

CISCO Display Your Network Topology User Guide

Home » Cisco » CISCO Display Your Network Topology User Guide 🖺

Contents

- 1 CISCO Display Your Network Topology
- **2 Product Usage Instructions**
- 3 About Topology
- 4 Display the Topology of Areas, Sites, Buildings, and
- **5 Filter Devices on the Topology Map**
- 6 Pin Devices to the Topology Map
- 7 Assign Devices to Sites
- 8 Open a Topology Map Layout
- 9 Export the Topology Layout
- 10 Documents / Resources
 - 10.1 References
- 11 Related Posts



CISCO Display Your Network Topology



Specifications

• Product Name: Catalyst Center

Function: Display Network Topology

• Features: Graphical view of network, Device role assignment, Physical topology map creation

Product Usage Instructions

Display Your Network Topology

The Topology window in Catalyst Center provides a graphical view of your network based on the Discovery settings you have configured. Here's how you can display your network topology:

- 1. Click the menu icon in the top-left corner and choose Tools > Topology.
- 2. Select the area, site, building, or floor you are interested in from the left hierarchy tree.
- 3. In the top-right corner, toggle between the Geographical map view and the Layer 2 map view.
- 4. Use the Search field to find specific buildings or devices on the map.

Filter Devices on the Topology Map:

To filter devices on the topology map:

- 1. Click the menu icon and choose Tools > Topology.
- 2. Click Filter. If Filter is not visible, select a site from the left tree view menu.
- 3. Create a new tag if needed and associate devices with tags to filter them.

Display Device Information

Catalyst Center allows you to view device information such as name, IP address, and software version. Here's how you can display device information:

- 1. Click the menu icon and choose Tools > Topology.
- 2. Select the area, site, building, or floor of interest from the tree view menu.
- 3. Hover over the device or device group to view details. Click on a switch with a blue arrow to view connected hosts.

FAQ

- Q: Can I display different levels of topology in Catalyst Center?
 - A: Yes, you can display topology at the levels of areas, sites, buildings, and floors.
- Q: How can I find specific buildings or devices on the topology map?
 - A: You can use the Search field in the Geographical map view to find buildings and devices. In the Layer 2 map view, you can search for devices directly.
- Q: What information can I view about devices in Catalyst Center?
 - A: You can view device name, IP address, software version, and device health status on the topology map.

Display Your Network Topology

About Topology

The Topology window displays a graphical view of your network. Using the Discovery settings that you have configured, Catalyst 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), Catalyst 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.
- Export screen shots of the complete topology layout in PNG format.

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.

- 1. Step 1 From the top-left corner, click the menu icon and choose Tools > Topology.
- 2. Step 2 From the left hierarchy tree, select the area, site, building, or floor that you are interested in.
- 3. Step 3 In the top-right corner, use the toggle button () 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 () 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.
- 4. Step 4 Click Take a Tour for information about the various options in the Topology window.

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.

Step 1

From the top-left corner, click the menu icon and choose Tools > 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:

- · Click Create New Tag.
- · Enter the Tag Name.
- · Click Save.

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

- · Click the device.
- · Click Tag Device.
- Select the tag to which you want to associate the device.
- · Click Apply.

Display Device Information

Catalyst Center allows you to 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.

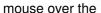
- 1. Step 1 From the top-left corner, click the menu icon and choose Tools > Topology.
- 2. Step 2 In the tree view menu, select the area, site, building, or floor that you are interested in.
- 3. Step 3 In the topology area, hover your mouse over the device or device group that interests you.

Note

A device group is labeled with the number and types of devices it contains. A blue arrow under a switch indicates that switch has a host. Click the blue arrow to view the host.

4. Step 4

Click Display and enable the following items to view additional device details. For more information, hover your





icon next to the items.

- Device Health: Displays the health of the devices.
- Link Health: Displays the health of the links between the devices.
- License status: Displays the license status of the device. Catalyst Center highlights a device if its license is about to expire and a warning icon appear next to it. Click the highlighted device to view its license details.
- Device IP: Displays device IP address under device label.
- Device Suffixes: Displays full name of the device, with its suffix.

Note

- Topology uses Link Layer Discovery Protocol (LLDP) to determine the neighbor devices when network devices are not configured with Cisco Discovery Protocol (CDP) in Catalyst Center.
- For third-party devices, only the added device icon is displayed, the links are not detected.

Display Link Information

Catalyst Center allows you to 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.

- 1. Step 1 From the top-left corner, click the menu icon and choose Tools > Topology.
- 2. **Step** 2 In the tree view menu, select the area, site, building, or floor that you are interested in.
- 3. Step 3 Hover your cursor over the link that interests you.
- 4. 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:

- · Log in to the device.
- Enable the interface.
- Resynchronize the device on the Inventory page.

Note

Topology uses Link Layer Discovery Protocol (LLDP) to determine the links for devices that are discovered using LLDP in Catalyst Center.

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.

Step 1 From the top-left corner, click the menu icon and choose Tools > Topology.

Step 2 Do one of the following:

- To pin a device, click the device group, and in the dialog box, click the pin icon to the left of the device name.
- To pin all the devices, click the device group, and, in the dialog box, click Pin All.

Note Double click the group to unpin the devices in the group.

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.

- 1. Step 1 From the top-left corner, click the menu icon and choose Tools > Topology.
- 2. Step 2 Click Unassigned Devices in the left pane. All the unassigned devices are displayed in the topology

area.

- 3. Step 3 Click the device for which you want to assign a site. Device details are displayed in a pop-up window. In the Assign devices to: section, click the choose the location drop-down list to select a location.
- 4. Step 4 (Optional) To assign the site only for the selected device and not for the connected (downstream) devices, uncheck the Auto-assign unclaimed downstream devices check box.
- 5. Step 5 Click Assign.

Save a Topology Map Layout

Catalyst 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.

- 1. Step 1 From the top-left corner, click the menu icon and choose Tools > Topology.
- 2. Step 2 Click Custom View.
- 3. Step 3 In the Enter View Title field, enter a name for your customized map.
- 4. Step 4 Click Save.
- 5. 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 top-left corner, click the menu icon and choose Tools > Topology.
- 2. Step 2 Click Custom View.
- 3. Step 3 Click the name of the map that you want to display.

Share a Topology Map Layout

You can share a customized map with other users.

Before you begin

- You must have topology map layouts saved.
- You must have at least one topology view saved.

Step 1 From the top-left corner, click the menu icon and choose Tools > Topology.

Step 2 Click Custom View.

Step 3 Hover the cursor over the name of the custom map and click the Share Focus icon.

Step 4 In the confirmation window, click Yes.

Export the Topology Layout

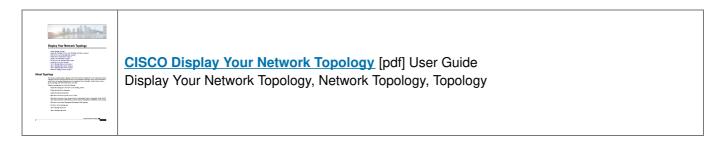
You can export a snapshot of the full topology layout. The snapshot is downloaded as a SVG, PDF, PNG file to your local machine.

Before you begin

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

- 1. Step 1 From the top-left corner, click the menu icon and choose Tools > Topology.
- 2. Step 2 Click. (this icon represents Export Topology).
- 3. Step 3 Select a file format and click Export.

Documents / Resources



References

• User Manual

Manuals+, Privacy Policy

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