Use Cisco Optical Network Controller

This section contains the following topics:

Onboard Devices and Discover Network

A device is added after a REST API call is issued to onboard the device. The Device Manager initiates data collection and this data is collected and translated into TAPI model which is eventually published to Hierarchical Controller.

For more information, see *Cisco Optical Network Controller TAPI Northbound Interface API Guide*.

You can onboard a device using Cisco Optical Network Controller GUI.

Onboard Devices to Cisco Optical Network Controller

Devices must be onboarded to Cisco Optical Network Controller to enable collection of device related information. Cisco Optical Network Controller supports Cisco NCS 2000 Shelf Virtualization Orchestrator (SVO) Series, Release 12.1 devices.

Manage Devices on Cisco Optical Network Controller

Use this task to add, edit, delete, or resync the devices onboarded to Cisco Optical Network Controller.

Before you begin

Log into Cisco Optical Network Controller.

Step 1 To add the devices, follow these steps:
- a) Click **Devices** in the left panel.
- b) Click **New**.
- c) Enter the device details that are needed to connect to the device, such as Name, IP, Port, and Location.

  Ensure that you enter valid a username and password of the device to enable Cisco Optical Network Controller to connect to the device.

d) Click **Save**.

The new device is onboarded and added to the **Devices** table. Cisco Optical Network Controller validates the connection with the onboarded device.

The **Name** column includes name, image, device connection status, and an icon indicating the connection status.

- Green—Device is connected.

- Yellow—Device is waiting to be connected.

- Red—Device is disconnected or a resync is needed or device deletion failed.

- Orange—Device deletion in progress.

  For a disconnected device, click **Reconnect** option that is enabled for the device next to **Disconnected** status.

e) Repeat steps a through d to add additional devices.

Step 2 To import devices in bulk, follow these steps:

a) Click **Devices** in the left panel.
b) Click **Import Devices**.
c) Select the spreadsheet which has all the device details and click **Open**.

The new devices are onboarded and added to the **Devices** table. Onboarding of devices happen in batches of five devices at a time. After the first set of five devices are connected, the next five are processed.

Step 3 To edit a device, follow these steps:

a) Click **Devices** in the left panel.
b) Select the device that you want to edit and click **Edit** or click the device name under the **Name** column.

You can modify the username and password fields for the device.

Note   You cannot modify other details for a device.

Step 4 Resync a device to initiate collection of data. To resync, follow these steps:

a) Click **Devices** in the left panel.
b) Select the device that you want to resync and click **Resync**.

To resync multiple devices, select the devices and click **Resync**.

To resync all the devices, click **ResyncAll**.

Note   If a device is in **Disconnected** status, you can either **Reconnect** the device or **Resync** the device directly to recover the device connection.

Step 5 To reconnect a disconnected device, follow these steps:

a) Click **Devices** in the left panel.
b) For the disconnected device, click **Reconnect** option that is enabled for the device next to the **Disconnected** status or select the device and click **Reconnect** button from the top menu.

Step 6 To delete a device, follow these steps:

a) Click **Devices** in the left panel.
b) Select the device that you want to delete and click **Delete**.

Note   You cannot delete a device if collection is in progress.

Cisco Optical Network Controller TAPI Northbound Interface

Cisco Optical Network Controller exposes a standard T-API Northbound Interface (NBI) towards northbound clients. The TAPI NBI supports RESTCONF and NETCONF protocols. An SDN-C client such as Hierarchical Controller can communicate with Cisco Optical Network Controller TAPI NBI Server (SDN-C) using one these protocols and exchange TAPI model information.

For more information, see *Cisco Optical Network Controller TAPI Northbound Interface API Guide*.