Cisco Network Insights Base Application for Cisco DCNM User Guide, Release 2.0.1

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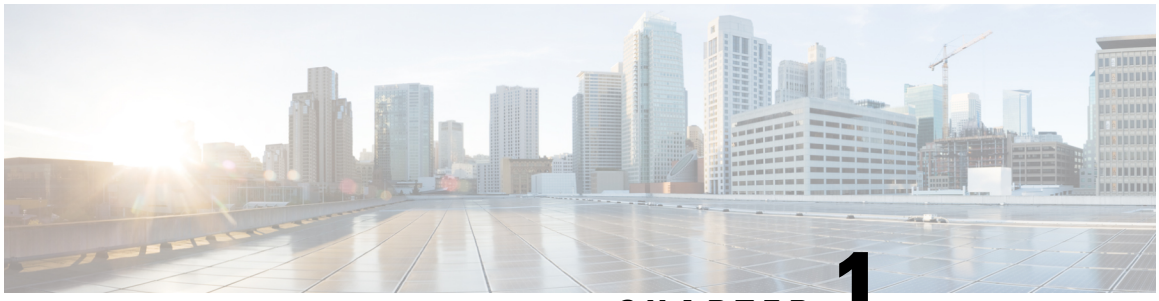


CHAPTER 1

New and Changed Information

This chapter contains the following sections:

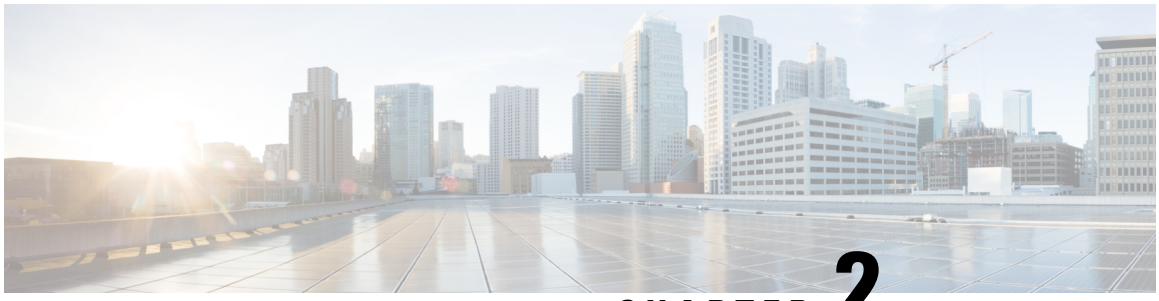
New and Changed Information

The following table provides an overview of the significant changes up to the current release. The table does not provide an exhaustive list of all changes or of the new features up to this release.

Table 1: New Features and Changed Behavior in the Cisco Network Insights Base application for Release 2.0.1

Feature	Description	Release
The Cisco Network Insights Base application	This guide was released to provide a description of Cisco Network Insights Base application on Cisco DCNM.	2.0.1

New and Changed Information



CHAPTER 2

Cisco Network Insights Base Installation

This chapter contains the following sections:

About Cisco Network Insights Base Application

Cisco Network Insights Base (Cisco NI Base) application monitors utilities that can be added to the Cisco Data Center Network Manager (Cisco DCNM).

Hardware Requirements

This section describes the Cisco DCNM 11.3(1) LAN deployment requirements for Cisco NI Base app software telemetry. A Cisco DCNM-native HA deployment is recommended.

Table 2: Hardware Requirements for Deployments up to 80 Switches

Node	Deployment Mode	CPU	Memory	Storage	Network
Cisco DCNM	OVA/ISO	16 vCPUs	32G	500G HDD	3x NIC
Computes (x3)	OVA/ISO	16 vCPUs	64G	500G HDD	3x NIC

Table 3: Hardware Requirements for Deployments from 81 to 250 Switches

Node	Deployment Mode	CPU	Memory	Storage	Network
Cisco DCNM	OVA/ISO	16 vCPUs	32G	500G HDD	3x NIC
Computes (x3)	ISO	32 vCPUs	256G	2.4TB HDD	3x NIC*

* Network card: Quad-port 10/25G

Downloading Cisco Network Insights Base Application from the Cisco App Center

This section contains the steps required to download Cisco Network Insights Base applications in the Cisco DCNM in preparation for installation.

Before you begin

You must have administrative credentials to download Cisco NI Base application in Cisco DCNM.

Step 1 Access the Cisco DC App Center site in one of the two ways:

- Go to Cisco DC App Center, or
- If you have admin privileges, go through the Cisco DCNM GUI.
  a. Login to the Cisco DCNM GUI as admin.
  b. Choose **Apps**.
  c. Click the **Download Applications** icon on the far-right side of the work pane.
     A new browser tab or window opens to the Cisco DC App Center.

Step 2 Search for Cisco Network Insights Base application on the search bar.

Step 3 Select the Cisco Network Insights Base application you want to download and click **Download** for that app to begin the process of downloading the app to your local machine.

Step 4 Review the license agreement and, if OK, click **Agree and download**.

The Cisco Network Insights Base application is downloaded to your local machine.

What to do next

Make sure the following requirements are met:

- Note the download location of the Cisco Network Insights Base file on your local machine.
- Make sure the downloaded file can be accessed by the Cisco DCNM. If it cannot, move the file to a device and/or location where it can be installed on the Cisco DCNM.

Installing Cisco NI Base Application in Cisco DCNM

This section contains the steps required to install Cisco Network Insights Base application in the Cisco DCNM.

Before you begin

Before you begin installing a Cisco NI Base application, make sure the following requirements are met:

Step 1 You must have administrator credentials to install Cisco Network Insights Base applications.

Step 2 You must have three compute servers installed and in the "Joined" state. For more information regarding the installation, discovery, and addition of compute servers, refer to the following sections:

- Compute Installation: For details on compute installation, refer to the Installing a DCNM Compute section.
- DVS Security Settings: For details on DVS security settings, refer to the Networking Policies for OVA Installation section.
- Subnet Requirements for OOB and IB pool: For details on subnet requirements for OOB and IB pool, refer to the Subnet Requirements section.
- Creating a Compute Cluster: For details on creating a compute cluster, refer to the Enabling the Compute Cluster section.
- Adding Computers in Web UI: For details on adding computers in web UI, refer to the Adding Computers into the Cluster Mode section.

What to do next

When the installation is complete, the application opens to a Welcome dialog where initial setup is performed. Continue with the setup of the Cisco Network Insights Base application located in the Initial Setup section of the next chapter.

Enabling Cisco NI Base Application in Cisco DCNM

This section contains the steps required to enable or disable the Cisco NI Base application.

Before you begin

Before you begin enable or disable the Cisco NI Base application, make sure the following prerequisites are met:

- You must have administrator privileges for Cisco DCNM GUI.
- You have installed Cisco NI Base app and the application has launched correctly.

Step 1 Login to Cisco DCNM GUI with admin privileges.

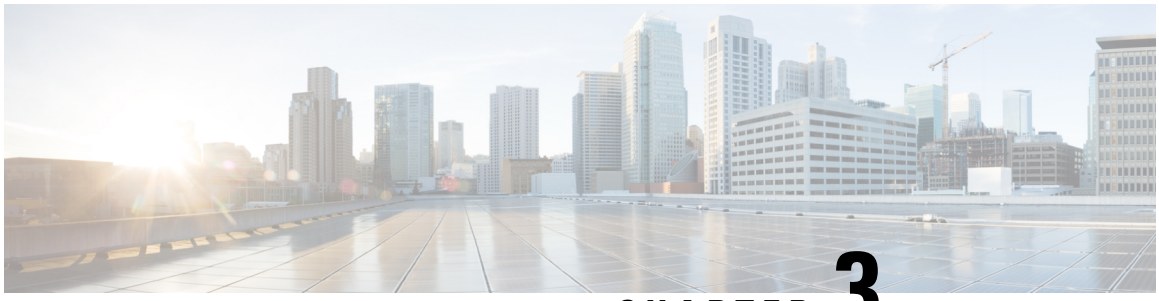
Step 2 Click **Application** on the left navigation bar.

Step 3 Click **Open** from the Cisco NI Base application dialog.

The Cisco Network Insights Base application dialog appears.

Step 4 Check the **Help Cisco improve its products** option.

Uncheck this option to stop sending environment specific data to Cisco Intersight.



CHAPTER 3

Using Cisco Network Insights Base

This chapter contains the following sections:

About Cisco Network Insights Base on Cisco DCNM

The Cisco Network Insights Base (Cisco NI Base) application provides TAC Assist functionalities which are useful when working with Cisco TAC. It provides a way for Cisco Customers to collect tech support across multiple devices and upload those tech supports to Cisco Cloud. These tech support are accessible to our TAC teams when helping customers through a resolution of a Service Request. Additionally, it enables capability for our TAC teams to collect tech support on demand for a particular device.

Cisco NI Base app consists of the following components:

- Devices
- TAC Assist
  - Log Collection
  - Technical Support to Cloud
  - Enhanced TAC Assist

The Cisco NI Base app collects the CPU, device name, device pid, serial number, version, memory, device type, and disk usage information for the nodes in the fabric.

Cisco NI Base Initial Setup

This section contains the steps required to set up Cisco NI Base app in the Cisco DCNM. This set up is required for Cisco NI Base app to show important information and gather relevant data.

Step 1 Once Cisco NI Base app is installed and after your first log in, a welcome dialog appears. Click **Begin Setup**.

A **Setup** dialog appears.

Step 2 In **Data Collection Setup**, click **Configure**.

The **Data Collection Setup** dialog appears. In the **Fabrics** list are pods that were discovered during the Cisco NI Base application installation.

Step 3 Check only the pods you want visible to the Cisco NI Base application.

Step 4 Click **Ok**.

The **Setup** dialog appears with the selected fabrics appearing in **Data Collection Setup**. You can edit the selected fabric(s) by clicking **Edit configuration**. You can return to the setup utility anytime by clicking the settings icon and choose **Rerun Setup**.

Cisco NI Base Settings

Settings

Displayed across the top of the work pane is a group of icons and a list menu comprising the Cisco NI Base app settings. The following table describes each:

Property	Description
Fabric	Choose a fabric containing the pod you want visible to the Cisco NI Base application.
	Device Connector Status: Identifies the current connection status of the Cisco NI Base application to the Cisco Intersight cloud and the device connector claim condition. Possible connection statuses are: • **Not Connected**: The Cisco NI Base application is not connected to the Cisco Intersight cloud. • **Connected / Not Claimed**: The Cisco NI Base application is connected to the Cisco Intersight cloud but the device connector has not been claimed by the customer. • **Connected / Claimed**: The Cisco NI Base application is connected to the Cisco Intersight cloud and the device connector has been claimed by the customer. For more information, see Configuring the Intersight Device Connector, on page 9.

Property	Description
	Clicking on this icon invokes a list menu allowing you to make changes to the following: • **About Network Insights**—Displays an information dialog identifying the version number of the Cisco NI Base application. Click **Update to Latest** to fetch the latest published version. This requires that the using of the Cisco Intersight Device Connecter is connected and claimed. See Configuring the Intersight Device Connector, on page 9 for details. • **Rerun Setup**—Allows you to edit the Data Collection Setup by adding or removing fabrics.
	Displays the online help for Cisco Network Insights Base application on Cisco DCNM.

Setting Up the Device Connector

This section describes setting up the device connector for Cisco NI Base app on Cisco DCNM.

About Device Connector

Devices are connected to the Intersight portal through a Device Connector that is embedded in the management controller of each system. Device Connector provides a secure way for the connected devices to send information and receive control instructions from the Cisco Intersight portal, using a secure Internet connection.

When an Intersight-enabled device or application starts, the Device Connector starts at boot by default, and attempts to connect to the cloud service. If the **Auto Update** option is enabled, the Device Connector is automatically updated to the latest version through a refresh by the Intersight service when you connect to Intersight. For more information on the **Auto Update** option, see Configuring the Intersight Device Connector, on page 9.

Configuring the Intersight Device Connector

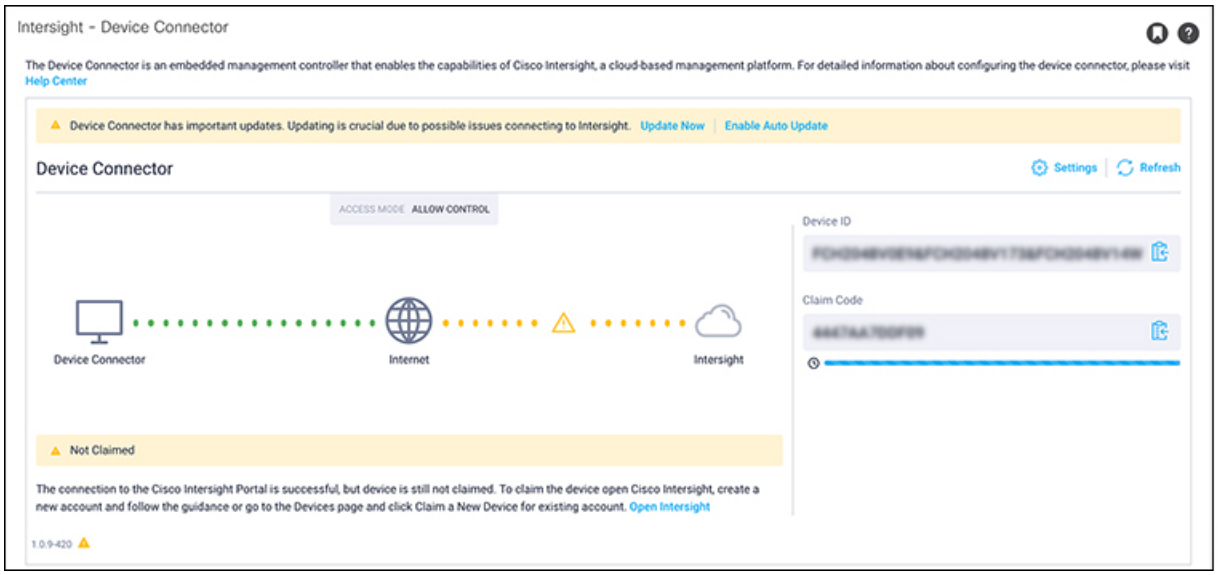
Cisco NI Base application is connected to the Cisco Intersight cloud portal through a Device Connector which is embedded in the management controller of the Cisco DCNM platform. Cisco Intersight is a virtual appliance that helps manage and monitor devices through the Cisco NI Base app. The Device Connector provides a secure way for connected Cisco DCNM to send and receive information from the Cisco Intersight portal, using a secure Internet connection.

To setup the Device Connector, follow these steps:

Step 1 On the Cisco DCNM navigation pane, click Administration.

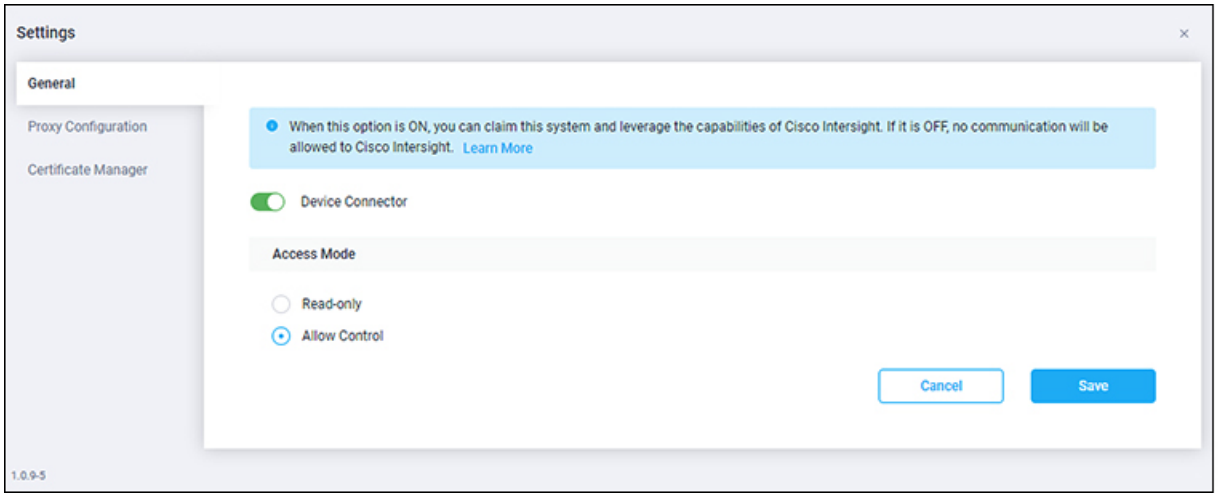
Step 2 Under the Cisco DCNM Server list, click Device Connector.

The Device Connector work pane appears:



Step 3 At the far right of the screen, click **Settings**.

The **Settings - General** dialog appears:



Device Connector (switch)

This is the main switch for the Device Connector communication with Cisco Intersight. When the switch is on (green highlight), the system is claimed and the capabilities of the Cisco Intersight can be leveraged. If the switch is off (gray highlight), no communication can occur between the platform and Cisco intersight.

Access Mode

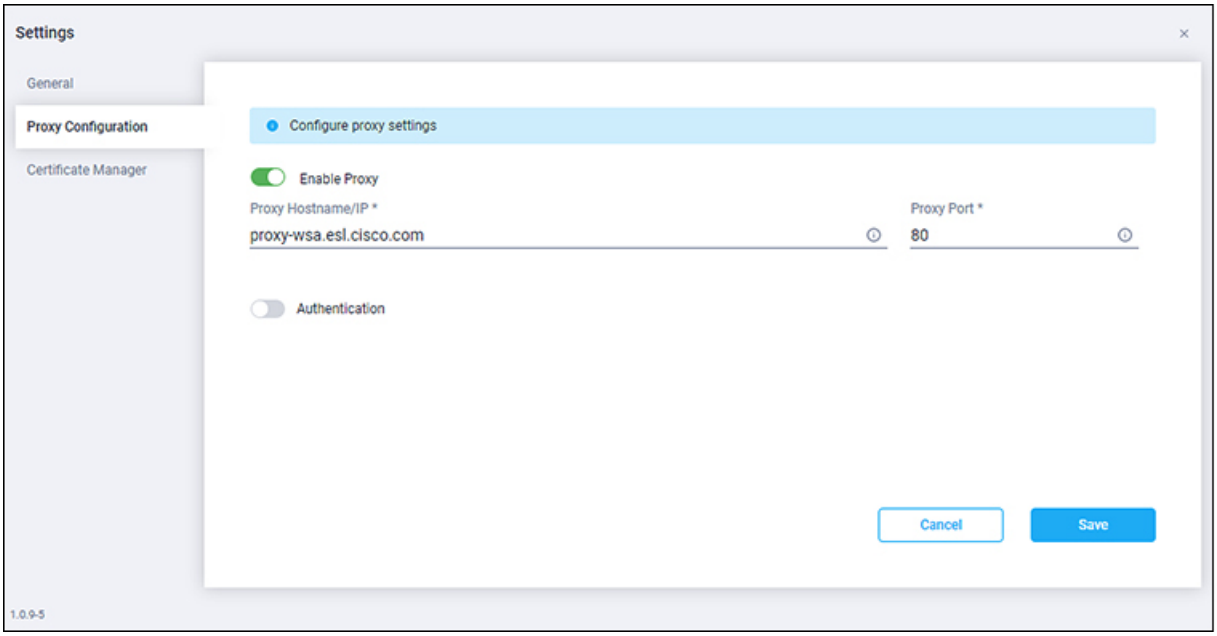
Read-only: This option ensures that no changes are made to this device from Intersight. For example, actions such as upgrading firmware or a profile deployment will not be allowed in the Read-Only mode. However, the actions depend on the features available for a particular system.

Allow Control: This option (selected by default) enables you to perform full read/write operations from the appliance, based on the features available in Cisco Intersight. This function is not used for changes from Cisco Cloud to customer network.

Step 4 Set the Device Connector to on (green highlight) and choose **Allow Control**.

Step 5 Click **Proxy Configuration**.

The **Settings - Proxy Configuration** dialog appears.



Enable Proxy (switch)

Enable HTTPS Proxy to configure the proxy settings.

Proxy Hostname/IP* and **Proxy Port***: Enter a proxy hostname or IP address, and a proxy port number.

Authentication (switch)

Enable proxy access through authentication. When the switch is on (green highlight), authentication to the proxy server is required. If the switch is off (gray highlight), no authentication is required.

Username* and **Password**: Enter a user name and password for authentication.

Note Proxy settings are required for Network Insights.

Step 6 Enable the proxy (green highlight) and enter a hostname and port number.

Step 7 Optional: If proxy authentication is required, enable it (green highlight) and enter a username and password.

Step 8 Click **Save**.

Claiming a Device

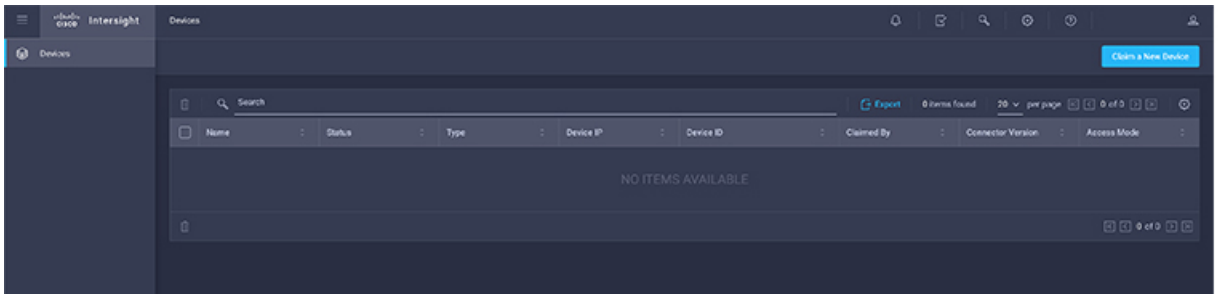
Before you begin

Configure the Intersight Device Connector information from the Cisco DCNM site using the instructions provided in Configuring the Intersight Device Connector, on page 9.

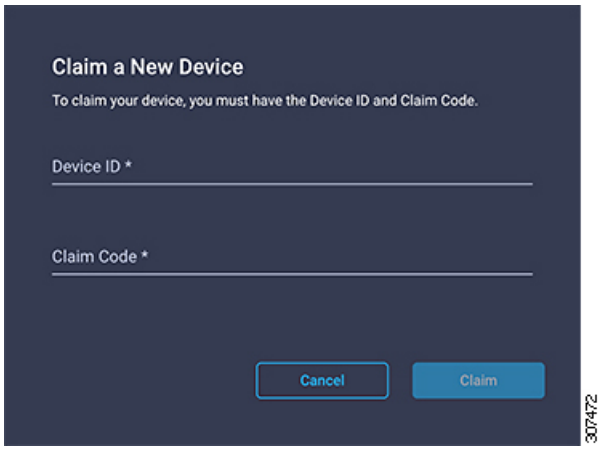
Step 1 Log into the Cisco Intersight cloud site:

https://www.intersight.com

Step 2 In the Cisco Intersight cloud site, under the **Devices** tab, click **Claim a New Device**.



The **Claim a New Device** page appears.



Step 3 Go back to the Cisco DCNM site and navigate back to the **Intersight - Device Connector** page.

a) On the menu bar, choose **System** > **System Settings**.

b) In the **Navigation** pane, click **Intersight**.

Step 4 Copy the **Device ID** and **Claim Code** from the Cisco DCNM site and paste them into the proper fields in the **Claim a New Device** page in the Intersight cloud site.

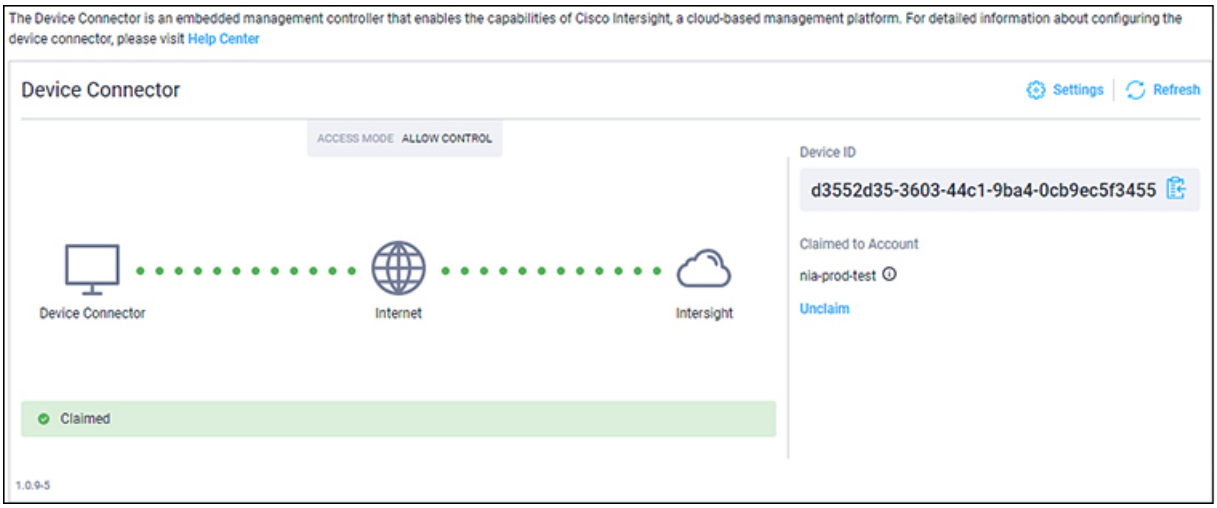
Click on the clipboard next to the fields in the Cisco DCNM site to copy the field information into the clipboard.

Step 5 In the **Claim a New Device** page in the Intersight cloud site, click **Claim**.

You should see the message "Your device has been successfully claimed" in the **Claim a New Device** page. Also, in the main page, you should see your Cisco DCNM system, with Connected shown in the Status column.

Step 6 Go back to the **Intersight - Device Connector** page in the Cisco DCNM GUI and verify that the system was claimed successfully.

You should see green dotted lines connecting **Internet** to **Intersight** in the **Device Connector** graphic, and the text **Claimed** underneath the graphic.



Note You may have to click **Refresh** in the **Intersight - Device Connector** page to update the information in the page to the current state.

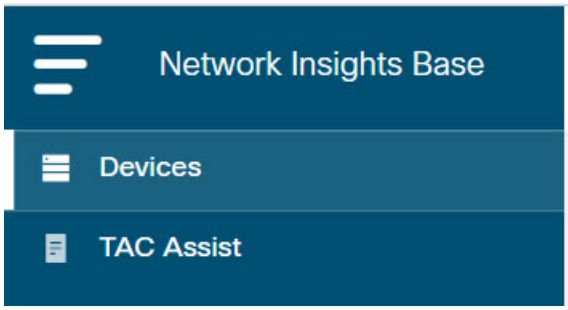
If you decide to unclaim this device for some reason, locate the **Unclaim** link in the **Intersight - Device Connector** page and click that link.

Navigating Cisco NI Base

The Cisco NI Base application window is divided into two parts: the Navigation pane and the Work pane.

Navigation Pane

The Cisco NI Base app navigation pane divides the collected data into the following categories:



1 Devices: Sorts devices by device name, serial number, IP address, version, and platform.

2 TAC Assist: Collects logs for specified devices that can be attached to service requests using the Cisco Intersight Cloud.

Devices

The Devices page displays the devices by device name, serial number, IP address, version, and platform.

TAC Assist

The TAC Assist work pane lets you collect logs for specified devices that can be attached to service requests using the Cisco Intersight Cloud. It lets you check the device(s) for which you can collect logs to assist TAC.

The **Log Collection** section displays the new job triggered for TAC Assist. The **Job Details** page lists the TAC Assist logs.

All information about TAC Assist job including, status, devices, fabric, start time, job id, device name, log location, and cloud upload appear in the work pane.

Using the Cisco NI Base Application

Main Dashboard

The Cisco NI Base application main dashboard provides immediate access to a high-level view of Devices and access to TAC Assist logs in your network.

Property	Description
Devices	Displays devices by device name, serial number, IP address, version, and platform in your network.
TAC Assist	Displays the total number of TAC assist logs currently being collected or finished being collected.

Devices

The Devices dashboard displays devices by serial numbers, software versions, and hardware platforms. You can sort devices by device name, serial number, IP address, software version, and hardware platform.

TAC Assist

The TAC Assist dashboard allows you to collect logs for devices in your network. These logs can be attached to Service Requests (SRs) for further analysis.

1. Click **Begin** to initiate the log collection process.
2. To display specific devices in the list, use the filter utility:
    - Operators - display devices using an operator. Valid operators are:
        - == - display devices with an exact match. This operator must be followed by text and/or symbols that are the exact software version, product ID, device name, or assigned IP address of the device.
        - contains - display device names or platform identifiers containing entered text or symbols. This operator must be followed by text and/or symbols.
    - Version - display devices that are running a specific software version.
    - Platform - display devices that are a specific type defined by the platform ID.
    - Device Name - display devices that are specifically named.

- Serial Number - display devices that are running a specific serial number.
- IP Address - display devices that are assigned a specific IP address.

3. Place a check in the checkbox next to the device for which you want to collect logs. If you want to choose all of the devices in the list, place a check in the checkbox next to the **Device Name** column title.
4. Click **Collect Logs**.

   The **Collect Logs** dialog appears on the TAC Assist dashboard. Once the logs are collected, Cisco NI Base app lets you view the collected log details. The TAC Assist detailed page displays the location where the logs are collected and lets you upload to the Cisco Intersight Cloud.

The following table describes the status messages for TAC Assist.

Property	Description
Pending	Displays when connecting to Intersight Device Connector is pending.
Collection in Progress	Displays when collecting the logs locally to Intersight Device Connector is in progress.
Collection Complete	Displays when collecting the logs locally to Intersight Device Connector is complete.
Retry Upload	Displays when there is a failure to collect logs.
Upload Pending	Displays when uploading the logs from Intersight Device Connector to Cisco Intersight Cloud is pending.
Upload in Progress	Displays when uploading the logs from Intersight Device Connector to Cisco Intersight Cloud is in progress.
Complete	Displays when upload to Cisco Intersight Cloud is complete.

TAC Assist

This section contains the steps required for you to trigger a TAC Assist job to collect logs for specified devices and upload the logs to cloud. The collected logs for specified devices then can be attached to the service requests (SRs).

Before you begin

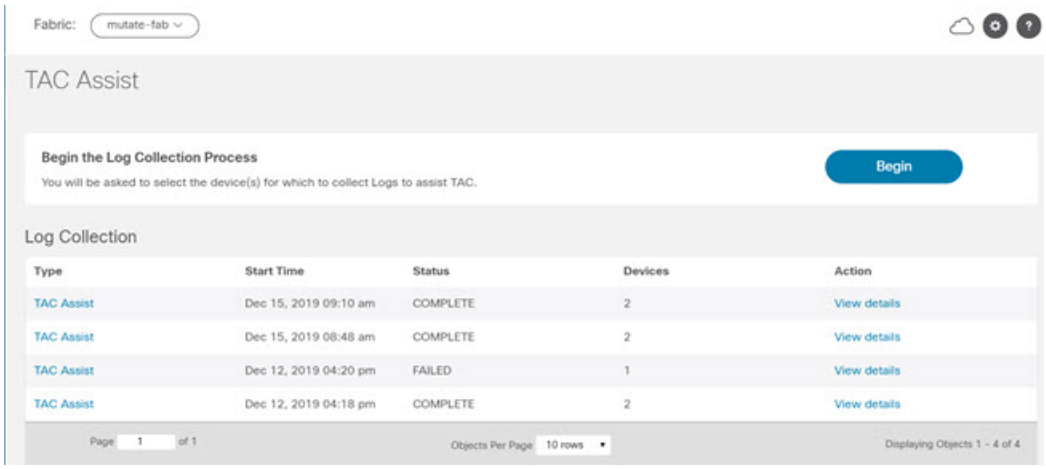
Before you upload the collected logs to cloud, make sure the fabric is conneced to Cisco Intersight cloud. See Configuring the Intersight Device Connector, on page 9 for details.

Step 1 Click **TAC Assist** in the Cisco DCNM navigation pane.

Step 2 Click **Begin** to choose the fabric device(s).

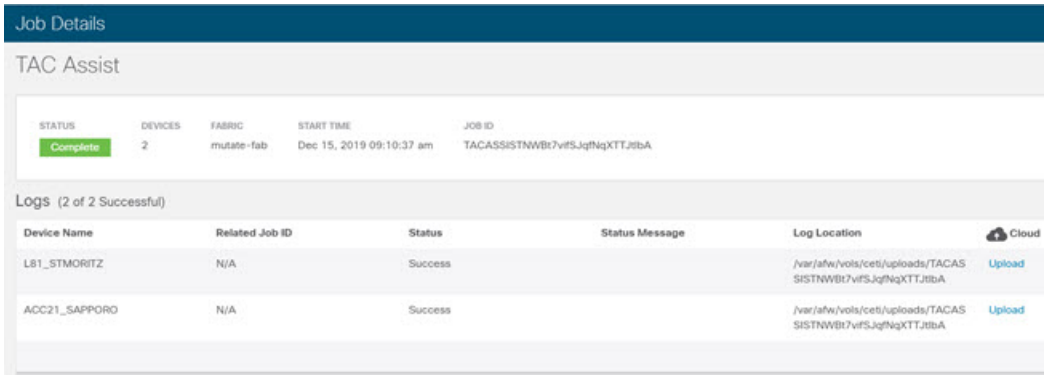
Step 3 From the **Collect Logs** page check the device(s) for which to collect logs to assist TAC.

The **Log Collection** section displays the new job triggered for TAC Assist.



Step 4 Click **View Details** from the list of logs to display the **Job Details** page.

All information about TAC Assist job including, status, devices, fabric, start time, job id, device name, log location, and cloud upload appear in the work pane.

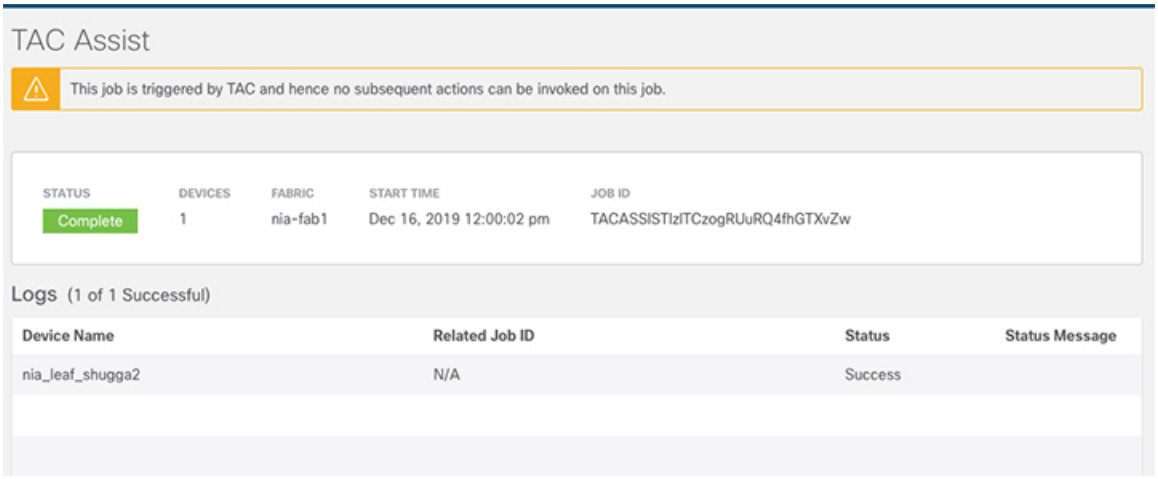


Step 5 Click **Upload** to upload the collected logs to Cisco Intersight Cloud.

The **Cloud** status shows **Complete** when the upload of collected logs to Cisco Intersight Cloud is complete.

Enhanced TAC Assist

The Enhanced TAC Assist feature triggered by TAC enables collection of logs for specified devices and uploads the logs to cloud. Click **View Details** from list of logs to display the job details page.



The **View Details** page shows a message that the job is triggered by TAC and hence no subsequent actions can be invoked on this job.