

The background features a vibrant, multi-colored abstract design. On the left, there are horizontal, wavy bands of color in shades of red, orange, yellow, and green. On the right, a bright white light source emits a series of colorful rays in shades of blue, cyan, and yellow, creating a sunburst effect.

CISCO *Live!*

Let's go

#CiscoLiveAPJC



The bridge to possible

Tips and Tricks for Prime Infrastructure to Cisco Catalyst Center Migration

Adam Radford Distinguished Solutions Engineer
BRKOPS-2077

CISCO *Live!*

#CiscoLiveAPJC



“Reconciliation”- Dustin Koa Art

Cisco Webex App

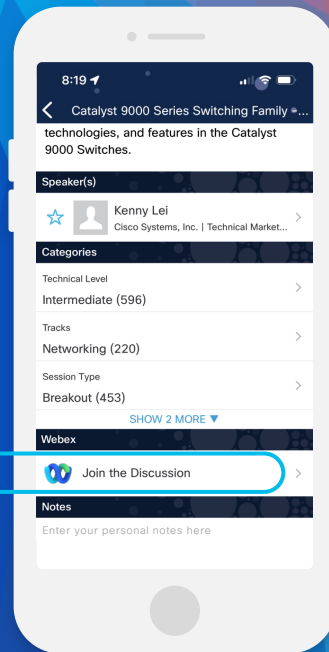
Questions?

Use Cisco Webex App to chat with the speaker after the session

How

- 1 Find this session in the Cisco Live Mobile App
- 2 Click “Join the Discussion”
- 3 Install the Webex App or go directly to the Webex space
- 4 Enter messages/questions in the Webex space

Webex spaces will be moderated by the speaker until December 22, 2023.

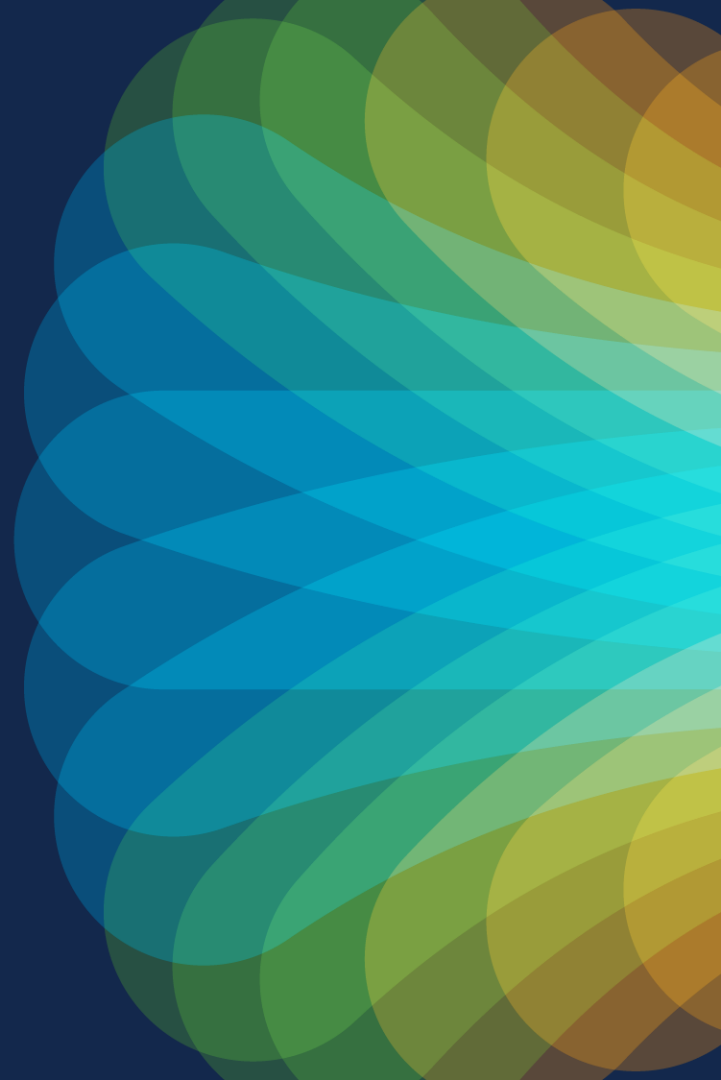


<https://ciscolive.ciscoevents.com/ciscolivebot/#BRKOPS-2077>

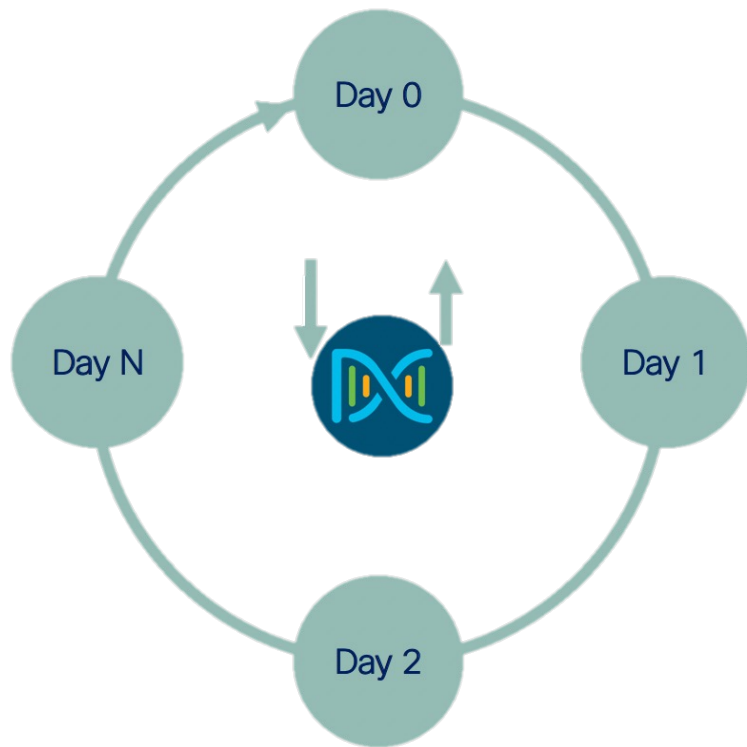
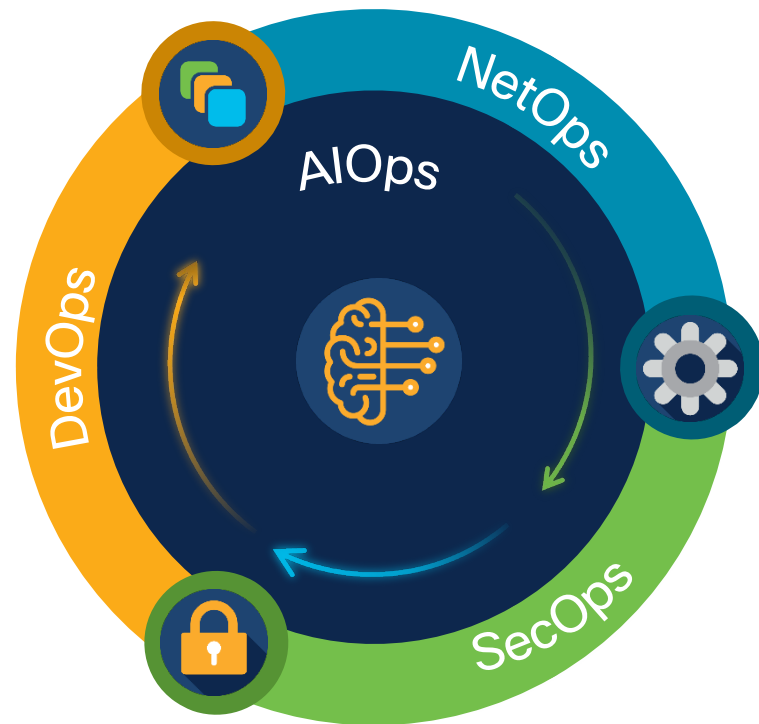
Agenda

- Why migrate to Cisco DNA Center?
- Planning migration
- Assess Cisco DNA Center Readiness based on current Cisco Prime Infrastructure deployment
- Automate the data migration into Cisco DNA Center
- "Doing Prime things the new way"
- Deployment options
- Call to Action

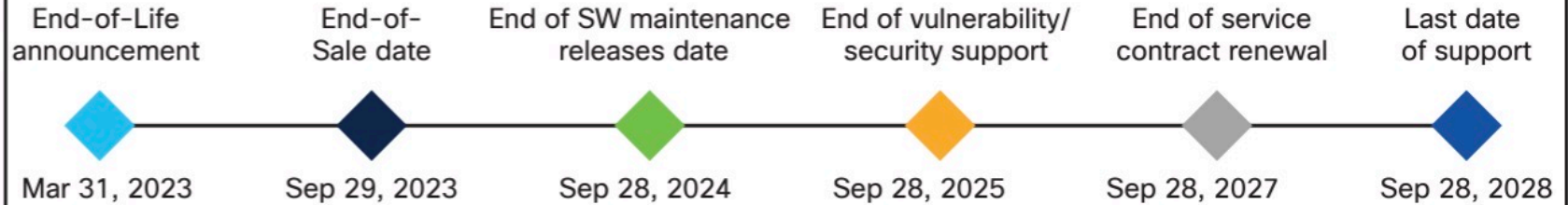
Why migrate to Catalyst Center?



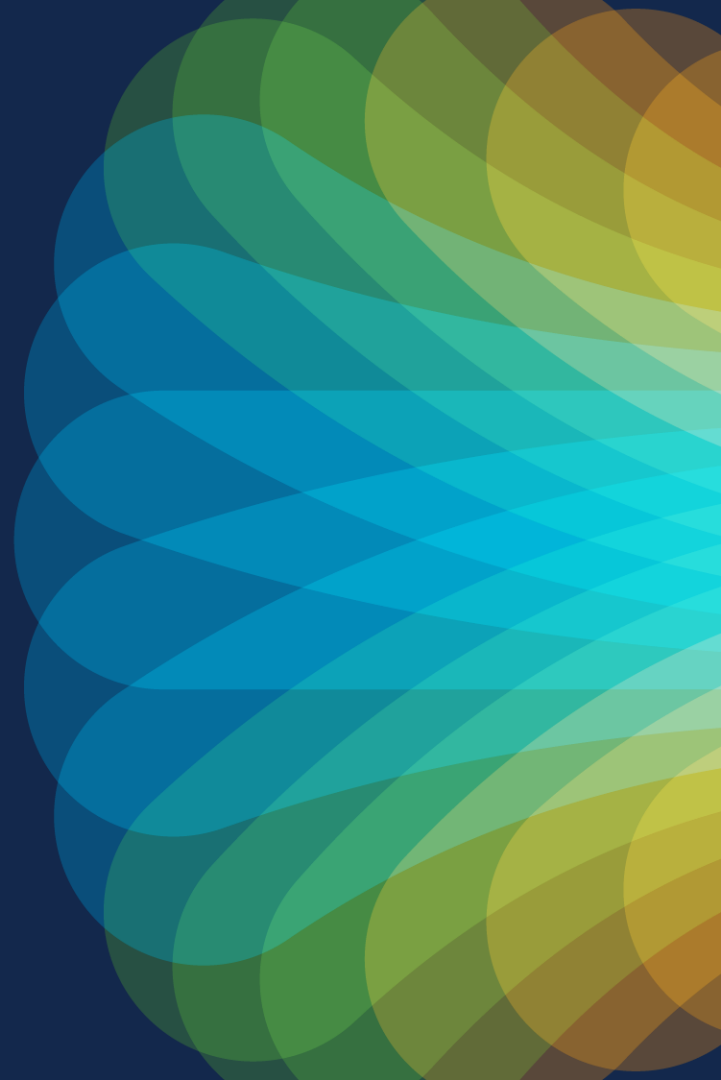
Why migrate to Cisco Catalyst Center



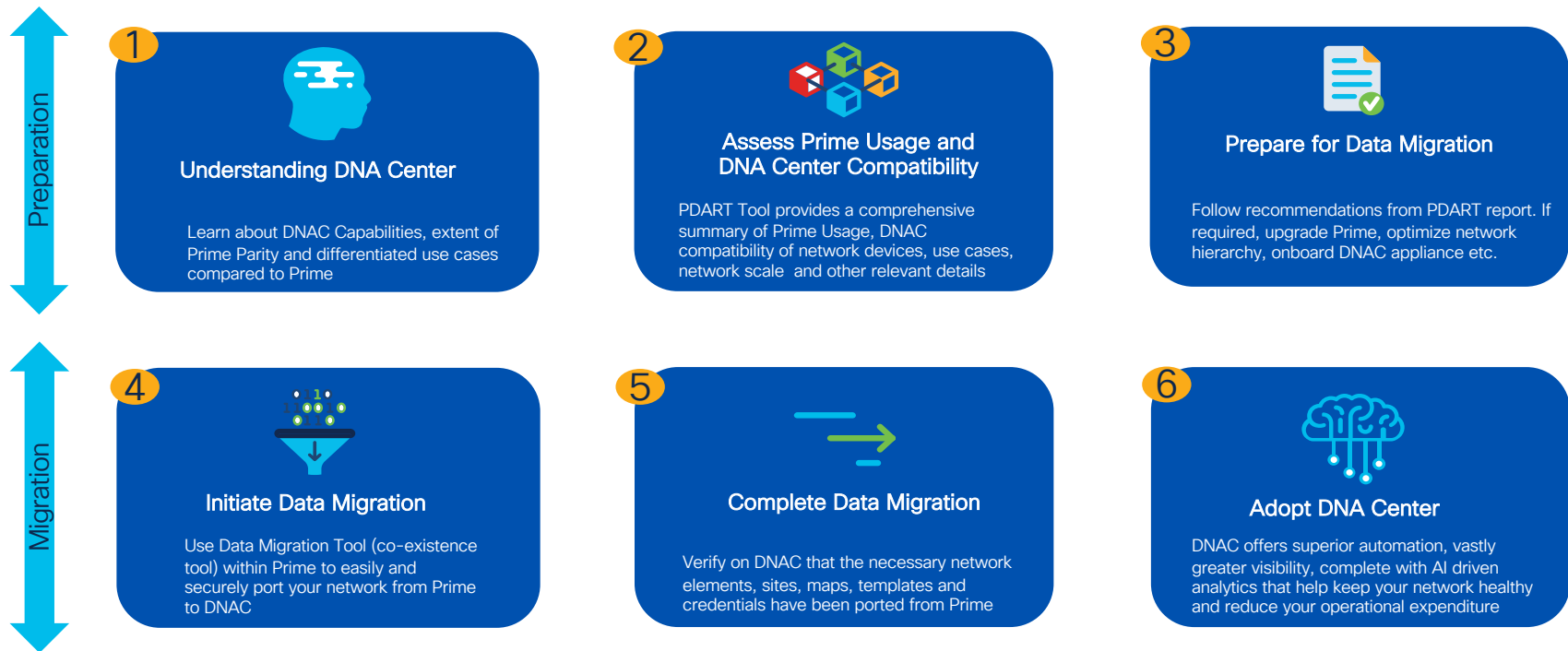
Prime Infrastructure EoL dates



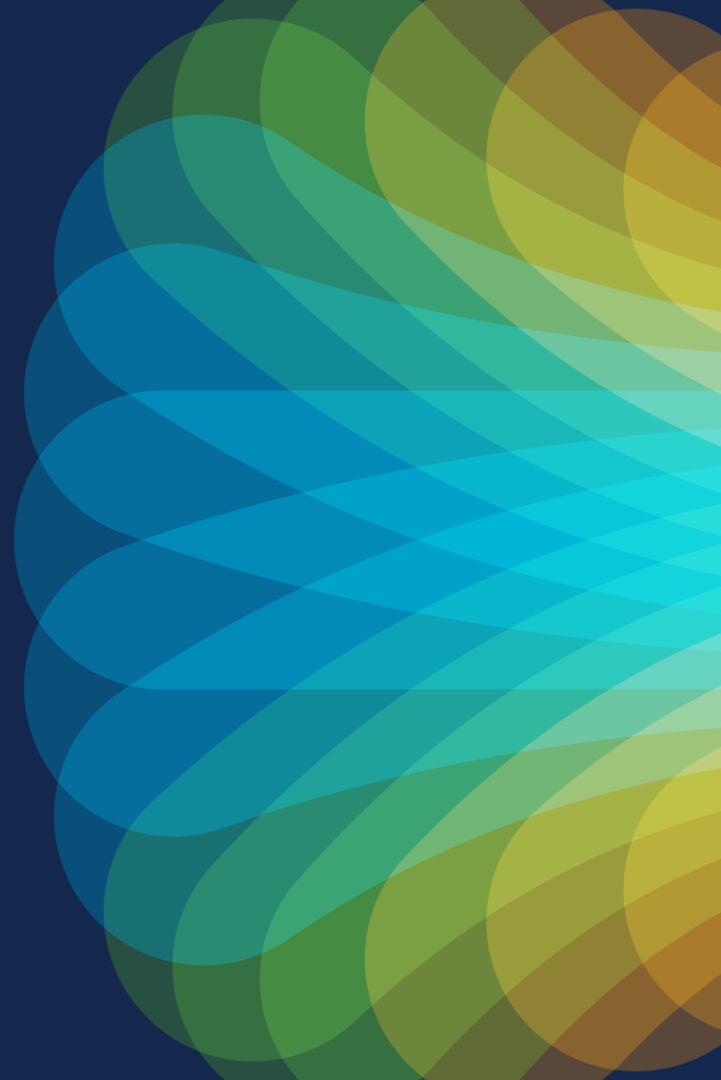
Planning migration



Sequential Approach to Prime Migration



Assess Catalyst Center Readiness



Prime to DNA Center Readiness Assessment PDART Tool

Products and ServicesSolutionsSupportLearn

... / Cisco Prime Infrastructure / Maintain and Operate TechNotes /

Use PDART – a Cisco DNA Center Readiness Tool

 Save Translations Download Print

Updated: July 21, 2023 Document ID: 217059

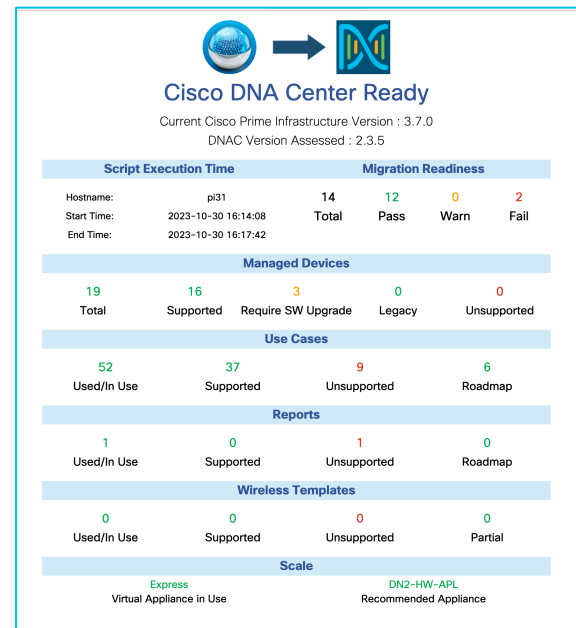
[Bias-Free Language](#)

Contents

- [Introduction](#)
- [Prerequisites](#)
 - [Requirements](#)
 - [Components Used](#)
- [Background Information](#)
- [Tool Requirements](#)
- [Tool Execution](#)
 - [Option 1: Run the PDART Executable from CLI](#)
 - [Option 2: Execute the PDART via UBF Patch](#)
- [Sample Report](#)
- [PDART Versions](#)
- [Issues with the Tool](#)

Introduction

This document describes Cisco PDART – a Cisco DNA Center readiness tool for the Cisco Prime Infrastructure.



<https://www.cisco.com/c/en/us/support/docs/cloud-systems-management/prime-infrastructure/217059-cisco-pdart-a-cisco-dna-center-readiness.html>

PDART Installation

 Prime Infrastructure

Administration / Licenses and Software Updates / Software Update

Use this page to install the latest published updates. You can [download](#) the latest updates from [cisco.com](#) or [upload](#) an update file to your server.

There was a problem connecting to [cisco.com](#) from the Prime Infrastructure Server. Alternatively you can go [here](#), search for 'Prime Infrastructure' product updates. Download the latest update file and upload it to your server using the Upload link. Make sure the version of the selected update is greater than your Prime Infrastructure instance version.

Prime Infrastructure Version: 3.7.0

Status of Updates

UpdatesFiles

Name	Type	Version	Status	Date	User
PI 3.7 DNA Center Assessment and Readiness Update 04	Critical Fixes	4.0.0	Installed	2023-10-27 12:50 AEDT	root

 Prime Infrastructure

Administration / Licenses and Software Updates / Software Update

Use this page to install the latest published updates. You can [download](#) the latest updates from [cisco.com](#) or [upload](#) an update file to your server.

There was a problem connecting to [cisco.com](#) from the Prime Infrastructure Server. Alternatively you can go [here](#), search for 'Prime Infrastructure' product updates. Download the latest update file and upload it to your server using the Upload link. Make sure the version of the selected update is greater than your Prime Infrastructure instance version.

Prime Infrastructure Version: 3.7.0

Status of Updates

UpdatesFiles

Software Update Files

Delete

FileName	In Use	Corresponding Updates	Out of Box	User
☐ DNACAssessmentReadiness_3_7_Update_04-1.0.6.ubf	Yes	PI 3.7 DNA Center Assessment and Readiness U...	No	root

Running PDART (V4 and later)

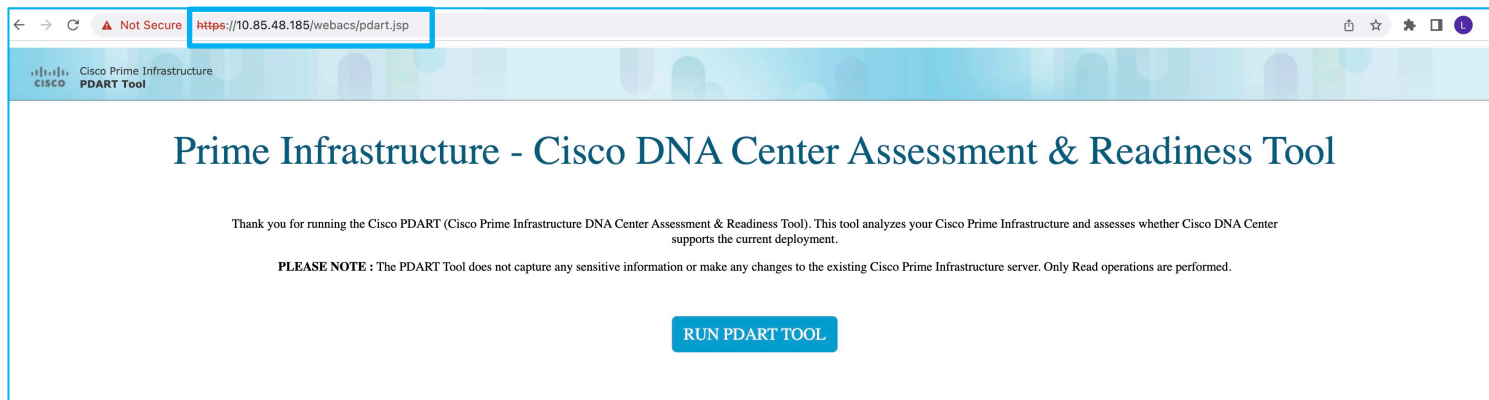
The screenshot displays the Cisco Prime Infrastructure web interface. The top navigation bar includes the Cisco logo, 'Prime Infrastructure', an application search bar, and a notification bell with 9 alerts. The breadcrumb trail is 'Administration / Settings / System Settings'. The left sidebar shows a tree view of settings, with 'Prime Data Migration Tool' selected under the 'General' category. The main content area is titled 'General Prime Data Migration Tool'. It features a diagram of a globe connected to the Cisco DNA Center logo, with the heading 'The Cisco PDART'. Below this, text describes PDART as a pre-assessment migration tool. A 'Console Output' section with a plus icon is present. At the bottom of this section are buttons for 'Execute PDART', 'Download Report', and 'Download TarBall'. To the right, a section titled 'Prime Data Migration Tool' contains a 'Launch Prime Data Migration Tool' button and detailed text about integrating with Cisco DNA Center and migrating data.

PDART is co-located with Prime Data Migration Tool (Administration -> settings -> System Settings)

Running PDART – prior to V4



For your reference



<https://10.85.48.185/webacs/pdart.jsp>



CLI installation reference slide

```
[root@pi31 ~]# wget https://github.com/CiscoDevNet/PDART/raw/main/pdart
--2022-12-08 09:09:35-- https://github.com/CiscoDevNet/PDART/raw/main/pdart
Resolving github.com (github.com)... 192.30.255.112
Connecting to github.com (github.com)|192.30.255.112|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://raw.githubusercontent.com/CiscoDevNet/PDART/main/pdart [following]
--2022-12-08 09:09:41-- https://raw.githubusercontent.com/CiscoDevNet/PDART/main/pdart
Resolving raw.githubusercontent.com (raw.githubusercontent.com)... 185.199.110.133, 185.199.108.133, 185.199.109.133, ...
Connecting to raw.githubusercontent.com (raw.githubusercontent.com)|185.199.110.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 14562800 (14M) [application/octet-stream]
Saving to: 'pdart.1'

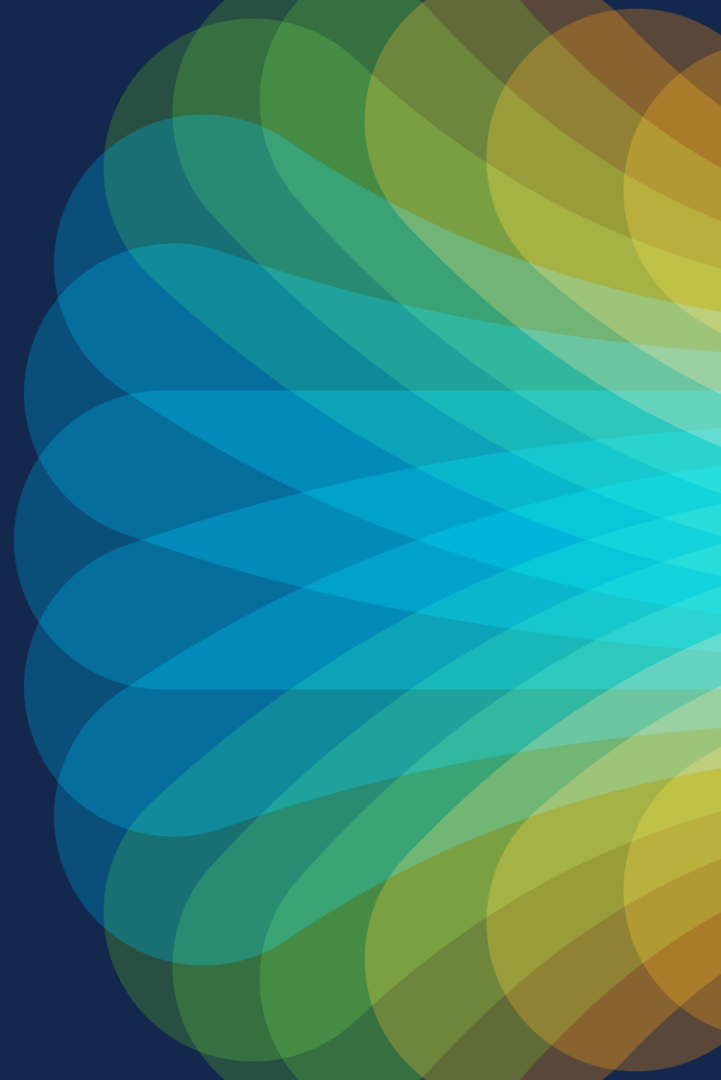
100%[=====>] 14,562,800 --.-K/s in 0.1s

2022-12-08 09:09:43 (96.9 MB/s) - 'pdart' saved [14562800/14562800]

[root@pi31 ~]# chmod 755 pdart
[root@pi31 ~]# ./pdart
< execution begins>
```

PDART Demo

Automate the data migration into Cisco DNA Center



Deployment with Cisco Prime and Cisco DNA Center

Gradual Migration

Cisco Prime and DNA Center Managed Network

- Run Cisco DNA Center and Prime together in the network
- Cisco DNA Center is used for Automation or Assurance or both for parts of the network

The network administrator needs to make sure that only one system makes changes to the network

Full Migration

Cisco DNA Center Managed Network

- One-time migration from Prime to Cisco DNA Center
- Cisco DNA Center is used for Day 0 and Day N.

Co-Existence model examples

Migration for Assurance all locations



Locations:

Brisbane
Canberra
Melbourne
Sydney

Migrate for Assurance only

Co-Existence model examples

Migration for Assurance all locations



Prime Automation

Brisbane
Canberra
Melbourne
Sydney

Migrate for
Assurance
only



DNAC Read-Only
for Automation

Brisbane
Canberra
Melbourne
Sydney

Co-Existence model examples

Migration for Assurance per location



Locations:

Brisbane
Canberra
Melbourne
Sydney

Migrate for Assurance only

Co-Existence model examples

Migration for Assurance per location



Prime Automation

Brisbane
Canberra
Melbourne
Sydney

Migrate for
Assurance
only



DNAC Read-Only for
Automation

Brisbane
Canberra

Co-Existence model examples

Migration for Automation & Assurance per location



Locations:

Brisbane
Canberra
Melbourne
Sydney

Migrate for Automation & Assurance

Co-Existence model examples

Migration for Automation & Assurance per location



Migrate for
Automation &
Assurance

Prime Read-Only for
Automation

Brisbane
Canberra

Prime Automation
Melbourne
Sydney



DNAC Automation

Brisbane
Canberra

Deployment with Cisco Prime and Cisco DNA Center

Gradual Migration

Cisco Prime and DNA Center Managed Network

- Run Cisco DNA Center and Prime together in the network
- Cisco DNA Center is used for Automation Assurance or both for parts of the network

Temporary
solution

The network administrator needs to make sure that only one system makes changes to the network

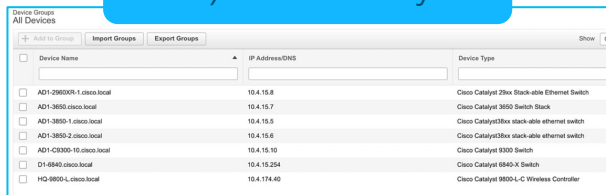
Full Migration

Cisco DNA Center Managed Network

- One-time migration from Prime to Cisco DNA Center
- Cisco DNA Center is used for Day 0 and Day N.

Prime Data Migration Tool (PDMT)

2) Inventory

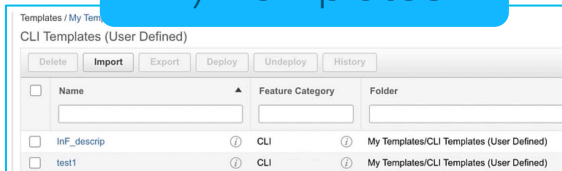


Device Name	IP Address/DNS	Device Type
AD1-2960K-1.cisco.local	10.4.15.8	Cisco Catalyst 2960 Stack-able Ethernet Switch
AD1-3850.cisco.local	10.4.15.7	Cisco Catalyst 3850 Switch Stack
AD1-3850-1.cisco.local	10.4.15.5	Cisco Catalyst 3850 Stack-able Ethernet Switch
AD1-3850-2.cisco.local	10.4.15.6	Cisco Catalyst 3850 Stack-able Ethernet Switch
AD1-C3900-10.cisco.local	10.4.15.10	Cisco Catalyst 3900 Switch
D1-6940.cisco.local	10.4.15.254	Cisco Catalyst 6940-X Switch
HQ-9800-L.cisco.local	10.4.174.40	Cisco Catalyst 9800-L-C Wireless Controller

3) Maps

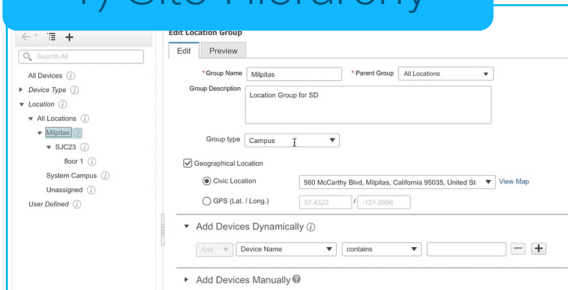


4) Templates



Name	Feature Category	Folder
inf_desc	CLI	My Templates/CLI Templates (User Defined)
test1	CLI	My Templates/CLI Templates (User Defined)

1) Site Hierarchy



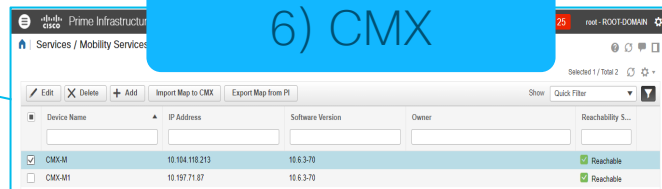
Group Name	Parent Group	All Locations
Group Description	Location Group for SD	
Group type	Campus	
Geographical Location		
Civic Location	580 McCarthy Blvd, Milpitas, California 95035, United St	
GPS (lat / Long.)	37.4223 / -121.8996	
Add Devices Dynamically		
Add Devices Manually		

5) ISE



Server Address	Port	Retries	Version	Status
10.126.244.10	443	1	2.7.0.356	Reachable

6) CMX



Device Name	IP Address	Software Version	Owner	Reachability
CMX-M	10.104.118.213	10.6.3-70		Reachable
CMX-M1	10.197.71.87	10.6.3-70		Reachable

PDMT Demo

The screenshot shows the Cisco Prime Infrastructure web interface. The left navigation menu includes: Dashboard, Monitor, Configuration, Inventory, Maps, Services, Reports, Administration, and Prime Data Migration Tool (highlighted). The main content area is titled "Settings / Getting Started" and contains sections for System Setup, Manage Network, and Homepage Setup. The Homepage Setup section includes a "Network Summary Dashboard" and an "Overview Dashboard", both with "Save and Launch Homepage" buttons. The URL at the bottom of the browser window is: <https://172.29.58.160/webac/loginAction.do?action=login&product=wcs&selectedCategory=zen&men...>

Before you start: check Prime and DNA Center versions

- Install PDMT – latest version is v5.01
- Note: Prime 3.10.4 has built in PDMTv5, no need to install separately

Book Contents		Find Matches in This Book
Book Title Page	Table 1. Cisco Prime Infrastructure and Cisco DNA Center Compatibility Matrix	
Cisco Prime Infrastructure and Cisco DNA Center Compatibility Matrix	Cisco Prime Infrastructure	Cisco DNA Center
Migrate Cisco Prime Infrastructure Data to Cisco DNA Center Using Prime Data Migration Tool Update 05.01	PI 3.10.4 Prime Data Migration Tool Update 05.01 PI 3.9.x Prime Data Migration Tool Update 05.01 PI 3.8.x Prime Data Migration Tool Update 05.01 PI 3.7.x Prime Data Migration Tool Update 05.01	2.3.3.7, 2.3.5.4, 2.3.7.0
Migrate Cisco Prime Infrastructure Data to Cisco DNA Center Using Prime Data Migration Tool Update 05	PI 3.10.4 Prime Data Migration Tool Update 05 PI 3.9.x Prime Data Migration Tool Update 05 PI 3.8.x Prime Data Migration Tool Update 05 PI 3.7.x Prime Data Migration Tool Update 05	2.3.3.7, 2.3.5.3
Migrate Cisco Prime Infrastructure Data to Cisco DNA Center Using Prime Data Migration Tool Update 04	PI 3.10.3 PI 3.10.2 Prime Data Migration Tool Update 04 PI 3.10.1 Prime Data Migration Tool Update 04 PI 3.9.x Prime Data Migration Tool Update 04 PI 3.8.x Prime Data Migration Tool Update 04 PI 3.7.x Prime Data Migration Tool Update 04	2.2.3.6, 2.3.3.5, 2.3.3.6, 2.3.3.7 2.2.3.6, 2.3.3.5, 2.3.3.6, 2.3.3.7
Migrate Cisco Prime Infrastructure Data to Cisco DNA Center Using Prime Data Migration Tool Update 03	PI 3.10.1 Prime Data Migration Tool Update 03.01 PI 3.9.x Prime Data Migration Tool Update 03.01 PI 3.8.x Prime Data Migration Tool Update 03.01 PI 3.7.x Prime Data Migration Tool Update 03.01	2.2.3.6, 2.3.3.4
Migrate Cisco Prime Infrastructure Data to Cisco DNA Center Using Prime Data Migration Tool Update 02	PI 3.10.2	1.2.1, 1.2.2, 1.2.3, 1.2.4, 1.2.5, 1.2.6, 1.2.8, 1.2.10, 1.2.12, 1.2.12.21.3.0, 1.3.0.1, 1.3.0.2, 1.3.0.3, 1.3.0.4, 1.3.0.5, 1.3.0.6 1.3.1, 1.3.1.3, 1.3.1.4, 1.3.3.0, 1.3.3.1, 1.3.3.3, 1.3.3.4, 1.3.3.5, 1.3.3.7, 1.3.3.8, 1.3.3.9, 2.1.1.0, 2.1.1.3, 2.1.2.0, 2.1.2.3, 2.1.2.4, 2.1.2.5, 2.1.2.6, 2.1.2.7, 2.2.1.0, 2.2.1.3, 2.2.2.0, 2.2.2.3, 2.2.2.4, 2.2.2.8, 2.2.2.9, 2.2.3.0, 2.2.3.3, 2.2.3.4, 2.2.3.5, 2.2.3.6, 2.3.2.0, 2.3.2.3, 2.3.3.0, 2.3.3.4, and 2.3.4.0
Migrate Cisco Prime Infrastructure 3.10.1 data to Cisco DNA Center		
Migrate Cisco Prime Infrastructure		

https://www.cisco.com/c/en/us/td/docs/net_mgmt/prime/infrastructure/3-9/migration/guide/bk_Cisco_Prime_Infrastructure_to_DNAC_Co-existence_guide/m_introduction.html

https://www.cisco.com/c/en/us/td/docs/net_mgmt/prime/infrastructure/3-9/migration/guide/bk_Cisco_Prime_Infrastructure_to_DNAC_Co-existence_guide/m-migrate-cisco-prime-infrastructure-data-to-cisco-dna-center-using-prime-data-migration-tool-update-04.html

New to V5

- Obstacles/Walls
- Planning Mode AP migrated
- TOFU (trust on first use) certificate
- **Sync only new selection**
- 5.01 supports Catalyst Center 2.3.7.x

https://www.cisco.com/web/software/284272933/157013/PI_39x_Prime_Data_Migration_Tool_Update__05_Release_Notes.pdf

Before you start: plan your migration

Example of questions we need to answer

1. Is one Cisco DNA Center instance enough for migration or multiple DNA Center instances will be required?
2. Is there a technical reason to keep both Prime and DNA Center?
 - What are the Prime capabilities that will still be required after migration?
3. Is there a non-technical reason to keep both Prime and DNA Center?
4. Is there a preference to do gradual migration per location? If so, what's the order of migration for the different locations?
 - Do we need staggered maintenance windows for different Prime locations?
5. Is the Prime hierarchy going to be maintained when migrating to DNA Center or there are changes that need to be done during the migration?
6. Is there a need to migrate templates or Intent Based can fulfill requirements?
7. Are services like CMX and ISE going to be migrated?
8. What is the operational model?

Question #1 – Do I need to configure the device for DNA Center Assurance?

```
!
telemetry ietf subscription 1011
  encoding encode-tcl
  filter tcl-uri /services;serviceName=ewlc/wlan_config
  source-address 10.4.174.40
  stream native
  update-policy on-change
  receiver ip address 10.4.48.171 25103 protocol tls-native profile sdn-network-infra-iwan
telemetry ietf subscription 1012
  encoding encode-tcl
  filter tcl-uri /services;serviceName=ewlc/wlanpolicies
  source-address 10.4.174.40
  stream native
  update-policy on-change
  receiver ip address 10.4.48.171 25103 protocol tls-native profile sdn-network-infra-iwan
telemetry ietf subscription 1013
  encoding encode-tcl
  filter tcl-uri /services;serviceName=ewlc/wlanpolicies;policy_profile_name=temp_policy_profile/atfpolicymap
  source-address 10.4.174.40
  stream native
  update-policy on-change
  receiver ip address 10.4.48.171 25103 protocol tls-native profile sdn-network-infra-iwan
telemetry ietf subscription 1014
  encoding encode-tcl
  filter nested-uri /services;serviceName=ewlc/policylist
  source-address 10.4.174.40
  stream native
  update-policy on-change
  receiver ip address 10.4.48.171 25103 protocol tls-native profile sdn-network-infra-iwan
telemetry ietf subscription 1016
  encoding encode-tcl
  filter tcl-uri /services;serviceName=ewlc/site_tag_config
  source-address 10.4.174.40
  stream native
  update-policy on-change
  receiver ip address 10.4.48.171 25103 protocol tls-native profile sdn-network-infra-iwan
telemetry ietf subscription 1051
  encoding encode-tcl
  filter tcl-uri /services;serviceName=ewlc/wlan_config
  source-address 10.4.174.40
  stream native
  update-policy periodic 360000
  receiver ip address 10.4.48.171 25103 protocol tls-native profile sdn-network-infra-iwan
telemetry ietf subscription 1052
  encoding encode-tcl
  filter tcl-uri /services;serviceName=ewlc/wlanpolicies
  source-address 10.4.174.40
```

```
snmp-server trap-source Vlan174
snmp-server packet-size 5000
snmp-server enable traps snmp authentication linkdown linkup coldstart warmstart
snmp-server enable traps wireless AP wireless_mobility
snmp-server enable traps config
snmp-server enable traps rf
snmp-server host 10.4.48.171 cisco
snmp-server host 10.4.48.171 version 2c cisco
```


Question #2 – What needs to be done after migration for full DNA Center Adoption?

- Devices are migrated within their building and floor
- DNA Center pushes the necessary device controllability features for network and client Assurance
- If maps are migrated, AP's are positioned in the right location within the map

What
happens
during
migration

Can stop here for network and client
Assurance or continue the journey



**PDMTV5 – planned AP migrated

Question #2 – What needs to be done after migration for full DNA Center Adoption?

- For all devices:

- Populate the right network settings for the hierarchy
- Add the templates (migrated templates and/or new templates) into the network profiles

- For brownfield switches:

- For application visibility, enable application telemetry on the devices
- For automation, leverage Provision workflow for Network Settings and Templates

- For brownfield wireless:

- Use Prime for automation and DNA Center for Assurance until upcoming brownfield automation enhancements for wireless.

After
migration

Question #3 – Is the device removed from Prime after migration?

The screenshot displays the Cisco Prime Infrastructure web interface. The breadcrumb navigation shows the path: Inventory / Device Management / Network Devices. The left sidebar contains a 'Device Groups' section with a search bar and a tree view showing 'Device Type' (Switches and Hubs, Unified AP, Wireless Controller) and 'Location' (All Locations, Milpitas, SJC 23, Floor 1). The main content area shows the 'Network Devices' tab for 'Unified AP' under 'Floor 1'. A table lists several devices, all with a status of 'Managed' and 'Reachability' marked with a green checkmark.

	Reachability	Admin Status	Device Name	IP Address	
☐	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
☐	✓	Managed	AD1-2960XR-1.cisco.lo...	10.4.15.8	(i) 10
☐	✓	Managed	AD1-3650.cisco.local	10.4.15.7	(i) 10
☐	✓	Managed	AD1-3850-1.cisco.local	10.4.15.5	(i) 10
☐	✓	Managed	AD1-3850-2.cisco.local	10.4.15.6	(i) 10
☐	✓	Managed	D1-6840.cisco.local	10.4.15.254	(i) 10
☐	✓	Managed	HQ-9800-L	10.4.174.40	(i) 10

Question #3 – Is the device removed from Prime after migration?

```
telemetry ietf subscription 27799734
encoding encode-tdl
filter tdl-uri /services;serviceName=ewlcevent/ewlcclientevent
stream native
update-policy on-change
receiver ip address 10.4.48.162 20830 protocol cntp-tcp
telemetry ietf subscription 310937588
encoding encode-tdl
filter tdl-uri /services;serviceName=ewlc_oper/mesh_sec_stats
stream native
update-policy periodic 180000
receiver ip address 10.4.48.162 20830 protocol cntp-tcp
telemetry ietf subscription 345449941
encoding encode-tdl
filter tdl-uri /services;serviceName=ewlc_oper/mesh_q_stats
stream native
update-policy periodic 180000
receiver ip address 10.4.48.162 20830 protocol cntp-tcp
telemetry ietf subscription 509015629
encoding encode-tdl
filter tdl-transform ApBleBeacon
stream native
update-policy on-change
receiver ip address 10.4.48.162 20830 protocol cntp-tcp
telemetry ietf subscription 527712612
encoding encode-tdl
filter tdl-transform LradIfChannelInterference
stream native
update-policy periodic 180000
receiver ip address 10.4.48.162 20830 protocol cntp-tcp
telemetry ietf subscription 589334059
encoding encode-tdl
filter tdl-transform LradIfPhyTxPower
stream native
update-policy on-change
```

Ensure either
Prime or
DNAC
configures
the devices,
not both

```
snmp-server trap-source Vlan174
snmp-server packetsize 5000
snmp-server enable traps snmp authentication linkdown linkup coldstart warmstart
snmp-server enable traps wireless AP wireless_mobility
snmp-server enable traps config
snmp-server enable traps cdp
snmp-server host 10.4.48.162 isco
snmp-server host 10.4.48.171 version 2c cisco
```

Question #4 – How to automate coexistence?

Prime Infrastructure - Prime Data Migration Tool

< 1 Add Cisco DNA Center Server → 2 Sync Settings →

☒ Enables automatic synchronization of data integrated with Cisco DNA Center ⓘ

☒ Include newly added data during dynamic synchronization ⓘ

☐ Enable CMX settings ⓘ

☐ Enable ISE settings ⓘ

☐ Migrate User Defined CLI Templates ⓘ

Supported / Available Limits

	Recommended Scale	Available
Site Groups / Site Maps	500	Exceeds by 43
Devices	1000	999

Ensure that you don't exceed the recommended scale.

Synchronizes the migrated groups and devices from Prime to DNA Center automatically post-migration

Migrates newly created groups and devices using dynamic synchronization automatically post-migration

Coexistence is from
Prime to DNA
Center only

Question #4 – How to automate coexistence?

Prime Infrastructure - Prime Data Migration Tool

< 1 Add Cisco DNA Center Server → 2 Sync Settings →

☒ Enables automatic synchronization of data integrated with Cisco DNA Center ?
☒ Include newly added data during dynamic synchronization ?
☐ Enable CMX settings ?
☐ Enable ISE settings ?
☐ Migrate User Defined CLI Templates ?

Supported / Available Limits

	Recommended Scale	Available
Site Groups / Site Maps	500	Exceeds by 43
Devices	1000	999

Ensure that you don't exceed the recommended scale.

Auto Sync:

Add, delete, change a building or within the migrated site

Add, delete, device within the migrated site

Force Sync:

Adding a new site

Adding AP to the floor

AP Positioning in maps

New CLI Templates

Adding New ISE

Adding New CMX

Co-Existence model examples



Locations:

Brisbane
Canberra
Melbourne
Sydney

Migrate for Assurance only

Co-Existence model examples



Migrate for
Assurance
only



Prime Automation

Brisbane
Canberra
Melbourne
Sydney



PDMT with
coexistence
check

DNAC RO for Automation

Brisbane
Canberra

- ☒ Enables automatic synchronization of data integrated with Cisco DNA Center ?
- ☒ Include newly added data during dynamic synchronization ?

Co-Existence model examples



Locations:

Brisbane
Canberra
Melbourne
Sydney

Migrate for Automation & Assurance

Co-Existence model examples



Migrate for
Automation &
Assurance



Prime RO Automation

Brisbane
Canberra

Prime Automation
Melbourne
Sydney

DNAC Automation

Brisbane
Canberra

PDMT without
coexistence
check

- ☐ Enables automatic synchronization of data integrated with Cisco DNA Center ?
- ☐ Include newly added data during dynamic synchronization ?

Question #4 – How to automate coexistence?



☒ Enables automatic synchronization of data integrated with Cisco DNA Center ?

☒ Include newly added data during dynamic synchronization ?

Where to make changes post migration when using co-existence mode

	Prime	Cisco DNA Center
Adding a new site, new device, change configuration	✓	
Wired Workflow, CLI Template	✓	
Wireless Workflow, Adding SSID to WLC, Changing RF Profile	✓	
View Site Hierarchy, Inventory, Maps, EOX	✓	✓
Software Image Upgrade (SWIM)	✓	
Change site name that has been migrated	✗	✗
Visibility and Assurance - Device, Client	✓	✓
Device 360, Client 360		✓

Question #5 – Is Geo Location mandatory for migration?

DNA Center requires a valid Geo location, Prime Groups with empty/invalid/Null can't be migrated

The screenshot shows the Cisco Prime Infrastructure web interface. The breadcrumb navigation is: Inventory / Group Management / Network Device Groups. The left sidebar shows a tree view of Device Groups: All Devices, Device Type, Location (expanded), All Locations, France, Portugal (expanded), Azores (expanded), Promineral (selected), and Lisboa. The main content area is titled 'Device Groups / Location / All Locations / Portugal / Azores Promineral' and 'Edit Location Group'. It has two tabs: 'Edit' (active) and 'Preview'. The form fields are: Group Name (text input: Promineral), Parent Group (dropdown: Azores), Group Description (text area: Location Group for SD), and Group type (dropdown: Building). A checkbox labeled 'Geographical Location' is highlighted with a blue box and is unchecked. Below it is a section 'Add Devices Dynamically' with an information icon.

Question #5 – Is Geo Location mandatory for migration?

PDMTv4 provides a pop-up window to enter a valid Geo location – mandatory to proceed with the migration

Update Civic Location

PI Group Hierarchy	Group Name	Address	Latitude	Longitude
Location/All Locations/Portugal/Azores	Promineral	Er Tambores 10, 9675-032 Fumas, /	37.771904	-25.297799

Save Cancel

Save Cancel

*Enter Geo locations to proceed with migration

Question #6 – What happens if the building already exists in DNA Center?

The screenshot displays the Cisco DNA Center interface, specifically the 'Design - Network Hierarchy' section. The left sidebar shows a hierarchy tree with 'Global', 'Milpitas', and 'San Jose' folders. 'San Jose Bldg 23' is highlighted under 'Milpitas'. The main map area shows a map of San Jose with a pop-up window for 'San Jose Bldg 23' displaying its details: Building Name, Hierarchy, Address, and Geolocation. Below the map, the 'DEVICES (1)' section is visible, showing a table of devices. The table has columns for Device Name, IP Address, Device Family, Reachability, Manageability, Compliance, Health Score, MAC Address, Device Role, and Image. The device 'pnp-9800-40.cisco.local' is listed with a status of 'Reachable' and 'Managed'.

San Jose Bldg 23 Details:

- Building Name: San Jose Bldg 23
- Hierarchy: Global > Milpitas > San Jose Bldg 23
- Address: 560 Mccarthy Boulevard, Milpitas, California 95035, United States
- Geolocation: Lat 37.41953, Long -121.91872

DEVICES (1) Focus: Inventory

Device Name	IP Address	Device Family	Reachability	Manageability	Compliance	Health Score	MAC Address	Device Role	Image
pnp-9800-40.cisco.local	0.4.174.46	Wireless Controller	Reachable	Managed	Compliant	10	80:2d:bf:91:c6:0b	ACCESS	17.6

Question #6 – What happens if the building already exists in DNA Center?

Prime Infrastructure

Inventory / Group Management / Network Device Groups

★

Device Groups

←

⋮

+

Search All

All Devices

Device Type

Location

All Locations

Milpitas

San Jose Bldg 23

Floor 1

Floor 2

System Campus

Unassigned

Device Groups / Location / All Locations / Milpitas

San Jose Bldg 23

Edit Location Group

Edit

Preview

* Group Name

San Jose Bldg 23

* Parent Group

Milpitas

Group Description

Location Group for SD

Group type

Default

☒ Geographical Location

☒ Civic Location

560 Mccarthy Boulevard, Milpitas, California 95035, Unit

View Map

☐ GPS (Lat. / Long.)

37.41953

/

-121.91872

DNAC Site Builder

☐ Replicate Parent Hierarchy

Prime Infrastructure Location Groups

All Locations

☒ Milpitas - Marked for migration!

☒ San Jose Bldg 23 - Marked for migration!

☒ Floor 1 - Marked for migration!

☒ Floor 2 - Marked for migration!

☐ System Campus

Group Movement Log

PI Group Hierarchy	DNAC Group Hierarchy	Status
Location/All Locations/Milpitas/San Jose Bldg ...	Global/Milpitas/San Jose Bldg 23/Floor 2	Marked for migration
Location/All Locations/Milpitas/San Jose Bldg ...	Global/Milpitas/San Jose Bldg 23/Floor 1	Marked for migration
Location/All Locations/Milpitas	Global/Milpitas	Marked for migration
Location/All Locations/Milpitas/San Jose Bldg 23	Global/Milpitas/San Jose Bldg 23	Marked for migration

CISCO Live!

#CiscoLiveAPJC

BRKOPS-2077

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

49

Question #6 – What happens if the building already exists in DNA Center?

Global												
Unassigned Devices (1)												
Milpitas												
San Jose Bldg 23												
Floor 1												
Floor 2												
Pleasanton												
San Jose												

FOCUS: Inventory												
Filter Add Device Tag Device Actions Take a Tour												
As of: 2:27 PM Export Refresh												
	Device Name	IP Address	Device Family	Reachability	Manageability	Compliance	Health Score	MAC Address	Device Role	Image Version	Uptime	
☐	AD1-3650.cisco.local	10.4.15.7	Switches and Hubs	Reachable	Managed	Non-Compliant	NA	00:35:1a:1d:f5:80	ACCESS	16.9.6	299 d	
☐	AD1-3850-2.cisco.local	10.4.15.6	Switches and Hubs	Reachable	Managed	Non-Compliant	10	bc:c4:93:b2:87:00	ACCESS	16.9.5	299 d	
☐	AP0CD0.F894.2824	10.4.8.20	Unified AP	Reachable	Managed	N/A	6	0c:d0:f8:95:a7:80	ACCESS	17.6.1.13	62 da	
☐	AP005D.7344.5DEE	10.4.2.23	Unified AP	Reachable	Managed	N/A	6	4c:77:6d:ca:14:60	ACCESS	17.6.1.13	62 da	
☐	AP28AC.9EDC.2370	10.4.72.21	Unified AP	Reachable	Managed	N/A	1	70:79:b3:2b:fd:e0	ACCESS	17.6.1.13	21 da	
☐	AP7069.5AEC.41B6	10.4.2.24	Unified AP	Reachable	Managed	N/A	6	70:79:b3:1d:18:c0	ACCESS	17.6.1.13	62 da	
☐	D1-6840.cisco.local	10.4.15.254	Switches and Hubs	Reachable	Managed	Compliant	10	bc:f1:f2:60:8f:2f	DISTRIBUTION	15.5(1)SY6	299 d	
☐	HQ-9800-L.cisco.local	10.4.174.40	Wireless Controller	Reachable	Managed	Non-Compliant	10	f4:bd:9e:56:0d:cb	ACCESS	17.6.1	28 da	
☐	pnp-9800-40.cisco.local	10.4.174.46	Wireless Controller	Reachable	Managed	Compliant	10	80:2d:bf:91:c6:0b	ACCESS	17.6.2	103 d	

Question #7 – Can I migrate Prime Templates?

Prime Infrastructure – Cisco DNA Center Coexistence

1 Add Cisco DNA Center Server → 2 Sync Settings → 3 Select Groups → 4 ISE & CMX Server → 5 Select CLI Templates

Non-Migrated Templates Migrated Templates

Following are the templates available in Prime Infrastructure to be migrated to Cisco DNA Center.

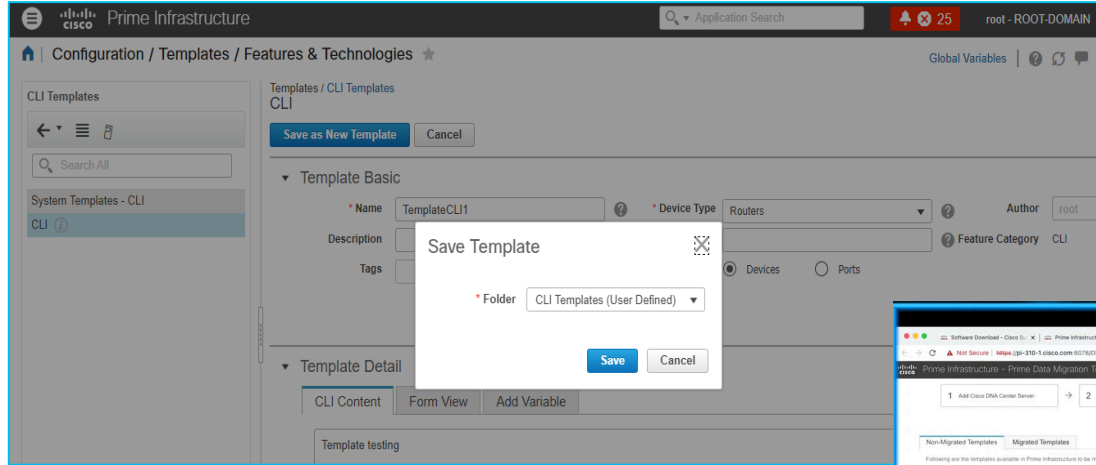
	Name	Type	Description
☐	Test_Chad_temp (IOS)	CLI	
☐	Test_Chad_temp (IOS-XE)	CLI	
☒	WLC9880-1 (IOS-XE)	CLI	Template for Cisco WLC9800
☐	Loopbk10 (IOS)	CLI	
☐	Loopbk10 (IOS-XE)	CLI	

- **Supported:** User Defined CLI templates with variables and composite templates
- **Not Supported:** System Defined CLI templates

- User can select the templates which they want to migrate to DNA Center
- Templates will be migrated to DNA Center under the Template Hub

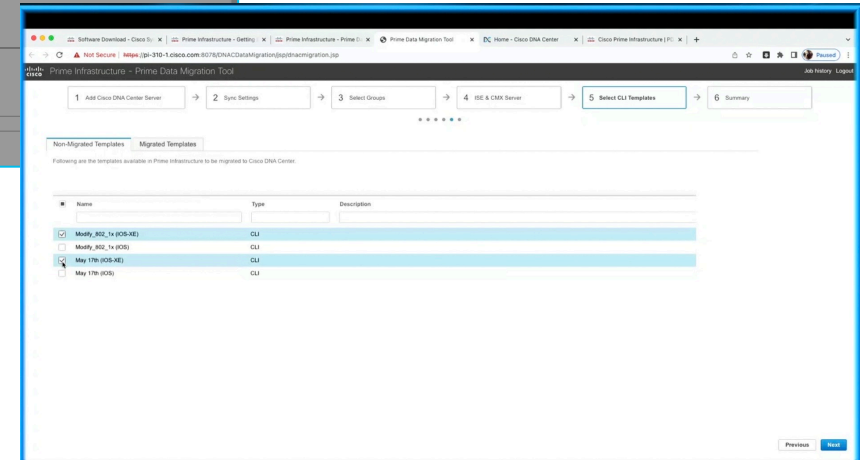
Question #7 – Can I migrate Prime Templates?

Trick to Migrate System Defined CLI Templates

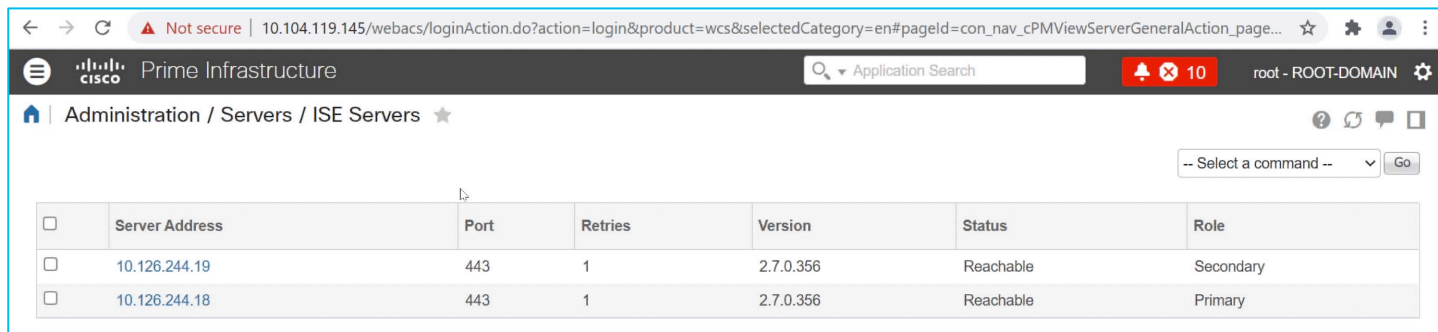


Step 1) Save as “New”

Step 2) Provision the template in devices to migrate



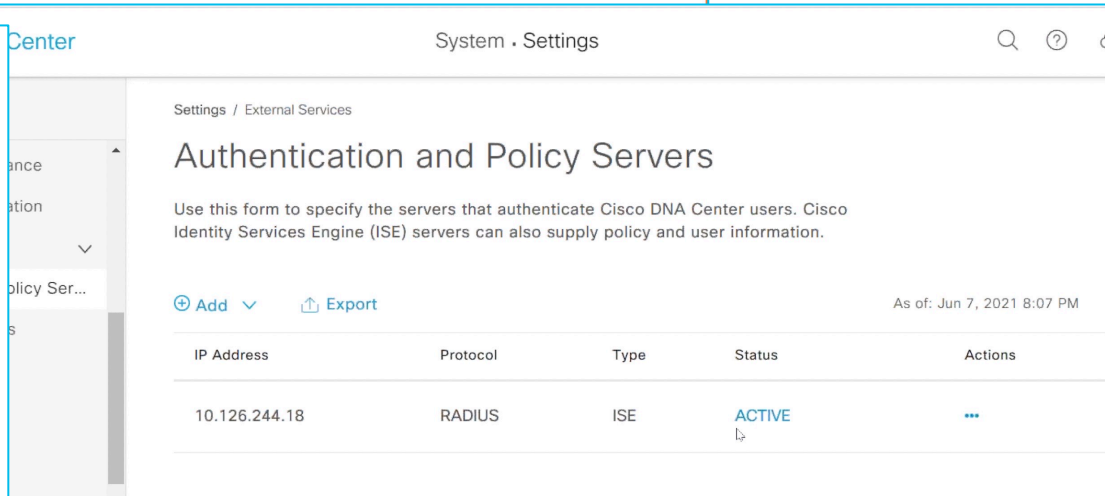
Question #8 – How does ISE migration work?



The screenshot shows the Cisco Prime Infrastructure web interface. The breadcrumb navigation is 'Administration / Servers / ISE Servers'. A table lists two ISE servers. A red curved arrow points from the 'Primary' role of the second server to the 'Authentication and Policy Servers' settings page in the second screenshot.

	Server Address	Port	Retries	Version	Status	Role
☐	10.126.244.19	443	1	2.7.0.356	Reachable	Secondary
☐	10.126.244.18	443	1	2.7.0.356	Reachable	Primary

- ISE is Migrated as “Authentication and Policy Servers”.
- Only one ISE server can be migrated
- Not assigned to any site in the Network Settings.



The screenshot shows the 'System Settings' page in Cisco DNA Center, specifically the 'Authentication and Policy Servers' section. It provides instructions on how to configure ISE servers for authentication and policy. A table lists the configured ISE server.

IP Address	Protocol	Type	Status	Actions
10.126.244.18	RADIUS	ISE	ACTIVE	...

Question #8 – How does ISE migration work?

ISE

CMX

Server Status	Server IP	Port	FQDN	Username	Shared secret	Timeout	Retries
✓	10.197.71.145	443	pi-system-145.cisco.com	admin	*****	20	1

Note: Please ensure the following on the ISE server prior to migration

1. PXGrid needs to be activated on ISE
2. ERS needs to be enabled on ISE
3. ISE CLI and GUI password needs to be the same

Before Migration:

- Activate PXGrid on ISE
- Enable ERS on ISE
- ISE's CLI and GUI password must be the same

During Migration

- The FQDN, Username & Shared Secret Key values shouldn't be empty
- Timeout value shouldn't exceed 20 sec

Question #9 – How does CMX migration work?

Prime Infrastructure - Prime Data Migration Tool

1 Add Cisco DNA Center Server → 2 Sync Settings → 3 Select Groups → 4 ISE & CMX Server → 5 Select CLI Templates

ISE CMX

CMX Servers

You can integrate CMX server with Cisco DNA Center. Once integrated, the CMX for the selected site maps will not be managed by Prime Infrastructure.

Credential Status	Server IP	Server Name	Username	Owner	SSH Username	SSH Password
✓	10.104.119.145	qacmx	admin		cmxadmin	*****

- CMX migration is a “move”
- Prime will lose its sync with CMX once migrated to DNAC
- Changes in Prime will not be updated if CMX is migrated
- After migration, DNA Center will track the location data for assigned groups.
- Best Practice: CMX migration to be done at last

Question #10 – Does DNA Center support legacy devices?

Adding Legacy Device Support

Cisco Prime Legacy Device Compatibility Matrix

Note: The devices for which Recommended and Compatible Releases are not shown are EOL devices. SWIM images might not be listed in COO, hence SWIM is not applicable for these device series.

[Download Excel Format](#)

Device Series	Device Model	Recommended Release	Compatible Release	Min. Cisco DNA Center Release	Inventory	Topology	SWIM	Config Change Audit (CCA)	Template Provisioning
Cisco 2010 Connected Grid Router	CISCO CGR 2010/K9 CISCO CGR 2010/K9 China	IOS-15.9.3M4	IOS-15.1.4M	2.3.2.0	L	L	L	L	NA
Cisco 2900 Series Integrated Services Routers G2	CISCO2911/K9	IOS-15.6.2T3	IOS-15.0.1M9	2.3.2.0	L	L	L	L	NA
Cisco 2921 Integrated Services Router G2	CISCO2921/K9	IOS-15.6.2T3	IOS-15.0.1M9	2.3.2.0	L	L	L	L	NA
Cisco 2951 Integrated Services Router G2	CISCO2951/K9	IOS-15.6.2T3	IOS-15.0.1M9	2.3.2.0	L	L	L	L	NA
Cisco 3750 Stackable Switches	C3750	-	-	2.3.2.0	L	L	NA	L	L
Cisco 3825 Integrated Services Router	CISCO3825 C3825-35UC/K9 C3825-BIAB-24/K9 C3825-BIAB-72/K9-BF	-	-	2.3.2.0	L	L	NA	L	NA

L - Device with limited support. For details, see the product documents.
NA - Device and Application functionality combination is not applicable for a given device.
N - Device is not supported. Y - Device is supported.

Cisco Prime Legacy Device Compatibility Matrix:

https://www.cisco.com/c/dam/en/us/td/docs/Website/enterprise/prime_legacy_device_compatibility_matrix/index.html

DNA Center Compatibility Matrix:

https://www.cisco.com/c/dam/en/us/td/docs/Website/enterprise/dnac_compatibility_matrix/index.html

Question #10 – Does DNA Center support legacy devices?

Support Type	<p>Shows the device support level:</p> <ul style="list-style-type: none">• Supported: The device pack is tested for all applications on Cisco DNA Center. You can open a service request if any of the Cisco DNA Center functionalities for these devices do not work.• Limited: The device pack for legacy devices is tested only for the following features on Cisco DNA Center.<ul style="list-style-type: none">• Discovery• Topology• Device Reachability• Config Change Audit• Inventory• Software Image Management (Software images may not be available for EOL devices on cisco.com. Not recommended for EOL devices.)• Template Provisioning (Applicable only for switches.) <p>For more information, see the Cisco DNA Center Compatibility Matrix.</p> <ul style="list-style-type: none">• Unsupported: All remaining Cisco and third-party devices that are not tested and certified on Cisco DNA Center. You can try out various functionalities on Cisco DNA Center for these devices, as a best effort. However, you cannot raise a service request or a bug if Cisco DNA Center features do not work as expected.
--------------	--

Limited Support
vs
Full Support

Device Support Explanation:

https://www.cisco.com/c/en/us/td/docs/cloud-systems-management/network-automation-and-management/dna-center/2-3-4/user_guide/b_cisco_dna_center_ug_2_3_4/b_cisco_dna_center_ug_2_3_4_chapter_011.html

Question #10 – Does DNA Center support legacy devices?

Provision / Inventory

All Routers **Switches** Wireless Controllers Access Points Sensors

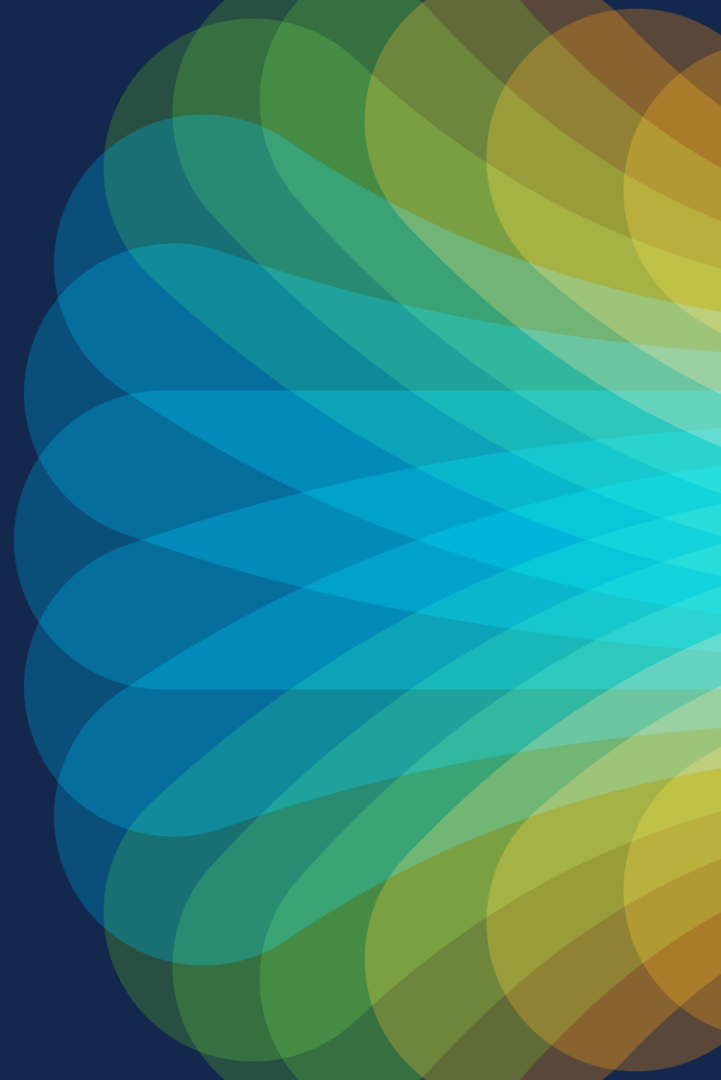
Devices (12) Focus: **Select** ▾

Q Filter devices

0 Selected Tag Actions ▾ ⓘ

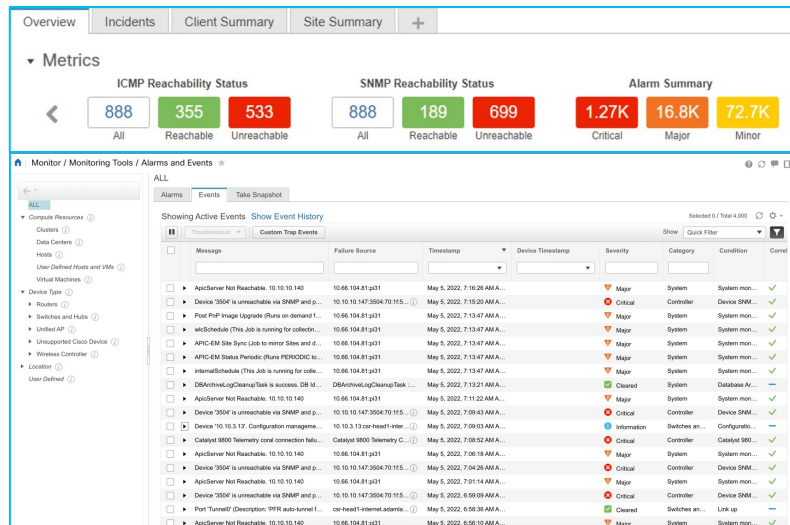
☐	Device Name	IP Address	Device Family	Platform	Support Type
☐	SF-A3850-1 3850WLC ⓘ	10.0.100.103	Switches and Hubs	WS-C3850-12X48U-S	Supported
☐	C3560C.cisco.com ⓘ	192.168.157.130	Switches and Hubs	WS-C3560C-8PC-S	Limited
☐	C9200L-1.cisco.com ⓘ	192.168.159.131	Switches and Hubs	C9200L-24P-4G	Supported
☐	C9300_PLS.cisco.com ⓘ	192.168.158.130	Switches and Hubs	C9300-24U	Supported

“Doing Prime things
the new way”



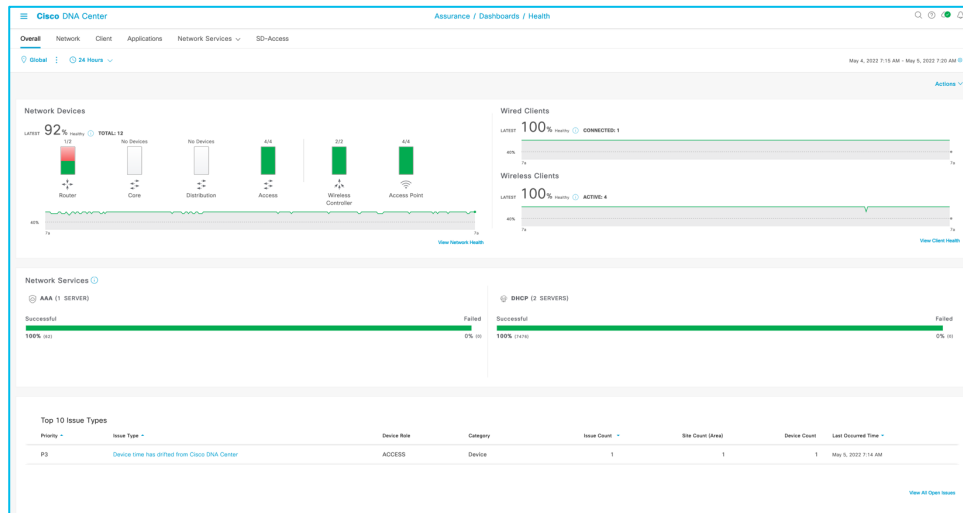
#1 Alarms vs Health/Issues

Cisco Prime Infrastructure



Alarms sent via email or upstream SNMP trap

Cisco DNA Center



Health is primary abstraction:

- Events
- Issues
- Notifications

Cisco DNA Center Events

Client / Client 360

10/10 CLIENT DETAILS

Device: Sensor-Client-1800S OS: Fortinet FortiGate-50B or 310B firewall (accuracy 90%) MAC: 70:F3:5A:7C:89:11 IPv4: 192.168.200.210 IPv6: fe80::72f3:5aff:fe7c:89:11 Status: Connected Capability: 11ac Last seen: Jun 9, 2022 3:10:00 PM Connected Network Device: 1800-colo SSID: 9800 [View All Details](#)

Issues Onboarding Path Trace Application Experience Device Info Connectivity

> Issues

> Onboarding

Jun 9, 2022 3:12 PM

Event Viewer

Filter Export EQ Find

Jun 9, 2022			
>	Onboarding	3:09:15.117 PM - 3:09:15.157 PM	AP:1800-colo WLAN:9800
>	DHCP	3:08:52.718 PM	AP:1800-colo WLAN:9800
✓	Authenticating	3:05:32.318 PM - 3:05:32.320 PM	Due to Group Key Update Timeout AP:pnp1852 WLAN:9800
	Deleted	3:05:32.320 PM	Group Key Update Timeout
	Authenticating	3:05:32.320 PM	Client Connect Timeout
	Authenticating	3:05:32.318 PM	Key Exchange
>	DHCP	3:04:21.073 PM	AP:pnp1852 WLAN:9800

Cisco DNA Center Assurance / Dashboards / Issues and Events

Issues Events

Global 24 Hours Dec 7, 2022 7:30 AM - Dec 8, 2022 7:30 AM

Events (2870)

Category Type Devices Endpoints Router: 379 Switch: 2092 Wireless Controller: 228 AP: 171

Filter Table

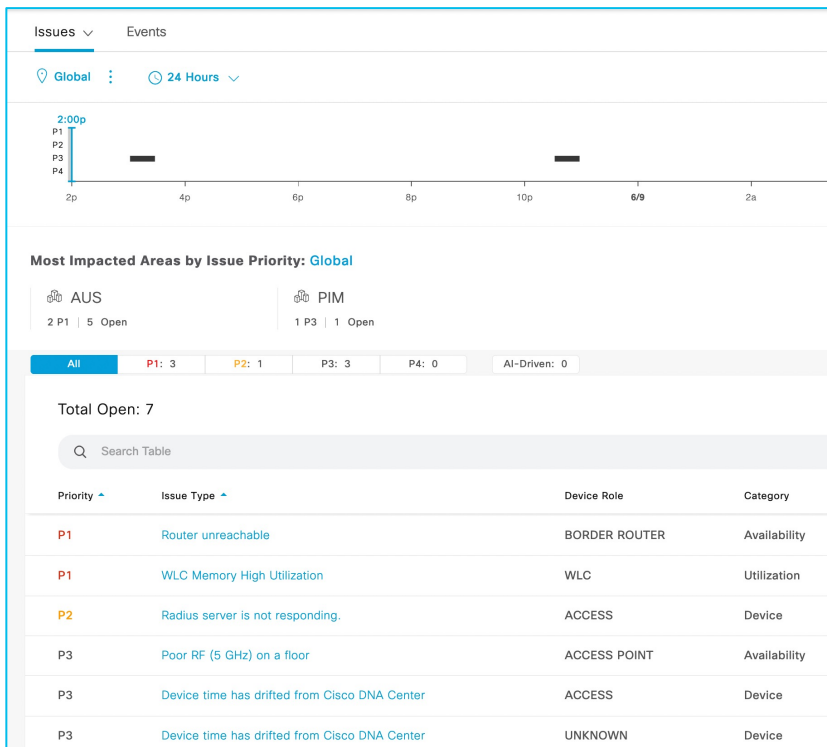
0 Selected

Event Name	Status	Severity	Timestamp	Device Name	Event Type	Device IP
DEVICE_AVAILABILITY:REACHABLE	●	Warning	Dec 8, 2022 7:05:53.095 AM	csr1000k.adamlab.cisco.com	Device Event	10.10.10.115
DEVICE_AVAILABILITY:REACHABLE	●	Warning	Dec 8, 2022 7:00:03.871 AM	trad-4331.adamlab.cisco.com	Device Event	10.10.5.2
DEVICE_AVAILABILITY:REACHABLE	●	Warning	Dec 8, 2022 6:53:15.588 AM	trad-4331.adamlab.cisco.com	Device Event	10.10.5.2

Events are syslog/trap/telemetry data sent to Cisco DNA Center

- Viewable in context for device/user 360 or globally.
- Client events are filterable in 2.3.4.x

Cisco DNA Center Issues



An issue represents a problem condition that was detected

- Based on events or other metrics
 - Example: memory/CPU
- Customizable (trigger, severity, location)
- Can be generated by AI tools
- Can leverage MRE for root cause

Cisco DNA Center Issues

- Issues Can leverage MRE for root cause analysis

The screenshot displays the Cisco DNA Center interface for a network device. The top section shows the device name "Switch C9K-BRANCH-STACK" and a health status of "Reachable". Below this, a graph shows the health status over time. The bottom section displays a list of issues, with one issue highlighted: "Interface 'GigabitEthernet1/0/24' (Interface description: ***** Uplink #1 to C3650 DISTRI *****) is down on network device 'C9K-BRANCH-STACK'". The issue details show the interface is in an administratively down state, and the suggested action is to re-enable the interface. The root cause analysis section shows that the TDR cable diagnostics do not indicate any physical cable error(s) as the cause for interface down.

Network / Device 360

Switch C9K-BRANCH-STACK

24 Hours

Run Commands

Health

Events

4:15p

6p 8p 10p

8/10 DEVICE DETAILS

Model: C9300-24P Management IP: 10.85.54.54 Location: Global / Canada

Reachability Status: Reachable View All Details

Issues Physical Neighbor Topology Path

Issues (1) Sep 2, 2022 4:18 PM

P1 Connectivity

Interface "GigabitEthernet1/0/24" (Interface description: ***** Uplink #1 to C3650 DISTRI *****)

Instance Count: 1

1 Records

Network / Device 360

Switch C9K-BRANCH-STACK

24 Hours

Health

Events

4:15p

6p

8/10 DEVICE DETAILS

Model: C9300-24P Management IP: 10.85.54.54 Location: Global / Canada

Reachability Status: Reachable View All Details

Issues Physical Neighbor Topology Path

Issues (1) Sep 2, 2022 4:18 PM

P1 Connectivity

Interface "GigabitEthernet1/0/24" (Interface description: ***** Uplink #1 to C3650 DISTRI *****)

Instance Count: 1

1 Records

Interface "GigabitEthernet1/0/24" (Interface description: ***** Uplink #1 to C3650 DISTRI *****) is down on network device "C9K-BRANCH-STACK"

Open

Issue Profile: Test-Illa Edit Issue Settings

Last Occurred: Sep 2, 2022 4:13 PM

Root Cause Analysis View All Network Reasoner Tools

Last Run By User: Sep 2, 2022 4:18 PM Run Again

Reasoning Activity Conclusions (2)

The interface GigabitEthernet1/0/47 on the device 10.85.54.17 is in an administratively down state.

Suggested Action:

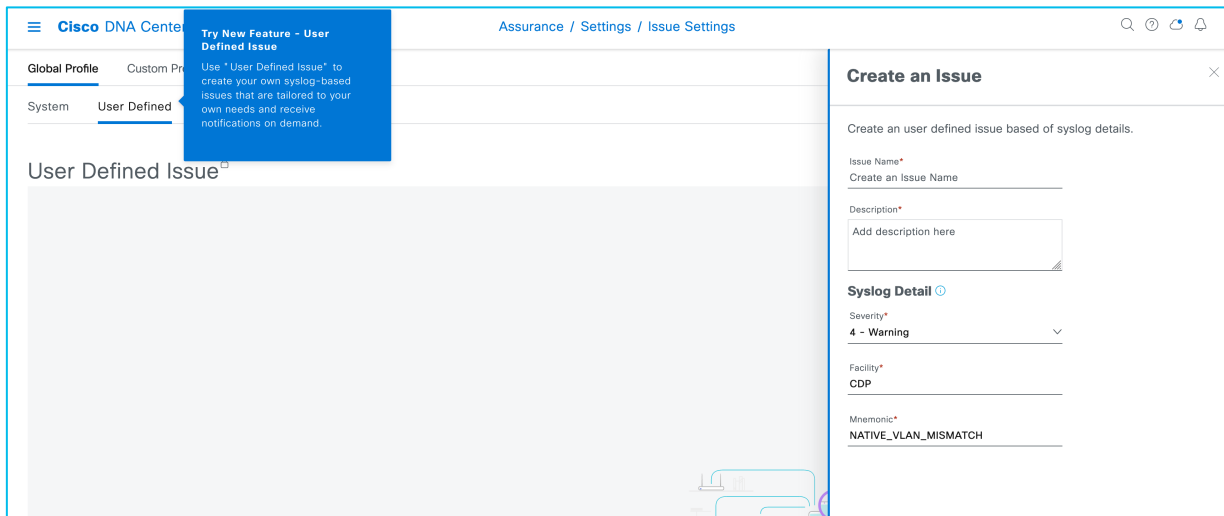
Please re-enable the interface using "no shutdown". Then retry automated Root Cause Analysis.

View Relevant Activities

The TDR cable diagnostics for the interface GigabitEthernet1/0/24 on device 10.85.54.54 does not indicate any physical cable error(s) as the cause for interface down. Please investigate further to determine why the link went down or contact Cisco TAC for further assistance

View Relevant Activities

Custom Issues – 2.3.5.x



Try New Feature - User Defined Issue

Use "User Defined Issue" to create your own syslog-based issues that are tailored to your own needs and receive notifications on demand.

Create an Issue

Create an user defined issue based of syslog details.

Issue Name*
Create an Issue Name

Description*
Add description here

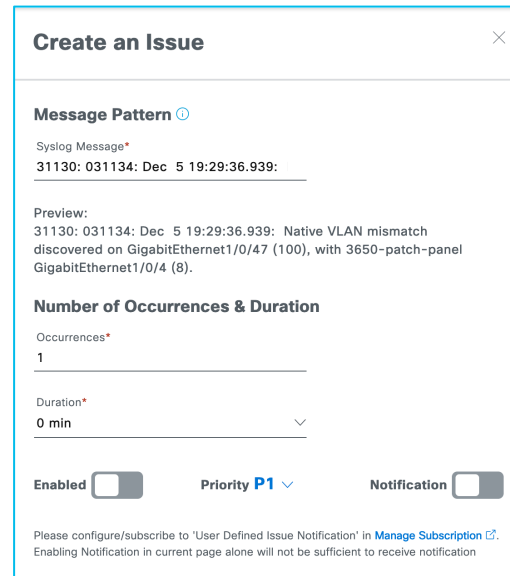
Syslog Detail ⓘ

Severity*
4 - Warning

Facility*
CDP

Mnemonic*
NATIVE_VLAN_MISMATCH

Syslog Message*
31130: 031134: Dec 5 19:29:36.939: Native VLAN mismatch discovered on GigabitEthernet1/0/47 (100), with 3650-patch-panel GigabitEthernet1/0/4 (8).



Create an Issue

Message Pattern ⓘ

Syslog Message*
31130: 031134: Dec 5 19:29:36.939:

Preview:
31130: 031134: Dec 5 19:29:36.939: Native VLAN mismatch discovered on GigabitEthernet1/0/47 (100), with 3650-patch-panel GigabitEthernet1/0/4 (8).

Number of Occurrences & Duration

Occurrences*
1

Duration*
0 min

Enabled ☐ **Priority P1** ☐ **Notification** ☐

Please configure/subscribe to "User Defined Issue Notification" in [Manage Subscription](#).
Enabling Notification in current page alone will not be sufficient to receive notification

Custom issues from Syslog messages
Occurrences/Duration to trigger

Note... "*" matches a word



For your reference

Create an Issue



Message pattern is expected to contain just message text with dynamic values replaced with *.

Message Pattern ⓘ

Syslog Message*

console by sdn on vty1 (10.10.10.151)

Preview:

Configured from console by sdn on vty1 (10.10.10.151)

Number of Occurrences & Duration

Occurrences*

1

Duration*

0 min

Configured from console by sdn on vty1 (10.10.10.151)



Configured from console by * on * *

Notification for User Defined Issues

The screenshot displays the Cisco DNA Center interface. The top navigation bar includes 'DNA Center' and 'Platform / Developer Toolkit'. The left sidebar shows 'APIs', 'Integration Flows', and 'Event Notifications'. The main content area is titled 'Event Notifications' and contains a search bar with 'user defined' entered. Below the search bar is a table with columns 'Event ID', 'Name', and 'Type'. A single entry is shown: 'NETWORK-NETWORKS-2-219' with the name 'User Defined Issue Notification' and type 'NETWORK'. A 'Try-It Now' button is visible in the top right of the notification details panel.

User Defined Issue Notification

Event Details | Notifications | [Try-It Now](#)

GENERAL INFORMATION

Description: A user defined issue has been triggered

Event ID: NETWORK-NETWORKS-2-219 | Version: 1.0.0

Namespace: ASSURANCE | Severity: 2

Domain: Know Your Network

Subdomain: Devices

Category: ERROR

Note: A user defined issue has been triggered

Event Link: dna/assurance/issueDetails?issuelid=\$instanceid\$

TAGS

ASSURANCE user_defined_issue

CHANNELS

REST SYSLOG EMAIL WEBEX PAGERDUTY

MODEL SCHEMA

Details | REST Schema

```
1 {
2   "Type": "$eventSource$",
3   "Assurance Issue Details": "User defined issue has been trigger",
4   "Assurance Issue Priority": "$priority$",
5   "Device": "$eventLinkId$",
6   "Assurance Issue Name": "User defined issue has been triggered",
7   "Assurance Issue Category": "$category$",
8 }
```

One Notification for all custom issues

Cisco DNA Center Notifications

Step 2 - Select Channels

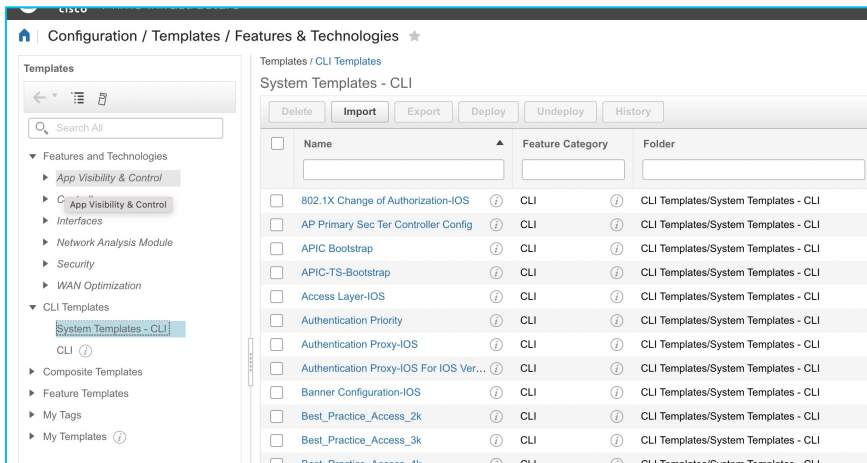
Choose the notification channels

					
EMAIL Send an Email notification Supported Events (192/209)	PAGERDUTY POST Cisco DNA Center Event Notifications to Pagerduty Supported Events (209/209)	REST Send the data via HTTP push API Supported Events (208/209)	SNMP Send data via an SNMP trap Supported Events (23/209)	SYSLOG Send data to a Syslog server Supported Events (205/209)	WEBEX POST Cisco DNA Center Event Notifications to WEBEX Supported Events (209/209)

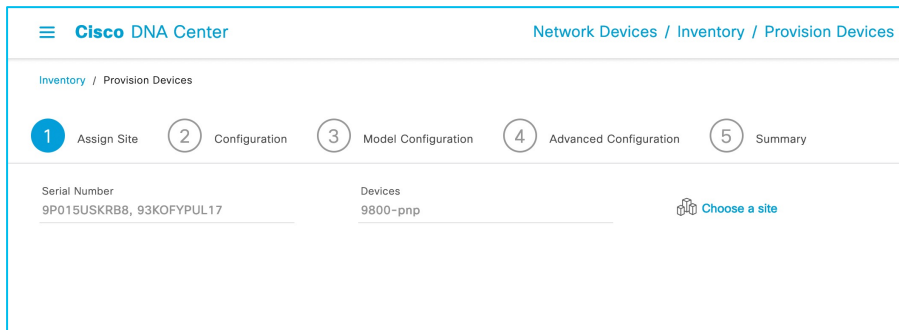
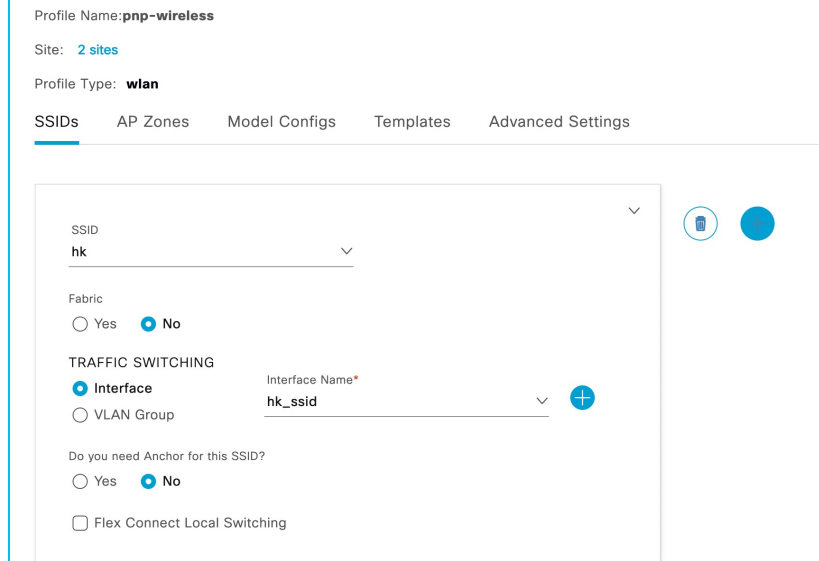
209 issues (2.3.5.x) can be sent to different channels as a notification

#2 Templates vs Intent

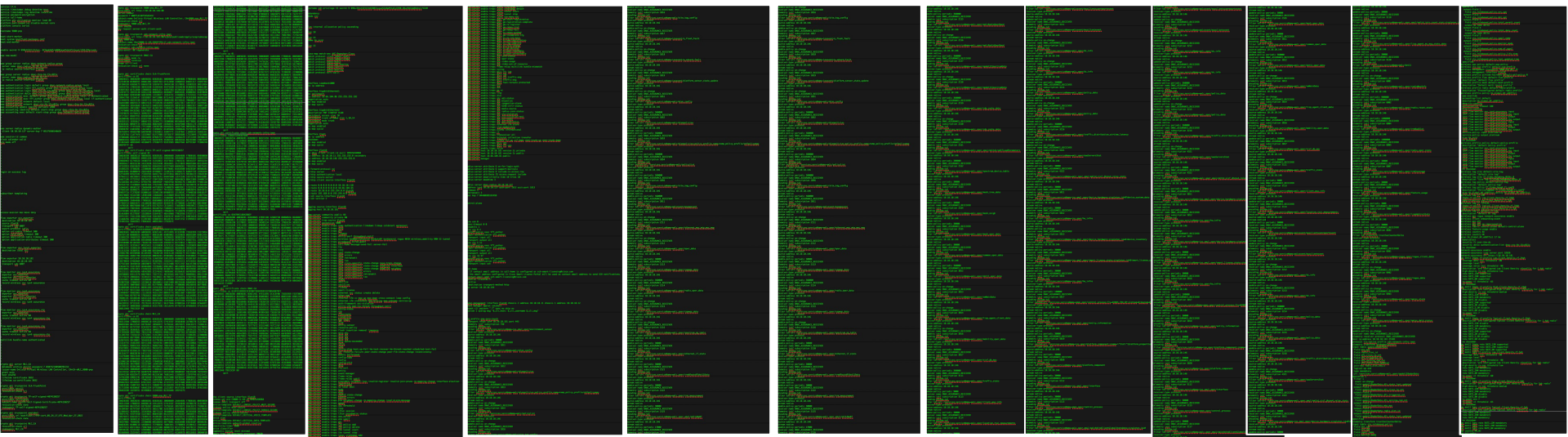
Cisco Prime Infrastructure



Cisco DNA Center



Why Intent?



1600 lines of configuration on a 9800:

- One SSID on one AP in one site.
- Full telemetry and management
- Only "cli" config was 7-line template – to configure the OBM interface + routes

Cisco Prime Infrastructure

Tab	Tab Area	Field	Value
Rule Information		Rule Title	snmp-server community having non-standard entries
Platform Selection			Cisco IOS Devices, Cisco IOS-XE Devices
Condition 1			
Condition Details	Condition Scope Details	Condition Scope	Configuration
	Block Options	Block Start Expression (This field will be enabled only when Parse as Blocks checkbox is selected)	*snmp-server community .*
	Condition Match Criteria	Operator	Matches the expression
		Value	snmp-server community (.*)
Action Details	Select Match Action	Select Action	Continue
	Select Does Not Match Action	Select Action	Does Not Raise a Violation
Condition 2			
Condition Details	Condition Scope Details	Condition Scope	Previously Matched Blocks
	Block Options	Block Start Expression (This field will be enabled only when Parse as Blocks checkbox is selected)	*snmp-server community .*
	Condition Match Criteria	Operator	Matches the expression
		Value	snmp-server community ((public RO) (private RW))
Action Details	Select Match Action	Select Action	Continue
	Select Does Not Match Action	Select Action	Raise a Violation
		Violation Message Type	User Defined Violation Message
		Violation Text	Detected unauthorized community string <7.1>.

Manually define the compliance policy rules
and these are platform specific
Raw parsing of entire CLI (1600 lines)

Cisco DNA Center

Compliance Summary

[View Preference](#)

Next Compliance check is scheduled on September 16, 2022 6:25 PM [Run Compliance Check](#)

EoX - End of Life ⓘ

Compliance last run on: Sep 16th, 2022, 01:20:45 PM

Module : **Compliant**

Software : **Compliant**

Hardware : **Compliant**

Startup vs Running Configuration ⓘ

Compliance last run on: Sep 16th, 2022, 01:20:44 PM

1 day
since out of sync

Lines added: **1**
Lines removed: **2**
Lines modified: **0**

Network Profiles ⓘ

Non-Compliant since Sep 16th, 2022, 03:08:31 PM
 Compliance last run on: Sep 16th, 2022, 01:20:46 PM

1
Open Violations

CLI Template: 1

Application Visibility ⓘ

Compliant since Sep 16th, 2022, 01:30:09 PM
 Compliance last run on: Sep 16th, 2022, 01:30:09 PM

0
Open Violations

Software Image ⓘ

Compliant since May 2nd, 2022, 03:53:28 PM
 Compliance last run on: Sep 16th, 2022, 01:20:44 PM

17.08.01
Golden Image Version

Running Version: **17.8.1**
 Stack Member Status: **Up to Date**

Critical Security Advisories ⓘ

Compliant since May 7th, 2022, 08:01:15 PM
 Compliance last run on: Sep 16th, 2022, 01:20:45 PM

0

Compliance Summary / Network Profiles

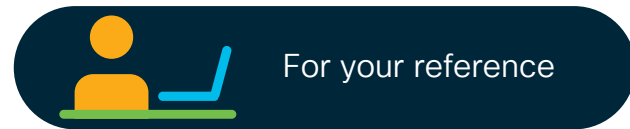
CLI Template (1) **Wireless (2)**

CLI Deviations		As of: Jun 9, 2022 6:40 PM	
<input type="text" value="Search Table"/>			
Template			
pnp1--config			

Realize Template: pnp1-config ⓘ	
1	# add the OBM management interface. L3
2	int gl
3	1 no switchport
4	#ip address 10.66.104.98 255.255.255.192
5	ip address 10.66.104.86 255.255.255.192
6	2
7	3 ip route 0.0.0.0 0.0.0.0 10.66.104.65

Native compliance based on DNA Center capabilities

Compliance: Network Profiles – Switches



Cisco DNA Center

All Devices / C9K-BRANCH-STACK

C9K-BRANCH-STACK [Run Commands](#) [View 360](#) Last updated: 3:01 PM

Reachable | Managed | IP Address: 10.85.54.54 | Device Model: Cisco Catalyst 9300 Switch | Role: ACCESS | Uptime: 122 days 23 hrs 9 mins | Site: Global/Canada/Ontario/Toronto/TBRANCH

DETAILS

- Interfaces
 - Ethernet Ports
 - Native VLANs
- Hardware & Software
- Configuration
- Power
- Fans
- SFP Modules
- User Defined Fields
- Config Drift
- Stack

SECURITY

- Advisories

Compliance Summary

No events detected to trigger compliance check [Run Compliance Check](#)

Startup vs Running Configuration ⓘ

Compliance last run on: Sep 2nd, 2022, 03:01:30 PM

4 mins since out of sync

Lines added: 0
Lines removed: 1
Lines modified: 0

Network Profiles ⓘ

Non-Compliant since Sep 2nd, 2022, 03:01:45 PM
Compliance last run on: Sep 2nd, 2022, 03:01:30 PM

1 Changes CLI Template: 1

Software Image ⓘ

Compliant since May 2nd, 2022, 03:53:28 PM
Compliance last run on: Sep 2nd, 2022, 03:01:30 PM

17.08.01 Golden Image Version Running Version: **17.8.1**

Critical Security Advisories ⓘ

Compliant since May 7th, 2022, 08:01:15 PM
Compliance last run on: Sep 2nd, 2022, 03:01:30 PM

0

Compliance: Network



For your reference

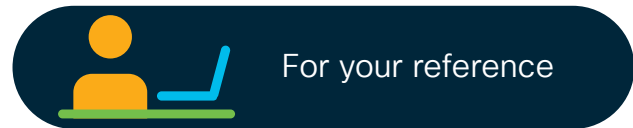
Config pushed by DNA Center via templates:

```
interface GigabitEthernet1/0/7
  description Description pushed by DNAC Template -- lan
!
interface GigabitEthernet1/0/8
  description Description pushed by DNAC Template -- lan
```

Out of band changes:

```
C9K-BRANCH-STACK#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
C9K-BRANCH-STACK(config)#int gig 1/0/8
C9K-BRANCH-STACK(config-if)#no description
```

Compliance: Network



Config pushed by DNA Center via templates:

```
interface GigabitEthernet1/0/7
  description Description pushed by DNAC Template -- lan
!
interface GigabitEthernet1/0/8
  description Description pushed by DNAC Template -- lan
```

Out of band changes:

```
C9K-BRANCH-STACK#conf t
Enter configuration comm
C9K-BRANCH-STACK(config)
C9K-BRANCH-STACK(config-
```

The screenshot shows the Cisco DNA Center interface for a device named C9K-BRANCH-STACK. The left sidebar lists various configuration sections: DETAILS, Interfaces, Ethernet Ports, Native VLANs, Hardware & Software, Configuration, Power, Fans, SFP Modules, User Defined Fields, Config Drift, and Stack. The main content area is titled 'Compliance Summary / Network Profiles' and shows 'CLI Template (1)'. Below this, there is a 'CLI Deviations' section with a search bar and a table of deviations. The table has columns for 'Template' and 'Records'. The 'Template' column shows 'PDESCRIPTION' and the 'Records' column shows '1 Records'. The table is filtered to show records 1 to 1. The 'Realize Template: PDESCRIPTION' section shows a table of CLI commands. The table has columns for 'Line', 'Text', and 'Command'. The 'Text' column shows 'late -- lan' and the 'Command' column shows 'description Description pushed by DNAC Temp'. The table is filtered to show records 1 to 1. A callout box highlights that the highlighted text in red in the table are the missing CLIs.

Line	Text	Command
2	late -- lan	description Description pushed by DNAC Temp
3	late -- lan	description Description pushed by DNAC Temp
4	late -- lan	description Description pushed by DNAC Temp
5	late -- lan	description Description pushed by DNAC Temp
6	late -- lan	description Description pushed by DNAC Temp
7	late -- lan	description Description pushed by DNAC Temp
8	late -- lan	alias exec showntp show nto status

Compliance: Network Profiles – Wireless

The screenshot displays the Cisco DNA Center interface for a specific device, STL01-C9800-CL.dlab.local. The interface is divided into a left sidebar and a main content area. The sidebar includes sections for DETAILS (Interfaces, Ethernet Ports, Virtual Ports, Hardware & Software, User Defined Fields, Config Drift, Wireless Info, Mobility), SECURITY (Advisories), and COMPLIANCE (Summary). The main content area shows a Compliance Summary for the selected device. A red box highlights the 'Network Profiles' card, which indicates a non-compliance status with 3 changes. Other cards show 'Startup vs Running Configuration' (1 hr out of sync), 'Application Visibility' (Compliant), 'Software Image' (Compliant), and 'Critical Security Advisories' (Compliant).

Cisco DNA Center

All Devices / STL01-C9800-CL.dlab.local

STL01-C9800-CL.dlab.local Run Commands View 360

Last updated: 11:16 AM Refresh

Reachable Managed IP Address: 172.16.255.35 Device Model: Cisco Catalyst 9800-CL Wireless Controller for Cloud Role: ACCESS Uptime: 22 hrs 56 mins Site: Global/Canada/Quebec/Saint-Lambert/STL01

DETAILS

- Interfaces
- Ethernet Ports
- Virtual Ports
- Hardware & Software
- User Defined Fields
- Config Drift
- Wireless Info
- Mobility

SECURITY

- Advisories

COMPLIANCE

- Summary

Compliance Summary

No events detected to trigger compliance check Run Compliance Check

Startup vs Running Configuration

Compliance last run on: Apr 2nd, 2022, 11:16:36 AM

1 hr since out of sync

Lines added: 2
Lines removed: 2
Lines modified: 0

Network Profiles

Non-Compliant since Feb 9th, 2022, 02:38:20 AM
Compliance last run on: Apr 2nd, 2022, 11:16:36 AM

3 Changes +1 more

Model Config: 1
Wireless: 1

Application Visibility

Compliant since Apr 2nd, 2022, 11:16:54 AM
Compliance last run on: Apr 2nd, 2022, 11:16:54 AM

0 Changes

Software Image

Compliant since Feb 3rd, 2022, 05:10:45 PM
Compliance last run on: Apr 2nd, 2022, 11:16:36 AM

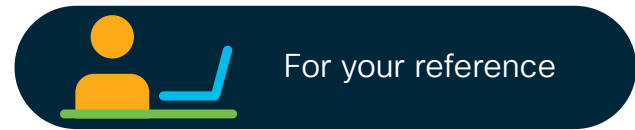
17.07.01 Running Version: 17.7.1
Golden Image Version

Critical Security Advisories

Compliant since Feb 8th, 2022, 07:00:11 PM
Compliance last run on: Apr 2nd, 2022, 11:16:36 AM

0

Compliance: Network Profiles – Wireless



Cisco DNA Center

All Devices / STL01-C9800-CL.dlab.local

STL01-C9800-CL.dlab.local [Run Commands](#) [View 360](#) Last updated: 11:16 AM [Refresh](#)

Reachable Managed IP Address: 172.16.255.35 Device Model: Cisco Catalyst 9800-CL Wireless Controller for Cloud Role: ACCESS Uptime: 22 hrs 56 mins Site: Global/Canada/Quebec/Saint-Lambert/STL01

DETAILS

- Interfaces
 - Ethernet Ports
 - Virtual Ports
 - Hardware & Software
 - User Defined Fields
 - Config Drift
 - Wireless Info
 - Mobility
- SECURITY
 - Advisories
- COMPLIANCE
 - Summary

Compliance Summary / Network Profiles

CLI Template (1) Model Config (1) Wireless (1)

CLI Deviations As of: Apr 2, 2022 11:18 AM

Search Table

Template

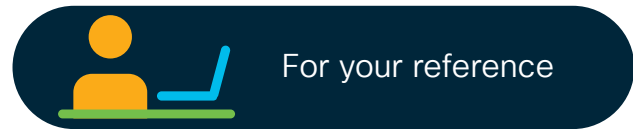
- Enabling SI

1 Records Show Records: 10 1 - 1

Realize Template: Enabling SI

1	1	ap dot11 24ghz SI
2		ap dot11 5ghz SI

Compliance: Network Profiles – Wireless



Cisco DNA Center

All Devices / STL01-C9800-CL.dlab.local

STL01-C9800-CL.dlab.local [Run Commands](#) [View 360](#) Last updated: 11:16 AM [Refresh](#)

Reachable Managed IP Address: 172.16.255.35 Device Model: Cisco Catalyst 9800-CL Wireless Controller for Cloud Role: ACCESS Uptime: 22 hrs 56 mins Site: Global/Canada/Quebec/Saint-Lambert/STL01

DETAILS

- Interfaces
 - Ethernet Ports
 - Virtual Ports
- Hardware & Software
- User Defined Fields
- Config Drift
- Wireless Info
- Mobility

SECURITY

- Advisories

COMPLIANCE

- Summary

[Compliance Summary](#) / [Network Profiles](#)

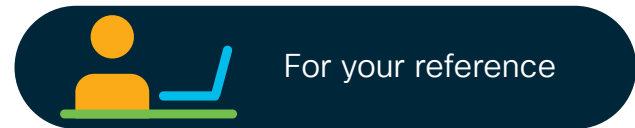
CLI Template (1) **Model Config (1)** Wireless (1)

Search Table

Model Name	Attribute	Status	Intended Value	Actual Value
Policy_Profile/BestCorpWi_Global_NF_e5f0c407	IPv4 DHCP Required	Changed	YES	NO

Showing 1 of 1

Compliance: Network Profiles – Wireless



☰

Cisco DNA Center

🔍

🔄

🔗

🔔

All Devices / STL01-C9800-CL.dlab.local

🖨️ STL01-C9800-CL.dlab.local

📄 Run Commands

👁️ View 360

Last updated: 11:16 AM

🔄 Refresh

🟢 Reachable | 🟢 Managed | IP Address: 172.16.255.35 | Device Model: Cisco Catalyst 9800-CL Wireless Controller for Cloud | Role: ACCESS | Uptime: 22 hrs 56 mins | Site: Global/Canada/Quebec/Saint-Lambert/STL01

DETAILS

Interfaces

▼

Ethernet Ports

Virtual Ports

Hardware & Software

User Defined Fields

Config Drift

Wireless Info

Mobility

SECURITY

Advisories

COMPLIANCE

Summary

Compliance Summary / Network Profiles

CLI Template (1)

Model Config (1)

Wireless (1)

🔍 Search Table

🏠

Model Name <div>▲</div>	Attribute	Status <div>🔗</div>	Intended Value <div>🔗</div>	Actual Value <div>🔗</div>
Wlan/BestCorpWi_Global_NF_e5f0c407	FT Adaptive	Changed	Adaptive	Disabled

Showing 1 of 1

CISCO *Live!*

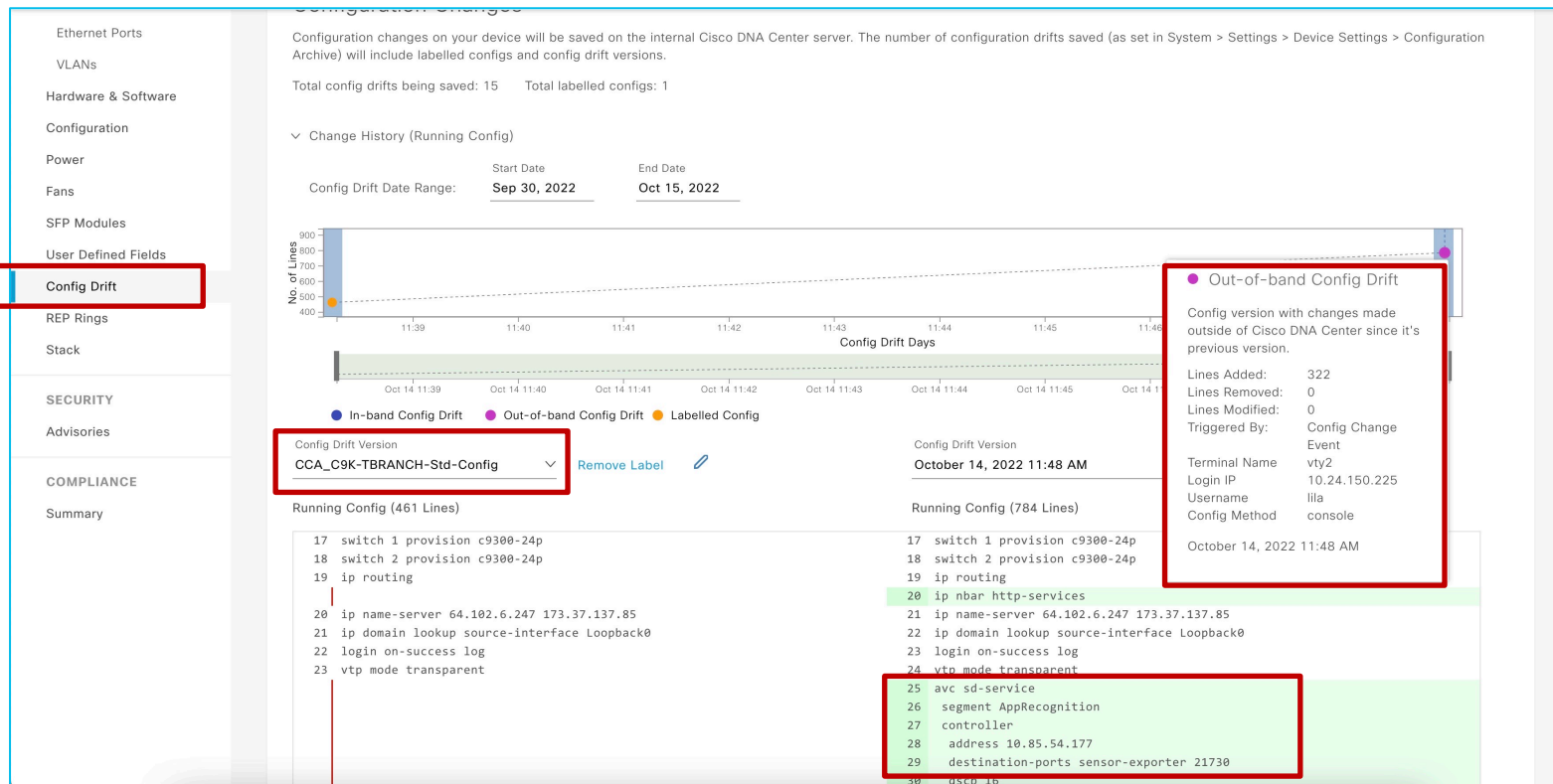
#CiscoLiveAPJC

BRKOPS-2077

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

77

Config Drift



#4 Reports

Cisco Prime Infrastructure

Reports / Reports / Report Launch Pad		
Autonomous AP	Report Launch Pad	
Autonomous AP Memory and C...	Autonomous AP	---
Autonomous AP Memory and C...	Autonomous AP Memory and CPU Utilization	New
Autonomous AP To Power and...	Autonomous AP Summary	New
Autonomous AP To Power and...	Autonomous AP Tx Power and Channel	New
Autonomous AP Uptime	Autonomous AP Uptime	New
Autonomous AP Utilization	Autonomous AP Utilization	New
Busiest Autonomous APs	Busiest Autonomous APs	New
CleanAir	CleanAir	---
Client	Air Quality vs Time	New
Compliance	Security Risk Interviews	New
Composite	Worst Air Quality APs	New
Device	Worst Interferences	New
Fault	Client	---
Guest	Busiest Clients	New
Mesh	CCX Client Statistics	New
Network Summary	Client Count	New
Performance	Client Sessions	New
Raw NetFlow	Client Summary	New
Security	Client Traffic	New
System Monitoring	Client Traffic Stream Metrics	New
	Dormant Clients	New
	Mobility Client Summary	New
	Posture Status Count	New
	Throughput	New
	Unique Clients	New
	Unique Clients and Users Summary	New
	Compliance	---
	Change Audit	New
	Network Discrepancy	New
	PCI DSS Detailed	New
	PCI DSS Summary	New
	Guest	---
	Guest Accounts Status	New
	Guest Association	New
	Guest Count	New
	Guest Operations	New
	Guest User Sessions	New
	Mesh	---
	Alternate Pervent	New
	Link Stats	New
	Nodes	New
	Packet Stats	New
	Stranded APs	New
	Worst Node Hops	New
	Network Summary	---
	802.11n Summary	New
	Preferred Cals	New
	Wireless Network Executive Summary	New
	Performance	---
	802.11 Counters	New
	AP RF Quality	New
	AP RF Quality History	New
	Application Summary	New
	Conversations	New
	Coverage Hole	New
	End User Summary	New
	Environmental Temperature	New
	Interface Errors and Discards	New
	Interface Summary	New
	Network Air-Time Fairness Statistics	New
	Site Summary	New
	Threshold Violation	New

Cisco DNA Center

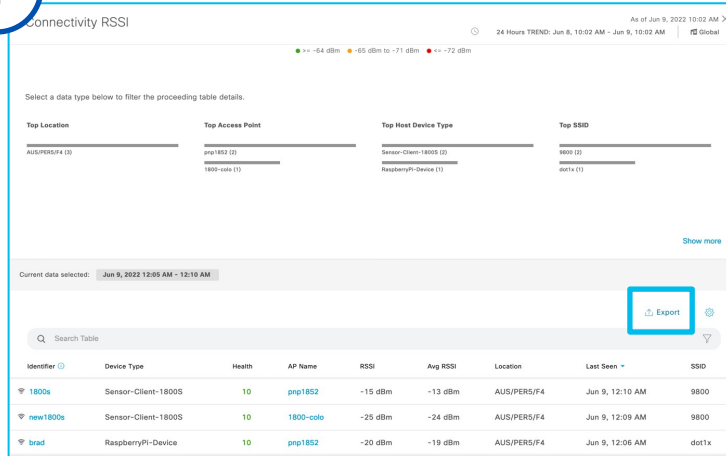
Generated Reports	Report Templates	Usage Insights
All		
AI Endpoint Analytics		
Access Point		
Client		
Compliance		
Configuration Archive		
EoX		
Executive Summary		
Group Communication Summary		
Group Communication Analytics		
Inventory		
Licensing		
Network Devices		
Rogue and aWIPS		
SWIM		
Security Advisories		
Telemetry		
	Licensing AireOS Controllers Licenses	Inventory All Data
	Provides license information about AireOS controllers	The all data view provides detailed information about network devices, network devices, Distribution of devices over time, Device Count
	Generate	Generate
	Access Point AP Performance Report	Access Point AP Radio
	This cloud-generated report contains a detailed list of Key Performance Indicators from Access Points in the network	This report contains a detailed list of Access Point Radio in the network
	Generate	Generate
	Client Busiest Client	Client Busiest Client
	This client report view provides visibility into the channel changes observed on Access Point Radio	This client report view provides visibility into the channel changes observed on Access Point Radio
	Generate	Generate
	Network Devices Channel Change Count	Client Client Detail
	This report provides visibility into the channel changes observed on Access Point Radio	This client report view provides detailed information about the list of clients that are seen in the network
	Generate	Generate
	Client Client Session	Client Client Summary
	This client session report view provides detailed information about the wireless client sessions seen in the network	This client report view provides an executive summary that health and counts of clients that are seen in the network
	Generate	Generate
	Client Client Trend	Configuration Archive Configuration Archive
	This client report view provides client count trend and client traffic counts of clients that are seen in the network	This report contains Device Name, Device Family, Device Type, IP Address, Created Time, Triggered By, Category, Device User Name
	Generate	Generate
	Telemetry Device Lifecycle Information	
	This device lifecycle information report provides detailed information about Hardware End-of-life warnings, Software	
	Generate	Generate

More reports in Cisco Prime than DNA Center but...

- **What** data is used?
- **How** is data used?
- Is a report really needed or is it really a **dashboard**?

#4 - Reports - Other places to get data...

1



2

The screenshot shows the 'API Endpoints' page. It has three main sections: 'Applications', 'Clients', and 'Compliance'. Each section contains a table of API endpoints with columns: Method, Name, Description, URL, and Actions.

Method	Name	Description	URL	Actions
GET	Applications ^{HTTP}	Intent API to get a list of applications for a specific site, a device, or a client device's MAC address. For a combination of a specific application with...	/application-health	---

Method	Name	Description	URL	Actions
GET	Get Overall Client Health ^{HTTP}	Returns Overall Client Health information by Client type (Wired and Wireless) for any given point of time	/client-health	---
GET	Client Proximity ^{HTTP}	This Intent API will provide client proximity information for a specific wireless user. Proximity is defined as presence on the same floor at the same time as...	/client-proximity	---
GET	Get Client Enrichment Details ^{HTTP}	Enriches a given network End User context (a network user-id or end user's device Mac Address) with details about the user, the devices that the user is...	/client-enrichment-details	---
GET	Get Client Detail ^{HTTP}	Returns detailed Client information retrieved by Mac Address for any given point of time.	/client-detail	---

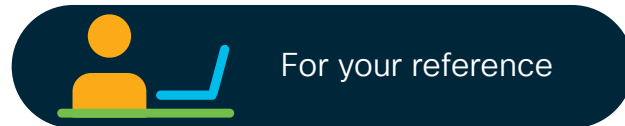
Method	Name	Description	URL	Actions
GET	Get Compliance Detail Count ^{HTTP}	Return Compliance Count Detail	/compliance/detail/count	---
GET	Compliance Details of Device ^{HTTP}	Return compliance detailed report for a device.	/compliance/\${deviceUuid}/detail	---
GET	Device Compliance Status ^{HTTP}	Return compliance status of a device.	/compliance/\${deviceUuid}	---

Most Dashlets in assurance can be downloaded

Use API directly to get some data

#4 Reports

Prime Parity related reports added to DNA Center



*Examples ... not an exhaustive list
Highlighted reports in 2.3.5.x*

-  Network Compliance Report
-  EoX Data Report
-  Port Reclaim report
-  Worst Interferers Report
-  AP Detail Report
-  AP Report (Traffic and Client Breakdown)
-  Busiest Clients Report
-  Client Detail Report
-  Client Sessions Report
-  Client Trend Report

-  Detailed VLAN Report
-  Device CPU and Memory Utilization Report
-  Executive Summary Report
-  Network Devices Availability Report
-  PoE and Power Budget Report
-  Port Capacity Report - Network Interface utilization Report
-  Reports - 12-month data retention
-  Rogue reporting
-  Schedule Reports as email attachment
-  Channel Change Count Report
-  Transmit Power Change Count Report

Custom Reports DNAC 2.3.5.x

Cisco DNA Center Flexible Report

Name Your Report and Select a Time Range

Let's give your report a meaningful name and target time range.

Report Name*
Flexible Report - Dec 07 2022 at 07:40

TIME RANGE

- ☐ Last 3 Hours
- ☐ Last 24 Hours
- ☐ Last 7 Days
- ☒ Last 30 Days
- ☐ Custom

Create a Subreport

Compose the content of this report one subreport at a time. Start by giving the subreport a name and selecting a report type. Click on the info icon to learn more about the difference between report types.

Subreport Name*
Sub report 1

Select an entity

- AP
- Client**
- Network Device

Create a Subreport

Compose the content of this report one subreport at a time. Start by giving the subreport a name and selecting a report type. Click on the info icon to learn more about the difference between report types.

Subreport Name*
Sub report 1

Select an entity
Client

Client entity data available for past 360 days.

Report Type ⓘ

- ☐ Trend
- ☐ Summary
- ☒ **Top N**
- ☐ Distribution

Top N*
▼

Attributes available for this report type (43)

#5 Accessing Client Information

1

Trend: Shows all clients for the window: 24h/7d
Export: dump all fields, all data in csv
Fields: Add additional information

2

Client Devices (4)

LATEST TREND

TYPE Wireless Wired OVERALL HEALTH All Poor Fair Good Inactive No Data ⓘ

DATA Onboarding Time >= 10s Association >= 5s DHCP >= 5s Authentication >= 5s RSSI <= -72 dBm SNR <= 9 dB

0 Selected Actions ▾

☐	Identifier ⓘ	IPv4 Address	Device Type	Health	Tracked	Usage	AP Name	Band	RSSI	Location	Last Seen ▾	Capability ⓘ
☐	📶 brad	192.168.200.216	RaspberryPi-Device	10	No	3.98 kB	pnp1852	5 GHz	-18 dBm	AUS/PER5/F4	Nov 22, 10:25 AM	11ac
☐	📶 new1800s	192.168.200.211	Sensor-Client-1800S	10	No	--	pnp1852	5 GHz	-24 dBm	AUS/PER5/F4	Nov 22, 10:24 AM	11ac
☐	📶 1800s	192.168.200.210	Sensor-Client-1800S	10	No	7.78 kB	pnp3802	5 GHz	-26 dBm	AUS/PER5/F4	Nov 22, 10:23 AM	11ac
☐	📶 pi3	192.168.200.214	Linux-Workstation	10	No	2.74 kB	pnp3802	2.4 GHz	-17 dBm	AUS/PER5/F4	Nov 22, 10:23 AM	11ac

4 Records

Show Records: 10 ▾ 1 - 4 < ⓘ >

Extra client fields

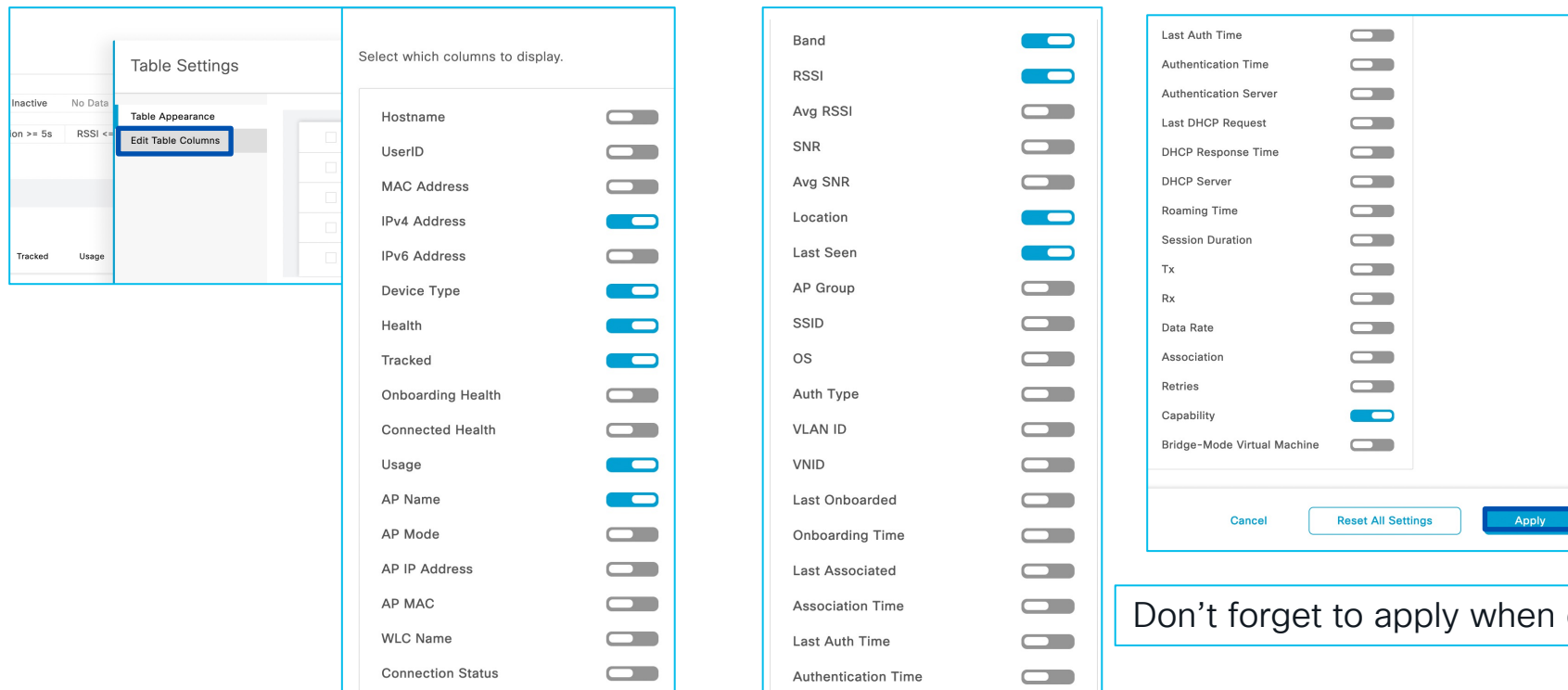


Table Settings

Table Appearance

Edit Table Columns

Select which columns to display.

Hostname	☐
UserID	☐
MAC Address	☐
IPv4 Address	☒
IPv6 Address	☐
Device Type	☒
Health	☒
Tracked	☒
Onboarding Health	☐
Connected Health	☐
Usage	☒
AP Name	☒
AP Mode	☐
AP IP Address	☐
AP MAC	☐
WLC Name	☐
Connection Status	☐

Band	☒
RSSI	☒
Avg RSSI	☐
SNR	☐
Avg SNR	☐
Location	☒
Last Seen	☒
AP Group	☐
SSID	☐
OS	☐
Auth Type	☐
VLAN ID	☐
VNID	☐
Last Onboarded	☐
Onboarding Time	☐
Last Associated	☐
Association Time	☐
Last Auth Time	☐
Authentication Time	☐

Last Auth Time	☐
Authentication Time	☐
Authentication Server	☐
Last DHCP Request	☐
DHCP Response Time	☐
DHCP Server	☐
Roaming Time	☐
Session Duration	☐
Tx	☐
Rx	☐
Data Rate	☐
Association	☐
Retries	☐
Capability	☒
Bridge-Mode Virtual Machine	☐

Cancel Reset All Settings Apply

Don't forget to apply when changing

#6 Network settings and credentials

The screenshot shows the Cisco DNA Center interface. The top navigation bar includes the Cisco logo, 'DNA Center', and the path 'Design / Network Settings'. Below this is a tabbed interface with 'Network' selected. The left sidebar shows a hierarchy starting with 'Global' and 'AUS'. The main content area has a heading 'Configure AAA, NTP, and Image Distribution (SFTP) servers using the "Add Servers" link. Once devices are discovered, Cisco DNA Center will deploy using these settings.' and an 'Add Servers' button. An 'Add Servers' modal is open in the foreground, showing options to add AAA, Image Distribution, NTP, and Stealthwatch Flow Destination servers. The 'Add Servers' modal has a title bar with a close button (X). It contains four checkboxes: 'AAA' (checked), 'Image Distribution' (unchecked), 'NTP' (checked), and 'Stealthwatch Flow Destination' (unchecked). At the bottom of the modal are 'Cancel' and 'OK' buttons.

Network Settings

Configure AAA, NTP, and Image Distribution (SFTP) servers using the "Add Servers" link. Once devices are discovered, Cisco DNA Center will deploy using these settings.

Add Servers

- ☒ AAA
- ☐ Image Distribution
- ☒ NTP
- ☐ Stealthwatch Flow Destination

Cancel OK

Device AAA and Site AAA interaction

Device has AAA configured		Site has AAA defined		Provisioning Workflow Success	
					
					
					
					

Note: If just client/device AAA, then all will work.
Network AAA is the issue – due to lockout concerns (NAD entry in ISE)

#7 DNAC + PI telemetry in 9800 WLC

128 streams

PI

30 streams

DNAC

80 streams

Telemetry streams supported:

- 100 streams < 17.6, **128 streams in 17.6+**

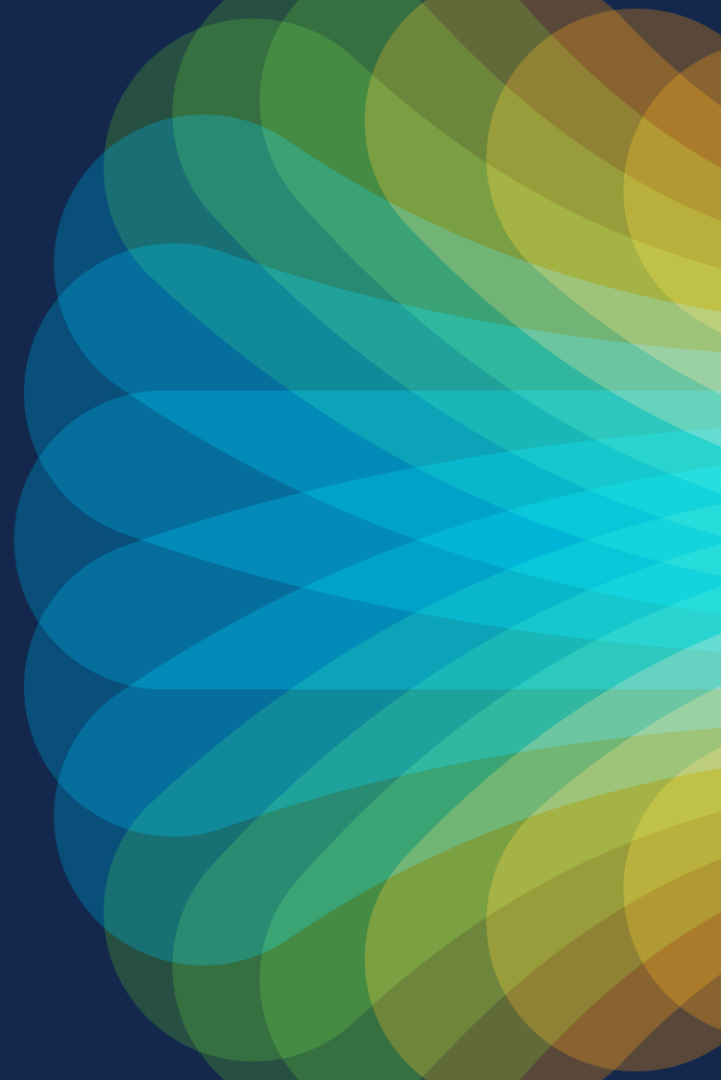
```
WLC#term shell
WLC#function remove_pi() {
for id in `sh run | grep 'telemetry ietf' | grep '[0-9][0-9][0-9][0-9]' | cut -f4 -d' '`
do
conf t
no telemetry ietf subscription $id
exit
done
}
WLC#remove_pi
```

Removes all PI streams. DNAC subscriptions have 4 digits

<https://www.cisco.com/c/en/us/products/collateral/wireless/catalyst-9800-series-wireless-controllers/guide-c07-743627.htm>

<https://www.cisco.com/c/en/us/support/docs/wireless/catalyst-9800-series-wireless-controllers/214286-managing-catalyst-9800-wireless-controll.html>

Deployment Options



Cisco DNA Center Form Factors



Deployment models

Catalyst Center physical
Appliance

Capex

Cisco
hardware

3 x sizes

Catalyst Center VA Cloud Hosted

Opex

Public
cloud

1 x size

Catalyst Center VA On premise

Capex

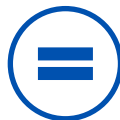
Customer
hardware

1 x size

Catalyst Center Virtual Appliance is a \$0 PID

Features, scale, device support

DN2-HW-APL
(44 core appliance)



Automation
Assurance
SD-Access
Integrations
25K End points
5K Devices

Cloud
virtual appliance



On prem
virtual appliance



Virtual Appliance specifications

VA Form Factor	Specifications	Scale
Catalyst Center Virtual Appliance on AWS	<ul style="list-style-type: none">• Type: AMI• CPU: 32vCPU• Mem: 256GB• Storage: 4TB• Storage Bandwidth: 180Mbps (bi-directional max)• IOPS: 2000-2500• Instance Type: r5a.8xlarge	<ul style="list-style-type: none">• 25K End-points• 1K Devices• 4K APs• 2500 site elements
Catalyst Center Virtual Appliance On premise	<ul style="list-style-type: none">• Type: OVA• CPU: 32vCPU• Mem: 256GB• Storage: 3TB• Storage Bandwidth: 180Mbps (bi-directional max)• IOPS: 2000-2500• vCenter and ESXi: 7.0.x or later	<ul style="list-style-type: none">• 25K End-points• 1K Devices• 4K APs• 2500 site elements

Cisco Catalyst Center Virtual Appliance



Attractive for Prime to Catalyst Center migration



Operational flexibility and choice



Quicker time to value



No cluster deployment option: High availability using AWS and ESXi features



Did you know?

You can have a
one-on-one session with
a technical expert!

Visit Meet the Expert in The HUB
to meet, greet, whiteboard & gain
insights about your unique questions
with the best of the best.



Meet the Expert Opening Hours:

Tuesday	3:00pm – 7:00pm
Wednesday	11:15am – 7:00pm
Thursday	9:30am – 4:00pm
Friday	10:30am – 1:30pm

Session Surveys

We would love to know your feedback on this session!

- Complete a minimum of four session surveys and the overall event surveys to claim a Cisco Live T-Shirt



Continue your education



- Visit the Cisco Showcase for related demos
- Book your one-on-one Meet the Expert meeting
- Attend the interactive education with DevNet, Capture the Flag, and Walk-in Labs
- Visit the On-Demand Library for more sessions at www.CiscoLive.com/on-demand



The bridge to possible

Thank you

CISCO *Live!*

#CiscoLiveAPJC

The background is a vibrant, abstract graphic. On the left, there are horizontal, wavy bands of color in shades of red, orange, yellow, and green. On the right, a bright white light source emits a series of colorful rays in shades of blue, green, and yellow, creating a sunburst effect.

cisco *Live!*

Let's go

#CiscoLiveAPJC