays the SNMPv2c community string or SNMPv3 username and SNMP version for all cluster switches and management switches.

system cluster-switch log collect

Collect cluster switch log

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

Description

The `system cluster-switch log collect` command initiates the collection of a cluster switch log for the specified cluster switch.

Parameters

`-device <text>` - Switch Name

Specifies the cluster switch device for which the log collection is being made.

Examples

```
cluster1::> system cluster-switch log collect -device cluster-sw1
```

system cluster-switch log disable-collection

Disable cluster switch log collection

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

Description

The `system cluster-switch log disable-collection` command disables the collection of cluster switch logs.

Examples

```
cluster1::> system cluster-switch log disable-collection
```

system cluster-switch log enable-collection

Enable cluster switch log collection

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

Description

The `system cluster-switch log enable-collection` command enables the collection of cluster switch logs.

Examples

```
cluster1::> system cluster-switch log enable-collection
```

system cluster-switch log modify

Modify the cluster switch log request

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

Description

The `system cluster-switch log modify` command modifies the log request of the specified cluster switch.

Parameters

`-device <text>` - Switch Name

Specifies the cluster switch device for which the log request is being made. Note, that the device must be one of the devices listed as a cluster switch from the system cluster-switch show command. The full device name from the system cluster-switch show command must be used.

`[-log-request {true|false}]` - Requested Log

Specifies the initiation of a switch log retrieval for the specified cluster switch if set to true.

Examples

```
cluster1::> system cluster-switch log modify -device switch-
name01(Switch---SN) -log-request true
```

Modifies the log request for the specified cluster switch. Setting the log-request to true initiates a cluster switch log retrieval for the specified switch.

system cluster-switch log setup-password

Obtain cluster switch admin passwords

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

Description

The `system cluster-switch log setup-password` command allows the user to enable the cluster switch health monitor to setup access to certain cluster switches so that the switch logs can be collected.

Examples

```
cluster1::> system cluster-switch log setup-password
            Enter the switch name: (use full name from system cluster-
switch show)
            Enter the password: (Enter admin password of switch)
            Enter the password again: (Enter admin password of switch)
    cluster1::>
```

Enables setup of switch logging for the specified cluster switch.

system cluster-switch log show

Displays cluster switch log information

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

Description

The `system cluster-switch log show` command displays the status and requests for cluster switch logs.

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] }

Specifies an instance of the cluster switch devices log status.

[-device <text>] - Switch Name

Specifies the name of the cluster switch device to display log status on.

[-log-request {true|false}] - Requested Log

Specifies the state of the log request for a cluster switch device. Values: true, false.

[-log-status <text>] - Log Status

Specifies the status of the log request for a cluster switch device.

[-log-timestamp <MM/DD/YYYY HH:MM:SS>] - Log Timestamp

Specifies the completion timestamp of the log request for a cluster switch device.

[-idx <integer>] - Index

Specifies the index of the cluster switch device.

[-filename <text>] - Filename

Specifies the full filename of the cluster switch log.

[-filenode <text>] - File Node

Specifies the name of the controller on which the cluster switch log resides.

Examples

```
cluster1::> system cluster-switch log show
Log Collection Enabled: true
Index Switch                                Log Timestamp        Status
    ------ ---------------------------------- ------------------
-------------
         1 switch-name01(Switch---SN)           -                    -
         2 switch-name02(Switch---SN)           -                    -
```

Displays the cluster switches, their last log timestamp, and the status of the last log request.

system cluster-switch polling-interval modify

Modify the polling interval for monitoring cluster and management switch health

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

Description

The `system cluster-switch polling-interval modify` command modifies the interval in which the cluster switch health monitor polls cluster and management switches.

Parameters

[-polling-interval <integer>] - Polling Interval

Specifies the interval in which the health monitor polls switches. The interval is in minutes. The default value is 5. The allowed range of values is 2 to 120.

Examples

```
cluster1::> system cluster-switch polling-interval modify -polling
-interval 41
```

```
Modifies the polling interval of the switches.
```

system cluster-switch polling-interval show

Display the polling interval for monitoring cluster and management switch health

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

Description

The `system cluster-switch polling-interval show` command displays the polling interval used by the health monitor.

Examples

```
cluster1::> system cluster-switch polling-interval show
             Polling Interval (in minutes): 40
```

```
The example above displays the polling interval period for the switches.
```

system cluster-switch threshold show

Display the cluster switch health monitor alert thresholds

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

Description

The `system cluster-switch threshold show` command displays thresholds used by health monitor alerts.

Examples

```
cluster1::> system cluster-switch threshold show
    Per 0.10% values: 1 = 0.10%, 5 = 0.50%
    Entity-alert Threshold is the count needed to raise entity warning
alert
In Errors Threshold (%) Out Errors Threshold (%) Entity-alert Threshold
    ----------------------- ------------------------ ---------------------
                          1                        1                     2
```

Displays the inbound and outbound switch interface packet error thresholds are set at 0.1%. Also, displays threshold value for entity warning alerts. The node platform health monitor also shares the same thresholds in monitoring packet errors of cluster ports on the node.

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