



Configure Network Profiles

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Network Profiles Overview

Network profiles allow you to configure settings and apply them to a specific site or group of sites. You can create network profiles for various elements in Cisco DNA Center:

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Create Network Profiles for Assurance

Creating a network profile for Assurance allows you to configure issue settings and apply them to a site or group of sites independently from the global issues settings. You can enable or disable an issue, and you can change its priority.

Notes:

- In Assurance, synchronization to the network device health score is available only for global issue settings, not custom issue settings.
- Some global issues are not customizable. These issues are not displayed in the list of custom issues for you to modify.
- To display modified issues at the top of the list, sort by **Last Modified**.
- To delete custom settings, you must first unassign all the sites.

Step 1 Click the menu icon (☰) and choose **Design > Network Profiles**.

Step 2 Click **+Add Profile** and choose **Assurance**.

Step 3 In the **Profile Name** field, enter a valid profile name and click **Next**.

Cisco DNA Center adds the profile and the **Edit Profile** window appears.

Step 4 Set the **DEVICE TYPE** and **CATEGORY** filters to view the type of issues you want to configure.

Step 5 Click an issue in the **Issue Name** column to open a slide-in pane with the settings.

Note For some issues, changes made to the settings are shared across multiple device types. In the slide-in pane, Cisco DNA Center displays a caution that indicates the affected device types.

Step 6 To enable or disable whether Cisco DNA Center monitors the issue, click the **Enabled** toggle button.

Step 7 To set the issue priority, click the **Priority** drop-down list and select the priority. The options are:

- **P1**: A critical issue that needs immediate attention and can have a wide impact on network operations.
- **P2**: A major issue that can potentially impact multiple devices or clients.
- **P3**: A minor issue that has a localized or minimal impact.
- **P4**: A warning issue that may not be an immediate problem but addressing it can optimize the network performance.

Step 8 (For certain issues) In the **Trigger Condition** area, you can change the threshold value for when the issue is reported.

Examples of a trigger condition:

No Activity on Radio(2.4 GHz) >= 60 minutes.

Memory Utilization of Access Points greater than 90%.

Step 9 (Optional) If there are any changes to the settings, you can hover your cursor over **View Default Settings** to display the default settings. Click **Use Default** to restore all the issue settings to the default values.

Step 10 Click **Apply**.

Step 11 (For certain issues) Click **Manage Subscription** to subscribe to external notifications for supported issues when they are triggered.

Step 12 To assign the profile to sites, click **Assign Sites**. Check the check box next to the sites that you want to associate with this profile and click **Save**.

The **Edit Profile** window appears.

Note You can select a parent node or the individual sites. If you select a parent node, all the children under the parent node are also selected. You can uncheck the check box to deselect a site.

Step 13 Click **Done**.

The newly added profile appears on the **Network Profiles** window.

Create Network Profiles for Firewall

This workflow shows how to:

1. Create custom configurations.
 2. Create Firepower Threat Defense (FTD) configurations.
 3. View the profile summary.
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Step 1 Click the menu icon (☰) and choose **Design > Network Profiles**.

Step 2 Click **+Add Profile** and choose **Firewall**.

The **Firewall Type** page appears.

Step 3 To create custom configurations for regular firewalls like Adaptive Security Appliance (ASA) firewalls, do the following:

- a) In the **Name** field, enter the profile name.
- b) Choose the number of devices from the **Devices** drop-down list.

Note You can choose up to 10 devices per profile.

- c) Choose the type of device from the **Device Type** drop-down list.
- d) (Optional) From the **Device Tag** drop-down list, choose the device tags.
- e) Click **Next**.

The **Custom Configuration** page appears.

- f) From the **Template** drop-down list, choose a template.

Note If there are no templates, you must create at least one template in **Tools > Template Editor**. For information, see [Create Templates](#).

- g) Click **Next**.

The **Summary** page appears. This page summarizes the custom configurations. Based on the selected device type, a hardware recommendation is provided.

- h) Click **Save**.

The **Network Profiles** page appears.

- i) To assign a site to the network profile, click **Assign Sites**. For more information, see [Create a Site in a Network Hierarchy](#).

Step 4 To create FTD configurations to configure the FTD devices, do the following:

- a) In the **Name** field, enter the profile name.
- b) From the **Devices** drop-down list, choose the number of devices.

Note You can choose up to 10 devices per profile.

- c) To provision an FTD firewall, check the **FTD** check box.
- d) From the **Device Type** drop-down list, choose the type of device.
- e) (Optional) Choose the device tags from the **Device Tag** drop-down list.
- f) Click **Next**.

The **FTD Configuration** page appears.

- g) Click the **Routed Mode** or **Transparent Mode** radio button.
- h) Click **Next**.

The **Summary** page appears. This page summarizes the FTD configurations. Based on the selected device type, hardware recommendation is provided on this page.

- i) Click **Save**.

The **Network Profiles** page appears.

- j) To assign a site to the network profile, click **Assign Sites**. For information, see [Create a Site in a Network Hierarchy](#).

Create Network Profiles for Routing

This workflow shows how to:

1. Configure the router WAN.
2. Configure the router LAN.
3. Configure the integrated switch configuration.
4. Create custom configurations.
5. View the profile summary.

Step 1 Click the menu icon (☰) and choose **Design > Network Profiles**.

Step 2 Click **+Add Profile** and choose **Routing**.

Step 3 The **Router WAN Configuration** window appears.

- Enter the profile name in the **Name** text box.
- Select the number of **Service Providers** and **Devices** from the drop-down list. Up to three service providers and ten devices are supported per profile.
- Select the **Service Provider Profile** from the drop-down list. For more information, see [Configure Service Provider Profiles](#).
- Select the **Device Type** from the drop-down list.
- Enter a unique string in the **Device Tag** to identify the different devices, or select an existing tag from the drop-down list. Use the device tag if two or more devices are of the same type. If all the devices are of a different type, the

device tag is optional. Select the appropriate tag, because your selection is used as part of the matching criteria for Day-0 and Day-N templates applied to the network profile.

- To enable at least one line link for each device to proceed, click **O** and check the check box next to **Connect**. Select the **Line Type** from the drop-down list. Click **OK**.

If you select multiple service providers, you can select the primary interface as gigabit Ethernet and the secondary as cellular, or both the interfaces as gigabit Ethernet. You can also select the primary interface as cellular and the secondary interface as gigabit Ethernet.

Note Only Cisco 1100 Series Integrated Services Routers, Cisco 4200 Series Integrated Services Routers, Cisco 4300 Series Integrated Services Routers, and Cisco 4400 Series Integrated Services Routers support the cellular interface.

- Click **Next**.

Step 4 The **Router LAN Configuration** page appears.

- Click the **Configure Connection** radio button and choose L2, L3, or both.
- If you choose **L2**, select the **Type** from the drop-down list and enter the **VLAN ID/Allowed VLAN** and the **Description**.
- If you choose **L3**, select the **Protocol Routing** from the drop-down list and enter the **Protocol Qualifier**.

You can click **Skip** to skip the configuration.

- Click **Next**.

Step 5 The **Integrated Switch Configuration** page appears.

The integrated switch configuration allows you to add new VLANs or retain the previous configuration selected in the router LAN configuration.

- To add one or more new VLANs, click **+**.
- To delete a VLAN, click **x**.
- Click **Next**.

Note Switchport Interface support is available only for Cisco 1100 Series and Cisco 4000 series Integrated Services Routers.

Step 6 The **Custom Configuration** page appears.

The custom configurations are optional. You can skip this step and apply the configurations at any time in the Network Profiles page.

If you choose to add custom configurations:

- Click the **Onboarding Template(s)** or **Day-N Templates** tab, as required.
- Choose a template from the drop-down list. The templates are filtered by **Device Type** and **Tag Name**.
- Click **Next**.

Step 7 On the **Summary** page, click **Save**.

This page summarizes the router configurations. Based on the devices and services selected, the hardware recommendation is provided.

Step 8 The **Network Profiles** page appears.

Click **Assign Sites** to assign a site to the network profile. For more information, see [Create a Site in a Network Hierarchy](#).

Create Network Profiles for Switching

You can apply two types of configuration templates to a switching profile:

- Onboarding template
- Day N template

Before you begin

Define the **Onboarding Configuration** template that you want to apply to the devices. Such templates contain basic network configuration commands to onboard a device so that it can be managed on the network. See [Create Templates to Automate Device Configuration Changes](#).

Step 1 Click the menu icon (☰) and choose **Design > Network Profiles**.

Step 2 Click **+Add Profile** and choose **Switching**.

Step 3 In the Switching profile window, enter the profile name in the **Profile Name** text box.

Depending on the type of template that you want to create, click **OnBoarding Template(s)** or **Day-N Template(s)**.

- Click **+Add**.
- Select **Switches and Hubs** from the **Device Type** drop-down list.
- Select the **Tag Name** from the drop-down list. This step is optional. If the tag that you selected has already been associated with a template, only that template is available in the Template drop-down list.
- Select the **Device Type** from the drop-down list.
- Select a **Template** from the drop-down list. You can select the Onboarding Configuration template that you have already created.

Step 4 Click **Save**.

The profile that is configured on the switch is applied when the switch is provisioned. Note that you must add the network profile to a site for it to be effective.

Create Network Profile for Cisco DNA Traffic Telemetry Appliance

Before you begin

Define the template that you want to apply to the telemetry appliances. See [Create Templates to Automate Device Configuration Changes](#).

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- Step 1** Click the menu icon (☰) and choose **Design > Network Profiles**.
- Step 2** Click **+Add Profile** and choose **Telemetry Appliance**.
- Step 3** In the **Telemetry Appliance Type** window, complete the following:
- Enter the profile name in the **Name** text box.
 - From the **Devices** drop-down list, choose the number of devices.
 - From the **Device Tag** drop-down list, choose an existing device tag defined in Cisco DNA Center or enter a new tag. This step is optional. If the tag that you selected has already been associated with a template, only that template is available in the Template drop-down list.
 - Click **Next**.
- Step 4** In the **Custom Configuration** window, choose the template. The chosen template will be applied to the device once it is managed in Cisco DNA Center inventory.
- Step 5** Click **Next**.
- Step 6** In the **Summary** window, click **Save**.
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Create Network Profiles for Wireless

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- Step 1** Click the menu icon (☰) and choose **Design > Network Profiles**.
- Step 2** Click **+Add Profile** and choose **Wireless**.
- Before assigning a wireless network profile, make sure that you have created wireless SSIDs under **Design > Network Settings > Wireless** tab.
- Step 3** In the **Add a Network Profile** window, enter a valid profile name in the **Profile Name** text box.
- Step 4** Under the **Wireless SSID** area, click **+ Add SSID** and configure the following parameters:
- From the **SSID** drop-down list, choose the SSID which you have already created.
 - Specify whether the SSID is fabric or nonfabric by selecting **Yes** or **No**.
- If you are creating a nonfabric SSID, select **No**, and configure the following parameters.
- From the **Interface Name** drop-down list, choose an interface name for the SSID, or click **+ create a new wireless interface** to create a new wireless interface.

- In the **Do you need Anchor for this SSID?** area, click **Yes** to add an anchor to SSID. By default, **No** is selected.
- Check the **Flex Connect Local Switching** check box to enable local switching for WLAN.
If you have chosen to add anchor to SSID, you cannot enable **Flex Connect Local Switching**.
If you have enabled **Flex Connect Local Switching** for an SSID, then all APs on that particular floor where the network profile is mapped will switch to FlexConnect mode.
When you enable local switching, any FlexConnect AP that advertises this WLAN is able to locally switch data packets.
- The VLAN ID that is associated with the wireless interface is autopopulated based on the interface name selected.
If you want to change the VLAN ID, in the **Local to VLAN** text box, enter a new value for the VLAN ID.

Step 5 Under the **Attach Model Configs** area, click + **Add Model Config** to add model config designs to a network profile. The **Add Model Config** window appears.

- From the **Device Type(s)** drop-down list, select the device type.
You can either search for a device name by entering its name in the **Search** field or expand **Wireless Controller** and select the device type.
- Expand **Wireless** and select the model config design that you are attaching to this wireless profile.
- From the **Tags** drop-down list under **APPLICABILITY**, select the applicable tags.
- Click **Add**.
The attached model config appears under the **Attach Model Config** area in the **Add a Network Profile** window.

Step 6 To associate a template with the network profile, click + **Add Template** under the **Attach Templates** area.

- From the **Device Type(s)** drop-down list, choose the device type.
You can either search for a device name by entering its name in the **Search** field or expand **Wireless Controller** and select the device type.
- You can choose the device tag and template from the **Device Tag** and **Template** drop-down lists.
You can use tags on templates only when you have to push different templates for the same device type based on the device tag.
- Click **Add**.
The created profile appears in the **Wireless Profiles** window.

Step 7 Click **Save** to add a network profile.

The newly added network profile appears on the **Design > Network Profiles** page.

Step 8 To assign this profile to a site, click **Assign Sites**.

Step 9 In the **Add Sites to Profile** window, check the check box next to the site to associate to this profile.

You can select a parent node or the individual sites. If you select a parent site, all the children under the parent node are also selected. You can uncheck the check box to deselect a site.

Step 10 Click **Save**.

Preprovision the AP Group, Flex Group, and Site Tag in a Network Profile

Cisco DNA Center allows you to preprovision the AP group, flex group, and site tag in a network profile. Preprovisioning saves time during AP provisioning by eliminating the need to make repetitive configuration changes and ensures consistency across your devices.

- AP group configuration is applicable to Wireless LAN controllers running an AireOS image.
- Flex group configuration is applicable to Wireless LAN controllers running an AireOS image.
- Site tag configuration is applicable to Catalyst 9800 series wireless controllers.

Before you begin

You must create a network profile and assign a site (floor) to the network profile to enable AP group, flex group, and site tag creation.

Step 1 Click the menu icon (☰) and choose **Design > Network Profiles**.

Step 2 Click **Edit**.

Step 3 Click **Show Advanced Settings**.

Step 4 To create an AP group in the network profile, expand **AP Group** and click + **Create an AP Group**.

The **Create an AP Group** window appears.

Step 5 In the **AP Group Name** field, enter the AP group name.

Step 6 From the **RF Profile** drop-down list, choose the RF profile.

The options are **High**, **Typical**, **Low**, **custom_rf_profile2**, and **rf_prof1_custom**.

Step 7 In the **Select Sites** field, you can either search for a site by entering its name or expand **Global** to select the site.

Step 8 (Optional) Click **Save & Add another** to add another AP group.

Step 9 Click **Save**.

The AP group is created based on the selected RF profile under the **AP Group** area in the **Edit Network Profile** window.

Step 10 To enable the flex group in the network profile, check the **Flex Connect Local Switching** check box and define the VLAN ID in the **Local to VLAN** text box to mark the nonfabric SSID as a flex-based SSID.

If you have enabled **Flex Connect Local Switching** for an SSID, then all APs on that particular floor where the network profile is mapped will switch to FlexConnect mode.

The **Flex Group** option is enabled under **View Advanced Settings**.

Step 11 To create a flex group in the network profile, expand **Flex Group** and click + **Create Flex Group**.

The **Create Flex Group** window appears.

Step 12 In the **Flex Group** field, enter the flex group name.

Step 13 In the **Select Sites** field, you can either search for a site by entering its name or expand **Global** to select the site.

Step 14 (Optional) Click **Save & Add another** to add another flex group.

Step 15 Click **Save**.

The flex group is created under the **Flex Group** area in the **Edit Network Profile** window.

Step 16 To create a site tag in the network profile, expand **Site Tag** and click + **Create a Site Tag**.

The **Create a Site Tag** window appears.

Step 17 In the **Site Tag** field, enter the site tag name.

Step 18 In the **Flex Profile Name** name field, enter the flex profile name.

Note To enable the **Flex Profile Name** name field, check the **Flex Connect Local Switching** check box in the **Edit Network Profile** window.

Step 19 In the **Select Sites** field, you can either search for a site by entering its name or expand **Global** to select the site.

Step 20 (Optional) Click **Save & Add another** to add another site tag.

Step 21 Click **Save**.

The site tag is created under the **Site Tag** area in the **Edit Network Profile** window.
