



system cluster-switch commands

ONTAP 9.3 commands

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system cluster-switch commands

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|OT5548|NX3132V|OT9332|NX3132XL} - 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
-snmpp-version SNMPv2c -community-or-username cshml! -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
-snmpp-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
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

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.

[-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 community string or SNMPv3 username.

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

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

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

Selects the switches that match the specified discovery setting.

[-model

{NX5010|NX5020|CAT2960|OTHER|NX5596|CN1610|CN1601|NX3132|OT5548|NX3132V|OT9332|NX3132XL}] - 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.

[-is-monitoring-enabled-operational {true|false}] - Switch Monitoring Status

Selects the switches that match the specified operational monitoring status.

[-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).

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

Selects the switches that match the specified serial 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|OT5548|NX3132V|OT9332|NX3132XL}] - 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 specified 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 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%
In Errors Threshold (%) Out Errors Threshold (%)
-----
                                1                                1
```

Displays the inbound and outbound switch interface packet error thresholds are set at 0.1%. The node platform health monitor also shares the same thresholds in monitoring packet errors of cluster ports on the node.

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