Viewing and Adding Devices

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Device Prerequisites

Starting with Cisco NDB release 3.8, NDB pushes basic configuration to a newly added switch into NDB. Manual configuration of the NX-API devices to make it ready for NDB is not required. As a part of the adding a new device, the prerequisites are configured by NDB on the devices.

You need to ensure that NX-API is enabled on the new device for NDB to push prerequisite configuration successfully.

Following configurations are pushed into the new switch by NDB.

- TCAM configurations based on the device platform
- MST mode is enabled on the Spanning Tree
- Basic VLAN Configuration
- LLDP feature is enabled (only for the centralized mode of NDB)

Note Device is rebooted after all the configurations are successfully pushed by NDB. The device reboot is required because of the TCAM configurations. The reboot is supported from NX-OS is 9.2(3) and above

The Device Prerequisites can be configured when you add or edit a device, or when you add or change profile to device.

Viewing and Adding Devices

You can view all the devices added to NDB on the **Nodes Learned** tab. The following information about each device is displayed on the **Node Learned** tab:

- Name of the node
- ID of the node
- IP Address of the node
- Platform information
- Number of ports on the node

You can click on a node name to upate the node information. The **Update Node Information** window opens, you can update the following device information:

- **Tier**: Select the tier of the node from the **Tier** drop-down list: **Unknown** , **Access** , **Distribution** , or **Core** .
- **Operation Mode**: Select how the traffic is handled based on the flows for OpenFlow devices:
  - **Allow reactive forwarding**—No default flows are programmed. How the traffic that does not match a flow is handled depends on the switch configuration.
  - **Proactive forwarding only**—Punt Link Layer Discovery Protocol (LLDP) packets flow is programmed on the device.

Managing a Device in NDB

You can add, remove, or edit a device using NDB.

- Adding a Device
- Removing a Device
- Rediscovering a Device
- Managing Profile for a Device

Adding a Device

Complete these steps to add a device.

Procedure

Step 1 Navigate to **ADMINISTRATION** > **Device Connections** tab.

Step 2 Click **Add Device**, the **Add Device** dialog box opens.

Step 3 In the **Add Device** dialog box, enter the following details:

Table 1: New Device Details

Field	Description
IP address/Hostname	The name or IP address of the device. To add multiple devices, add the hostnames or IP Addresses separated with the comma. For example, ndb1.cisco.com, ndb2.cisco.com, ndb3.cisco.com.
Username/Password	Select this option to add a device using username and password credentials.
Profile	Select this option to add a device using a profile. For more information about adding a device using profiles, see Profile Management, on page 5
Username	Username for authenitcating the device.
Password	Password for authenticating the device.
Connection Type	Type of connection supported. Currently, **NXAPI** is supported.
Port	The device communication port. For example, use port 80 for NX-API over HTTP and 443 for HTTPS.
Set Auxiliary Node	Indicates whether this NX-API connection is Auxillary for the OpenFlow device.
Device Prerequisites	To set the device to default configuration required for NX-API type of connection. This option is available for NXAPI connection type only without Auxiliary mode. To know more about the Device Prerequisites, see Device Prerequisites section.

Step 4 Click **Add Device** to create and add the new device to NDB. The new device is listed on the **DEVICE CONNECTION** tab.

Removing a Device

To remove a device from NDB, complete these steps

Procedure

Step 1 Navigate to **Device Connections** tab.

Step 2 Select the device to remove from the table.

Step 3 Click **Remove Devices**. The **Remove Devices** dialog box opens.

Step 4 Verify the selected device(s) in the **Remove Devices** dialog box and click either of the two options:

- Remove Device: Use this option to remove the device connection from NDB while retaining the device configuration.
- Purge & Remove Device: Uset this option to remove the device connection from NDB along with the device configuration.

Rediscovering a Device

To rediscover a device from NDB, complete these steps:

Procedure

Step 1 Navigate to **Device Connections** tab.

Step 2 Select the device(s) to rediscover from the table under the **Device Connections** tab.

Step 3 Click **Rediscover Devices**, the **Redicover Devices** window appears.

Step 4 Verify the selected devices in the **Redicover Devices** window.

Step 5 Click **Rediscover Devices** to rediscover the device(s).

Managing Profile for a Device

You can attach a profile to an exisitng device or change the profile attached to a device using NDB. Complete these steps to add or change a profile to a device:

Procedure

	Command or Action	Purpose
Step 1	Navigate to Device Connections tab.	
Step 2	Click **Add/Change Profile to Device**, the **Add/Change Profile to Device** window appears.	
Step 3	Verify the selected devices in the **Add/Change Profile to Device** window. You can edit the following details in the **Add/Change Profile to Device** window:	• **Profile**: Select a profile to attach. For more information about the profiles, see Profile Management section. • **Connection Type**: Specify the supported connection type. Currently, **NXAPI** is supported. • **Port**: The device communication port. For example, use port 80 for NX-API over HTTP and 443 for HTTPS.

	Command or Action	Purpose
		• **Set Auxiliary Node**: Indicates whether this NX-API connection is Auxillary for the OpenFlow device. • **Device Prerequisites**: To set the device to default configuration required for NX-API type of connection. This option is available for NXAPI connection type only without Auxiliary mode. To know more about the Device Prerequisites, see Device Prerequisites section

Profile Management

Starting with Cisco NDB release 3.8, you can add, edit, or delete a profile through NDB. A profile allow you to manage multiple switches attached to a NDB. You can attach multiple switches to a profile. The profile configuration is applied to all the member switches.

Adding a Profile

Complete these steps to add a profile:

Procedure

Step 1 Navigate to **ADMINSTRATION** > **User Management**.
Step 2 On the **User Management** page, click **Profile** tab.
Step 3 Click **Add Profile** to open the **Add Profile** dialog-box.
Step 4 Enter name of the profile in the **Profile Name** text-field.
Step 5 Enter the user name to be configured for the member switches in the **User Name** text-field.
Step 6 Enter the password to be configured for the member switches in the **Password** text-field.
Step 7 Click **Create** to create a new profile.

Editing a Profile

To edit a profile using NDB, complete these steps:

To synchronize username/password for a group of switches, complete these steps:

Procedure

Step 1 Navigate to **ADMINSTRATION** > **User Management** > **Profile**.

Step 2 Click **Edit** for the profile you want to update. The **Edit Profile** dialog box opens.

Step 3 Enter name of the profile in the **Profile Name** text-field.

Step 4 Enter the user name to be configured for the member switches in the **User Name** text-field.

Step 5 Enter the password to be configured for the member switches in the **Password** text-field.

Step 6 Click **Submit**. All the devices that are part of the profile are rediscovered with the updated credentials.

Deleting a Profile

Complete these steps to delete a profile:

Procedure

Step 1 Navigate to **ADMINSTRATION** > **User Management** > **PROFILE**.

Step 2 On the **Profile** page, click **Delete** for the profile to delete it.The deleted profile is removed from the **Profile** page.