

# **Overview**

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## **Cisco Data Center Network Manager**

Cisco Data Center Network Manager (Cisco DCNM) automates the infrastructure of Cisco Nexus 5000, 6000, 7000, and 9000 Series Switches and Cisco MDS 9000 Series switches. Cisco DCNM enables you to manage multiple devices, while providing ready-to-use capabilities, such as, control, automation, monitoring, visualization, and troubleshooting.



**Note** The documentation set for this product strives to use bias-free language. For the purposes of this documentation set, bias-free is defined as language that does not imply discrimination based on age, disability, gender, racial identity, ethnic identity, sexual orientation, socioeconomic status, and intersectionality. Exceptions may be present in the documentation due to language that is hardcoded in the user interfaces of the product software, language used based on RFP documentation, or language that is used by a referenced third-party product.

Configuring the Device Connector is mandatory if you've deployed Cisco DCNM in LAN Fabric mode. If you did not configure Device Connector during installation, a message appears asking you to configure Device Connector everytime you login. If you check the **Do not show again**, the message will not appear. However, an alarm notification will be added under the **Alarms** icon.

The Cisco DCNM home page contains a navigation pane to the left, and shortcuts to a few Cisco DCNM features in the middle pane.

This guide provides comprehensive information about the UI functionality for Cisco DCNM LAN Fabric deployment.

The top pane displays the following UI elements:

- Alerts and Notifications: You can view the alerts and event notifications by clicking the Alerts and Notifications icon, next to the Help icon, in the top pane of Cisco DCNM.
- Help: Launches the context-sensitive online help.
- Alarms: The Alarms icon flashes when there is an Alarm or when thresholds exceed for your Cisco DCNM Deployment. Click on the flashing Alarms icon to view the messages. The following alarms are displayed.

- Interfaces Limit Exceeded for DCNM If the maximum number of endpoints across all fabrics exceeds 100K, the Alarms icon flashes and displays a message.
- Device Connector Disconnected If the Device Connector was not configured during installation, this alarm appears to imply that the Device connector is not connected to Intersight. Choose Administration > Device Connector to configure the Device Connector and remove the alarm.
- High Availability (HA) State of DCNM If the Native HA setup is not synchronized. One of the nodes or both nodes may have stopped, failed, or not ready if the Alarms icon flashes. When the HA setup is synchronized, the notification clears out in 30 minutes (during the polling cycle) or when you logout and login to the Cisco DCNM Web UI.
- User Role: Displays the role of the user who is currently logged in, for example, admin.
- Gear icon: Click on the gear icon to see a drop-down list with the following options:
  - Logged in as: displays the user role of the current logged in user.
  - Change Password: Allows you to change the password for current logged in user.

If you are a network administrator user, you can modify the passwords of the other users.

- About: Displays the Version, Installation Type, and time since when the Web UI is operational.
- **REST API Tool**: Allows you to examine the APIs invoked for every operation. See the *REST API Tool* section for more information about the API inspection.
- Logout: Allows you to terminate the Web UI and returns to the login screen.

For more information about Cisco DCNM, see:

https://www.cisco.com/c/en/us/support/cloud-systems-management/data-center-network-manager-11/model.html.

## **REST API Tool**

Operations like discovery, fabric management, monitoring, and so on, which are performed in Cisco DCNM Web UI, invoke HTTP calls to fetch and commit the information accessed. The REST API tool enables you to examine the API call by viewing the structure of an API call. This tool also provides a corresponding CURL request to help with building quick prototypes and testing APIs.

The **REST API Tool** dialog box has the following fields.

#### Table 1: Fields and Description for the REST API Tool Dialog Box

Field	Description
Filter	Enter any keyword to search the log.
scroll to new items	Check this check box to scroll to the new entries when you navigate back to the <b>REST API Tool</b> dialog box after you perform an operation in the Web UI. This check box is checked by default.

Field	Description
clear log	Click <b>clear log</b> to clear the log in the dialog box.
API-docs	Click API-docs to view the Cisco DCNM REST API documentation in the Web UI. Clicking this option takes you to the following URL: https://DCNM-IP/api-docs

All actions you perform in the Cisco DCNM Web UI appear in the API inspector tool. The following information appears in the APIs invoked for every operation:

- HTTP method
- URI
- Payload
- HTTP status code
- Time taken for the operation

The following image displays how the log appears in the REST API Tool dialog box.

	e REST API Tool
A	Not Secure /apitrace.html
C	ୡ Filter ✓ scroll to new items × clear log API-docs
•	GET /fm/fmrest/dcnm/rbacNavigation/?uname=admin Status 200 - Took 76ms {"identifier":"memDbId","label":"name","items":[{"isBranch":false,"selectable":true,"name":"Default_LAN","icon":"lanIcon","state
•	<pre>GET /fm/fmrest/dbadmin/getCollectionPolicies?navId=-1&amp;cacheBust=1576255448917 Status 200 - Took 992ms {"enableAbsoluteCritical":false, "absoluteCriticalLimit":"80", "enableAbsoluteWarning":false, "absoluteWarningLimit":"60", "threshol</pre>
•	GET /fm/fmrest/san/getVirtualCenters/?cacheBust.timestamp=1576255449024 Status 200 - Took 166ms []
•	GET /fm/fmrest/topology/layout/-1?cacheBust.timestamp=1576255449208 Status 200 - Took 74ms {}
•	GET /fm/fmrest/topology?navId=-1&cacheBust.timestamp=1576255449282 Status 200 - Took 630ms {"nodeList":[],"edgeList":[],"nodeGroupList":[],"edgeGroupList":[]}
•	<pre>GET /fm/fmrest/topology/vsans/-1?cacheBust.timestamp=1576255449283 Status 200 - Took 711ms {"VsanList":[]}</pre>
•	GET /rest/fabrics?provision-type=bottom-up&cacheBust.timestamp=1576255449284&request.preventCache=1576255449284 null Status 200 - Took 21ms

Click the URI to expand or collapse each REST method. You can perform the following actions after expanding a REST method:

- **Prettify output**: Click this option to arrange the response code in a more presentable way, which otherwise appears in a single line. Scroll through the response to view it completely.
- Copy response: Click this option to copy the response code to your clipboard.

- **REST API Tool** A Not Secure /apitrace.html 🔍 Filter... 🗹 scroll to new items 🛛 💥 clear log 🛛 API-docs GET /fm/fmrest/dcnm/rbacNavigation/?uname=admin Status 200 - Took 76ms { "identifier": "memDbId", "label": "name", "items": [ { "isBranch": false, "selectable": true "name": "Default\_LAN",
  "icon": "lanIcon",
  "state": "unchecked ", "type": 1, "memDbId": 2 }, Prettify output | Copy response | Copy CURL request GET /fm/fmrest/dbadmin/getCollectionPolicies?navId=-1&cacheBust=1576255448917 Status 200 - Took 992ms {"enableAbsoluteCritical":false,"absoluteCriticalLimit":"80","enableAbsoluteWarning":false,"absoluteWarningLimit":"60","threshol... GET /fm/fmrest/san/getVirtualCenters/?cacheBust.timestamp=1576255449024 Status 200 - Took 166ms Г٦ GET /fm/fmrest/topology/layout/-1?cacheBust.timestamp=1576255449208 Status 200 - Took 74ms

curl -k -XGET --header 'Dcnm-Token: <DCNM TOKEN>' --header 'Content-Type:

The **REST API Tool** dialog box updates every time the Cisco DCNM Web UI updates.

To use the API inspector from the Cisco DCNM Web UI, perform the following steps:

### Procedure

Step 1	Click the Gear icon in the top pane.			
Step 2	Choose <b>REST API Tool</b> from the drop-down list.			
	The <b>REST API Tool</b> dialog box appears and the log is empty before you perform any operation in the Cisco DCNM Web UI.			
Step 3	Minimize the <b>REST API Tool</b> dialog box.			
	Note	You can also keep the dialog box open, but not close it.		
Step 4	Perform an operation in the Cisco DCNM Web UI.			
	Note	You can perform any operation in the Cisco DCNM Web UI like viewing any options, adding, deleting, and so on.		
Step 5	Navigate back to the <b>REST API Tool</b> dialog box.			
	The log is populated with the REST APIs fetched depending on the operations you performed.			

### • Copy CURL request: Click this option to copy the CURL request to your clipboard.

https://<ip-address>/fm/fmrest/dcnm/rbacNavigation/?uname=admin

application/x-www-form-urlencoded'

**Note** Closing the **REST API Tool** dialog box, instead of minimizing it before performing any operations, clears the log.

For a demo on some of the operations that can be performed using the REST API tool, see the Using REST API Tool in Cisco DCNM video.

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