

Cisco Prime Infrastructure to Cisco DNA Center Migration Guide

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This guide explains how to migrate network devices, maps, locations, CLI configurations, and templates from Cisco Prime Infrastructure to Cisco DNA Center.

Migration Overview

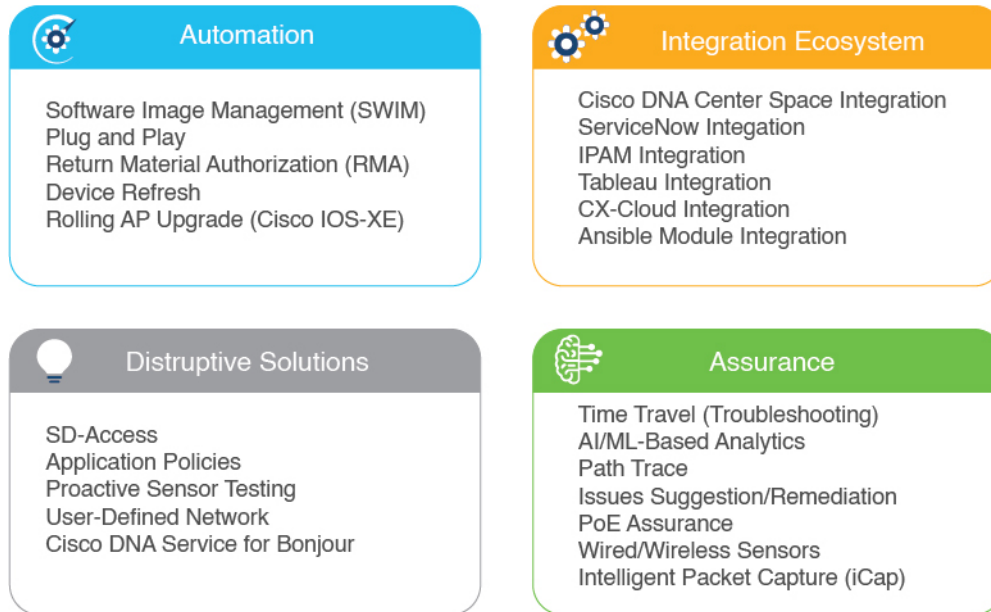
Cisco Prime Infrastructure has been a key management platform and solution of choice for campuses across industries. However, if you want to use intent-based networking, consider migrating from Cisco Prime Infrastructure to Cisco DNA Center to drive tangible IT and business results. Cisco DNA Center is a network management system, foundational controller, and analytics platform at the heart of the intent-based network. Beyond device management and configuration, Cisco DNA Center provides the following software solutions:

- A management platform for all your network requirements
- A Software-Defined Network (SDN) controller for automation of virtual devices and services
- An Assurance engine to guarantee improved network experience for all users

The Cisco DNA Center software resides on the Cisco DNA Center appliance and controls the Cisco fabric and nonfabric devices. Cisco DNA Center provides the following capabilities:

- **Design:** Design your network using physical maps and logical topologies for quick visual reference.
- **Policy:** Define user and device profiles that facilitate highly secure access and network segmentation based on business needs.
- **Provision:** Use policy-based automation to deliver services to the network based on business priority and simplify device deployment.
- **Assurance:** Combine deep insights with rich context to deliver a consistent experience and proactively optimize your network.

Figure 1: Cisco DNA Center Capabilities



Cisco DNA Center allows you to automatically provision and virtualize devices through Cisco Network Functions Virtualization (NFV), and lower security risks through segmentation and Encrypted Traffic Analysis (ETA). Cisco DNA Center Assurance collects streaming telemetry from devices around the network to ensure alignment of network operation with the business intent. Cisco DNA Center Assurance optimizes network performance, enforces network policies, and reduces the time spent on troubleshooting tasks. Cisco DNA Center platform provides 360 degree extensibility with a broad ecosystem of partners and independent software vendors. The 360 degree extensibility allows you to make your network agile and fully in-tune with your business priorities. Cisco DNA Center is a centralized network management system that provides all the capabilities in a single platform.

Migration Workflow

The migration from Cisco Prime Infrastructure to Cisco DNA Center involves the following high-level tasks:

1. Understanding Cisco DNA Center: Learn about the capabilities of Cisco DNA Center, its parity with Cisco Prime Infrastructure, and differentiated use cases compared to Cisco Prime Infrastructure.
2. Assess compatibility between Cisco Prime Infrastructure and Cisco DNA Center: Run the Cisco Prime Infrastructure Cisco DNA Center Assessment and Readiness Tool (PDART). Cisco PDART provides the following information:
 - Comprehensive summary of Cisco Prime Infrastructure usage
 - Cisco DNA Center compatibility of network devices, use cases, network scale, and other relevant details
3. Prepare for data migration: Follow the recommendations from the Cisco PDART report. If required, upgrade Cisco Prime Infrastructure, optimize network hierarchy, and onboard the Cisco DNA Center appliance.

4. **Initiate data migration:** Use the Cisco DNA Center Coexistence data migration tool available in Cisco Prime Infrastructure. Cisco DNA Center Coexistence securely ports your network from Cisco Prime Infrastructure to Cisco DNA Center.
5. **Complete data migration:** Verify that the necessary network elements, sites, maps, templates, and credentials are migrated from Cisco Prime Infrastructure to Cisco DNA Center.
6. **Adopt Cisco DNA Center:** Cisco DNA Center offers superior automation, greater visibility, and AI-driven analytics that keeps your network healthy and reduces operational expenditure.

Prerequisites for Migration

Review the following prerequisites before migrating from Cisco Prime Infrastructure to Cisco DNA Center:

- You must have Root or Super User access privileges in Cisco Prime Infrastructure.
- You must have Cisco DNA Center access credentials.
- You should be migrating from Cisco Prime Infrastructure 3.5 or later, which is compatible with the Cisco DNA Center releases listed in [Supported Devices](#).

Assess Migration Readiness

Cisco PDART analyzes the Cisco Prime Infrastructure deployment and assesses whether Cisco DNA Center supports the current deployment. Cisco PDART provides the following details:

- Comprehensive summary of Cisco Prime Infrastructure usage
- Cisco DNA Center compatibility of network devices, use cases, network scale, and other relevant details

Cisco PDART summarizes the deployment information in a PDF report and performs certain health checks without affecting any devices. Cisco PDART auto-generates the PDF with a summary of all the checks.



Note Cisco PDART doesn't capture any sensitive information.

You can run the Cisco PDART through the Cisco Prime Infrastructure GUI. The Cisco PDART executable file is a part of the Updated Bundle File (UBF) patch file. The following are the detailed steps.

Procedure

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- Step 1** Identify your software version and download the corresponding UBF from Cisco.com. Log in using your CCO credentials to download the file. Download the file starting with **DnacPreCheckASSESSMENTUbf**. The following table lists the Cisco Prime Infrastructure versions and the corresponding UBF download links on Cisco.com.

Table 1: UBF Download Links Based on Cisco Prime Infrastructure Versions

Cisco Prime Infrastructure Version	UBF Download Link
3.9.0 or 3.9.1	https://software.cisco.com/download/home/286326052/type/284272933/release/3.9.1
3.8.0 or 3.8.1	https://software.cisco.com/download/home/286325039/type/284272933/release/3.8.1
3.7.0 or 3.7.1	https://software.cisco.com/download/home/286324413/type/284272933/release/3.7.1
3.6.0	https://software.cisco.com/download/home/286323339/type/284272933/release/3.6.0
3.5.1	https://software.cisco.com/download/home/286320986/type/284272933/release/3.5.1

The following figure shows the download options for Cisco PDART UBF for Cisco Prime Infrastructure 3.8.

Figure 2: Cisco PDART Download Options for Cisco Prime Infrastructure 3.8

Software Download

Downloads Home / Cloud and Systems Management / Routing and Switching Management / Network Management Solutions / Prime Infrastructure / Prime Infrastructure 3.8 / Prime Infrastructure Patches- 3.8.1

Search...

Expand All Collapse All

Latest Release

3.8.1

All Release

3.8

Prime Infrastructure 3.8

Release 3.8.1

My Notifications

Related Links and Documentation

- No related links or documentation -

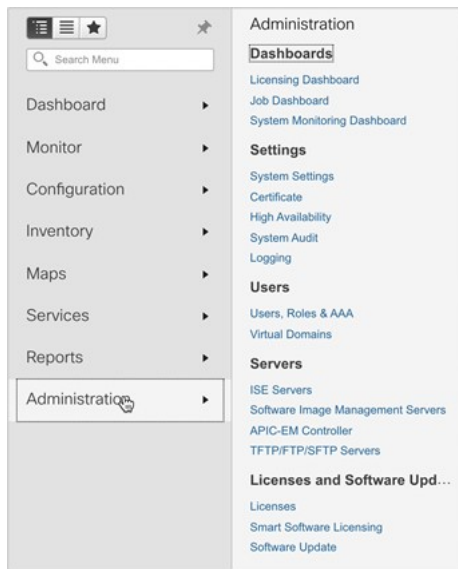
Update 01 Hotfix for Prime Data Migration Tool - Can be deployed only on PI 3.8.1 Update 01

File Information	Release Date	Size	
PI 3.8 DNAC Pre Check Assessment DnacPreCheckASSESSMENTUbf_3_8-1.0.3.ubf Advisories	07-Aug-2021	13.58 MB	↓ 🛒 📄
PI 3.8.x Prime Data Migration Tool Hotfix PI_3_8_x_Prime_Data_Migration_Tool_Hotfix-1.0.2.ubf Advisories	06-Mar-2021	24.38 MB	↓ 🛒 📄
PI 3.8.1 Update 01 PI_3_8_1_Update_01-1.0.16.ubf Advisories	18-Feb-2021	181.80 MB	↓ 🛒 📄
Prime Infrastructure 3.8.1 PI_3_8_1-1.0.26.ubf Advisories	08-Sep-2020	250.65 MB	↓ 🛒 📄

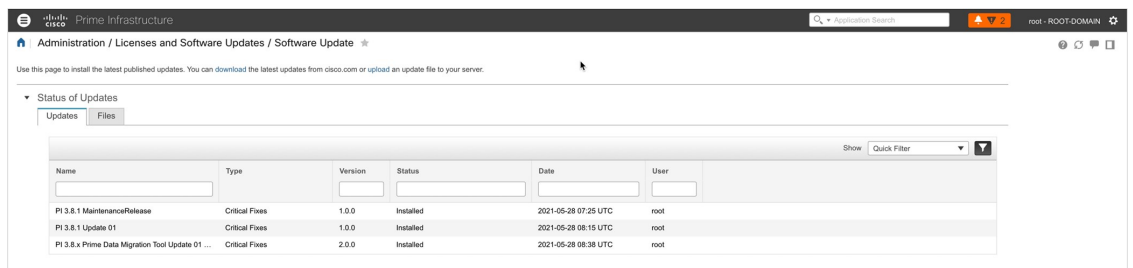
Step 2

In the Cisco Prime Infrastructure GUI, upload the downloaded Cisco PDART UBF from your local computer, restart Cisco Prime Infrastructure, and install the UBF.

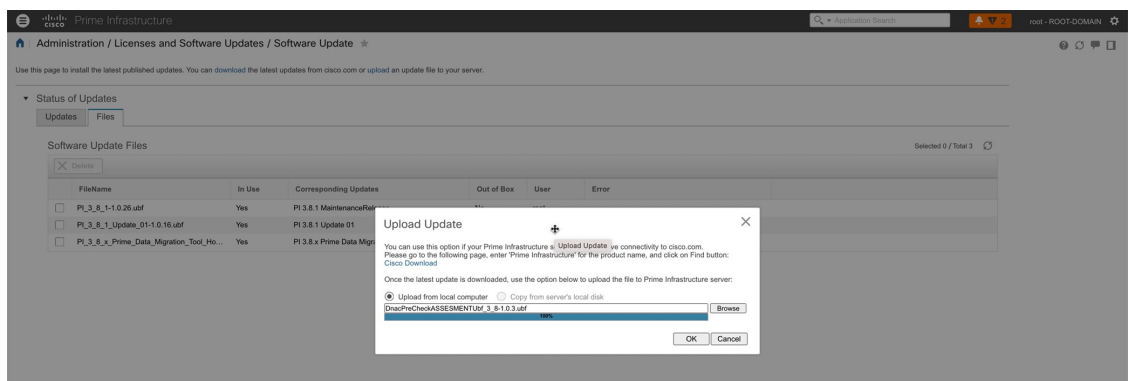
- In the Cisco Prime Infrastructure GUI, click the menu icon (☰) at the top-left corner of the window and choose **Administration > Licenses and Software Updates > Software Update**.



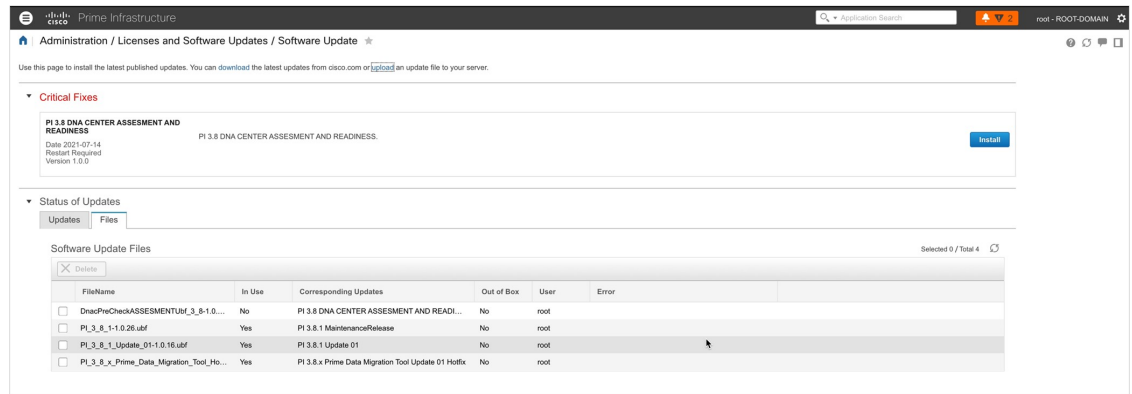
b) Click **upload** to upload the Cisco PDART UBF.



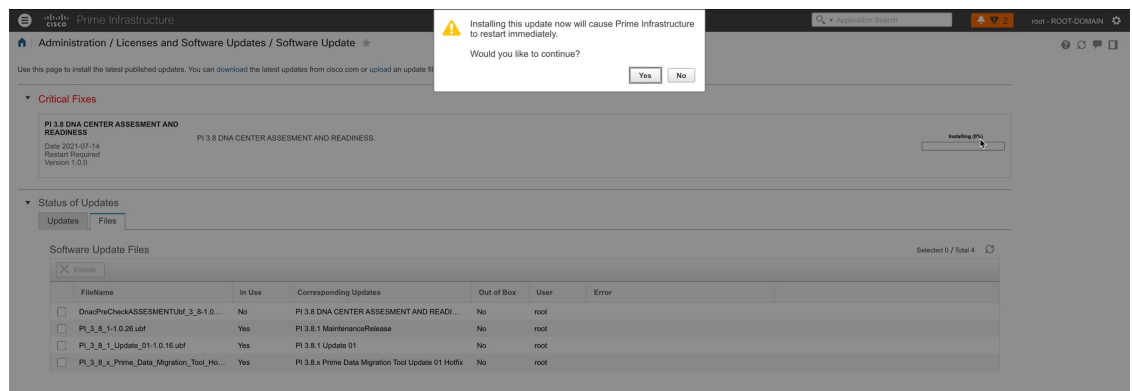
c) Click **Browse**, choose the required UBF from your computer, and click **OK**.



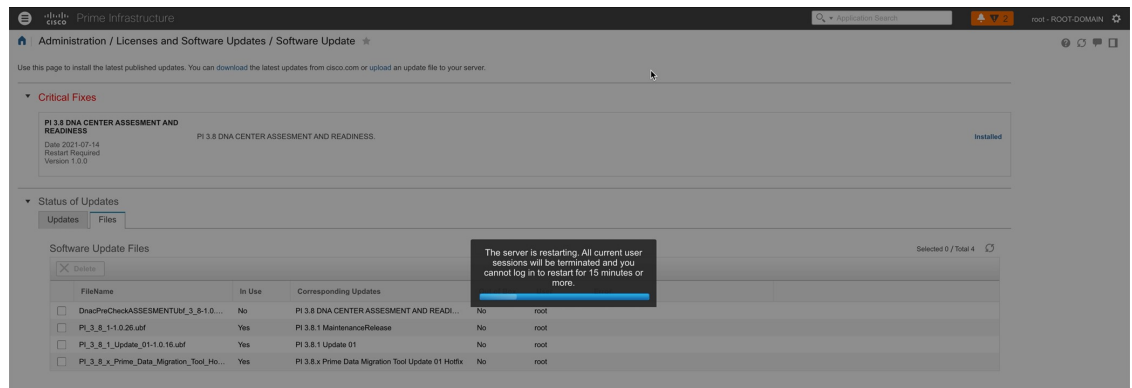
d) Click **Install**.



e) In the dialog box that is displayed, click **Yes** to restart Cisco Prime Infrastructure and install the UBF.



Cisco Prime Infrastructure restarts and remains out of service for approximately 15 to 30 minutes.

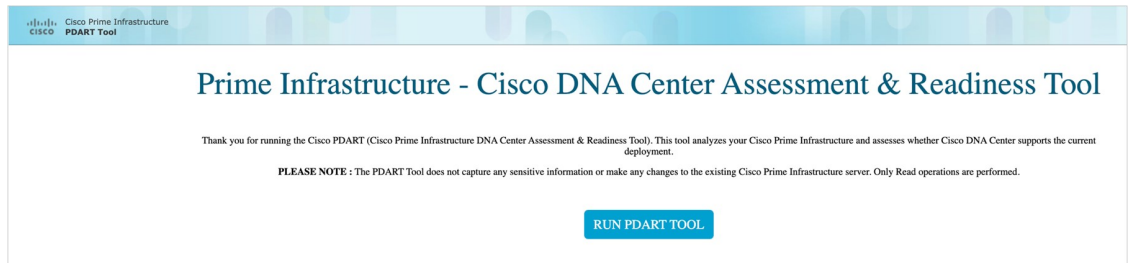


Step 3 Go to the Cisco PDART URL and run the Cisco PDART.

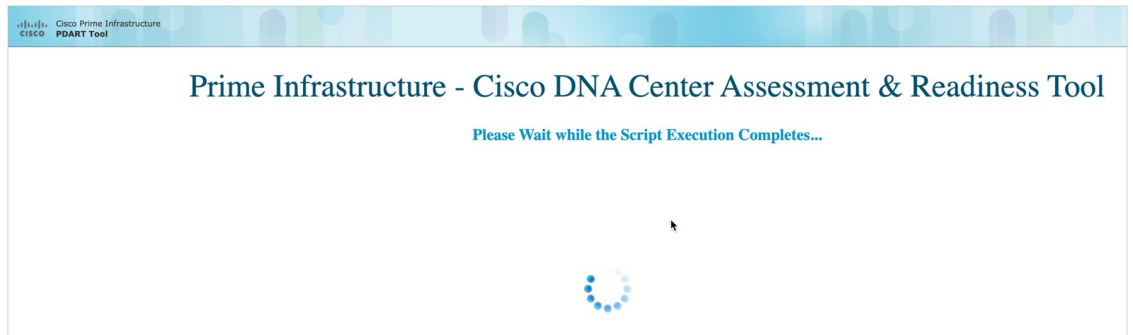
a) Go to the following URL to open Cisco PDART:

<https://<Cisco Prime Infrastructure IP Address>/webacs/pdart.jsp>

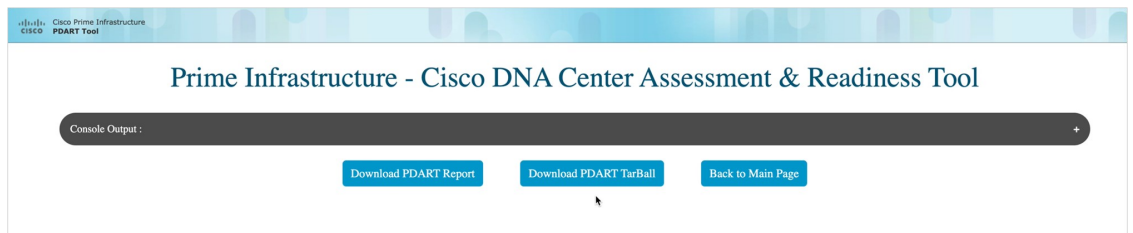
b) Click **RUN PDART TOOL** to run the tool.



The tool takes approximately 3 to 5 minutes to complete. However, in a scaled setup, it may take up to 10 minutes to complete.



- c) After the Cisco PDART execution is complete, do one of the following:
- Click **Download PDART Report** to view the Cisco PDART PDF report.
 - Click **Back to Main Page** to return to the main page and rerun the Cisco PDART.



The following figure shows the first page of a sample Cisco PDART report containing a summary of all the checks that are run. Subsequent pages of the report provide more details of the checks.

Figure 3: Sample Cisco PDART Report



Migrate from Cisco Prime Infrastructure to Cisco DNA Center

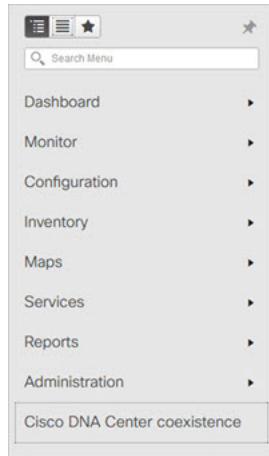
The Cisco DNA Center Coexistence tool in Cisco Prime Infrastructure helps you to migrate from Cisco Prime Infrastructure to Cisco DNA Center. The Cisco DNA Center Coexistence tool enables you to easily and securely port the following from Cisco Prime Infrastructure to Cisco DNA Center:

- Network devices
- Locations
- Maps
- Templates
- Device configurations

Procedure

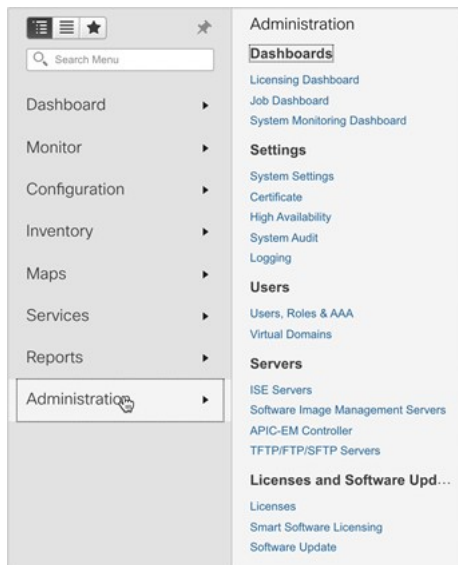
Step 1 Start the Cisco DNA Center Coexistence tool workflow for migration.

For Cisco Prime Infrastructure 3.9.1, click the menu icon (☰) at the top-left corner of the window and choose **Cisco DNA Center coexistence**.

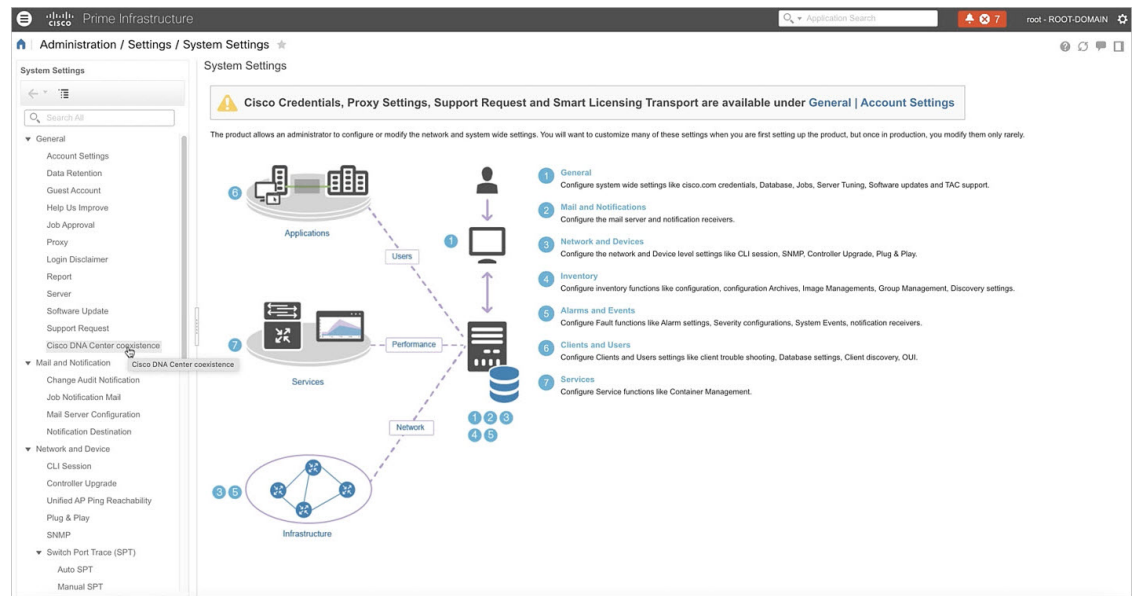


For other versions of Cisco Prime Infrastructure, do the following:

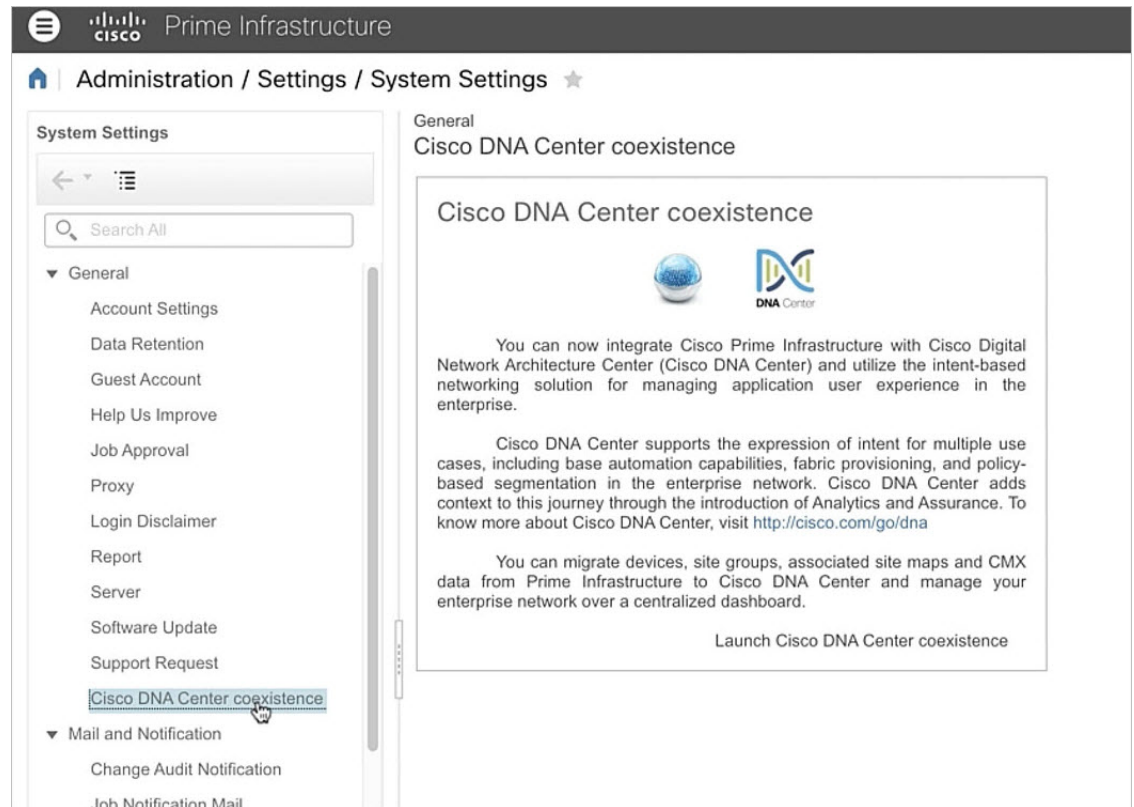
- a) Click the menu icon (☰) at the top-left corner of the window and choose **Administration > Settings > System Settings**.



- b) In the **System Settings** window, click **Cisco DNA Center coexistence** under **General**.



c) Click **Launch Cisco DNA Center coexistence** to start the migration workflow.



Step 2 Add the Cisco DNA Center server to Cisco Prime Infrastructure.

a) In the **Add Cisco DNA Center Server** window, enter the following information:

- **Server IP or Hostname:** Enter the Cisco DNA Center server IP address or hostname.

- **Username:** Enter the user name to access the Cisco DNA Center.
- **Password:** Enter the password for the specified user name.
- **Confirm Password:** Re-enter the password.

Prime Infrastructure - Cisco DNA Center Coexistence

1 Add Cisco DNA Center Server → 2 Sync Settings → 3 Select Groups → 4 Enter CMX credentials → 5 Select CLI Templates → 6 Summary

Cisco DNA Center Server

Prime Infrastructure supports integration of Cisco DNA Center for the versions specified here. You can only integrate one Cisco DNA Center Server at a time.

*Server IP or Hostname ✓

*Username

*Password

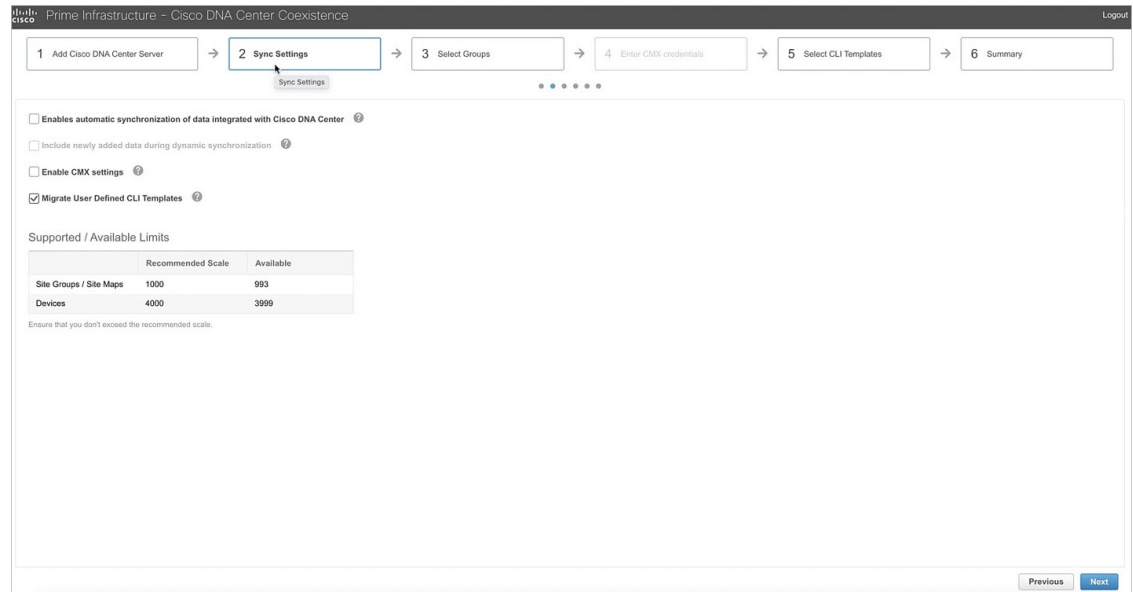
*Confirm Password

Note You can integrate a single Cisco DNA Center server at a time.

- Click **Next**.
- Click **Save** to check the Cisco DNA Center server reachability.
- Click **Next**.

Step 3 Synchronize the settings from Cisco Prime Infrastructure to Cisco DNA Center.

- In the **Sync Settings** window, review the **Supported/Available Limits** table. Check the supported or available limits for the Cisco DNA Center server site groups or site maps, and devices. The supported or available limits for Cisco DNA Center vary based on the Cisco DNA Center server core count.



b) To synchronize the already migrated data set for the groups and devices automatically after modification, check the **Enables automatic synchronization of data integrated with Cisco DNA Center** check box. When you check this check box:

- The **Include newly added data during dynamic synchronization** check box is enabled.
- Any modifications made to the location group and device entities through force synchronization are dynamically synchronized to Cisco DNA Center during force synchronization.
- Cisco CMX is dynamically assigned to the Cisco DNA Center floor groups when Cisco Prime Infrastructure imports maps to Cisco CMX.

Note Cisco CMX dynamic synchronization works only on the already migrated floor groups. Cisco CMX must exist in the Cisco DNA Center server for Cisco CMX dynamic synchronization.

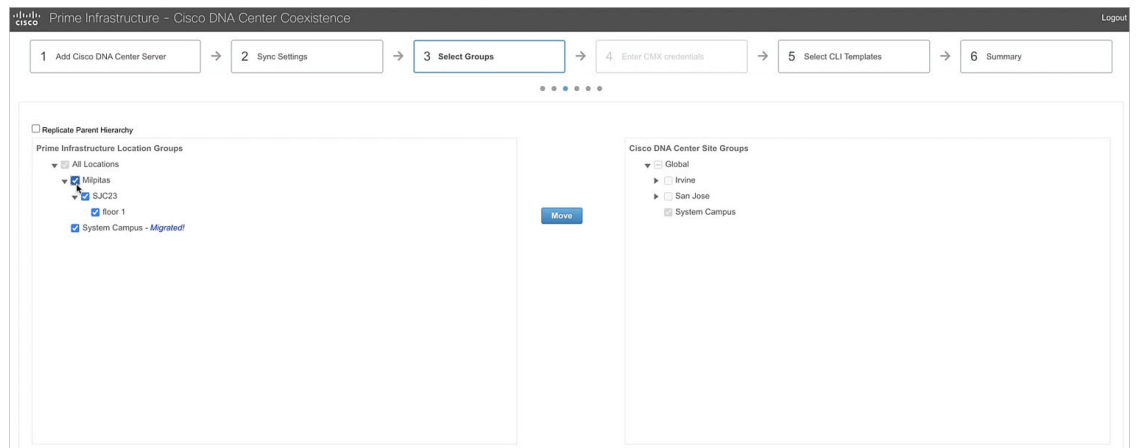
c) To move any newly created groups and devices from Cisco Prime Infrastructure to Cisco DNA Center during dynamic synchronization automatically after addition, check the **Include newly added data during dynamic synchronization** check box.

Note This check box is disabled if you didn't check the **Enables automatic synchronization of data integrated with Cisco DNA Center** check box earlier.

- d) To push the Cisco CMX with floor groups to the Cisco DNA Center server, check the **Enable CMX settings** check box.
- e) To migrate the user-defined CLI and composite templates to Cisco DNA Center, check the **Migrate User Defined CLI Templates** check box.
- f) Click **Next**.

Step 4 Select the site groups to migrate from Cisco Prime Infrastructure to Cisco DNA Center.

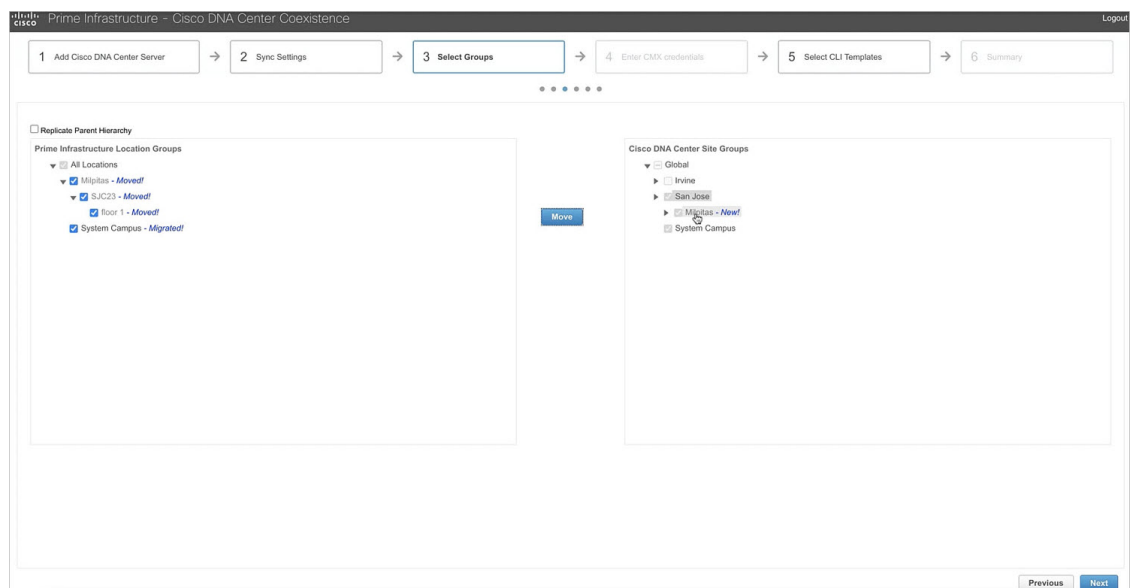
a) In the **Select Groups** window, check the corresponding check box for the Cisco Prime Infrastructure location groups in the left pane to migrate to Cisco DNA Center. When you check the check box for a location group, the associated buildings, floors, and maps are also selected by default.



- b) To move the selected location group in Cisco Prime Infrastructure to a specific site group in Cisco DNA Center, check the check box for the corresponding site group in the right pane.

Note If you don't select a site group for Cisco DNA Center in the right pane, the selected location group moves under the **Global** site in Cisco DNA Center.

- c) Click **Move**.



Example:

Check the check box for **Milpitas** site in Cisco Prime Infrastructure in the left pane. If you don't select a location group in the right pane, then **Milpitas** site moves under the **Global** site in Cisco DNA Center. To move the **Milpitas** site in Cisco Prime Infrastructure under the **San Jose** site in Cisco DNA Center, check the check box for **San Jose** in the right pane and then click **Move**.

- d) (Optional) Repeat steps 4.a, on page 12 to 4.c, on page 13 for all the required site groups.
e) Click **Next**.

Step 5 In the **Enter CMX credentials** window, enter the Cisco CMX credentials.

Note This window is disabled if you didn't check the **Enable CMX settings** check box in the **Sync Settings** window earlier, and the workflow moves to the **Select CLI Templates** window.

You can view the list of associated Cisco CMX for the selected groups with the following details:

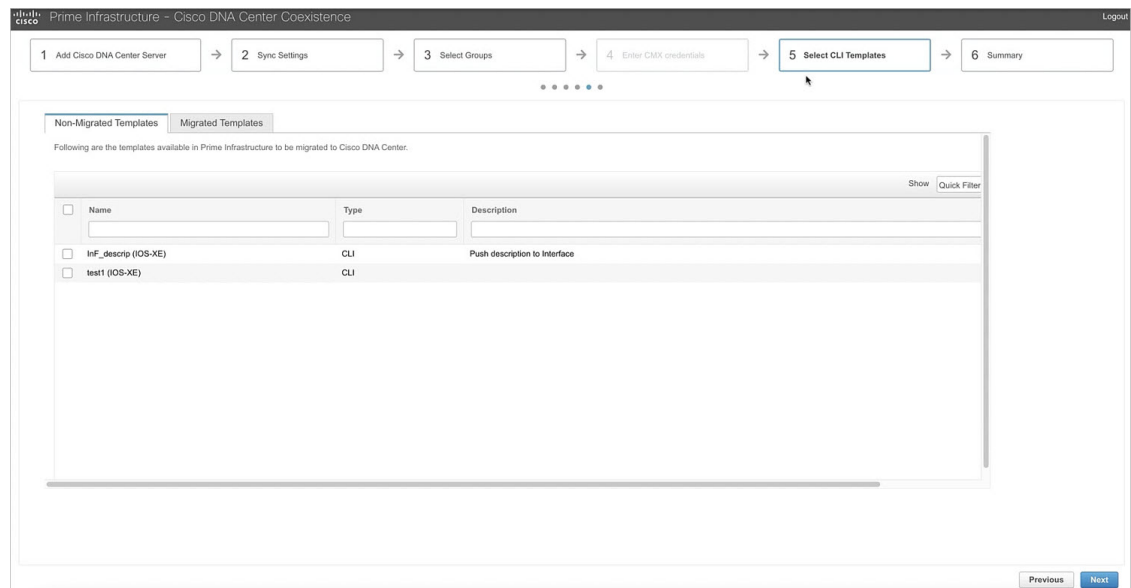
- **Credential Status**
- **Server IP address**
- **Device Name**
- **Username**
- **Password**
- **SSH Username**
- **SSH Password**

If the SSH user name and SSH password aren't available for a Cisco CMX, update this information for the respective Cisco CMX. If the associated Cisco CMX isn't available, click **Next**.

Note When the Cisco Prime Infrastructure to Cisco DNA Center migration tool is active and autosynchronization is enabled, Cisco CMX is dynamically pushed to the Cisco DNA Center floor groups. Cisco DNA Center then tracks the location data for the assigned groups.

Step 6 Migrate the user-defined CLI templates.

If you checked the **Migrate User Defined CLI Templates** check box in the **Sync Settings** window earlier, the **Select CLI Templates** window opens after the **Enter CMX credentials** window.



- a) In the **Select CLI Templates** window, check the corresponding check box for the templates that you want to migrate to Cisco DNA Center.
- b) Click **Next**.

Step 7 View the migration summary.

a) In the **Summary** window, you can view the following summary before migrating to the Cisco DNA Center.

- Location groups
- Devices
- Associated maps
- User-defined templates
- CMX

You can also view the status of the last synchronized date and time.

Group Hierarchy	Group Name
Location/All Locations	Miplas
Location/All Locations/Miplas	SJC23
Location/All Locations/Miplas/SJC23	floor 1

Note : Based on the group selection above groups will get added / updated / deleted accordingly into Cisco DNA Center

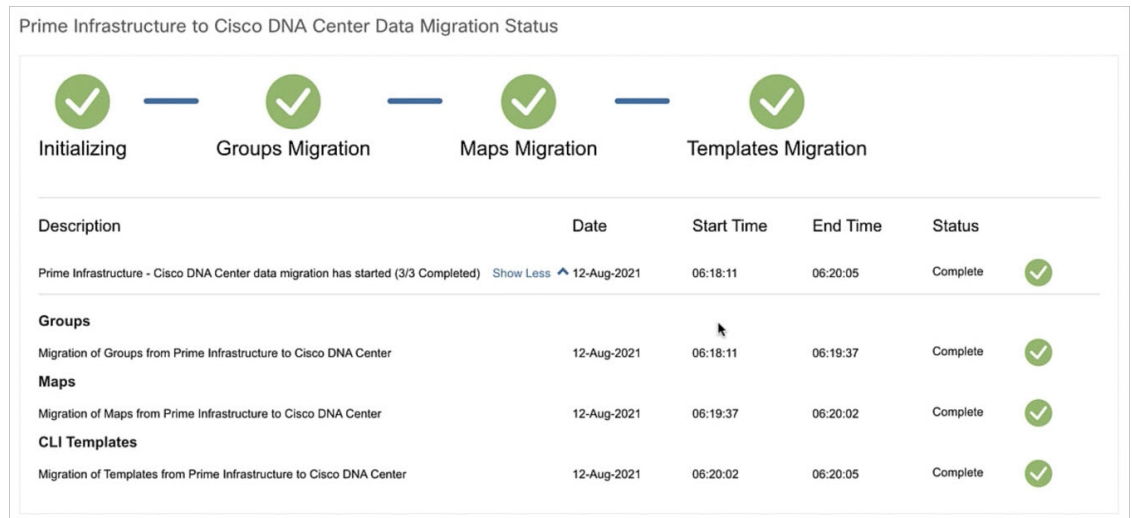
Status : Force Sync Completed on Wed Aug 11 12:44:19 PDT 2021

b) Click **Submit**.

c) Click **Force Sync** to push the data to the Cisco DNA Center server after the first migration.

The migration takes some time to complete. The following figure shows the migration status.

Figure 4: Cisco Prime Infrastructure to Cisco DNA Center Migration Status




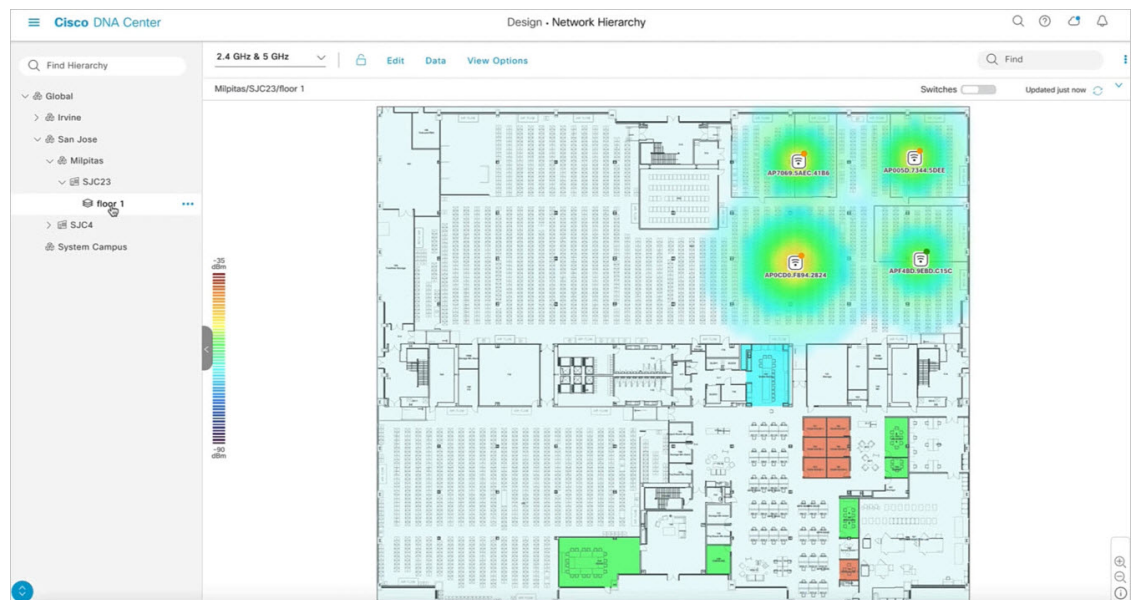
Verify the Migration

After successful migration from Cisco Prime Infrastructure, log in to Cisco DNA Center and verify if the sites, devices, and templates are migrated correctly.


Procedure

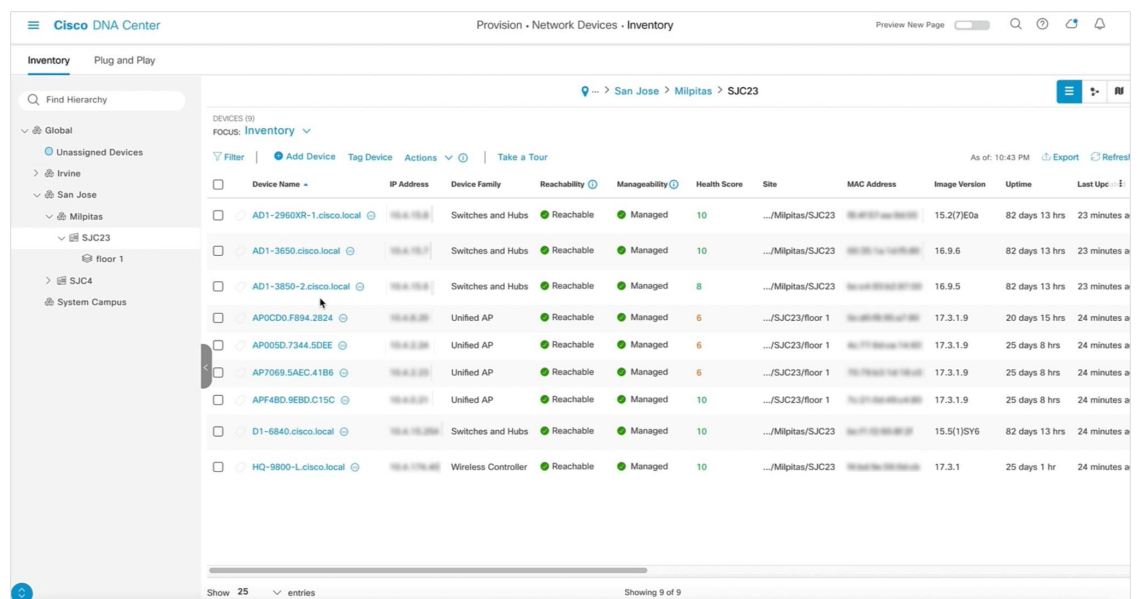
Step 1 Verify the sites, location, and maps.

- In the Cisco DNA Center GUI, click the menu icon () and choose **Design > Network Hierarchy**.
- Verify the sites and maps.




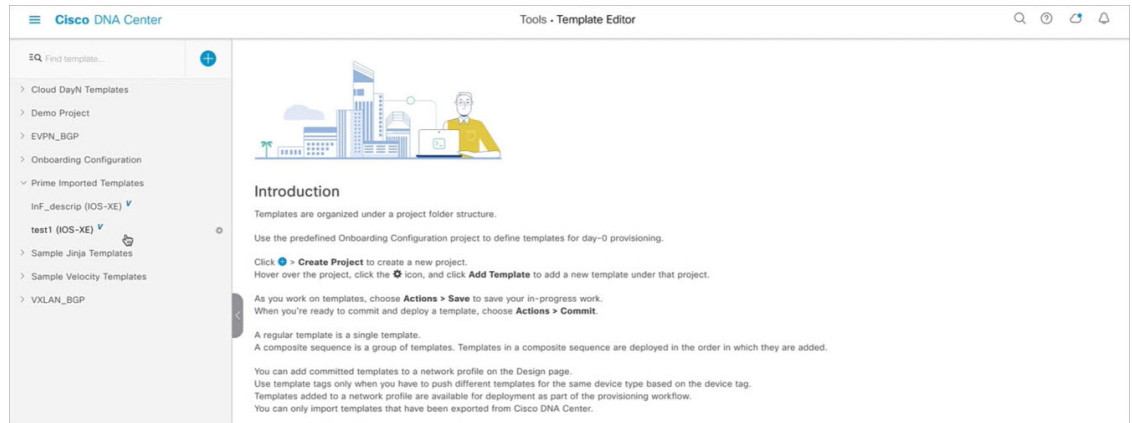
Step 2 Verify the network devices.

- In the Cisco DNA Center GUI, click the menu icon () and choose **Provision > Inventory**.
- In the left pane, choose the site and verify the network devices. Also, verify if the devices are in **Managed** state.



Step 3 Verify the CLI templates.

- In the Cisco DNA Center GUI, click the menu icon () and choose **Tools > Template Editor**.
- In the left pane, verify if you can view the templates under **Prime Imported Templates**.



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