

Using Configuration Groups, Cisco Catalyst SD-WAN Manager Release 20.15 and Later

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Create a Configuration Group

1. From the Cisco SD-WAN Manager menu, choose **Configuration** > **Configuration Groups**.
2. Choose the SD-WAN option from the solution drop-down list to view or create a configuration group for Cisco Catalyst SD-WAN solution.

   The default solution is SD-WAN.
3. Click **Create Configuration Group** and configure the following:

Field	Description
Name	Enter a name for the new configuration group.
Description	Enter a description of the new configuration group.
CLI Configuration Group	Choose this option and enter CLI commands that create a configuration group.

Field	Description
Site Type	This option is available only for the SD-WAN solution type. Choose one of these site types: • **Single Router**: Deploy a configuration and distribute the transport side WAN and service-side LAN interface configurations to a single router. Default: Single router. • **Dual Router**: Provide a name to each of the routers. Use this option to deploy a dual-device site configuration and distribute the transport-side WAN and service side LAN interface configurations between the two devices.

4. (Optional) Alternatively, you can create a configuration group by choosing one of these options from the **Create Configuration Group** drop-down list:
   - **Import from Calalog**: Choose a configuration groups from a list of configuration catalogs. For more information, see Configuration Catalog.
   - **Create from Guided Workflow**: The workflow guides you in creating a configuration group.
5. Click **Create**.

   The Cisco SD-WAN Manager creates the configuration group with these mandatory feature profiles that you can configure:
   - System profile
   - Transport & Management profile
6. Click **Add Profile** to create more feature profiles.
7. Click the drop-down list in a feature profile to either choose an existing feature profile or create a new one by choosing the **Create New** option. When the new profiles are created, you must configure them before associating them to the configuration groups.

Create a CLI Based Configuration Group

You can create a CLI based configuration group when you choose SD-WAN or SD-Routing solutions.This procedure is also applicable to multi-tenant deployments.

1. From the Cisco SD-WAN Manager menu, choose **Configuration** > **Configuration Groups**.
2. Click **Create Configuration Group** and choose **CLI Configuration Group**.
3. Enter a name and description for the CLI configuration group.
4. Click **Create**.
5. Load running configurations from reachable devices by choosing a reachable device from the **Load Running config from reachable device:** drop-down list.
6. Use **Search CLI** to search for particular lines of CLIs.

7. Click **Create Variable** and provide a name for the variable for the CLI-based configuration group.
8. Highlight text in the **Config Preview** code block and click **Encrypt Type6** to encrypt the text.
9. Click **Import Config File** to import a config file from your local storage.
10. Type the configurations manually in the config preview code block and add customized configuration.
11. Click **Save** to save the configuration.
12. Click **Done**

Create Feature Profiles

The feature profile tap displays previously defined feature profiles. The options that appear in a feature profile tabs depend on the solution, such as SD-WAN, SD-Routing, and so on. Choose from one of the following feature profiles by clicking the respective tab to view, add, or edit a new profile if you have selected the SD-WAN solution:

- System Profile
- Transport & Management Profile
- Service Profile
- CLI Add-On Profile
- UC Voice Profile
- Other Profile
- Policy Profile

View a Feature Profile

1. From the Cisco SD-WAN Manager menu, choose **Configuration** > **Configuration Groups**.
2. Click the feature profile tab.

   A list of available profiles appear, where you can view details such as history, description, or the number of configuration groups that share the profile.

   After you select a feature, the **SHARED** menu displays the count of configuration groups that share the feature. Hover over the count to view the names of the configuration groups that share the feature.

Add a Feature Profile

1. From the Cisco SD-WAN Manager menu, choose **Configuration** > **Configuration Groups**.
2. Click a feature profile tab and click **Add New**.

   Alternatively, click a configuration group from the available list and choose **+ Create New** from the drop-down list of a feature profile.

3. Click the pencil icon that is next to a feature profile or select a feature profile from the drop-down menu to add a feature profile to edit.
4. Enter a name and description for the feature profile.
5. Click **Create**.

Edit a Feature Profile

You can edit a feature profile from the **Configuration Groups** tab or by clicking a particular feature profile tab.

Edit a Feature from the Configuration Groups Tab

1. From the Cisco SD-WAN Manager menu, choose **Configuration** > **Configuration Groups**.
2. Click the **Configuration Groups** tab.
3. Click a configuration group from the available list.
4. Click the pencil icon that is next to a feature profile and edit the feature.
5. If you have created a configuration group for dual router type, you can apply the configuration to all or individual routers by choosing one of the options: **All**, **EdgeDevice_01** or **EdgeDevice_02**.
6. Click **Save**.
7. If you have created a configuration group for dual router type, choose one of these options:
   - **Save on Both Devices**
   - **Save on EdgeDevice_01**
   - **Save on EdgeDevice_02**

Edit a Feature from the Feature Profile Tab

1. Click a feature profile tab.
2. Click the icon under the **Actions** column for a feature profile.
3. Click **Edit**.
4. Click the pencil icon that is next to a feature and edit the feature.
5. If you have created a configuration group for dual router type, you can apply the configuration to all or individual routers by choosing one of the options: **All**, **EdgeDevice_01** or **EdgeDevice_02**.
6. Click **Save**.
7. If you have created a configuration group for dual router type, choose one of these options:
   - **Save on Both Devices**
   - **Save on EdgeDevice_01**
   - **Save on EdgeDevice_02**

Add a Feature to a Feature Profile

1. From the Cisco SD-WAN Manager menu, choose **Configuration** > **Configuration Groups**.
2. Add a feature in one of these two methods:
   a. From the **Configuration Groups** tab:
      1. Click a configuration group from the available list.
      2. Click the pencil icon that is next to a feature profile or choose a feature profile from the drop-down menu to add a feature profile to edit.
      3. Click **+ Add New Feature** and choose additional features from the **Add Features** pane to add to the feature profile.

   b. From the available feature profiles:
      1. Choose a feature profile tab.
      2. Click the icon under the **Actions** column for that feature profile.
      3. Click **Edit**.
      4. Click **+ Add New Feature** and choose additional features from the **Add Features** pane to add to the feature profile.

3. In the **Name** field, enter a name for the feature.

   The name can be up to 128 characters and can contain only alphanumeric characters.
4. In the **Description** field, enter a description of the feature.

   The description can be up to 2048 characters and can contain only alphanumeric characters and spaces.
5. Configure the options as needed.

   Some parameters have a scope drop-down list that enables you to choose **Global**, **Device Specific**, or **Default** for the parameter value. Choose one of the following options, as described in this table:

Parameter Scope	Scope Description
Global	Enter a value for the parameter to apply the value to all devices. Examples of parameters that you might apply globally to a group of devices are DNS server, syslog server, and interface MTUs.

Parameter Scope	Scope Description
Device Specific	Use a device-specific value for the parameter. Choose **Device Specific** to provide a value for the key in the field. The key is a unique string that helps identify the parameter. To change the default key, enter a new string in the field. (Optional) Click the menu icon adjacent to the text box and provide a default value and a description. Cisco SD-WAN Manager applies the default value of the parameter to the device while deploying the configuration group. Examples of device-specific parameters are system IP address, host name, GPS location, and site ID.
Default	The default value is shown for parameters that have a default setting.

6. Click **Save**.

Add a Subfeature

1. Select a feature to edit and click the + icon to add subfeatures, where applicable.

   The **Add Feature** pane appears with a list of applicable subfeatures that you can add.

2. Choose a feature to add to the profile.

   Cisco SD-WAN Manager adds the feature to the profile and represents it as a tree structure.

3. Configure the subfeature by choosing **+ Add New** from the drop-down menu and click **Save**.

   The subfeature appears as a child under the parent feature. For example, Ethernet Interface is a subfeature of Transport VPN and Object Tracker and Object Tracker Group are subfeatures of the Service VPN feature.

Note Some subfeatures that you configure such as Route Policy or Object Tracker don't appear in the tree structure after creation. This is because these subfeatures apply to certain features during configuration and are available in the context of those features in a configuration group. For example, the ACL IPV4 subfeature is available in the **ACL** drop-down list for **ACL IPv4 ingress** or **ACL IPv4 egress** parameters in the Ethernet Interface feature.

You can view these subfeatures by clicking the **Manage All Features** icon adjacent to the **+ Add New Feature** menu.

Delete a Subfeature

To delete a subfeature, perform the following steps:

Procedure

Step 1 From the Cisco SD-WAN Manager menu, choose **Configuration** > **Configuration Groups**.

Step 2 Select a feature to edit from the available feature profiles.

Step 3 Use the trash icon to permanently delete the subfeature.

From Cisco Catalyst SD-WAN Manager Release 20.18.1, there are two distinct icons on Cisco SD-WAN Manager to delete and disassociate subfeatures. Use the trash icon to permanently delete the subfeature and use the broken link icon to disassociate the subfeature from the feature.

You can view the disassociated features in the list view.

Add Devices to a Configuration Group

After creating a configuration group, you can add devices to the group in one of these ways:

- Add the devices manually.
- Use rules to automatically add devices to the group.

Note Starting from SD-WAN Manager 26.1.1.1, SD-WAN Manager provides interface suggestions for IR devices when creating configuration groups.

Add Devices to a Configuration Group Manually

1. From the Cisco SD-WAN Manager menu, choose **Configuration** > **Configuration Groups**.
2. Click a configuration group from the available list.
3. Click the **+ Add** option adjacent to **Associated** in the **Deployment** area.
4. Click **Associated Devices**, and then click **Add Devices**.

   The **Add Devices to Configuration** workflow starts.
5. Follow the instructions provided in the workflow.

   The selected devices are listed in the **Devices** table.

Add Devices to a Configuration Group Using Rules

Before You Begin

From SD-WAN Manager 26.1.1.1, you can add devices to the dual device site configurations in the configuration groups workflow using tags.

Ensure that you have added tags to devices. For more information about tagging, see Device Tagging.

Add Devices to a Configuration Group Using Rules

1. From the Cisco SD-WAN Manager menu, choose **Configuration** > **Configuration Groups**.
2. Click a configuration group from the available list.
3. Click the **+ Add** option adjacent to **Associated** in the **Deployment** area.
4. Click **Manage rule**. You can select **Modify rules** or **Remove rules**.

   SD-WAN Manager 20.18.x and earlier releases: Click **Add and Edit Rules**.

   The **Automated Rules** sidebar is displayed.
5. In the **Rules** section, choose values for the following options:
   - From SD-WAN Manager 26.1.1.1, **Rule name**: Enter a unique name for the rule. Rule names cannot be duplicated once you create it.
   - **Rule Conditions**: Choose one of the two rules and configure the conditions: **Match All** or **Match Any**.
   - Choose one of these operators:
     - **Equals**
     - **Not equals**
     - **Contains**
     - **Not contains**
     - **Starts with**
     - **End with**



Note You cannot create a new rule if it conflicts with an existing rule.

6. Click **Apply**.

   Based on the rule, a list of devices that will be added to or removed from the configuration group appears.
7. Click **Confirm** to apply the changes.

Remove Devices from a Configuration Group

If a device is automatically added to a configuration group based on a tag rule, you cannot remove the device from the group using the above method. To do this, you must edit the tag rule or delete the rule. For complete information on adding or editing a tag rule, see Add Devices to a Configuration Group Using Rules.

You can remove a Cisco Catalyst 8000V device from a configuration group only after deploying the device. Manually issue the command **request platform software sdwan** *is-vmanaged disable* in the device CLI to completely dissociate the Cisco Catalyst 8000V device from a configuration group.

1. From the Cisco SD-WAN Manager menu, choose **Configuration** > **Configuration Groups**.
2. Click a configuration group from the available list.
3. Click the pencil icon (with the count of associated devices) adjacent to **Associated** in the **Deployment** area.
4. In the **Devices** table, choose the devices to remove from the configuration group.
5. Click **Save**.

Deploy a Configuration Group

The option to deploy a configuration group is available only after you:

1. create the mandatory features such as **System Profile** and **Transport & Management Profile**.

   For more information about creating profiles, see Add a Feature Profile.
2. configure and add features to the mandatory profiles, and
3. associate devices to the configuration group.

To deploy a configuration group:

1. From the Cisco SD-WAN Manager menu, choose **Configuration** > **Configuration Groups**.
2. Click the **Configuration Groups** tab.
3. Click a configuration group from the available options.
4. Click the **Add** option next to **Associated** under **Deployment**.
5. Choose the devices to associate to the configuration group and click **Save**.
6. Click **Deploy** and follow the instructions in the Deploy Configuration Group workflow.

From Cisco Catalyst SD-WAN Manager Release 20.18.1, configuration group deployment may fail with the error "% Invalid input detected at 'tunnel mode sdwan'" if the tunnel source interface in the configuration group does not match the device configuration.

To avoid this failure, first deploy with at least one tunnel that matches the device and disable the rest, then re-enable the other tunnels and redeploy.

Note For any stuck deployments, refer to the Clear vManage Stuck Task with an API Call document. If the task is still stuck, contact TAC for assistance.

Edit a Configuration Group

1. From the Cisco SD-WAN Manager menu, choose **Configuration** > **Configuration Groups**.
2. Click the ellipsis icon adjacent to the configuration group name and choose **Edit** to edit the name and description of the configuration group, or in case of dual routers, to edit the tags of the routers.

   Alternatively, click a configuration group to expand it and click the pencil icon to edit.

You can edit the various settings of a configuration group, such as adding or editing feature profiles, devices, or associating and deploying devices to a configuration group by clicking a configuration group.

Restrictions for using Configuration Groups

When using dual Configuration Groups with Policy Groups, you cannot reuse the same VPN value across multiple devices. This limitation does not apply to regular Configuration Groups. To avoid deployment issues, either use regular Configuration Groups or assign a unique VPN value to each router when working with dual Configuration Groups.

The deployment of dual configuration policy group fails on one of the device when there is no VPN ID.

View Configuration Groups

From the Cisco SD-WAN Manager menu, choose **Configuration** > **Configuration Groups** and use one of the filters to view certain cofiguration groups based on these categories:

- **Last Updated**: Choose a time range from the drop-down list to view configuration groups that are updated within that time range.
- **Status**: Choose one or more of these categories from the drop-down list
  - **All Devices in Sync**: Displays configuration groups with all the devices in sync.
  - **Has Out of Sync Devices**: Displays configuration groups with devices that are out of sync.
  - **No Devices Associated**: Displays configuration groups without any associated devices.

Copy a Configuration Group

1. From the Cisco SD-WAN Manager menu, choose **Configuration** > **Configuration Groups**.
2. Click the ellipsis icon adjacent to the configuration group name and choose **Copy**.

3. In the **Copy Configuration Group** dialog box, enter these:

Field	Description
Name	Enter a name for the new configuration group.
Description	Enter a description for the new configuration group.

4. Click **Create**.

   Cisco SD-WAN Manager creates the new configuration group.

Import a Configuration Group

1. From the Cisco SD-WAN Manager menu, choose **Configuration** > **Configuration Groups**.
2. Click **Import**.
3. Choose a tar.gz file from your local storage to import to Cisco SD-WAN Manager.
4. Click **Open**.
5. The **Device Group** page displays the import status.
6. Click the logs icon in the **Action** column to view the logs of the import.



Note Do not rename or modify the exported Configuration Group file before importing it. Instead, import the exported file first, then rename or clone the configuration group using Cisco SD-WAN Manager.

Export a Configuration Group

1. From the Cisco SD-WAN Manager menu, choose **Configuration** > **Configuration Groups**.
2. Click **Export** and click the **Configuration Group** tab.
3. Choose one or more configuration groups to export.

   You can choose multiple configuration groups, policy groups, and topologies and export them as a single tar.gz file.
4. Click **Export**.
5. Based on your selection, Cisco SD-WAN Manager downloads the configuration group to your local storage as a tar.gz file.

Delete a Configuration Group

Before deleting a configuration group, ensure that there are no devices associated with that configuration group. For more information about removing devices from a configuration group, see Remove Devices from a Configuration Group.

1. From the Cisco SD-WAN Manager menu, choose **Configuration** > **Configuration Groups**.
2. Click the ellipsis icon adjacent to the configuration group name and choose **Delete**.
3. In the confirmation dialog box, click **Yes**.