About Topology

The Topology window displays a graphical view of your network. Using the Discovery settings that you have configured, Cisco DNA Center discovers the devices in your network and assigns a device role to them. Based on the device role assigned during discovery (or changed in Device Inventory), Cisco DNA Center creates a physical topology map with detailed device-level data.

Using the topology map, you can do the following:

• Display the topology of a selected area, site, building, or floor.
• Display detailed device information.
• Display detailed link information.
• Filter devices based on a specific Layer 2 VLAN.
• Filter devices based on a Layer 3 protocol (such as Intermediate System - Intermediate System [IS-IS], Open Shortest Path First [OSPF], Enhanced Interior Gateway Routing Protocol [EIGRP], or static routing).
• Filter devices with Virtual Routing and Forwarding (VRF) capability.
• Pin devices to the topology map.
• Save a topology map layout.
• Open a topology map layout.
Display the Topology of Areas, Sites, Buildings, and Floors

You can display the topology of an area, site, building, or floor.

Before you begin

- Make sure that you have devices in your inventory. If not, discover devices using the Discovery feature.
- You must have defined a network hierarchy and provisioned devices to the buildings or floors within it.

Step 1
From the Cisco DNA Center home page, click **Topology**.

Step 2
In the left tree view menu, select the area, site, building, or floor that you are interested in.

Step 3
Use the Toggle button ![Toggle button](image) to switch between the Geographical map view and the Layer 2 map view.

The Geographical map view displays the sites. The nearer sites are grouped together and indicated with the number of sites in the group. The device health is indicated in different colors. Hover over the site to view the detailed device health.

Use the Search field in the top right corner to find a building in the Geographical map view, and a device in the Layer 2 map view.

**Note**
- Click the ![Legend icon](image) in the lower-right corner to open a legend that shows the available shortcut keys for the topology maps.
- Click the **Toggle Annotate** icon to draw annotations in the Layer 2 map. You can click the export icon to export the topology map along with the annotations.

Step 4
Click **Take a Tour** to know the details of various options available in the Topology page.

Filter Devices on the Topology Map

You can filter devices based on one of the following attributes:

- VLAN
- Routing
- VRF
- Tagging
Before you begin

Make sure that you have devices in your inventory. If not, discover devices using the Discovery feature.

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**Step 1**
From the Cisco DNA Center home page, click **Topology**.

**Step 2**
Click **Filter**.

*Note*  If you are not able to view the **Filter**, click a site in the left tree view menu.

**Step 3**
Do one of the following:

- From the **VLAN** drop-down list, choose the VLAN that you want to view.
- From the **Routing** drop-down list, choose the protocol that interests you.
- From the **VRF** drop-down list, choose the VRF that you want to view.
- Click **View All Tags** and choose the tags you want to view. The devices associated with the selected tags will be highlighted. If you want to create a new tag, do the following:
  
  a) Click **Create New Tag**.
  b) Enter the **Tag Name**.
  c) Click **Save**.

You can also associate a device with the tag by doing the following:

a) Click the device.

b) Click **Tag Device**.

c) Select the tag to which you want to associate the device.

d) Click **Apply**.

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**Display Device Information**

You can display the device name, IP address, and software version of devices.

**Note**
The device information that is accessible in the **Topology** window is also accessible in the **Device Inventory** window.

Before you begin

Make sure that you have devices in your inventory. If not, discover devices using the Discovery feature.

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**Step 1**
From the Cisco DNA Center home page, click **Topology**.

**Step 2**
In the tree view menu, select the area, site, building, or floor that you are interested in.

**Step 3**
In the topology area, hover your mouse over the device or device group that interests you.

*Note*  A device group is labeled with the number and types of devices it contains. A blue arrow is indicated under a switch, if the switch has a host. Click the blue arrow to view the host.
Display Link Information

You can display information about the links in the topology map. For simple links, the display shows information for the single link. For aggregated links, the display shows a listing of all the underlying links. The information includes the interface name, its speed, and its IP address.

Before you begin
Make sure that you have devices in your inventory. If not, discover devices using the Discovery feature.

Step 1
From the Cisco DNA Center home page, click Topology.

Step 2
In the tree view menu, select the area, site, building, or floor that you are interested in.

Step 3
Hover your mouse over the link that interests you.

Step 4
Click Display and enable Link Health.

A down link is shown in red. If you want to delete the link, select it and click Delete. You can bring the link up by doing the following:

a) Log in to the device.
b) Enable the interface.
c) Resynchronize the device on the Inventory page.

Pin Devices to the Topology Map

Devices can be grouped or aggregated so that they take up less room on the map. However, at times, you might want to separate a device from its group. You can do this by pinning a device to the map.

Before you begin
Make sure that you have devices in your inventory. If not, discover devices using the Discovery feature.
Assign Devices to Sites

Devices can be assigned to specific sites using the topology map.

Before you begin
Make sure that you have devices in your inventory. If not, discover devices using the Discovery feature.

Step 1
From the Cisco DNA Center home page, click Topology.

Step 2
Click Unassigned Devices in the left pane. All the unassigned devices will be displayed in the topology area.

Step 3
Click the device for which you want to assign a site. Device details will be displayed in a popup. In the Assign devices to: section, click on choose the location drop-down list to select a location.

Step 4
(Optional) Uncheck the Auto-assign unclaimed downstream devices checkbox, if you want to assign the site only for the selected device and not for the connected (downstream) devices.

Step 5
Click Assign.

Save a Topology Map Layout

Cisco DNA Center has a Cisco recommended topology layout that is displayed by default when you open the topology tool. You can customize multiple layouts and save them to view later. You can also set one of the layouts as the default to be displayed when you open the topology map.

Before you begin
Make sure that you have devices in your inventory. If not, discover devices using the Discovery feature.

Step 1
From the Cisco DNA Center home page, click Topology.

Step 2
Click Custom View.

Step 3
In the Enter View Title field, enter a name for your customized map.

Step 4
Click Save.
Step 5  (Optional) To set your customized map as the default, click Make Default.

Open a Topology Map Layout

You can open previously saved topology maps.

Before you begin
You should have saved topology map layouts.

Step 1  From the Cisco DNA Center home page, click Topology.
Step 2  Click Custom View.
Step 3  Click the name of the map that you want to display.

Export the Topology Layout

You can export a snapshot of the full topology layout. The snapshot is downloaded as a SVG, PDF, PNG file to your local machine.

Before you begin
Make sure that you have devices in your inventory. If not, discover devices using the Discovery feature.

Step 1  From the Cisco DNA Center home page, click Topology.
Step 2  Click (this icon represents Export Topology).
Step 3  Select a file format and click Export.