



Configure Devices

This chapter describes the tasks related to device configuration in Cisco NCS 2000 SVO.

- [Manage Authorization Groups, on page 1](#)
- [Manage Devices, on page 2](#)
- [SOCKS Proxy, on page 4](#)
- [Configure External Switch, on page 4](#)
- [Retrieve Device Diagnostics, on page 6](#)
- [Configure IPv4 Settings, on page 7](#)
- [Change the Cooling Profile Control, on page 8](#)

Manage Authorization Groups

Use this task to create, edit, or delete authorization groups for devices.

Before you begin

[Log into the SVO Web Interface](#)

Procedure

Step 1 Click the hamburger icon at the top-left of the page, and select **Device Configuration**.

Step 2 Click the **Authorization Group** tab.

A table appears that lists the authorization groups.

Step 3 Perform these steps, as needed:

a) To create a new authorization group, perform these steps:

1. Click the **Add Auth Group** icon.

The **Add Authorization Group** dialog box appears.

2. Enter the Auth Group Name, Remote User Name, and Remote Password in their respective fields.

3. Click **Add**.

The new auth group is added to the table.

- b) To edit an authorization group, perform these steps:
1. Check the check box that is next to the auth group you want to edit.
 2. Click the **Edit Auth Group** icon.
A warning message appears informing the user that there may be loss in device communication.
 3. Click **OK**.
The **Edit Authorization Group** dialog box appears.
 4. Edit the fields, as needed.
Note The auth group name cannot be edited.
 5. Click **Edit**.
The details are updated.
- c) To delete an authorization group, perform these steps:
1. Check the check box that is next to the auth group you want to delete.
 2. Click the **Delete Auth Group** icon.
A confirmation message appears.
 3. Click **OK**.
The auth group is deleted from the table.
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Manage Devices

Use this task to add, synchronize, or delete devices.



Note Only one NCS 2000 device can be added to an SVO instance.



Note SVO line card is automatically added as a device. It is listed as svo-primary in the non-high availability mode, and as svo-primary and svo-secondary in the high availability mode.

Before you begin

[Log into the SVO Web Interface](#)

Procedure

Step 1 Click the hamburger icon at the top-left of the page, and select **Device Configuration**.

Step 2 Click the **Devices** tab.

A table appears that lists all the devices that are configured.

Step 3 Perform these steps, as needed:

a) To create a new device, perform these steps:

1. Click the **Add Device** icon.

The Add Device dialog box appears.

2. Choose the **Device Type** from the drop-down list.

3. Enter the Device Name and IP Address in their respective fields.

4. Select an auth group from the drop-down list.

5. Click **Add**.

The new device is added to the table.

b) To delete a device, perform these steps:

1. Check the check box that is next to the device you want to delete.

2. Click the **Delete Device** icon.

A confirmation message appears.

3. Click **OK**.

The device is deleted from the table.

c) To synchronize a device, perform these steps:

1. Check the check box that is next to the device you want to sync.

2. Click the **Sync Selected Devices** icon.

The **Sync Status** field displays one of the following statuses:

- sync-not-started—Device is waiting for the start of the synchronization process.
- full-sync-requested—A full data synchronization of the device is requested by the user to recover from an error.
- sync-configuration—Device is synchronizing the configuration parameters.
- sync-operational—Device is synchronizing the operational parameters.
- sync-completed—Device is fully synchronized.
- sync-mea—Device cannot be synchronized because it is different from the SVO topology.

Note The **Sync Status** field does not display the status of the SVO card.

SOCKS Proxy

Table 1: Feature History

Feature Name	Release Information	Feature Description
SOCKS Proxy	Cisco NCS 2000 Release 12.2	Socket Secure (SOCKS) is a standard proxy protocol for IP-based applications developed by IETF. SOCKS Proxy feature allows the SVO node to access remote NCS 2000 nodes using SOCKS Proxy server.

Socket Secure (SOCKS) is a standard proxy protocol for IP-based applications developed by IETF. SOCKS Proxy feature allows the SVO node to access remote NCS 2000 nodes using SOCKS Proxy server. You can set the SOCKS proxy server as an External Network Element (ENE) or a Gateway Network Element (GNE).

Benefits

- SOCKS Proxy is used when the SVO node cannot connect directly to the remote NCS 2000 node through DCN.
- It is mandatory to use SOCKS Proxy if IPv6 is enabled on NCS 2000 nodes.
- OSPF need not be enabled to propagate the routes as routing to the remote node is done by the SOCKS Proxy server.
- SOCKS Proxy allows the SVO node to connect to remote nodes behind the firewall of a GNE.

Limitations

- A SOCKS Proxy server must be used only to connect to small remote nodes (OLA nodes).
- A SOCKS Proxy server must serve only up to five NCS 2000 nodes.

Configure External Switch

Use this task to configure the external switch in the ROADM or OLA instance in the SVO card model. You can add up to a maximum of two external switches. External server model does not support the external switches.

Before you begin

- To view the network configuration in the admin plane:
 - [Log into the Cisco SVO Admin Plane](#).
 - Click **Network** in the left panel and choose **Configuration**.
 - Ensure that the IP address of the external switch to be added, is in the subnet of the HOST NIC IP address that is present in the Devices Network section of the network.yml configuration file. If the switch IP address is not in the subnet, reset the SVO card to factory default, using the task [Restart Admin Plane](#), reinstall the SVO software, and upload the proper network.yml configuration file.
- Ensure that the external switches have appropriate initial configuration and cabling.
- [Log into the SVO Web Interface](#).
- Create Authorization group for the external switches and NCS 2000 devices. See [Manage Authorization Groups, on page 1](#).
- Add the External Switches. See [Manage Devices, on page 2](#).

Procedure

Step 1

Click the hamburger icon at the top-left of the page, and select **Device Configuration**.

Step 2

Click the **Networking > Switch Configuration** tabs. There are three options available in the drop-down list.

- a. Managed—The switch is present and managed.
 - b. Not Managed—The switch is present and not managed.
 - c. None—The switch is not present and managed.
- a) (Only ROADM instance) Choose **Managed** from the drop-down list:
 - b) (Only OLA instance) Choose **Not Managed** from the drop-down list:
 - c) Click **Apply**.

A confirmation message appears.

- d) Click **Yes**.

Step 3

(Only ROADM instance) Click the **External Switch Configuration** tab.

- a) Click the **Add** icon.

The **Add External Switch** dialog box appears.

- b) Select the switch that you added from the **Device** drop-down list.
- c) Enter the **IP Address** and the **Subnet Address Mask**.
- d) Click **Add**.

A confirmation message appears.

- e) Click **Yes**.
- f) Repeat the above steps for all the external switches added.

The external switches are added to the table.

- Step 4** Click the **Devices Gateway** tab.
- Click the **Add** icon.
 - In the **Add Device Gateway** dialog box, enter the subnet in CIDR notation, with or without mask, in the **Subnet** field.

The subnet can be in IPv4 or IPv6 format.
 - Enter the IP address of the **Gateway**.
 - Click **Add**.

Note After adding the Gateway, you can edit only the gateway IP address.

- Step 5** (Optional) Click the **Socks Server** tab to add SOCKS Proxy servers so that SVO can reach the remote nodes.
- Click the **Add** icon.
 - In the **Add Socks Server** dialog box, enter the IPv4 or IPv6 addresses in the **Address** field.
 - Click **Add**.

When you add SOCKS Proxy servers, the proper device gateways are automatically added in the **Devices Gateway** tab.

- Step 6** (Only ROADM instance) Click the **OSPF** tab.
- Enter the subnet in the **Subnet** field.
 - Enter the OSPF bits in the **Wild card Mask** field.
 - Enter the area ID in the **Area ID** field.
 - Click **Apply**.

A confirmation message appears.

- Click **Yes**.

- Step 7** (Only ROADM instance) Click the **Configure Switch** tab.
- Click **Configure** to apply the configuration to the switch.

Note The **Configure** button is enabled only if you have chosen "Managed" in the **Switch Configuration** tab.

This configuration takes some minutes. After the configuration is completed, the message "Configuration completed" appears.

- Step 8** Click the **Devices** tab.

- Step 9** Add NCS 2000 devices. See [Manage Devices, on page 2](#).

Wait until the Sync Status of the NCS 2000 device becomes "sync-completed".

- Step 10** (Only ROADM instance) Configure the NTP server. See [Configure Timing](#).
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Retrieve Device Diagnostics

Use this task to retrieve and download the device diagnostic logs.



Note The system retrieves the diagnostics of the selected device. The progress and errors are displayed at the top of the table.

Before you begin

[Log into the SVO Web Interface](#)

Procedure

- Step 1** Click the hamburger icon at the top-left of the page, and select **Device Configuration**.
- Step 2** Click the **Diagnostics** tab.
A table that lists the configured devices is displayed.
- Step 3** Check the check box that is next to the device whose diagnostics you want to retrieve.
The check boxes in the Device Audit Log, Node Diagnostics, OBFL, and OBFL standby columns are checked by default.
- Step 4** Click **Retrieve**.
A confirmation message appears.
- Step 5** Click **Yes** to proceed.
A **Request Accepted** message appears.
- Step 6** Click **OK**.
A message appears when the diagnostic action is completed.
- Step 7** To download the logs, check the check box whose diagnostics you want to download and click **Download**.
A zip file containing the logs is downloaded.
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Configure IPv4 Settings

Use this task to configure IPv4 settings.



Caution Verify that the IPv4 addresses assigned to the node are unique in the network. Duplicate IP addresses in the same network cause issues in managing the node.



Note The Name and MAC Address fields are display-only fields.

Before you begin

[Log into the SVO Web Interface](#)

Procedure

- Step 1** Click the hamburger icon at the top-left of the page, and select **Device Configuration**.
- Step 2** Click the **Configuration > IPv4 Settings** tabs.
- Step 3** Click **Edit** corresponding to the IP settings of the device you want to change.
The **Edit IPv4 Settings** dialog box appears.
- Step 4** Complete the following information in the Edit IPv4 Settings dialog box.
- **IP Address**—Type the IPv4 address for the device.
 - **Subnet Prefix Length**—Type the subnet mask length (decimal number representing the subnet mask length in bits)
 - **Default Gateway**—If the node is connected to a LAN, enter the IP address of the default router. The default router forwards packets to network devices that the node cannot directly access.
- Step 5** Click **Apply**.
A confirmation message appears.
- Step 6** Click **OK**.
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Change the Cooling Profile Control

Use this task to change the cooling profile control of the NCS 2006 node from automatic to manual or the other way round.

Before you begin

[Log into the SVO Web Interface](#)

Procedure

- Step 1** Click the hamburger icon at the top-left of the page, and select **Device Configuration**.
- Step 2** Click the **Configuration > Device Settings** tabs.
- Step 3** Choose the control from the **Cooling Profile Control** drop-down list.
- Step 4** Click **Apply**.
A confirmation message appears.

Step 5 Click **Yes**.
