



# Cisco SVO Admin Plane

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This chapter describes the admin plane used in Cisco NCS 2000 SVO and its related tasks.

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## Cisco SVO Admin Plane Overview

The Cisco SVO admin plane has a fundamental role in the SVO software architecture. It is a web interface that facilitates the day one installation of the system.

The Cisco SVO admin plane allows you to:

- Create the superuser.
- Configure the primary or secondary SVO card.
- Manage the IP addresses to be used by the SVO containers. The IPv4 and IPv6 addressing schemes are supported.
- Create or delete SVO instances of type ROADM, OLA, DGE, or TXP. The first SVO instance created is always a ROADM SVO instance. Subsequent SVO instances can be OLA, DGE, or TXP. A TXP instance contains a single shelf hosting only TXP and MXP cards.
- (Optional) Configure the external switch for an SVO instance. This configuration is possible for only a ROADM SVO instance.
- Troubleshoot using diagnostics. A zipped file containing the log files from the admin plane and the HA manager can be downloaded.
- Reset the SVO card to factory defaults. This action erases all containers and configurations on the SVO card.

The first step of the setup process is to create the superuser and configure card settings.

- [Create the Admin User, on page 2](#)
- [Configure SVO Card Settings, on page 2](#)

## Create the Admin User

Use this task to configure the admin user.

In the SVO card model, the user created is the superuser in all the SVO instances created later.

### Before you begin

The client must be connected to the SVO craft port using an ethernet cable.

### Procedure

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- Step 1** In the browser URL field, enter the IP address of the admin plane. ([https://IP\\_address/login](https://IP_address/login))  
The SVO Installation Tool appears.
- Step 2** In the **Credentials** area, perform these steps:
- Enter a username in the **Username** field.
  - Enter a password in the **Password** field.  
  
The password must be a minimum of eight characters, and it can be a maximum of 127 characters. The password must have at least one uppercase letter, one lowercase character, one number, and one special character.
  - Retype the password in the **Retype Password** field.
- Step 3** In the **Networks** area, perform these steps:
- Click **Browse** to select the network configuration file **Configuration File** field.  
  
For more information about the configuration file (*network.yml*), see [Install the External Server](#).
- Step 4** Click **Submit**.  
  
The system creates the credentials, verifies the network configuration file and brings up the system. You are then directed to the Cisco SVO admin plane login page.
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## Configure SVO Card Settings

Use this task to configure the SVO card role and card IP address in the Card Settings page.

### Before you begin

Complete the [Create the Admin User, on page 2](#) task.

### Procedure

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- Step 1** Select the card role as primary or secondary from the drop-down list.

**Step 2** Click **Configure Card Role**.

A message is displayed after the successful configuration of the card role.

**Step 3** Click **OK**.

**Step 4** Enter the network subnet in CIDR notation.

**Step 5** Enter the network gateway.

**Step 6** Enter the IP address.

**Step 7** Click **Configure Card**.

After the operation is successful, a message, that the management network is running is displayed . You can now use the IP address that was configured in [Step 6, on page 3](#) to access the Cisco SVO admin plan instead of the default IP address, https://192.168.0.2:8443.

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## Log into the Cisco SVO Admin Plane

Use this task to log into the Cisco SVO admin plane.

### Procedure

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**Step 1** In the browser URL field, enter the IP address of the SVO card.

The IP address to be used is the one configured in the [Configure SVO Card Settings, on page 2](#) task.

The login page appears.

**Step 2** Enter the username and password.

Only the superuser is allowed to log into the Cisco SVO admin plane.

**Step 3** Click **Login**.

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## IP Address Management

The IP management network must be set up before creating the SVO instances and supports only one IP version, IPv4 or IPv6. To set up the IP management network, a valid subnet in CIDR notation and a valid gateway must be provided.

## Configure Management Network

Use this task to configure the IP management network.

### Before you begin

[Log into the Cisco SVO Admin Plane, on page 3](#)

### Procedure

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- Step 1** Click the hamburger icon at the top-left of the page, and select **IP Address Management**.  
The IP address management page appears.
- Step 2** Click **Configure** and choose **Management** from the drop-down list.  
The Management Network Configuration page appears.
- Step 3** Enter the Subnet in CIDR notation and the Default Gateway for IPv4 or IPv6, in their respective fields.
- Note** You can configure either IPv4 or IPv6. If the values are being entered for one IP version, the system automatically disables the fields of the other IP version.
- If the values are entered correctly, the interface displays a green tick icon below the field. Otherwise, the field displays a small caution icon in red below the field. Click **there are errors in form, please click here to show details** to see the error list.
- Step 4** Click **Configure Management Network**.
- Step 5** A message is displayed confirming the configuration of the network.
- Step 6** Click **OK**.  
The IP Address Management page appears. The table displays the management network that was configured.
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## Delete the IP Management Network

Use this task to delete the IP management network.

### Before you begin

[Log into the Cisco SVO Admin Plane, on page 3](#)

### Procedure

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- Step 1** Click the hamburger icon at the top-left of the page, and select **IP Address Management**.  
The IP address management page appears.
- Step 2** Check the checkbox next to the network you want to delete.
- Step 3** Click **Delete**.  
An error message is displayed if there are SVO instances configured and running.
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# SVO Instances

An SVO instance is a software virtualization of the physical NCS 2000 node that has been configured to manage. SVO instances are of four types-ROADM, OLA, DGE, and TXP. Each SVO card can have a combination of SVO instances. The first SVO instance on the SVO card must always be of type ROADM. Additional SVO instances can be either OLA, DGE, or TXP. Release 12.0 allows you to have a maximum of one ROADM SVO instance and upto 30 OLA, DGE, or TXP SVO instances.

You can create, monitor the status, and delete SVO instances using the admin plane. Configuring the admin user credentials is mandatory for OLA, DGE, and TXP SVO instances but optional for ROADM SVO instances.

Configuring an external switch for an SVO instance is optional and can be done only for a ROADM SVO instance. The external switch allows you to configure two different subnets, one for the SVO instance and the other for the NCS 2000 devices.

## Create an SVO Instance

Use this task to configure an SVO instance.

### Before you begin

[Log into the Cisco SVO Admin Plane, on page 3](#)

### Procedure

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

**Step 2** Click **Create**.

The SVO Configuration Wizard appears.

**Step 3** In the **SVO Info** area, perform these steps:

a) Enter the name for the new SVO instance in the **Name** field.

The name is mandatory. It can contain a maximum of 50 characters and can include numbers, letters, dashes(-), and underscores (\_).

**Note** Two SVO instances of the same type cannot have the same name.

b) Choose the version from the **SVO Version** drop-down list.

c) Choose the type of the SVO instance from the **Type** drop-down list.

The four options are ROADM, OLA, DGE, and TXP. The first SVO instance that is configured is always of type ROADM. There can only be one ROADM SVO instance for a SVO card.

**Step 4** In the **Admin User Info** area, perform these steps:

**Note** Creating the admin user is mandatory for OLA, DGE, and TXP SVO instances and optional for ROADM SVO instances.

a) Enter the username in the **Admin Username** field.

The values "admin," "oper," "private," "public," or the "configured superuser username" cannot be used as the admin username.

- b) Enter the password in the **Admin Password** field.

The password must contain at least one uppercase character, a number, a special character, and must have a minimum of eight characters and a maximum of 127 characters.

- c) Enter the password again in the **Retype Admin Password** field.

**Step 5** In the **Network Settings** area, perform these steps:

- a) Enter the IP address in the **Management IPv4 Address** field.

The configuration of the management IP address is mandatory. The IP address cannot be the same as the default management IPv4 address gateway. It must also be a part of the network subnet that is specified in the [Configure SVO Card Settings, on page 2](#) task. This IP address allows you to access the SVO instance through a web browser.

**Note** During the creation of another SVO instance, if you provide the same IP address that was used during the creation of the first SVO instance, an error message is displayed.

**Step 6** In the **NCS2000 Device** area, perform these steps:

This step is optional. You can add the NCS 2000 device after the creation of the SVO instance using the [Manage Devices](#) task.

- a) Enter the user name and password in the **NCS 2000 Device Authentication Credentials** area.

The username and password provided are used to get access to the NCS 2000 device. These credentials are stored on the physical device itself.

- b) To add the NCS 2000 device to the SVO instance in the **NCS 2000 Device** area, click **Add**.

The +NCS 2000 Device page appears.

**Note** You can add only one NCS 2000 device to the SVO instance.

- c) Enter the IP address of the device in the **Search for NCS 2000 Device** field.

- d) Click **Search**.

The device details are displayed.

A warning or error message is displayed in the following scenarios:

- The username or password that is provided in the **NCS 2000 Device Authentication Credentials** area ([6.a, on page 6](#)) is incorrect. Click **Back** to change the username and password.
- The device that you are trying to reach is not in the devices network.
- The device topology is different from the SVO topology-This message is displayed when any node (ROADM, OLA, DGE, or TXP) device is being added to a ROADM, DGE, or TXP SVO instance.
- The device that you are trying to add is already used by another SVO instance.
- It is unable to connect to the device-This message is displayed if an invalid IP address is entered in the **Search** field or the NCS 2000 device is offline. There is a possibility to add the device by checking the **Add anyway** check box. The device name and system type (ANSI or ETSI) must be provided in their respective fields.

- e) Click **Add Device**.

The device is added and is listed in the NCS 2000 Device table. You have the option to delete the device and add it again.

**Step 7** Click **Create SVO Instance**.

**Step 8** A message is displayed indicating the creation of the SVO instance.

**Step 9** Click **OK**.

The SVO Instances page appears. The table displays the new SVO instance.

The SVO instance can now be accessed through a web browser.

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## Delete an SVO Instance

Use this task to delete an SVO instance.

### Before you begin

[Log into the Cisco SVO Admin Plane, on page 3](#)

### Procedure

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

The SVO Instances page appears.

**Step 2** Check the checkbox for the SVO instance you want to delete.

**Step 3** Click **Delete**.

A dialog box is displayed asking for confirmation of deletion.

**Step 4** Click **Confirm**.

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## Reset the SVO Card

Use this task to reset the SVO card to factory defaults.

### Before you begin

[Log into the Cisco SVO Admin Plane](#)

### Procedure

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**Step 1** Click **Utilities** in the left panel.

The Utilities page appears.

**Step 2** Click **Reset to Factory Default**.

All the SVO instances and configurations available on the SVO card are erased .

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## Download Diagnostic Log Files

Use this task to download the diagnostic log files.

### Before you begin

[Log into the Cisco SVO Admin Plane, on page 3](#)

### Procedure

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

The Diagnostic page appears.

**Step 2** Click **Download Log Files**.

A zip file that contains the logs from the admin plane and the HA manager is downloaded.

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