



The bridge to possible

Strategie a nástroje pro správu podnikových sítí

Úterý 31. 10. 2023

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Dominik Soukup, Solution Engineer

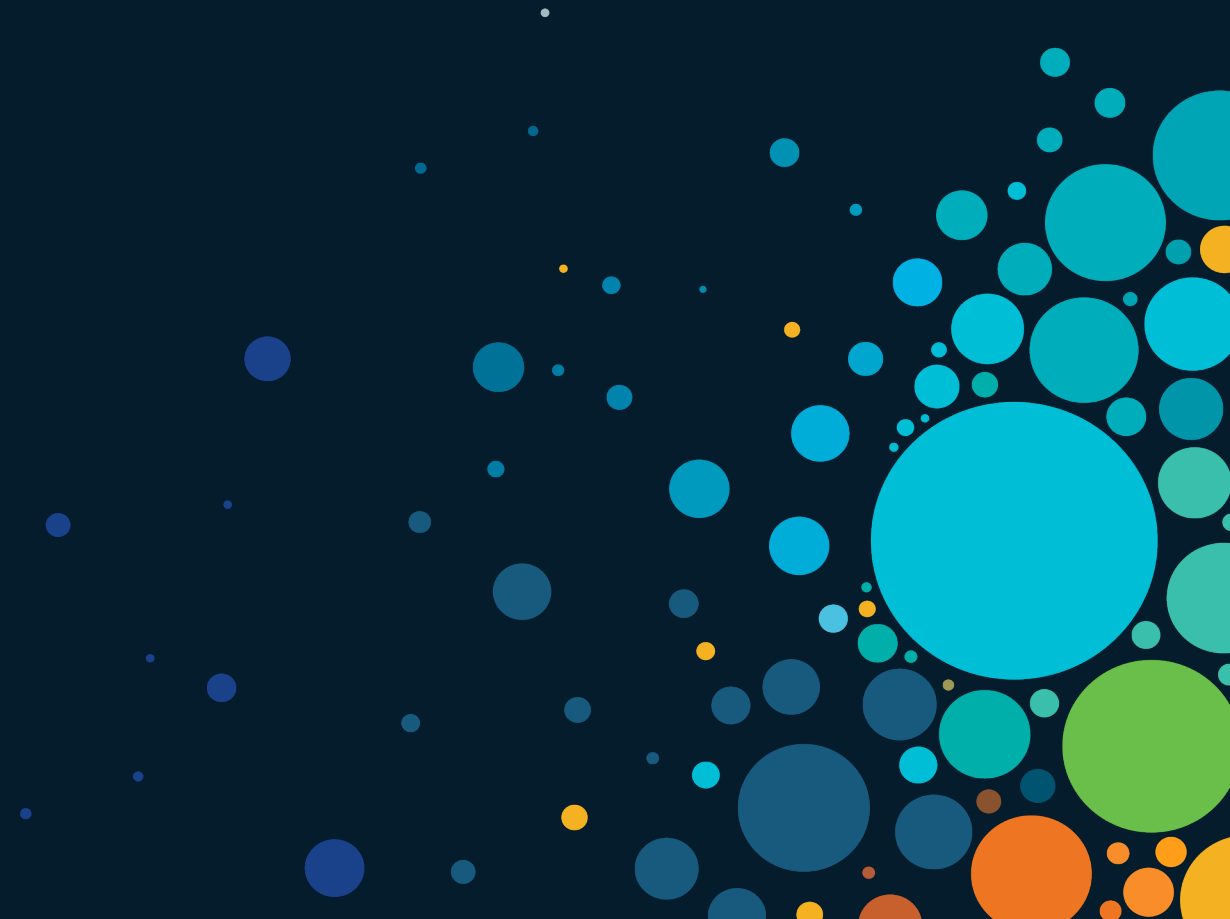


#CiscoEngage

Agenda

- Úvod
- Návrh sítě
- Připojení zařízení a jejich konfigurace
- Kontrola souladu s nastavenými politikami
- Dohled sítě
- Migrace ze stávajících řešení

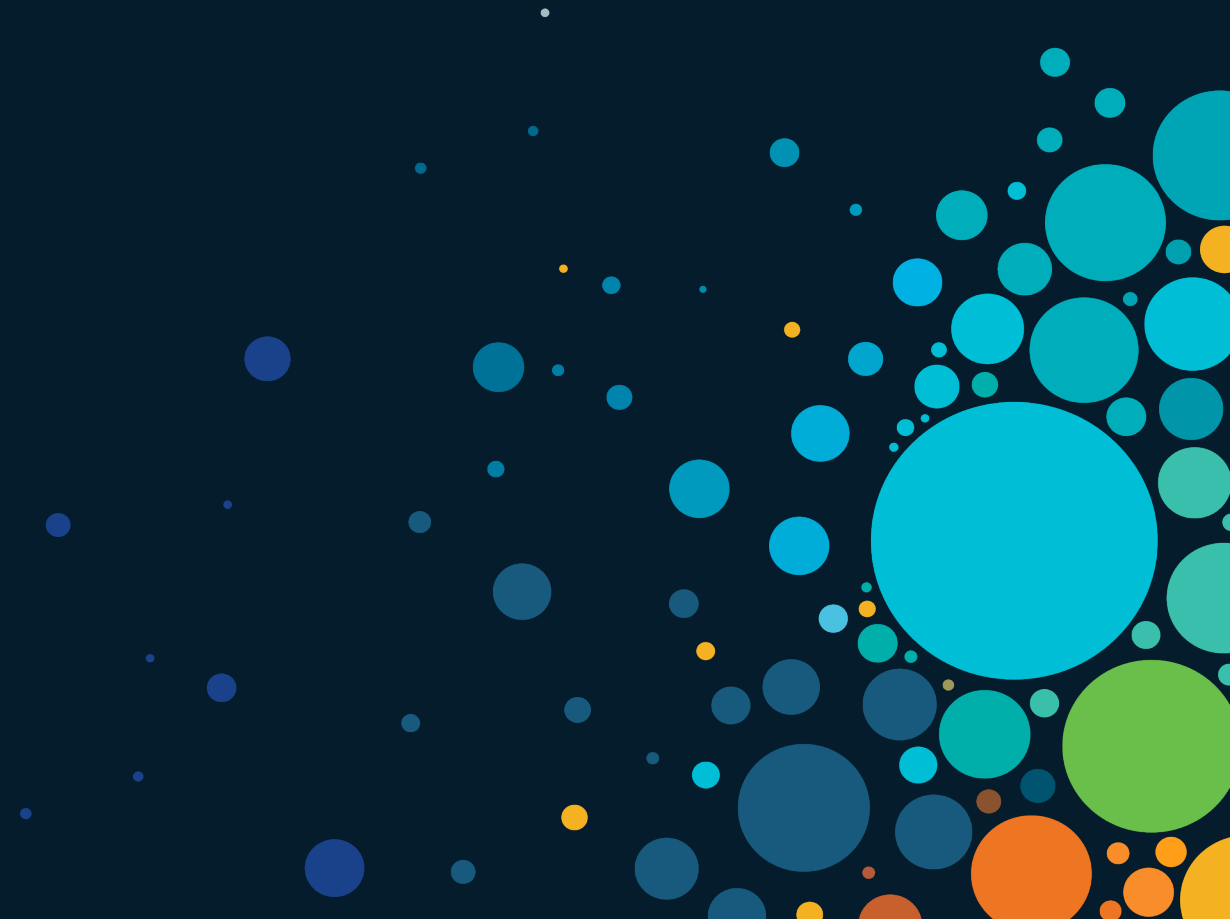
Úvod



Jaké kroky je potřeba řešit v průběhu životního cyklu sítě

- Návrh sítě
 - Volba zařízení, topologie, lokality, přístup (tradiční, SDN, ...), segmentace, ...
- Připojení zařízení do sítě a jejich konfigurace
 - Onboarding a inicialní konfigurace, konfigurace funkcí, ...
- Kontrola souladu s nastavenými politikami
 - Konfigurace, softwarové verze, zranitelnosti, ...
- Dohled existující sítě
 - Monitorování sítě a provozu v ní, analýza a řešení problémový stavů, běžná správa a údržba sítě
- Kontinuální rozvoj

Návrh sítě

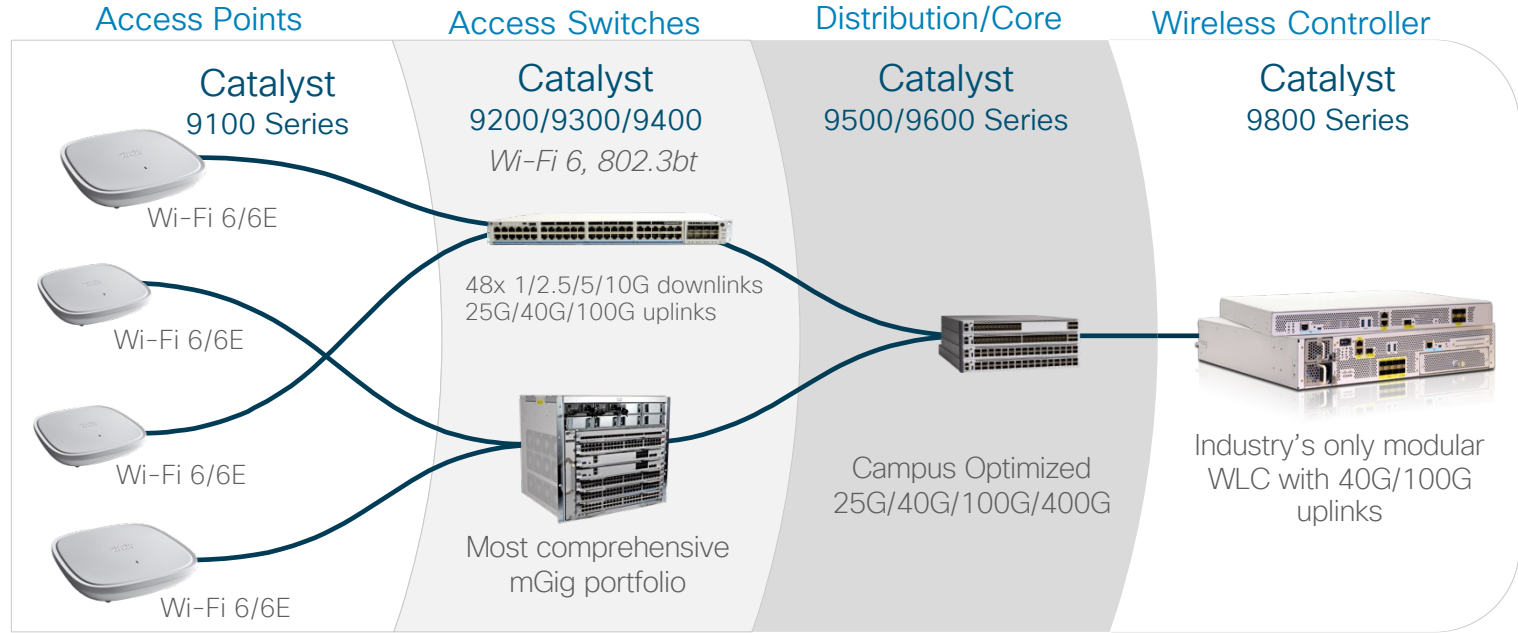
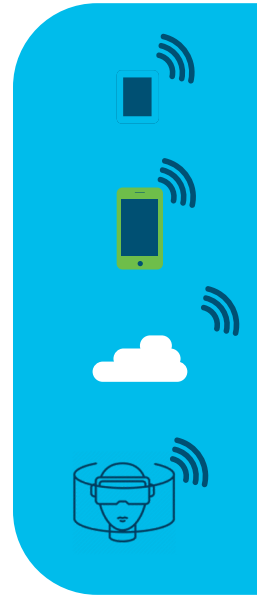


Platformy



Cisco Catalyst Access Network

Best Access Experience for IT and IoT



← Fully Integrated End to End →

Built for intent-based networking



Automation



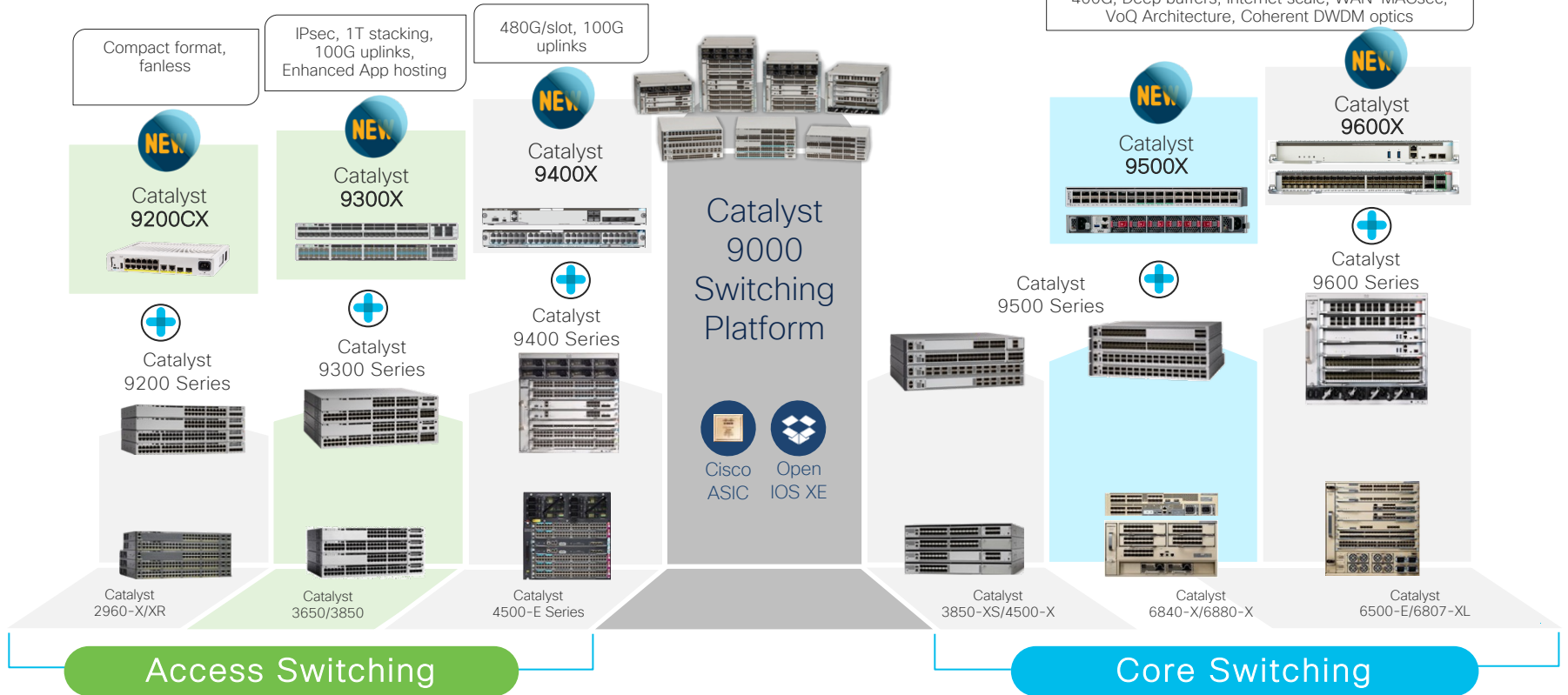
Security



Analytics

Catalyst 9000 – Expanding Industry Leadership

Adding The 'X' Factor to the Industry's Leading Switching Family



Catalyst Wireless - Fully Refreshed Portfolio



Technologie



Ethernet Roadmap

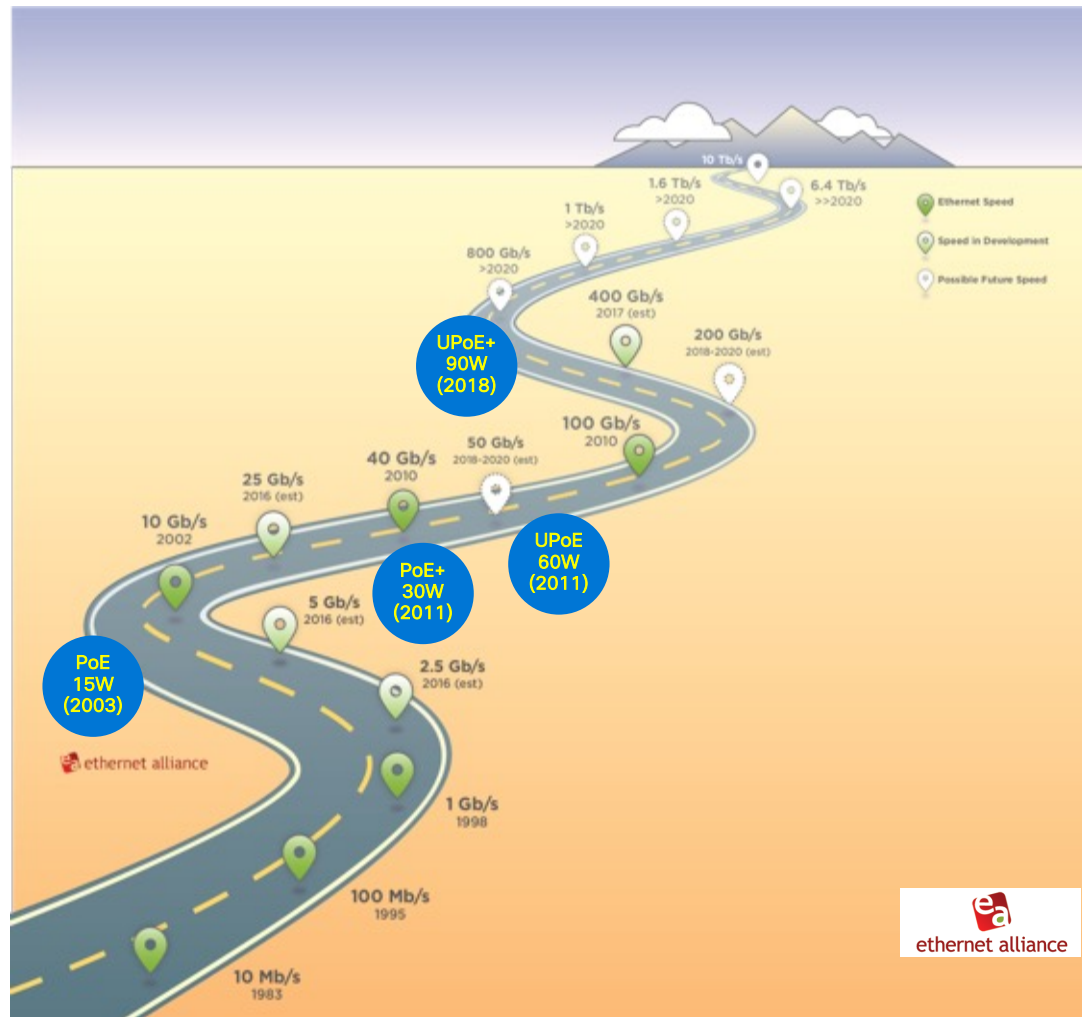
Vývoj směrem k vyšším rychlostem:

25Gb/s, 50Gb/s, 200Gb/s, 400Gb/s
2.5Gb/s & 5Gb/s pro wireless

Nejenom data, ale i napájení:

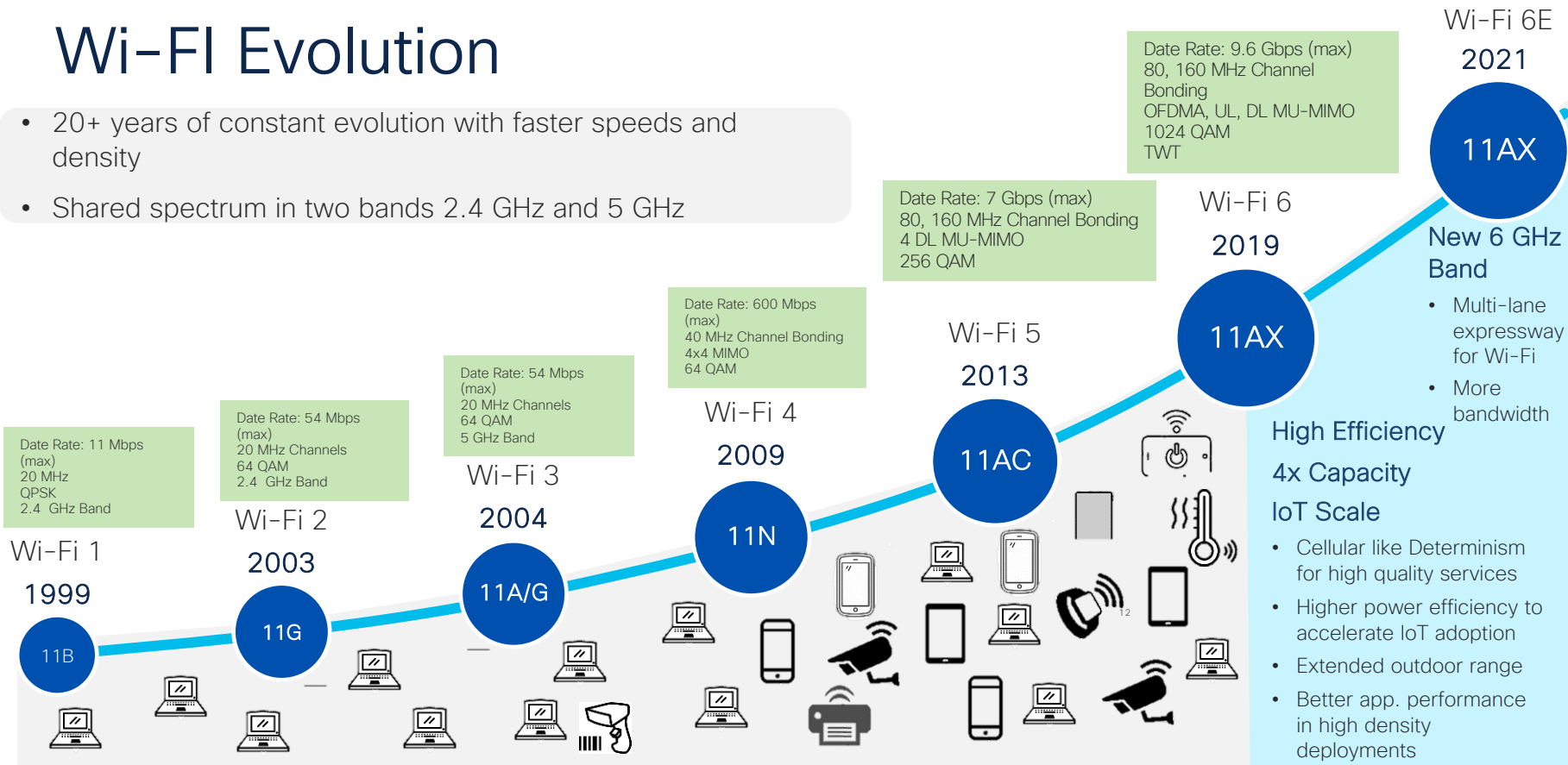
PoE (15W), PoE+ (30W), UPoE (60W), UPoE+ (90W)

Standardizováno v IEEE 802.3bt



Wi-Fi Evolution

- 20+ years of constant evolution with faster speeds and density
- Shared spectrum in two bands 2.4 GHz and 5 GHz

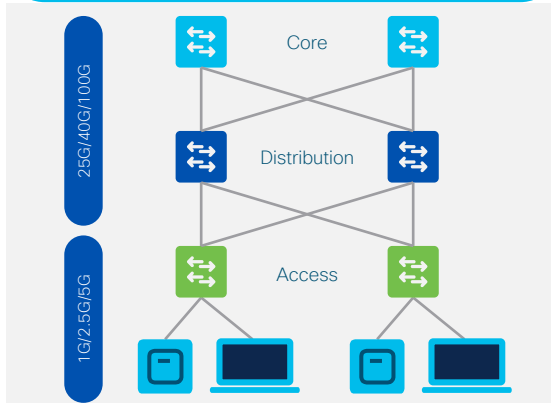


Nasazení

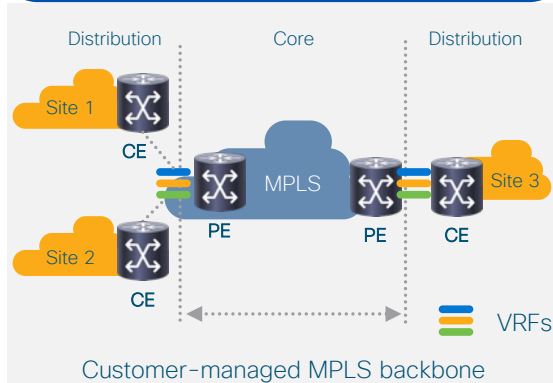


Catalyst 9000 – flexibilita nasazení (wired)

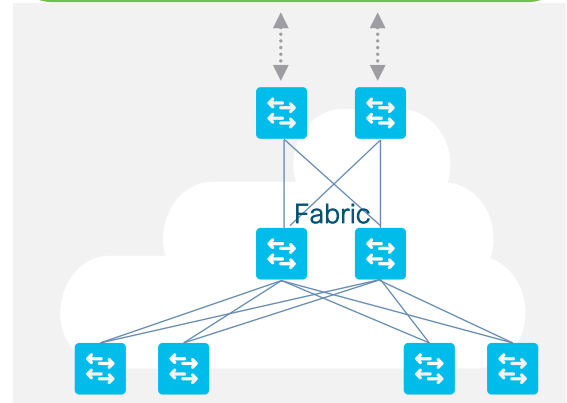
Klasický vícevrstevný model



Layer 3 Core, MPLS, VPLS



Fabric: SDA, BGP-EVPN



Cisco řešení “na klíč”



- SD-Access
- Cisco DNA Assurance
- Cisco DNA Service for Bonjour
- Cisco DNA Application Visibility Service
- Encrypted Traffic Analytics



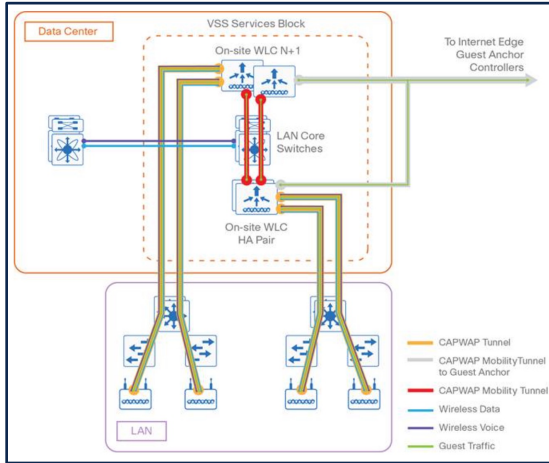
Do-It-Yourself (DIY) řešení

- BGP-EVPN
- MPLS/VPLS
- Tradiční 2/3-vrstvé topologie
- Programabilita – YANG modely s Netconf, Restconf, gNMI API

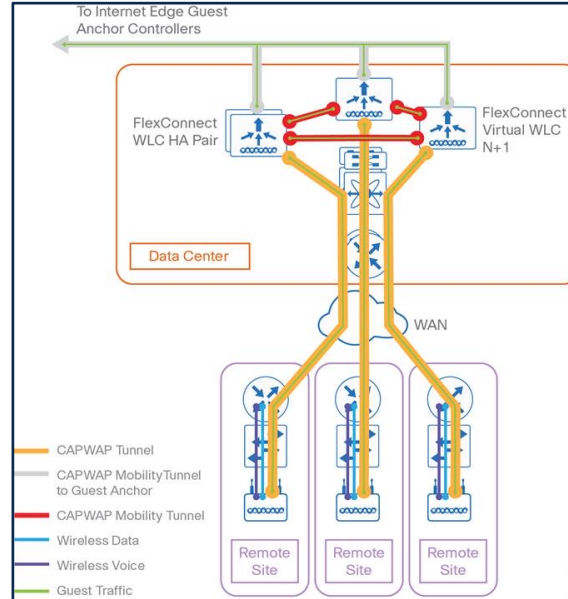
One platform. Any place. Any speed (10Mbps to 400Gbps)

Catalyst 9000 – flexibilita nasazení (wireless)

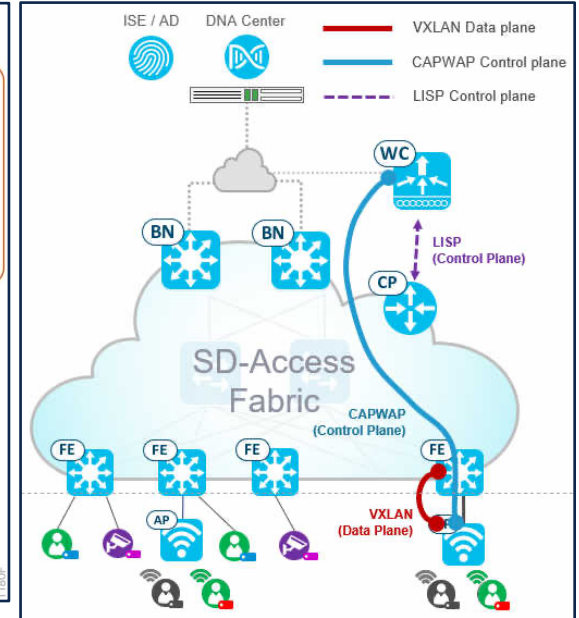
Centralizovaný local mode



Flexconnect mode



Fabric Enabled Wireless



Připojení zařízení a jejich konfigurace

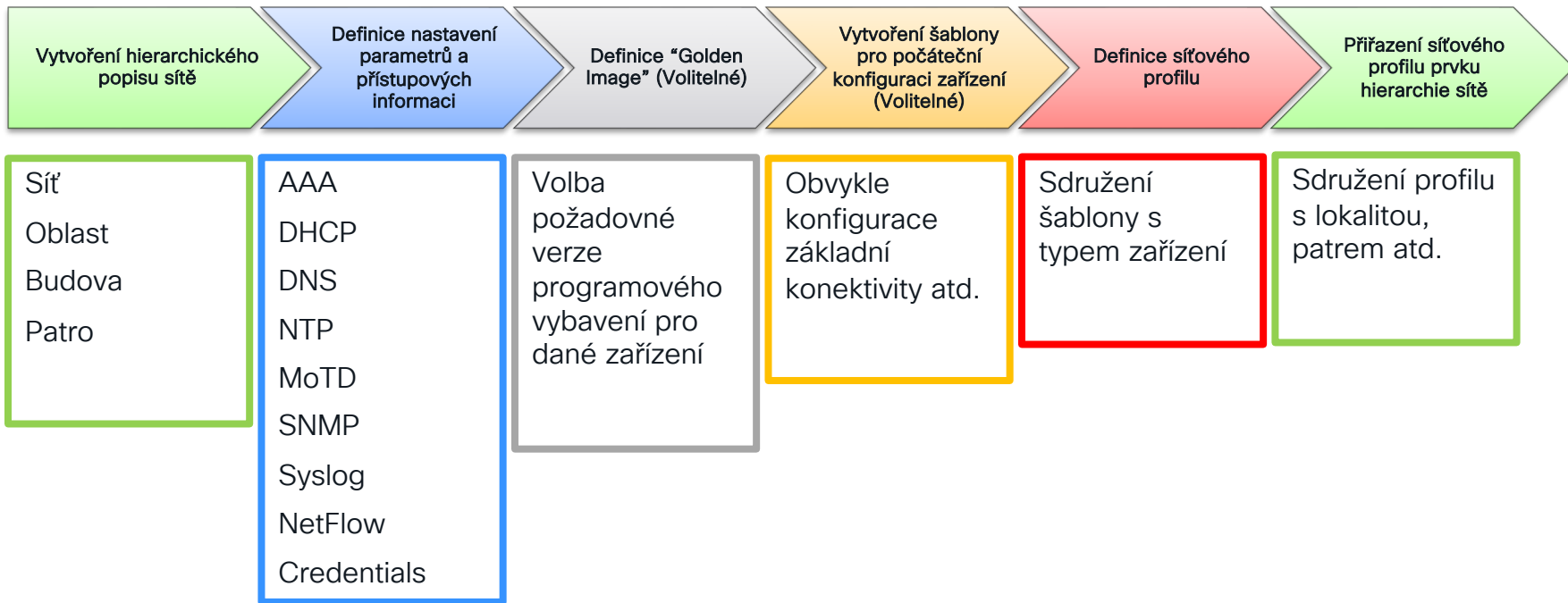
Onboarding zařízení do sítě



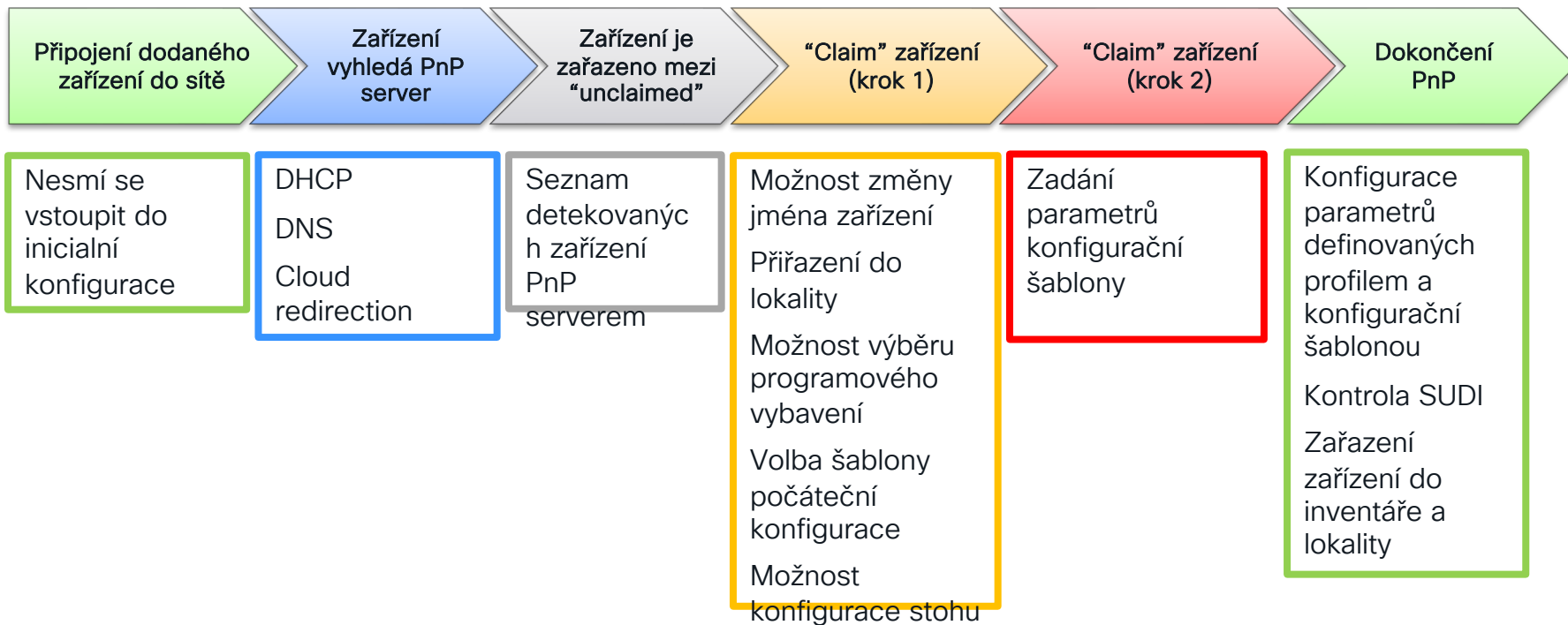
Onboarding zařízení do sítě

- Tradiční přístup
 - Náklady na dopravu, cestování, vyžaduje kvalifikovanou pracovní sílu na vzdálených lokalitách
 - Vyšší pravděpodobnost vzniku chyb, bezpečnostních problémů atd.
- Plug-and-play
 - Automatizovaný přístup
 - Úspora nákladů, vyšší bezpečnost, nižší pravděpodobnost chyb, ...
 - Online, offline

Onboarding zařízení - design workflow

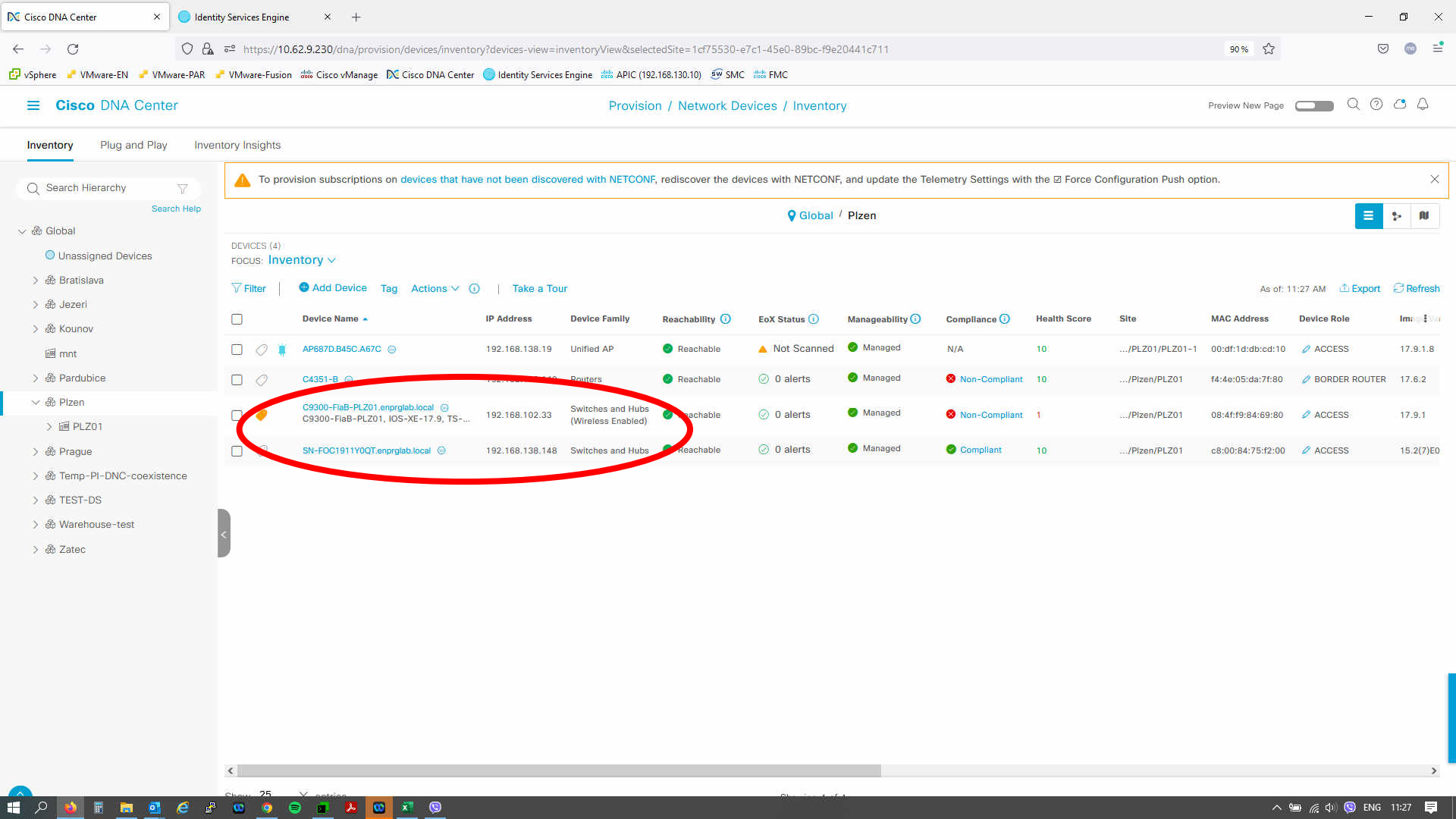


Onboarding zařízení - provision workflow



Onboarding zařízení do sítě – příklad využití DNA center





Warning: To provision subscriptions on devices that have not been discovered with NETCONF, rediscover the devices with NETCONF, and update the Telemetry Settings with the Force Configuration Push option.

Global / Pizen

DEVICES (4)
FOCUS: Inventory

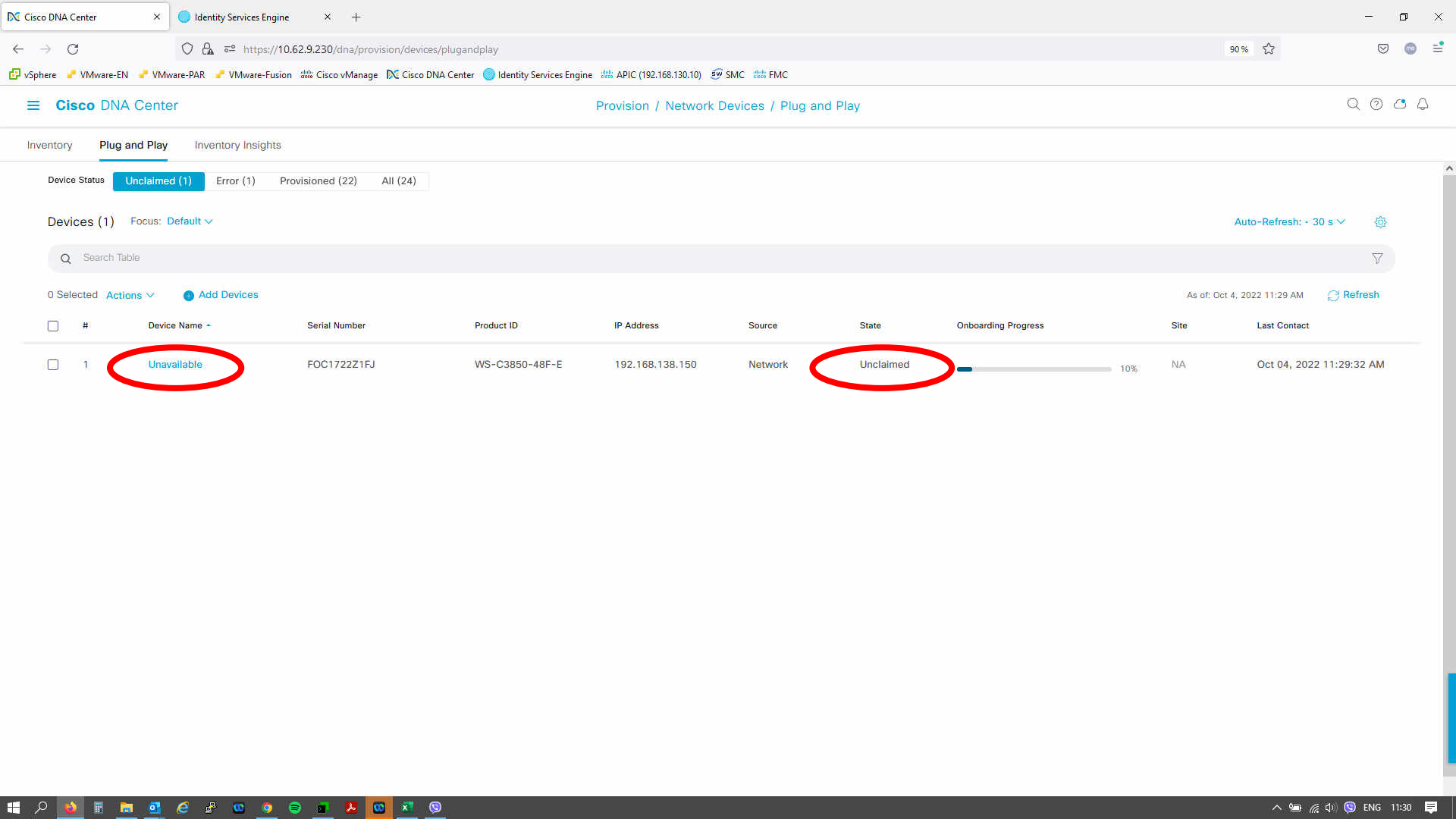
Device Name	IP Address	Device Family	Reachability	EoX Status	Manageability	Compliance	Health Score	Site	MAC Address	Device Role	Image
AP687D.B45C.A67C	192.168.138.19	Unified AP	Reachable	Not Scanned	Managed	N/A	10	.../PLZ01/PLZ01-1	00:df:1d:db:cd:10	ACCESS	17.9.1.8
C4351-B	192.168.138.148	Switches and Hubs (Wireless Enabled)	Reachable	0 alerts	Managed	Non-Compliant	10	.../Pizen/PLZ01	14:4e:05:da:7f:80	BORDER ROUTER	17.6.2
C9300-FiaB-PLZ01.enprglab.local C9300-FiaB-PLZ01, IOS-XE-17.9, TS-...	192.168.102.33	Switches and Hubs (Wireless Enabled)	Reachable	0 alerts	Managed	Non-Compliant	1	.../Pizen/PLZ01	08:4f:f9:84:69:80	ACCESS	17.9.1
SN-FOC1911Y0QT.enprglab.local	192.168.138.148	Switches and Hubs	Reachable	0 alerts	Managed	Compliant	10	.../Pizen/PLZ01	c8:00:84:75:f2:00	ACCESS	15.2(7)E0

Inventory | Plug and Play | Inventory Insights

Search Hierarchy | Search Help

- Global
 - Unassigned Devices
 - Bratislava
 - Jezeri
 - Kounov
 - mnt
 - Pardubice
 - Pizen
 - PLZ01
 - Prague
 - Temp-PI-DNC-coexistence
 - TEST-DS
 - Warehouse-test
 - Zatec

Preview New Page | Search | Help | Refresh



Device Status **Unclaimed (1)** Error (1) Provisioned (22) All (24)

Devices (1) Focus: Default

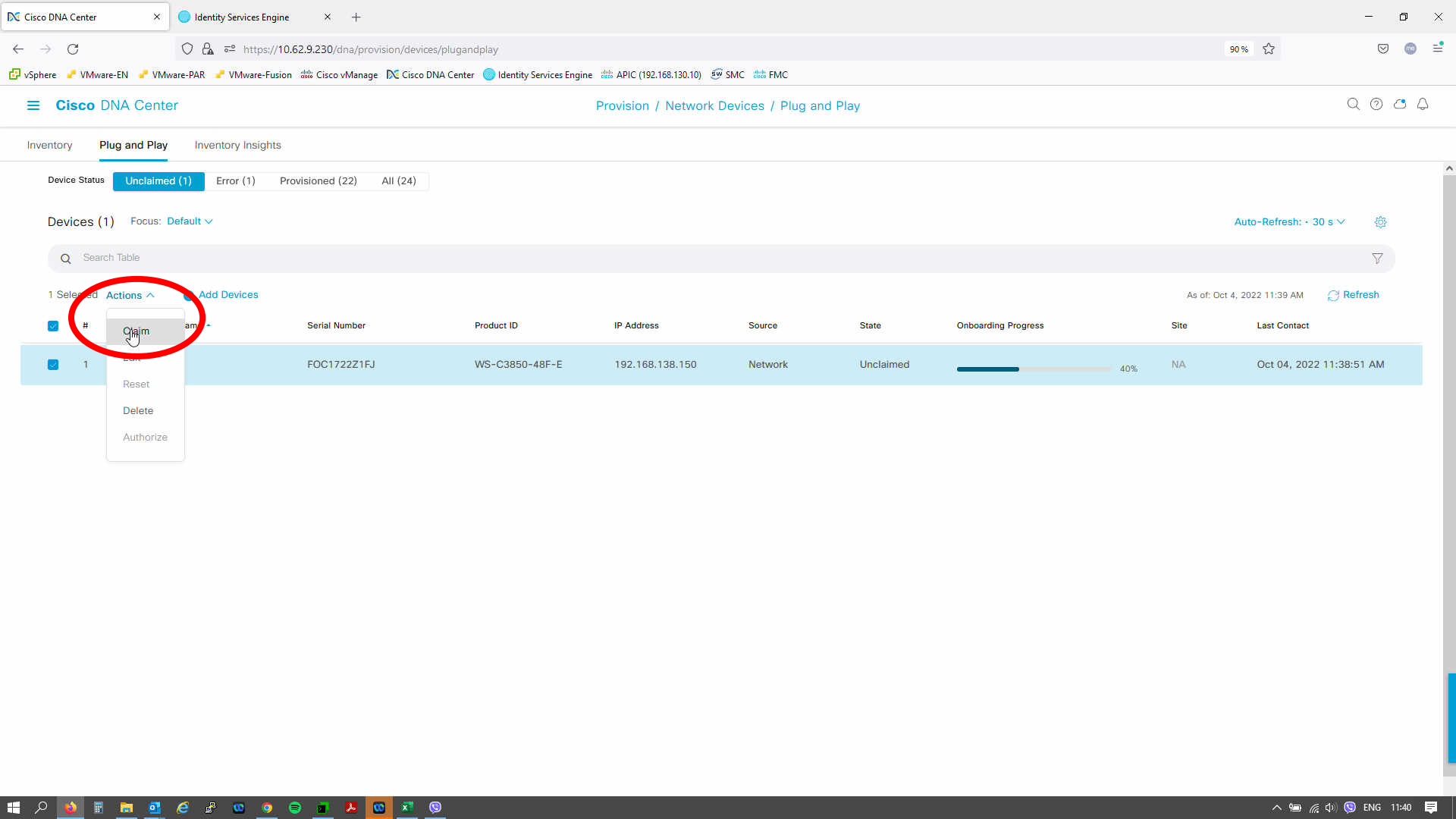
Auto-Refresh: - 30 s

Search Table

0 Selected Actions Add Devices

As of: Oct 4, 2022 11:29 AM Refresh

#	Device Name	Serial Number	Product ID	IP Address	Source	State	Onboarding Progress	Site	Last Contact
1	Unavailable	FOC1722Z1FJ	WS-C3850-48F-E	192.168.138.150	Network	Unclaimed	<div style="width: 10%;"></div> 10%	NA	Oct 04, 2022 11:29:32 AM



Inventory **Plug and Play** Inventory Insights

Device Status **Unclaimed (1)** Error (1) Provisioned (22) All (24)

Devices (1) Focus: Default

Auto-Refresh: - 30 s

Search Table

1 Selected **Actions** Add Devices

As of: Oct 4, 2022 11:39 AM Refresh

#	Name	Serial Number	Product ID	IP Address	Source	State	Onboarding Progress	Site	Last Contact
1	...	FOC1722Z1FJ	WS-C3850-48F-E	192.168.138.150	Network	Unclaimed	40%	NA	Oct 04, 2022 11:38:51 AM

- Claim
- Reset
- Delete
- Authorize

- 1 Assign Site
- 2 Assign Configuration
- 3 Provision Templates
- 4 Summary

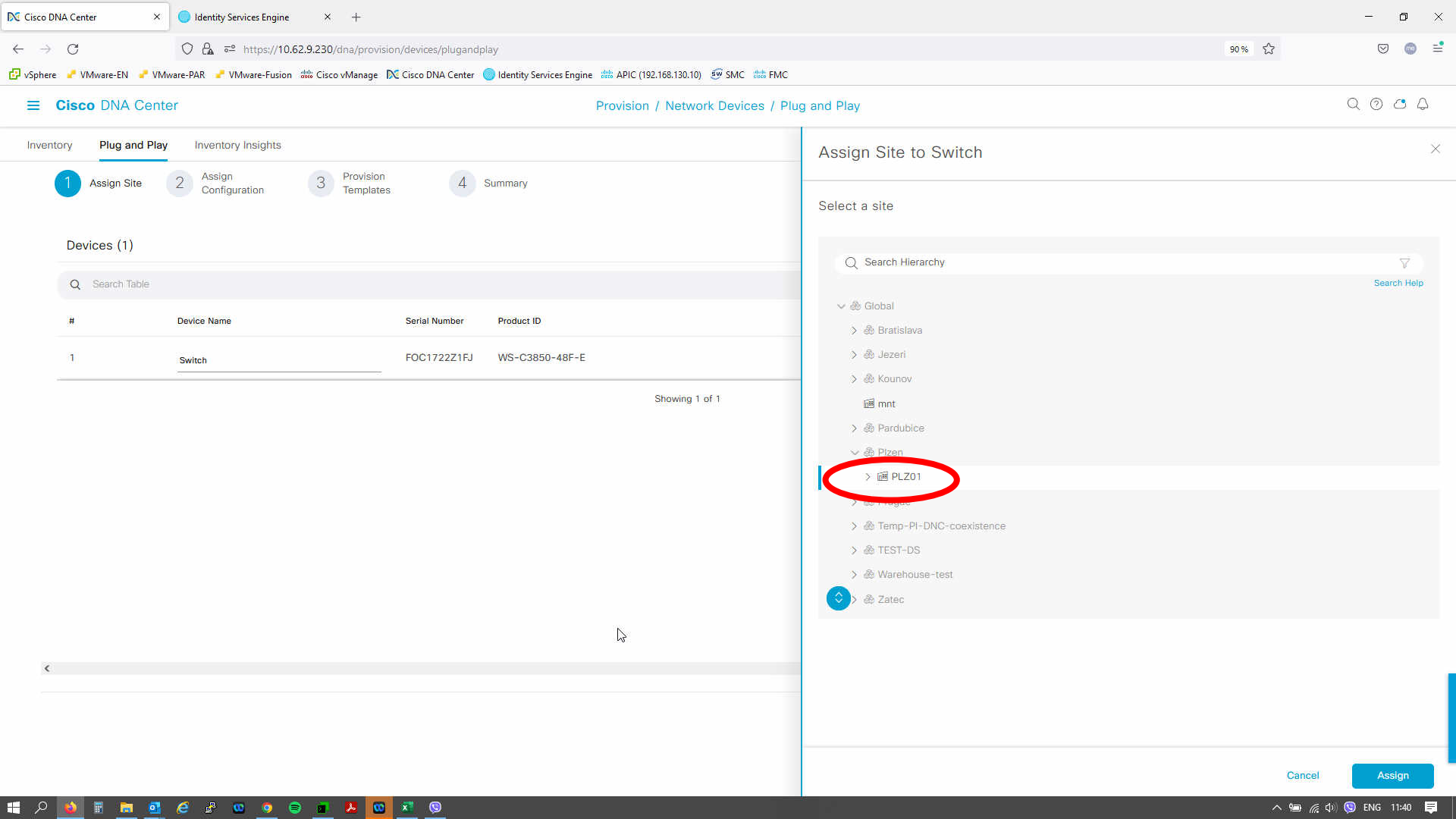
Devices (1)

Clear Sites

Search Table

#	Device Name	Serial Number	Product ID	Site (Recommended)	Actions
1	Switch	FOC1722Z1FJ	WS-C3850-48F-E	Assign	...

Showing 1 of 1



Inventory **Plug and Play** Inventory Insights

- 1 Assign Site
- 2 Assign Configuration
- 3 Provision Templates
- 4 Summary

Devices (1)

🔍 Search Table

#	Device Name	Serial Number	Product ID
1	Switch	FOC1722Z1FJ	WS-C3850-48F-E

Showing 1 of 1

Assign Site to Switch

Select a site

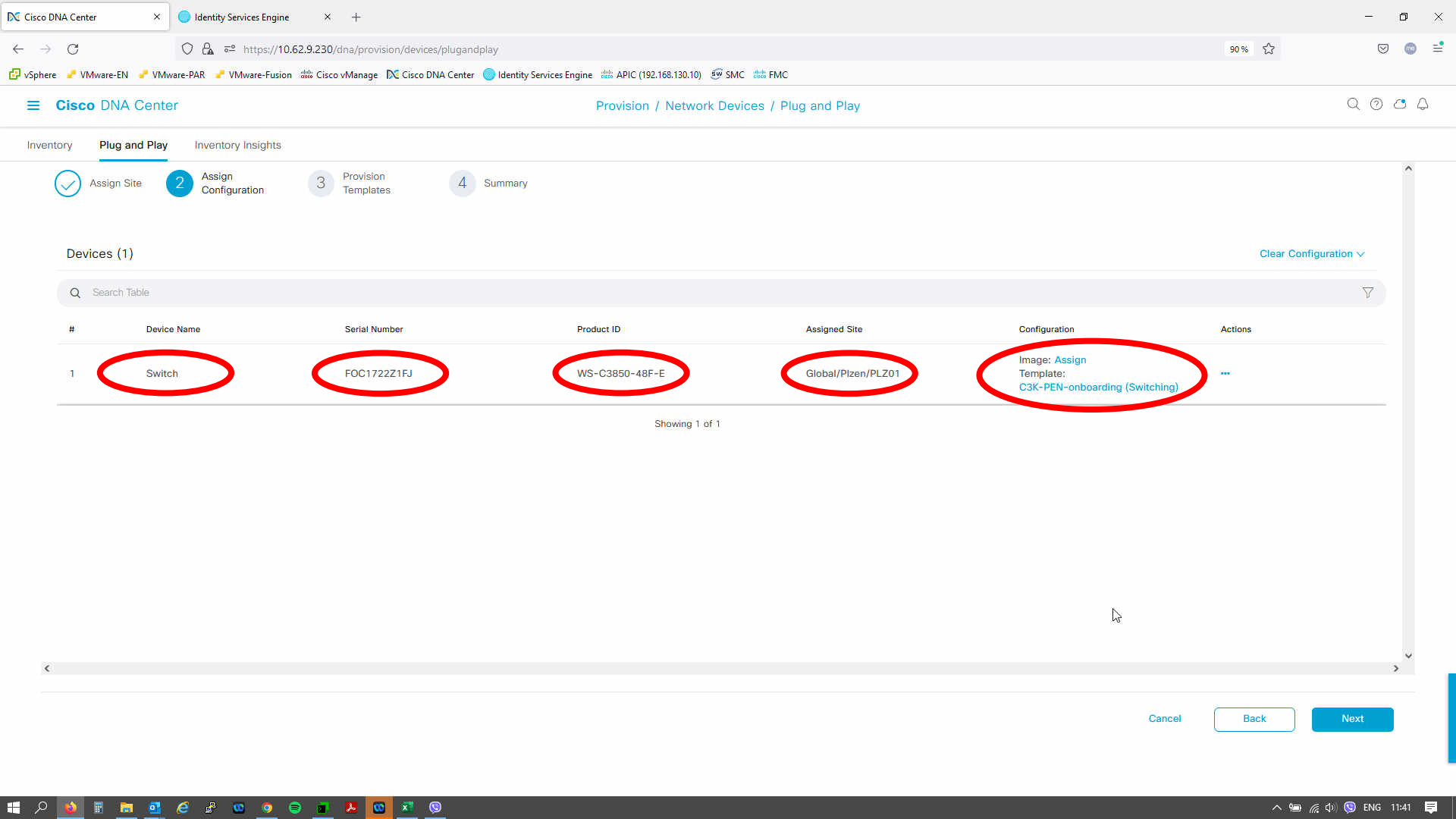
🔍 Search Hierarchy

🔍 Search Help

- Global
 - Bratislava
 - Jezeri
 - Kounov
 - mnt
 - Pardubice
- Plzen
 - PLZ01**
 - Temp-PI-DNC-coexistence
 - TEST-DS
 - Warehouse-test
- Zatec

Cancel

Assign



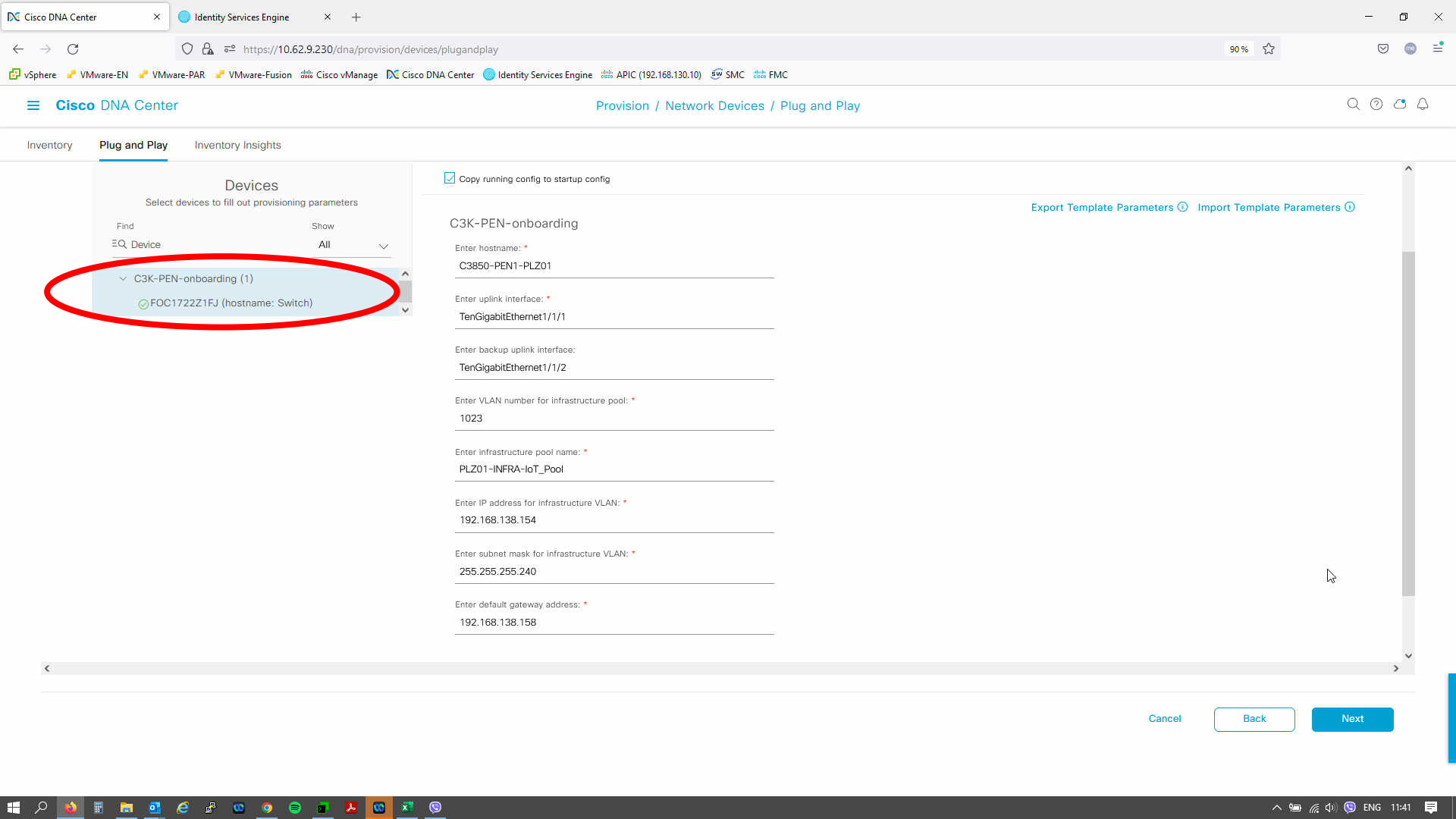
- 1 Assign Site
- 2 Assign Configuration
- 3 Provision Templates
- 4 Summary

Devices (1) Clear Configuration

Search Table

#	Device Name	Serial Number	Product ID	Assigned Site	Configuration	Actions
1	Switch	FOC172221FJ	WS-C3850-48F-E	Global/Plzen/PLZ01	Image: Assign Template: C3K-PEN-onboarding (Switching)	...

Showing 1 of 1



Devices

Select devices to fill out provisioning parameters

- Find Show
- EQ Device All
- C3K-PEN-onboarding (1)
 - FOC1722Z1FJ (hostname: Switch)

Copy running config to startup config

C3K-PEN-onboarding

Enter hostname: *
C3850-PEN1-PLZ01

Enter uplink interface: *
TenGigabitEthernet1/1/1

Enter backup uplink interface:
TenGigabitEthernet1/1/2

Enter VLAN number for infrastructure pool: *
1023

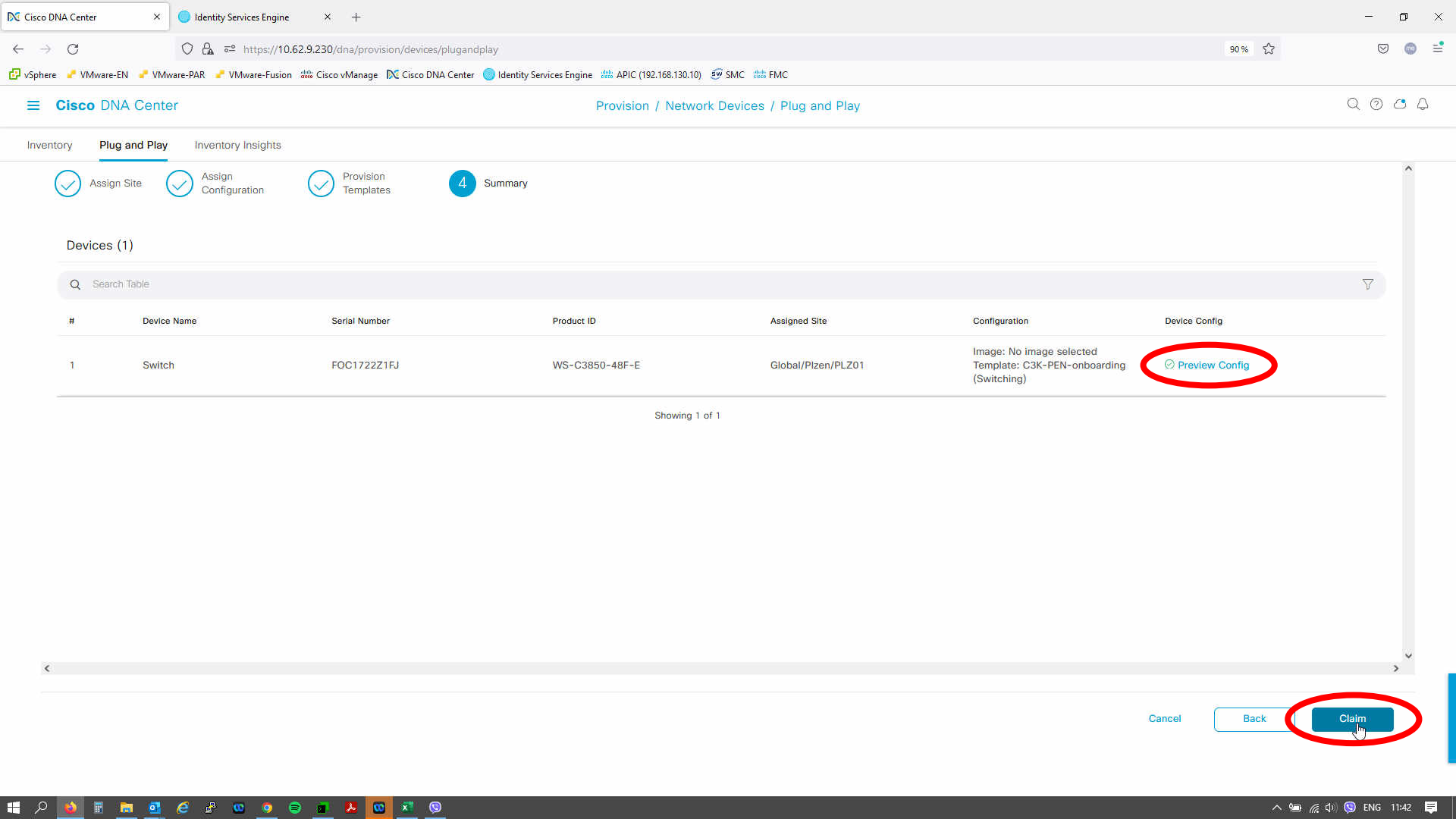
Enter infrastructure pool name: *
PLZ01-INFRA-IoT_Pool

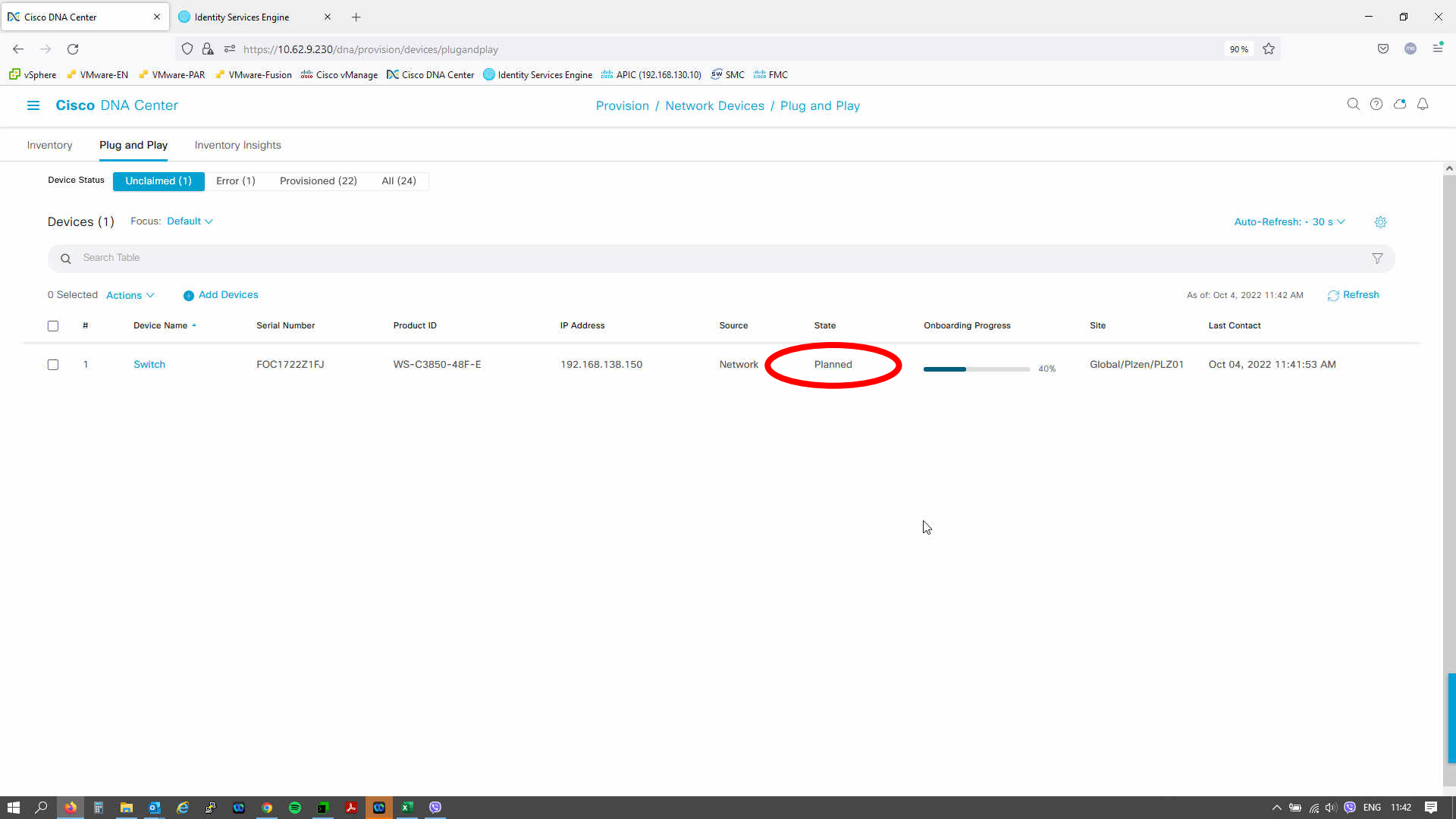
Enter IP address for infrastructure VLAN: *
192.168.138.154

Enter subnet mask for infrastructure VLAN: *
255.255.255.240

Enter default gateway address: *
192.168.138.158

[Export Template Parameters](#) [Import Template Parameters](#)





Device Status **Unclaimed (1)** Error (1) Provisioned (22) All (24)

Devices (1) Focus: Default

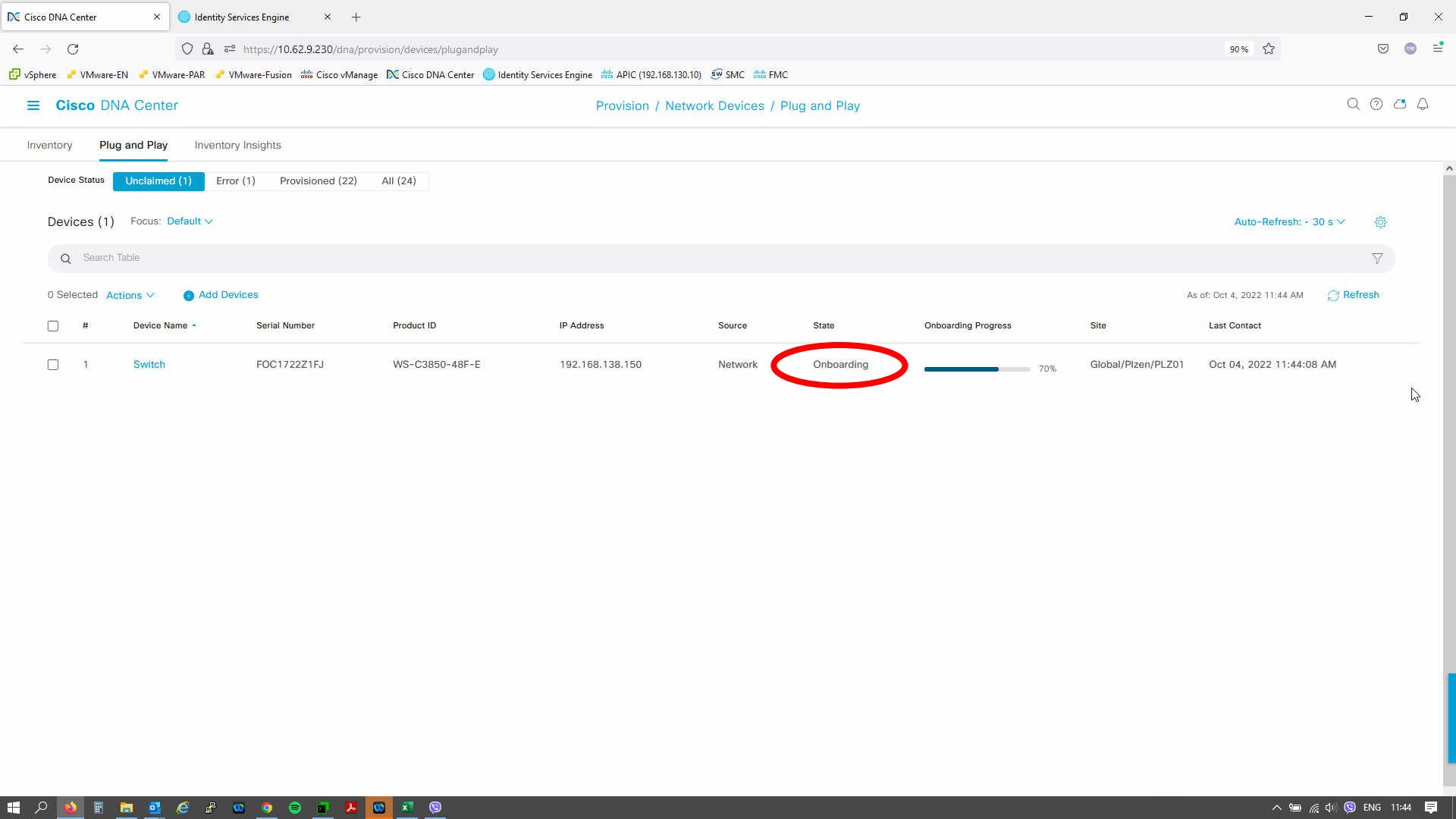
Auto-Refresh: - 30 s

Search Table

0 Selected Actions Add Devices

As of: Oct 4, 2022 11:42 AM Refresh

#	Device Name	Serial Number	Product ID	IP Address	Source	State	Onboarding Progress	Site	Last Contact
1	Switch	FOC1722Z1FJ	WS-C3850-48F-E	192.168.138.150	Network	Planned	40%	Global/Plzen/PLZ01	Oct 04, 2022 11:41:53 AM



Device Status **Unclaimed (1)** Error (1) Provisioned (22) All (24)

Devices (1) Focus: Default

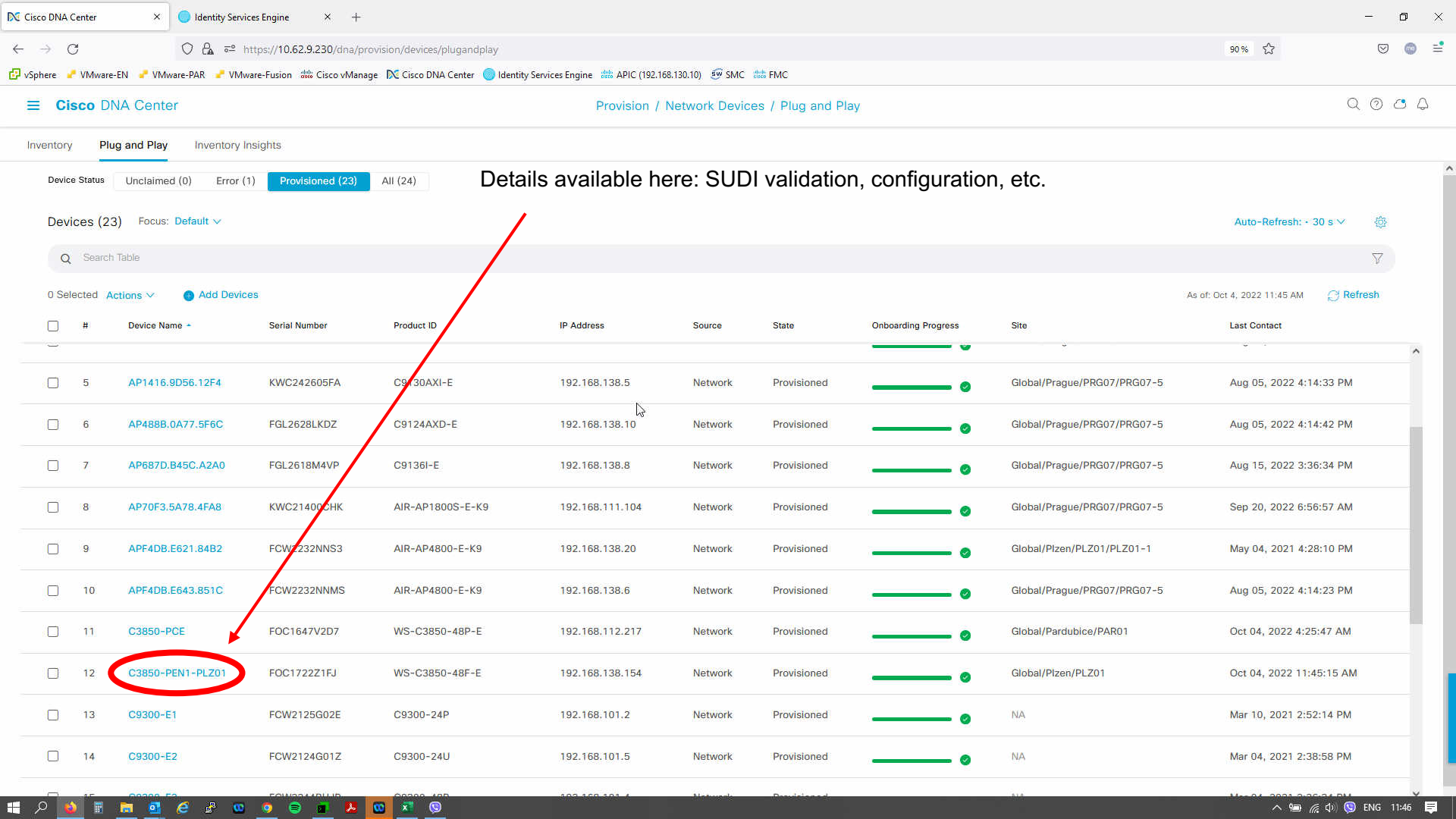
Auto-Refresh: - 30 s

Search Table

0 Selected Actions Add Devices

As of: Oct 4, 2022 11:44 AM Refresh

#	Device Name	Serial Number	Product ID	IP Address	Source	State	Onboarding Progress	Site	Last Contact
1	Switch	FOC1722Z1FJ	WS-C3850-48F-E	192.168.138.150	Network	Onboarding	<div style="width: 70%;"></div> 70%	Global/Plizen/PLZ01	Oct 04, 2022 11:44:08 AM



Details available here: SUDI validation, configuration, etc.

Device Status: Unclaimed (0) Error (1) **Provisioned (23)** All (24)

Devices (23) Focus: Default

Search Table

0 Selected Actions Add Devices

As of: Oct 4, 2022 11:45 AM Refresh

#	Device Name	Serial Number	Product ID	IP Address	Source	State	Onboarding Progress	Site	Last Contact
5	AP1416.9D56.12F4	KWC242605FA	C9303AXI-E	192.168.138.5	Network	Provisioned	<div style="width: 100%; height: 10px; background-color: green;"></div>	Global/Prague/PRG07/PRG07-5	Aug 05, 2022 4:14:33 PM
6	AP488B.0A77.5F6C	FGL2628LKDZ	C9124AXD-E	192.168.138.10	Network	Provisioned	<div style="width: 100%; height: 10px; background-color: green;"></div>	Global/Prague/PRG07/PRG07-5	Aug 05, 2022 4:14:42 PM
7	AP687D.B45C.A2A0	FGL2618M4VP	C9136I-E	192.168.138.8	Network	Provisioned	<div style="width: 100%; height: 10px; background-color: green;"></div>	Global/Prague/PRG07/PRG07-5	Aug 15, 2022 3:36:34 PM
8	AP70F3.5A78.4FA8	KWC21400CHK	AIR-AP1800S-E-K9	192.168.111.104	Network	Provisioned	<div style="width: 100%; height: 10px; background-color: green;"></div>	Global/Prague/PRG07/PRG07-5	Sep 20, 2022 6:56:57 AM
9	APF4DB.E621.84B2	FCW2232NNS3	AIR-AP4800-E-K9	192.168.138.20	Network	Provisioned	<div style="width: 100%; height: 10px; background-color: green;"></div>	Global/Plzen/PLZ01/PLZ01-1	May 04, 2021 4:28:10 PM
10	APF4DB.E643.851C	FCW2232NNSM	AIR-AP4800-E-K9	192.168.138.6	Network	Provisioned	<div style="width: 100%; height: 10px; background-color: green;"></div>	Global/Prague/PRG07/PRG07-5	Aug 05, 2022 4:14:23 PM
11	C3850-PCE	FOC1647V2D7	WS-C3850-48P-E	192.168.112.217	Network	Provisioned	<div style="width: 100%; height: 10px; background-color: green;"></div>	Global/Pardubice/PAR01	Oct 04, 2022 4:25:47 AM
12	C3850-PEN1-PLZ01	FOC1722Z1FJ	WS-C3850-48F-E	192.168.138.154	Network	Provisioned	<div style="width: 100%; height: 10px; background-color: green;"></div>	Global/Plzen/PLZ01	Oct 04, 2022 11:45:15 AM
13	C9300-E1	FCW2125G02E	C9300-24P	192.168.101.2	Network	Provisioned	<div style="width: 100%; height: 10px; background-color: green;"></div>	NA	Mar 10, 2021 2:52:14 PM
14	C9300-E2	FCW2124G01Z	C9300-24U	192.168.101.5	Network	Provisioned	<div style="width: 100%; height: 10px; background-color: green;"></div>	NA	Mar 04, 2021 2:38:58 PM

C3850-PEN1-PLZ01

Cisco DNA Center Identity Services Engine

https://10.62.9.230/dna/provision/devices/inventory?devices-view=inventoryView&selectedSite=5abe37f4-6133-4a69-bece-e09d9bd196d1&devices-filters={"family": "switches and hubs"} 90%

Cisco DNA Center Provision / Network Devices / Inventory

Inventory Plug and Play Inventory Insights

To provision subscriptions on devices that have not been discovered with NETCONF, rediscover the devices with NETCONF, and update the Telemetry Settings with the Force Configuration Push option.

Global / Plzen / PLZ01

DEVICES (3)
FOCUS: Inventory

Filter Add Device Tag Actions Take a Tour

Device Family is switches and hubs

Device Name	IP Address	Device Family	Reachability	EoX Status	Manageability	Compliance	Health Score	Site	MAC Address	Device Role	Image
C3850-PEN1-PLZ01.enprglab.local	192.168.138.154	Switches and Hubs	Reachable	Not Scanned	Managed	Compliant	No Health	.../Plzen/PLZ01	0c:68:03:44:83:80	ACCESS	16.12.6
C9300-FiaB-PLZ01.enprglab.local C9300-FiaB-PLZ01, IOS-XE-17.9...	192.168.102.33	Switches and Hubs (Wireless Enabled)	Reachable	0 alerts	Managed	Non-Compliant	10	.../Plzen/PLZ01	08:4f:9:84:69:80	ACCESS	17.9.1
SN-FOC1911Y0QT.enprglab.local	192.168.138.148	Switches and Hubs	Reachable	0 alerts	Managed	Compliant	10	.../Plzen/PLZ01	c8:00:84:75:f2:00	ACCESS	15.2(7)E0s

Show 25 entries Showing 3 of 3

Konfigurace zařízení (CLI, GUI, šablony, workflow, API)



Možnosti konfigurace sítě

- Tradiční pomocí CLI
 - Konzole, vzdálený přístup
- GUI
- Konfigurační šablony
 - Předpřipravené úseky konfigurace, využití proměnných
 - Využití AVL nebo Jinja
- Workflows
 - Preskriptivní design
 - Využití orchestrátoru
- Využití API
 - “Network-as-a-code”

Konfigurační šablony

The screenshot displays the Cisco DNA Center Template Editor. The left sidebar shows a tree view of templates, with 'Configure access interfaces' selected. The main editor area shows the following configuration template:

```
6  ## Interfaces with Closed Authentication
7  ##
8  !
9  #foreach($interface in $(Closed_Authentication_Interfaces))
10 ## Original if statement - CSCv52730 must be fixed
11 #if ($interface.portType == "Ethernet Port" &&
12     $interface.description.contains("Uplink"))
13 )
14 ## Workaround for CSCv52730
15 ##!if($interface.portType == "Ethernet Port"
16 ##)
17 ##!
18 ##! $interface.portType , $interface.portName , $interface.description
19 ##!
20 default interface $interface.portName
21 interface $interface.portName
22 description Access -lan- Closed authentication
23 switchport mode access
24 device-tracking attach-policy IPOT_POLICY
25 ip flow monitor dnacmonitor input
26 ip flow monitor dnacmonitor output
27 dot1x timeout tx-period ?
28 dot1x max-reauth-req 3
29 source template DefaultWiredDot1xClosedAuth
30 spanning-tree portfast
31 spanning-tree upguard enable
32 service-policy input DMA-MARKING_IN
33 service-policy output DMA-dscp#APIC_QOS_Q_OUT
34 ip nbar protocol-discovery
35 !
36 #end
37 #end
38 ##
39 ## Interfaces with Open Authentication
40 ##
41 ##! Interfaces with Open Authentication
42 #foreach($interface in $(Open_Authentication_Interfaces))
43 ## Original if statement - CSCv52730 must be fixed
44 #if ($interface.portType == "Ethernet Port" &&
45     $interface.description.contains("Uplink"))
46 )
47 ## Workaround for CSCv52730
48 ##!if($interface.portType == "Ethernet Port"
49 ##)
50 ##!
51 ##! $interface.portType , $interface.portName , $interface.description
52 ##!
53 default interface $interface.portName
54 interface $interface.portName
55 description Access -lan- Open authentication
56 switchport mode access
```

Workflow

The screenshot shows the Cisco DNA Center interface for provisioning SD-Access. The main view displays the 'Fabric Sites / PRG07' configuration, including a site summary and a network diagram. A modal window is open for the device 'C3650-AH.enprglab.local (192.168.115.82)', which is marked as 'Reachable' with an uptime of 156 days 4 hrs 41 mins. The modal has tabs for 'Details', 'Fabric', 'Port Channel', 'Advisories', 'Configuration', 'Native VLANs', 'Power', 'Fans', 'SFP Modules', 'User Defined Fields', 'Interfaces', and 'More'. The 'Fabric' tab is active, showing a 'Remove From Fabric' button and a 'Fabric' configuration section with three radio button options: 'BN' (Border Node), 'CP' (Control Plane Node), and 'EN' (Edge Node). All three options are currently unselected. At the bottom right of the modal are 'Cancel' and 'Add' buttons.

API - SDA-as-Code Application

User Input - YAML File

```
fabric_operations.yml
1  area_info:
2    name: OR
3    hierarchy: Global
4
5  building_info:
6    name: BEAV
7    address: 1400 Northeast Compton
8    lat: 45.5313708
9    long: -122.8811613
10
11 floor_info:
12   name: Main
13   number: 2
14   rf_model: Cubes And Walled Office
15   width: 100
16   length: 10
17   height: 10
18
19 network_settings:
20   dns_server: 171.70.168.183
21   dhcp_server: 10.93.141.1
22   ntp_server: 171.68.38.66
23   syslog_server: 10.93.141.37
24   aaa_server: 10.93.141.38
25
26 devices_info:
27   device_ips: [10.93.141.19, 10.93.141.20]
28
29 fabric_info:
30   name: Main
31
32 ip_pool:
33   name: Global_Fabric_Pool
34   type: Generic
35   subnet: 10.200.0.0/20
36   gateway: 10.200.1.1
37   dhcp_server: 10.93.141.46
38   dns_server: 10.93.141.46
39   address_family: IPv4
40
41 ip_sub_pool:
42   name: BEAV_Fabric_Subpool
43   type: Generic
44   subnet: 10.200.1.0/24
45   gateway: 10.200.1.1
46   dhcp_server: 10.93.141.46
47   dns_server: 10.93.141.46
48   address_family: IPv4
49
50 ip_transit_pool:
51   name: BEAV_Transit_Pool
52   type: Generic
53   subnet: 10.200.2.0/24
54   gateway: 10.200.2.1
55   dhcp_server: 10.93.141.46
56   address_family: IPv4
57
58 l3_vn:
59   name: Servers
```

```
57
58 l3_vn:
59   name: Servers
60
61 border_devices:
62   ip: [10.93.141.19]
63   routing_protocol: BGP
64   internal_bgp_as: 65001
65   external_bgp_as: 65002
66   external_interface: FortyGigabitEthernet
67   transit_network: IP_Transit
68   transit_vlan: 602
69
70 control_plane_devices:
71   ip: [10.93.141.20]
72
73 edge_devices:
74   ip: [10.93.141.28]
75
76 auth_profile:
77   name: No Authentication
78
```

SDA-as-Code Application

```
create_fabric_site.py
424
425 # create a new Global Pool
426 global_pool_payload = {...}
427
428 response = dnac_api.network_settings.create_global_pool(payload=global_pool_payload)
429 pprint(response)
430 print('\n\nCreating the Global Pool: ', ip_pool_name)
431 time_sleep(10)
432
433 # create an IP sub_pool for site_hierarchy
434 ip_sub_pool_subnet = ip_sub_pool_cidr.split('/')[0]
435 ip_sub_pool_mask = int(ip_sub_pool_cidr.split('/')[1])
436
437 # get the site_id
438 response = dnac_api.sites.get_site(name=site_hierarchy)
439 site_id = response['response'][0]['id']
440
441 sub_pool_payload = {...}
442
443 response = dnac_api.network_settings.reserve_ip_subpool(site_id=site_id, payload=sub_pool_payload)
444 pprint(response)
445 print('\n\nCreating the IP subpool: ', ip_pool_cidr)
446 time_sleep(10)
447
448 # create an IP transit pool for site_hierarchy
449 ip_transit_pool_subnet = ip_transit_pool_cidr.split('/')[0]
450 ip_transit_pool_mask = int(ip_transit_pool_cidr.split('/')[1])
451
452 transit_pool_payload = {...}
453
454 response = dnac_api.network_settings.reserve_ip_subpool(site_id=site_id, payload=transit_pool_payload)
455 pprint(response)
456 print('\n\nCreating the IP transit pool: ', ip_pool_cidr)
457 time_sleep(10)
458
459
```



Příklad konfigurace zařízení pomocí šablon s využitím DNA Center



Cisco DNA Center Provision / Network Devices / Inventory

Inventory | Plug and Play | Inventory Insights

Search Hierarchy Search Help

Global / Plizen / PLZ01

DEVICES (3)
FOCUS: Inventory

Filter | Add Device Tag Actions | Take a Tour | 1 Selected

Device Family is switches and hubs

Device Name	Device Family	Reachability	EoX Status	Manageability	Compliance	Health Score	Site	MAC Address	Device Role	Image
C3850-PEN1-PLZ01	Switches and Hubs	Reachable	Not Scanned	Managed	Compliant	No Health	.../Plizen/PLZ01	0c:68:03:44:83:80	ACCESS	16.12.6
C9300-FlaB-PLZ01	Switches and Hubs (less Enabled)	Reachable	0 alerts	Managed	Non-Compliant	10	.../Plizen/PLZ01	08:4f:f9:84:69:80	ACCESS	17.9.1
C9300-FlaB-PLZ01	Switches and Hubs	Reachable	0 alerts	Managed	Compliant	10	.../Plizen/PLZ01	c8:00:84:75:f2:00	ACCESS	15.2(7)E0s

25 entries | Showing 3 of 3

To provision subscriptions on devices that have not been discovered with NETCONF, rediscover the devices with NETCONF, and update the Telemetry Settings with the Force Configuration Push option.

Tag dropdown menu:

- BTS
- BTS05-Trustsec
- C3k-PEN
- C9300-FlaB-PLZ01
- C9300-FlaB-PLZ01

Manage Tags

Apply

Cisco DNA Center Identity Services Engine

https://10.62.9.230/dna/provision/devices/inventory?devices-view=inventoryView&selectedSite=5abe37f4-6133-4a69-bece-e09d9bd196d1&devices-filters={"family": "switches and hubs"} 90%

Cisco DNA Center Provision / Network Devices / Inventory

Inventory Plug and Play Inventory Insights

To provision subscriptions on devices that have not been discovered with NETCONF, rediscover the devices with NETCONF, and update the Telemetry Settings with the Force Configuration Push option.

Global / Plzen / PLZ01

DEVICES (3)
FOCUS: Inventory

Filter Add Device Tag Actions Take a Tour 1 Selected

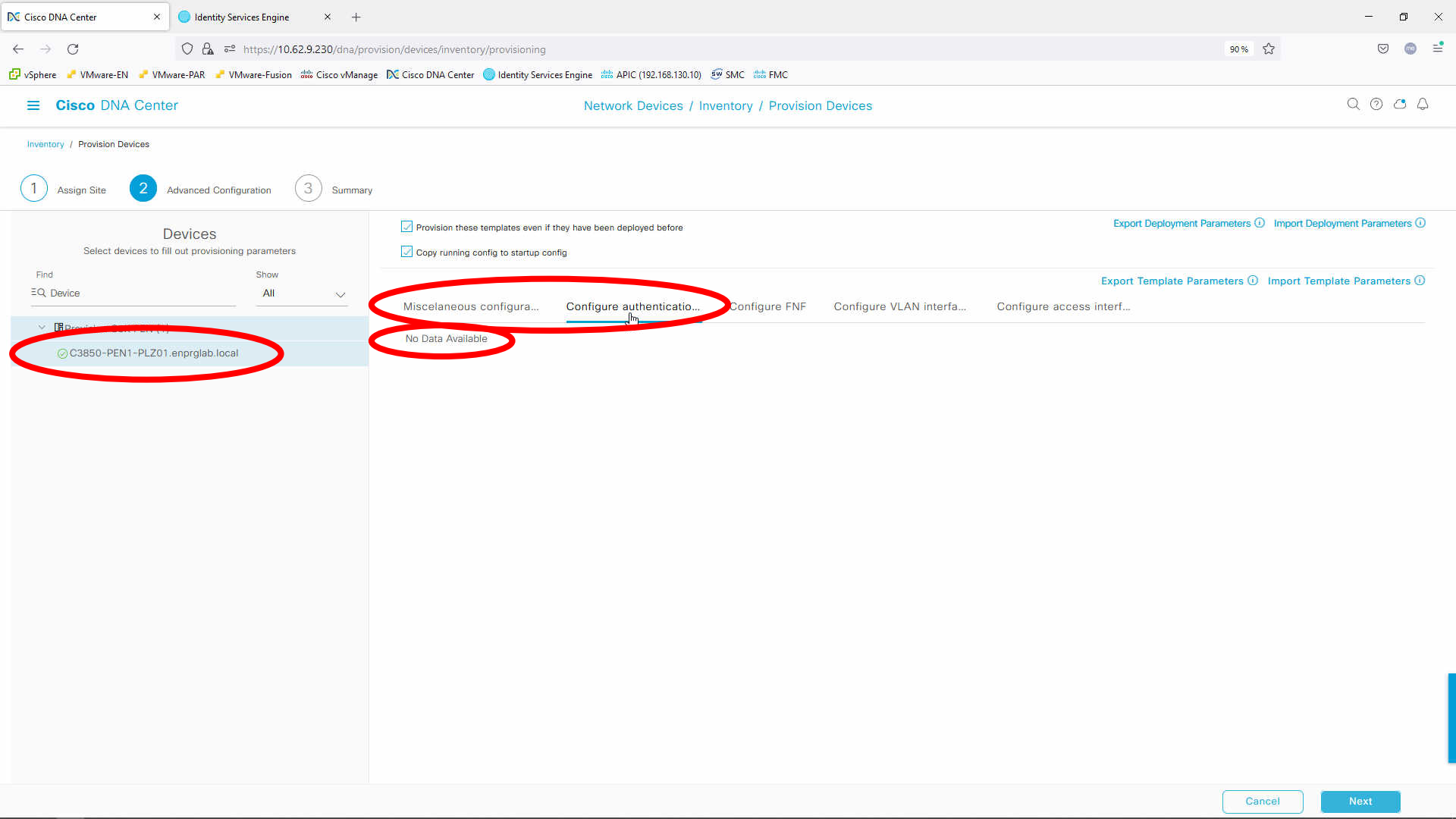
Device Family is switches and hubs

Device Name	Device Family	Reachability	EoX Status	Manageability	Compliance	Health Score	Site	MAC Address	Device Role	Image
<input checked="" type="checkbox"/> C3850-PEN1-PLZ01.enprg C3k-PEN	switches and hubs	hable	Not Scanned	Managed	Compliant	10	.../Plzen/PLZ01	0c:68:03:44:83:80	ACCESS	16.12.6
<input type="checkbox"/> C9300-FiaB-PLZ01.enprg C9300-FiaB-PLZ01, IOS-	switches and hubs	hable	0 alerts	Managed	Non-Compliant	10	.../Plzen/PLZ01	08:4f:f9:84:69:80	ACCESS	17.9.1
<input type="checkbox"/> SN-FOC1911Y0QT.enprgla	switches and hubs	hable	0 alerts	Managed	Compliant	10	.../Plzen/PLZ01	c8:00:84:75:f2:00	ACCESS	15.2(7)E0s

Inventory
Software Image
Provision
Telemetry
Device Replacement
Others
Compliance

Assign Device to Site
Provision Device
LAN Automation
LAN Automation Status
Learn Device Config
Configure WLC HA
Configure WLC Mobility
Manage LED Flash Status

Show 25 entries Showing 3 of 3



- 1 Assign Site
- 2 Advanced Configuration
- 3 Summary

Devices

Select devices to fill out provisioning parameters

Find: Device Show: All

- C3850-PEN1-PLZ01.enprglab.local

Provision these templates even if they have been deployed before

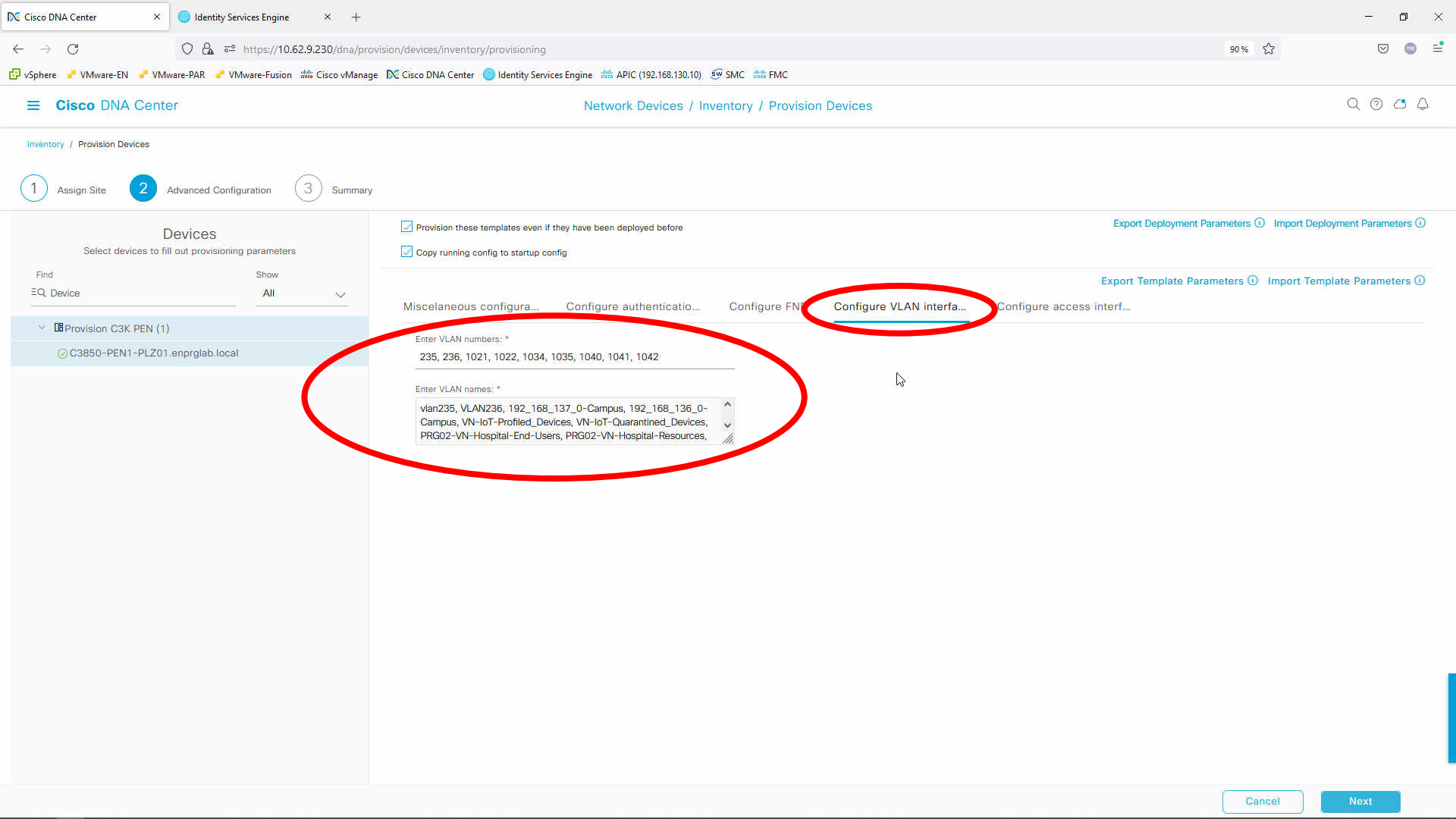
[Export Deployment Parameters](#) [Import Deployment Parameters](#)

Copy running config to startup config

[Export Template Parameters](#) [Import Template Parameters](#)

- Miscellaneous configura...
- Configure authentication...
- Configure FNF
- Configure VLAN interfa...
- Configure access interf...

No Data Available



Devices

Select devices to fill out provisioning parameters

Find: Device Show: All

- Provision C3K PEN (1)
- C3850-PEN1-PLZ01.enprglab.local

- Provision these templates even if they have been deployed before
- Copy running config to startup config

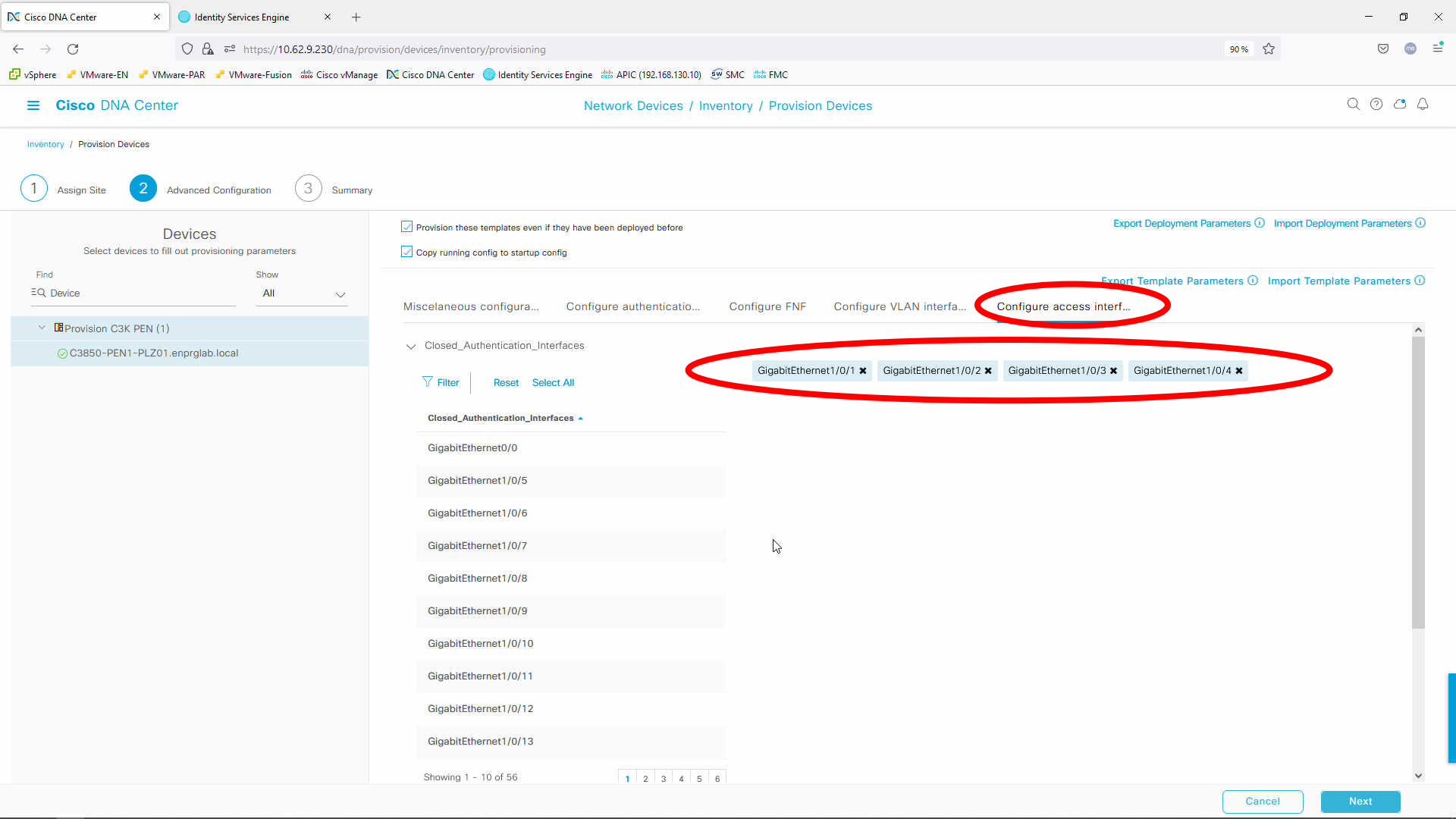
[Export Deployment Parameters](#) [Import Deployment Parameters](#)

[Export Template Parameters](#) [Import Template Parameters](#)

- Miscellaneous configura...
- Configure authenticatio...
- Configure FN...
- Configure VLAN interfa...**
- Configure access interf...

Enter VLAN numbers: *
235, 236, 1021, 1022, 1034, 1035, 1040, 1041, 1042

Enter VLAN names: *
vlan235, VLAN236, 192_168_137_0-Campus, 192_168_136_0-Campus, VN-IoT-Profiled_Devices, VN-IoT-Quarantined_Devices, PRG02-VN-Hospital-End-Users, PRG02-VN-Hospital-Resources



Devices

Select devices to fill out provisioning parameters

Find Device Show All

- Provision C3K PEN (1)
C3850-PEN1-PLZ01.enprglab.local

- Provision these templates even if they have been deployed before
Copy running config to startup config

Export Deployment Parameters Import Deployment Parameters

Export Template Parameters Import Template Parameters

- Miscellaneous configura... Configure authentication... Configure FNF Configure VLAN interfa... Configure access interf...

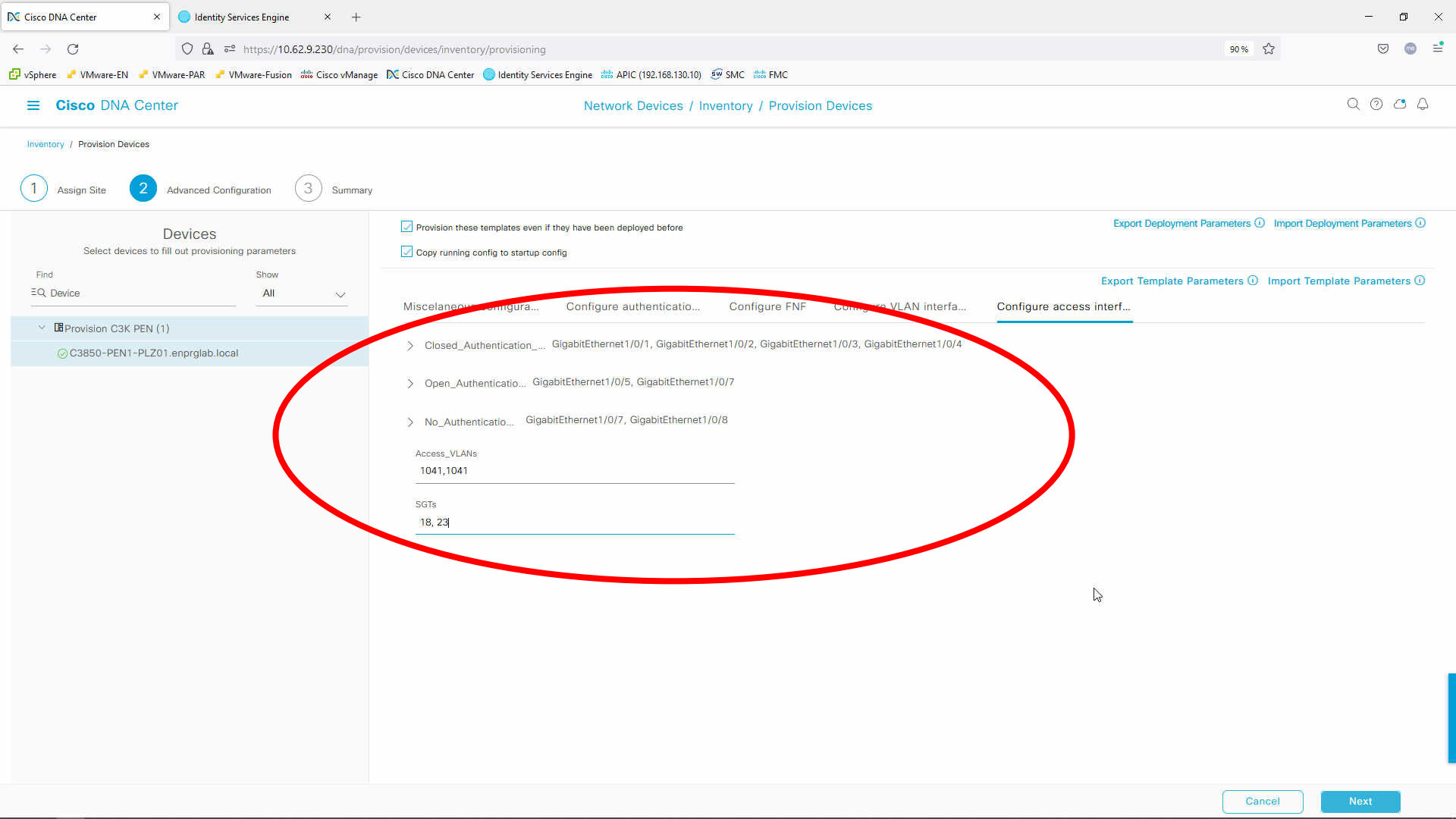
Closed_Authentication_Interfaces

Filter Reset Select All

Closed_Authentication_Interfaces

- GigabitEthernet0/0
GigabitEthernet1/0/5
GigabitEthernet1/0/6
GigabitEthernet1/0/7
GigabitEthernet1/0/8
GigabitEthernet1/0/9
GigabitEthernet1/0/10
GigabitEthernet1/0/11
GigabitEthernet1/0/12
GigabitEthernet1/0/13

Showing 1 - 10 of 56



Devices

Select devices to fill out provisioning parameters

Find: Show:

- Provision C3K PEN (1)
 - C3850-PEN1-PLZ01.enprglab.local

- Provision these templates even if they have been deployed before [Export Deployment Parameters](#) [Import Deployment Parameters](#)
- Copy running config to startup config

- [Export Template Parameters](#) [Import Template Parameters](#)

- Miscellaneous configura... [Configure authentication...](#) [Configure FNF](#) [Configure VLAN interfa...](#) [Configure access interf...](#)

- > Closed_Authenticatio... GigabitEthernet1/0/1, GigabitEthernet1/0/2, GigabitEthernet1/0/3, GigabitEthernet1/0/4
- > Open_Authenticatio... GigabitEthernet1/0/5, GigabitEthernet1/0/7
- > No_Authenticatio... GigabitEthernet1/0/7, GigabitEthernet1/0/8

Access_VLANs
1041,1041

SGTs
18,23

Cisco DNA Center Identity Services Engine

https://10.62.9.230/dna/provision/devices/inventory/provisioning

90%

vSphere VMware-EN VMware-PAR VMware-Fusion Cisco vManage Cisco DNA Center Identity Services Engine APIC (192.168.130.10) SMC FMC

Cisco DNA Center

Network Devices / Inventory / Provision Devices

Inventory / Provision Devices

- 1 Assign Site
- 2 Advanced Configuration
- 3 Summary

C3850-PEN1-PLZ01.enprglab.local

Device

Device Name: C3850-PEN1-PLZ01.enprglab.local

Platform Id: WS-C3850-48F-E

Device IP: 192.168.138.154

Device Location: Global/Plzen/PLZ01

Network

NTP Server: 192.168.111.16

AAA Network ISE Server: 192.168.111.136

AAA Network Primary Server: 192.168.111.136 (RADIUS)

AAA Client ISE Server: 192.168.111.136

AAA Client Primary Server: 192.168.111.136 (RADIUS)

WARNING: Do not use "admin" as the username for your device CLI credentials, if you are using ISE as your AAA server. If you do, this can result in you not being able to login to your devices.

DHCP Server: 192.168.111.16, 192.168.111.17

DNS Domain Name: enprglab.local

DNS Primary Server: 192.168.111.249

Syslog Server: Cisco DNA Center

Netflow Collector: Cisco DNA Center

Wired Endpoint Data Collection: Yes

Cisco TrustSec (CTS) Credentials: Yes

SNMP Trap Receiver: Cisco DNA Center

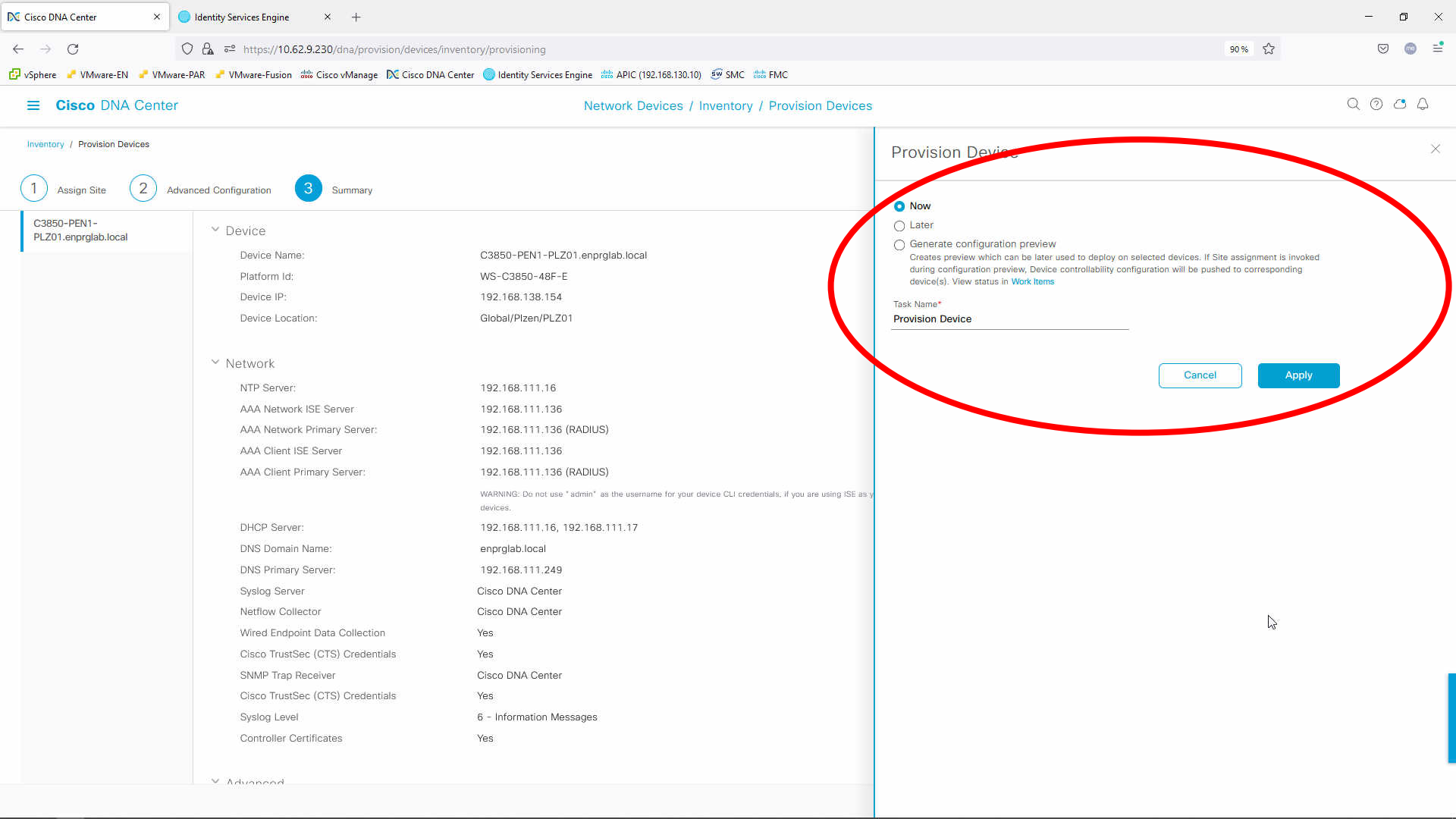
Cisco TrustSec (CTS) Credentials: Yes

Syslog Level: 6 - Information Messages

Controller Certificates: Yes

Advanced

Cancel Deploy



C3850-PEN1-PLZ01.enprglab.local

Device

Device Name: C3850-PEN1-PLZ01.enprglab.local
Platform Id: WS-C3850-48F-E
Device IP: 192.168.138.154
Device Location: Global/Plzen/PLZ01

Network

NTP Server: 192.168.111.16
AAA Network ISE Server: 192.168.111.136
AAA Network Primary Server: 192.168.111.136 (RADIUS)
AAA Client ISE Server: 192.168.111.136
AAA Client Primary Server: 192.168.111.136 (RADIUS)

WARNING: Do not use "admin" as the username for your device CLI credentials, if you are using ISE as y devices.

DHCP Server: 192.168.111.16, 192.168.111.17
DNS Domain Name: enprglab.local
DNS Primary Server: 192.168.111.249
Syslog Server: Cisco DNA Center
Netflow Collector: Cisco DNA Center
Wired Endpoint Data Collection: Yes
Cisco TrustSec (CTS) Credentials: Yes
SNMP Trap Receiver: Cisco DNA Center
Cisco TrustSec (CTS) Credentials: Yes
Syslog Level: 6 - Information Messages
Controller Certificates: Yes

Advanced

Provision Device

Now

Later

Generate configuration preview

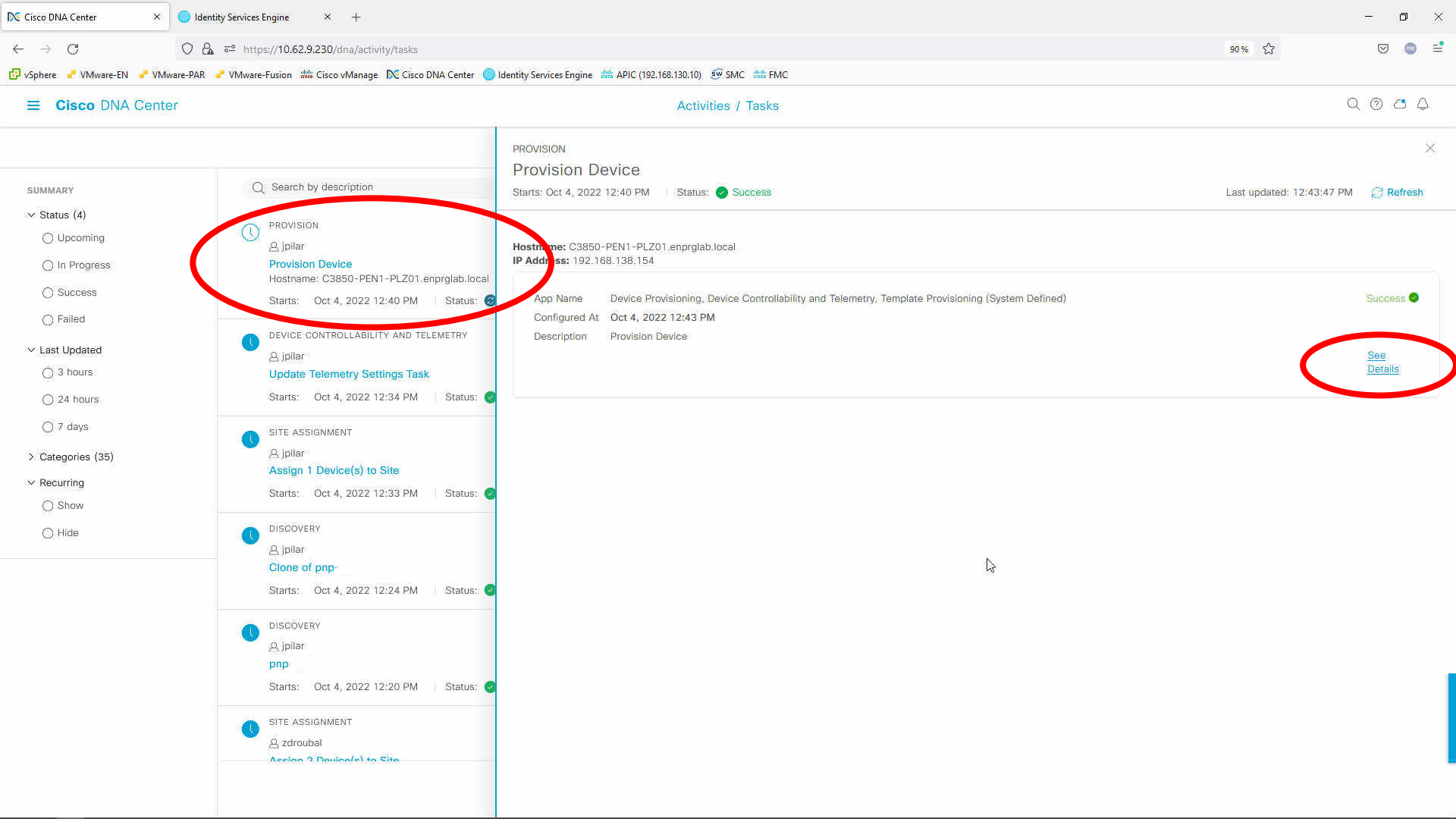
Creates preview which can be later used to deploy on selected devices. If Site assignment is invoked during configuration preview, Device controllability configuration will be pushed to corresponding device(s). View status in [Work Items](#)

Task Name*

Provision Device

Cancel

Apply



Cisco DNA Center

Identity Services Engine

Activities / Tasks

90%

vSphere VMware-EN VMware-PAR VMware-Fusion Cisco vManage Cisco DNA Center Identity Services Engine APIC (192.168.130.10) SMC FMC

Cisco DNA Center

Activities / Tasks

PROVISION

Provision Device

Starts: Oct 4, 2022 12:40 PM | Status: ● Success

Last updated: 12:43:47 PM [Refresh](#)

Deployment of advanced configuration (templates) SUCCESS

Click on view details for the deployment details [Hide Details](#)

Template provisioning	• Oct 4, 2022 12:42 PM	Provisioning success for template Miscellaneous configuration	SUCCESS
Template provisioning	• Oct 4, 2022 12:42 PM	Provisioning success for template Configure authentication templates	SUCCESS
Template provisioning	• Oct 4, 2022 12:42 PM	Provisioning success for template Configure FNF	SUCCESS
Template provisioning	• Oct 4, 2022 12:43 PM	Provisioning success for template Configure VLAN interfaces	SUCCESS
Template provisioning	• Oct 4, 2022 12:43 PM	Provisioning success for template Configure access interfaces	SUCCESS

Device Controllability SUCCESS

SUMMARY

▼ Status (4)

- Upcoming
- In Progress
- Success
- Failed

▼ Last Updated

- 3 hours
- 24 hours
- 7 days

> Categories (35)

▼ Recurring

- Show
- Hide

Search by description

- PROVISION
j.pilar
[Provision Device](#)
Hostname: C3850-PEN1-PLZ01.enprglab.local
Starts: Oct 4, 2022 12:40 PM | Status: ●
- DEVICE CONTROLLABILITY AND TELEMETRY
j.pilar
[Update Telemetry Settings Task](#)
Starts: Oct 4, 2022 12:34 PM | Status: ●
- SITE ASSIGNMENT
j.pilar
[Assign 1 Device\(s\) to Site](#)
Starts: Oct 4, 2022 12:33 PM | Status: ●
- DISCOVERY
j.pilar
[Clone of pnp](#)
Starts: Oct 4, 2022 12:24 PM | Status: ●
- DISCOVERY
j.pilar
[pnp](#)
Starts: Oct 4, 2022 12:20 PM | Status: ●
- SITE ASSIGNMENT
z.droubal
[Assign 2 Device\(s\) to Site](#)

Cisco DNA Center

Activities / Tasks

PROVISION

Provision Device

Starts: Oct 4, 2022 12:40 PM | Status: Success | Last updated: 2:32:01 PM [Refresh](#)

Configuration Difference

i This difference view represents the configuration changes performed by all the actions (Provisioning, Telemetry, etc.) within a 5 minutes window.

Show only differences
 Show entire configs i

<p>Running Config (394 Lines)</p> <p>Collected at: Oct 4, 2022 12:35 PM</p> <pre> 15 exit-address-family 16 enable secret 9 ***** 17 aaa new-model </pre>	<p>Running Config (1269 Lines)</p> <p>Collected at: Oct 4, 2022 12:49 PM</p> <pre> 15 exit-address-family 16 enable secret 9 ***** 17 aaa new-model 18 aaa group server radius dnac-client-radius-group 19 server name dnac-radius_192.168.111.136 20 ip radius source-interface Vlan1023 21 aaa group server radius dnac-network-radius-group 22 server name dnac-radius_192.168.111.136 23 ip radius source-interface Vlan1023 24 aaa authentication login default local 25 aaa authentication login dnac-cts-list-group dnac-client-radius-group local 26 aaa authentication login VTY_authen group dnac-network-radius-group local 27 aaa authentication dot1x default group dnac-client-radius-group 28 aaa authorization exec default local 29 aaa authorization exec VTY_authen group dnac-network-radius-group local if-authenticated 30 aaa authorization network default group dnac-client-radius-group 31 aaa authorization network dnac-cts-list-group dnac-client-radius-group 32 aaa accounting update newinfo periodic 2888 33 aaa accounting identity default start-stop </pre>
--	--

SUMMARY

▼ Status (4)

- Upcoming
- In Progress
- Success
- Failed

▼ Last Updated

- 3 hours
- 24 hours
- 7 days

> Categories (35)

▼ Recurring

- Show
- Hide

Search by description

- i OS UPDATE
 jpillar
[Distribution of cat3k_caa-universalk9.16.12.x](#)
 Starts: Oct 4, 2022 1:13 PM | Status: Success
- i PROVISION
 jpillar
[Provision Device](#)
 Hostname: C3850-PEN1-PLZ01.enprglab.local
 Starts: Oct 4, 2022 12:40 PM | Status: Success
- i DEVICE CONTROLLABILITY AND TELEMETRY
 jpillar
[Update Telemetry Settings Task](#)
 Starts: Oct 4, 2022 12:34 PM | Status: Success
- i SITE ASSIGNMENT
 jpillar
[Assign 1 Device\(s\) to Site](#)
 Starts: Oct 4, 2022 12:33 PM | Status: Success
- i DISCOVERY
 jpillar
[Clone of pnp-ojeb](#)
 Starts: Oct 4, 2022 12:24 PM | Status: Success
- i DISCOVERY
 jpillar
[pnp-ojeb](#)



Software Image Management

Software policy

Cisco DNA Center

Design / Image Repository / Image Family

PRG07

Image Repository

Cisco Catalyst 9300 Switch

SUMMARY

- Roles & Tags
- Major Versions
- Golden Images
- Recommendation

Images (21) Show Tasks Cisco.com ID jpillar (Not me?)

Filter Images

As of: Oct 30, 2023 9:42 AM

Image Name	Version	Devices	Image Status	Advisories		Device Roles & Tags
				Critical	High	
Install Mode (17.09.03.0.4111)	17.09.03.0.4111 Add On (N/A)	3		0	2	
cat9k_losxe.17.09.02.SPA.bin Verified	17.09.02.0.3040 Add On (2)	0		0	5	
cat9k_losxe.17.03.03.SPA.bin Verified	17.03.03.0.4762 Add On (2)	0		0	27	
cat9k_losxe_npe.17.06.06a.SPA.bin Latest	Bengaluru-17.6.6a Add On (1)	0		0	0	
cat9k_losxe.17.09.04a.SPA.bin Verified Latest	17.09.04a.0.6 Add On (1)	0		0	0	Role: All
cat9k_losxe.17.06.05.SPA.bin Suggested	Bengaluru-17.6.5 Add On (N/A)	0		0	3	
cat9k_losxe_npe.17.06.05.SPA.bin Suggested	Bengaluru-17.6.5 Add On (N/A)	0		0	3	
cat9k_losxe.17.12.01.SPA.bin Latest	Dublin-17.12.1 Add On (N/A)	0		0	0	

21 Record(s)

Show Records: 25 1 - 21

File Edit View History Bookmarks Tools Help

Cisco DNA Center

https://10.62.9.230/dna/provision/devices/inventory/device-details?deviceId=a7b2c9d5-3f9a-421a-9411-b39408514c5e&defaultTab=Summary 80%

vSphere VMware-EN VMware-PAR VMware-Fusion Cisco vManage Cisco DNA Center Identity Services Engine APIC (10.62.10.111) SMC FMC EN Switching - TME - L... Cisco Cyber Vision

DNA Center

All Devices / C9300-E3.enprglab.local

C9300-E3.enprglab.local Run Commands View 360

TS-Edge Update-FNF WoL-D

Reachable Managed IP Address: 192.168.101.41 Device Model: Cisco Catalyst 9300 Switch Device Role: ACCESS Uptime: 42 days 8 hrs 8 mins Site: Global/Prague/PRG07

DETAILS

Interfaces

Hardware & Software

Configuration

Power

Fans

SFP Modules

User Defined Fields

Config Drift

REP Rings

Wireless Info

SECURITY

Advisories

FIELD NOTICES

Field Notices

Potential Field Notices

COMPLIANCE

Summary

You can now fix all configuration compliance issues on this device. You will be able to review before the fix is applied. [Fix All Configuration Compliance Issues](#)

Compliance Summary [View Preference for Acknowledged Violations](#)

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

EoX - End of Life [Info](#)
Compliance last run on: Oct 28th, 2023, 06:59:08 AM
Module : **Compliant**
Software : **Non-Compliant**
Hardware : **Compliant**

Network Settings [Info](#)
Non-Compliant since May 15th, 2023, 12:28:40 PM
Compliance last run on: Oct 28th, 2023, 06:59:08 AM
8 General: 8
Open Violations

Startup vs Running Configuration [Info](#)
Compliance last run on: Oct 28th, 2023, 06:59:08 AM
6 days since in sync
Lines added: 0
Lines removed: 0
Lines modified: 0

Network Profiles [Info](#)
Non-Compliant since Sep 13th, 2022, 08:35:06 PM
Compliance last run on: Oct 28th, 2023, 06:59:09 AM
1 CLI Template: 1
Open Violations

Fabric BETA [Info](#)
Non-Compliant since Oct 28th, 2023, 06:59:24 AM
Compliance last run on: Oct 28th, 2023, 06:59:24 AM
5 Segment: 3
Authentication Profile: 2
Open Violations

Software Image [Info](#)
Non-Compliant since Oct 30th, 2023, 09:42:31 AM
Compliance last run on: Oct 30th, 2023, 09:42:31 AM
17.09.04a Golden Image Version
Running Version: **17.9.3**

Critical Security Advisories [Info](#)
Compliant since Apr 9th, 2021, 05:42:34 PM
Compliance last run on: Oct 28th, 2023, 06:59:08 AM
0

⚠️ Some devices may have design or provision conflicts. Please see the "Template Status" column for more information. [Update CLI Templates](#)

⚠️ This release enables new telemetry subscription for Cisco DNA Center Assurance data and optimizes existing subscriptions for performance. An additional subscription is provided in this release for Security-Group Policy monitoring on switching platforms. These telemetry subscriptions are configured via NETCONF and will be applied to the [applicable devices](#) which have been discovered with NETCONF. [Apply Fix](#)
To provision subscriptions on [devices that have not been discovered with NETCONF](#), rediscover the devices with NETCONF, and update the Telemetry Settings with the Force Configuration Push option.

🔔 Application Telemetry actions will move soon to [Application Visibility Setup](#).

PRG07 All Routers **Switches** Wireless Controllers Access Points Sensors 🔍 📄 🗑️ 📍

DEVICE WORK ITEMS **Devices (13)** Focus: [Software Images](#) Take a tour Export ⚙️

Unreachable Unassigned Failed Provision Non Compliant Outdated Software Image No Golden Image Failed Image Prechecks Under Maintenance Security Advisories Marked for Replacement

0 Selected [Tag](#) [Add Device](#) [Image Update](#) [Image Update Status](#) [Actions](#) As of: Oct 30, 2023 9:44 AM

<input type="checkbox"/>	Device Name	IP Address	Device Family	Reachability	Software Image	OS Update Status	Site	Provisioning Status	Manageability	Device Series
<input type="checkbox"/>	C3950-PEN2-PRG07.enprglab.local C3K-PEN	192.168.138.138	Switches and Hubs	Unreachable	cat3k_caa-universalk9.16.12.06...	Device Uptodate	.../Prague/PRG07	Success See Details ⚠️ Out of Sync	Managed Device Unreachable	Cisco Catalyst 3850 Ser
<input type="checkbox"/>	C9500-A.enprglab.local C9500-A	192.168.101.33	Switches and Hubs (WLC Capable)	Reachable	cat9k_iosxe.17.09.03.SPA.bin	Device Uptodate See Details	.../Prague/PRG07	Success See Details	Managed	Cisco Catalyst 9500 Ser
<input type="checkbox"/>	C9500-B.enprglab.local C9500-B	192.168.101.35	Switches and Hubs (WLC Capable)	Reachable	cat9k_iosxe.17.09.03.SPA.bin	Device Uptodate See Details	.../Prague/PRG07	Success See Details	Managed	Cisco Catalyst 9500 Ser
<input type="checkbox"/>	C3850-AH.enprglab.local SDA DHCP Server	192.168.115.82	Switches and Hubs	Reachable	cat3k_caa-universalk9.16.12.06...	Device Uptodate	.../Prague/PRG07	Success See Details ⚠️ Out of Sync	Managed	Cisco Catalyst 3850 Ser
<input type="checkbox"/>	C9300-E3.enprglab.local TS-Edge, Update-FNF, ...	192.168.101.41	Switches and Hubs (WLC Capable)	Reachable	CAT9K[17.9.3] 🟢 Needs Update	Distribution Pending	.../Prague/PRG07	Success See Details	Managed	Cisco Catalyst 9300 Ser
<input type="checkbox"/>	C9300-E1.enprglab.local Update-FNF, WoL-D	192.168.101.40	Switches and Hubs (WLC Capable)	Reachable	CAT9K[17.9.3] 🟢 Needs Update	Distribution Pending	.../Prague/PRG07	Success See Details	Managed	Cisco Catalyst 9300 Ser
<input type="checkbox"/>	C9300-E2.enprglab.local Update-FNF, WoL-D	192.168.101.46	Switches and Hubs (WLC Capable)	Reachable	CAT9K[17.9.3] 🟢 Needs Update	Distribution Pending	.../Prague/PRG07	Success See Details	Managed	Cisco Catalyst 9300 Ser
<input type="checkbox"/>	Switch-192-168-101-58.enprglab.local Update-FNF, WoL-D	192.168.101.58	Switches and Hubs (WLC Capable)	Reachable	cat9k_iosxe.17.09.03.SPA.bin	Device Uptodate See Details	.../Prague/PRG07	Success See Details	Managed	Cisco Catalyst 9300 Ser

Some devices may have design or provision conflicts. Please see the "Template Status" column for more information. [Update CLI Templates](#)

This release enables new telemetry subscription for Cisco DNA Center Assurance data and optimizes existing subscriptions for performance. An additional subscription is provided in this release for Security-Group Policy monitoring on switching platforms. These telemetry subscriptions are configured via NETCONF and will be applied to the [applicable devices](#) which have been discovered with NETCONF. [Apply Fix](#) To provision subscriptions on [devices that have not been discovered with NETCONF](#), rediscover the devices with NETCONF, and update the Telemetry Settings with the Force Configuration Push option.

Application Telemetry actions will move soon to [Application Visibility Setup](#).

Devices (13) Focus: **Software Images** | Take a tour | Export

Click here to apply basic or advanced filters or view recently applied filters

3 Selected | Tag | Add Device | **Image Update** | Image Update Status | Actions

Device Name	IP Address	Inventory	Software Image	OS Update Status	Site	Provisioning Status	Manageability	Device Series
C3950-PEN2-PRG07.enprglab.local C3K-PEN	192.168.138.135	Switches and Hubs (WLC Capable)	cat3k_iosxe.17.09.03.SPA.bin	Device Uptodate	.../Prague/PRG07	Success Out of Sync	Managed Device Unreachable	Cisco Catalyst 3850 Ser
C9500-A.enprglab.local C9500-A	192.168.101.33	Switches and Hubs (WLC Capable)	CAT9K[17.9.3] Needs Update	Device Uptodate	.../Prague/PRG07	Success See Details	Managed	Cisco Catalyst 9500 Ser
C9500-B.enprglab.local C9500-B	192.168.101.35	Switches and Hubs (WLC Capable)	CAT9K[17.9.3] Needs Update	Device Uptodate	.../Prague/PRG07	Success See Details	Managed	Cisco Catalyst 9500 Ser
C3850-AH.enprglab.local SDA DHCP Server	192.168.115.82	Switches and Hubs	cat3k_caa-universalk9.16.12.06...	Device Uptodate	.../Prague/PRG07	Success Out of Sync	Managed	Cisco Catalyst 3850 Ser
C9300-E3.enprglab.local TS-Edge, Update-FNF, ...	192.168.101.41	Switches and Hubs (WLC Capable)	CAT9K[17.9.3] Needs Update	Distribution Pending	.../Prague/PRG07	Success See Details	Managed	Cisco Catalyst 9300 Ser
C9300-E1.enprglab.local Update-FNF, WoL-D	192.168.101.40	Switches and Hubs (WLC Capable)	CAT9K[17.9.3] Needs Update	Distribution Pending	.../Prague/PRG07	Success See Details	Managed	Cisco Catalyst 9300 Ser
C9300-E2.enprglab.local Update-FNF, WoL-D	192.168.101.46	Switches and Hubs (WLC Capable)	CAT9K[17.9.3] Needs Update	Distribution Pending	.../Prague/PRG07	Success See Details	Managed	Cisco Catalyst 9300 Ser
Switch-192-168-101-101.enprglab.local Update-FNF, WoL-D	192.168.101.58	Switches and Hubs (WLC Capable)	cat9k_iosxe.17.09.03.SPA.bin	Device Uptodate	.../Prague/PRG07	Success See Details	Managed	Cisco Catalyst 9300 Ser

Task Name

To help identify the workflow, assign it a unique, meaningful name. You can exit this workflow at any time and resume working on it later.

Task Name*
Update Access Layer PRG07



Software Distribution Checks

You can enable prechecks and postchecks for your software distribution and determine the check order. If you don't see a check, you can [add a custom check](#).

2 PRE AND POST CHECKS

☰ Fabric Device Upgrade Check	SYSTEM	PRE	<input checked="" type="checkbox"/>
☰ Flash check	SYSTEM	PRE	<input checked="" type="checkbox"/>

Software Activation Checks

You can enable prechecks and postchecks for your software activation and determine the check order. If you don't see a check, you can [add a custom check](#).

Skip Activation

6 PRE AND POST CHECKS				
☰ Spanning Tree Summary Check 🔵	SYSTEM	PRE	POST	<input checked="" type="checkbox"/>
☰ CDP neighbors Check 🔵	SYSTEM	PRE	POST	<input checked="" type="checkbox"/>
☰ Interface Check 🔵	SYSTEM	PRE	POST	<input checked="" type="checkbox"/>
☰ Fabric Device Upgrade Check 🔵	SYSTEM	PRE		<input checked="" type="checkbox"/>
☰ Config register check 🔵	SYSTEM	PRE		<input checked="" type="checkbox"/>
☰ Startup config check 🔵	SYSTEM	PRE	POST	<input checked="" type="checkbox"/>

Device Activation Order

You can use filters to sort devices and order their activation in parallel or sequentially. After devices are sorted, you can reorder them sequentially.

Devices in Parallel(3) [Edit Order](#)

Parallel Sequential

Filter Devices 🔍

1 Selected [Move to Sequential Update Order](#) [ISSU](#) ▾

	Device Name	IP Address	Site	Device Series	Device Role	Current Image	Update Image	Comment
<input type="checkbox"/>	C9300-E1.enprglab.local Update-FNF,WoL-D	192.168.101.40	Global/Prague/PRG07	Cisco Catalyst 9300 Series Swit...	Access	cat9k_iosxe.17.09.03.SPA.bin	cat9k_iosxe.17.09.04a.SPA.bin	Update Readiness Report
<input type="checkbox"/>	C9300-E2.enprglab.local Update-FNF,WoL-D	192.168.101.46	Global/Prague/PRG07	Cisco Catalyst 9300 Series Swit...	Access	cat9k_iosxe.17.09.03.SPA.bin	cat9k_iosxe.17.09.04a.SPA.bin	Update Readiness Report
<input checked="" type="checkbox"/>	C9300-E3.enprglab.local TS-Edge,Update-FNF,WoL-D	192.168.101.41	Global/Prague/PRG07	Cisco Catalyst 9300 Series Swit...	Access	cat9k_iosxe.17.09.03.SPA.bin	cat9k_iosxe.17.09.04a.SPA.bin	Update Readiness Report

Device Activation Order

You can use filters to sort devices and order their activation in parallel or sequentially. After devices are sorted, you can reorder them sequentially.

Device in Sequential(1) and Devices in Parallel(2) [Edit Order](#) Terminate on Update Failure:

Parallel Sequential

🔍 Filter Devices

0 Selected [Move to Sequential Update Order](#) ISSU ▾

<input type="checkbox"/>	Device Name	IP Address	Site	Device Series	Device Role	Current Image	Update Image	Comment
<input type="checkbox"/>	C9300-E1.enprglab.local Update-FNF,WoL-D	192.168.101.40	Global/Prague/PRG07	Cisco Catalyst 9300 Series Swit...	Access	cat9k_losxe.17.09.03.SPA.bin	cat9k_losxe.17.09.04a.SPA.bin	Update Readiness Report
<input type="checkbox"/>	C9300-E2.enprglab.local Update-FNF,WoL-D	192.168.101.46	Global/Prague/PRG07	Cisco Catalyst 9300 Series Swit...	Access	cat9k_losxe.17.09.03.SPA.bin	cat9k_losxe.17.09.04a.SPA.bin	Update Readiness Report

2 Record(s)

Show Records: 25 ▾

1 - 2

< 1 >

Device Activation Order

You can use filters to sort devices and order their activation in parallel or sequentially. After devices are sorted, you can reorder them sequentially.

Device in Sequential(1) and Devices in Parallel(2) [Edit Order](#) Terminate on Update Failure:

Parallel **Sequential**

Filter Devices

0 Selected [Move to Parallel Update Order](#) [Reorder List](#) [ISSU](#)

<input type="checkbox"/>	Device Name	IP Address	Site	Device Series	Device Role	Current Image	Update Image	Comment
<input type="checkbox"/>	C9300-E3.enprglab.local TS-Edge,Update-FNF,WoL-D	192.168.101.41	Global/Prague/PRG07	Cisco Catalyst 9300 Series Swit...	Access	cat9k_losxe.17.09.03.SPA.bin	cat9k_losxe.17.09.04a.SPA.bin	Update Readiness Report

Device Activation Order

You can use filters to sort devices and order their activation in parallel or sequentially. After devices are sorted, you can reorder them sequentially.

Device in Sequential(1) and Devices in Parallel(2) [Edit Order](#) Terminate on Update Failure:

Parallel **Sequential**

Filter Devices

0 Selected [Move to Parallel Update Order](#) [Reorder List](#) **ISSU** ▾

<input type="checkbox"/>	Device Name	IP Address	Site	Device	Update Image	Comment
<input type="checkbox"/>	C9300-E3.enprglab.local TS-Edge,Update-FNF,WoL-D	192.168.101.41	Global/Prague/PRG07	C9300-E3	cat9k_losxe.17.09.03.SPA.bin	
<input type="checkbox"/>					cat9k_losxe.17.09.04a.SPA.bin	Update Readiness Report

Edit Order

2 devices will be updated together and then, one device will be updated. Change activation order by reordering list below.

UPDATE ORDER:

- Devices in Parallel(2)
- Device in Sequential(1)

[Cancel](#) [Save](#)

Image Update Readiness Check

DEVICE DETAILS

Device: C9300-E3.enprglab.local
 Running Image: cat9k_iosxe.17.09.03.SPA.bin
 Golden Image: cat9k_iosxe.17.09.04a.SPA.bin
 Reboot Required: Yes

Readiness Checks Results [Action](#)

[Export](#) [As of: Oct 30, 2023 9:55 AM](#)

Check Type	Description	Status	Last Checked
Startup config check	Startup configuration exist for this device	✔️	Oct 30, 2023 9:42 AM
Config register check	Config-register verified successfully Expected: 0x102,0x2102 Action: No action required	✔️	Oct 30, 2023 9:42 AM
Flash check	Flash check: SUCCESS Expected: 2624 MB Available Free space is: 8311 MB [install mode needs free space to 2.2 times of Image size]	✔️	Oct 30, 2023 9:42 AM
File Transfer Check:	HTTPS/SCP is reachable :192.168.111.237	✔️	Oct 30, 2023 9:42 AM
Service Entitlement Check	Could not validate license service contract	⚠️	Oct 30, 2023 9:42 AM

Schedule Task and Clean Up

You can schedule software distribution, activation, and cleanup of device memory.

📘 The time zone of the site to which the device belongs will be used as the default site time zone.

Software Distribution

Now Later

Start Date/Time

Oct 30, 2023 📅

10:06 AM ▾

Time Zone

Europe/Prague ▾

Software Activation

After Distribution

Now Later

Start Date/Time

Oct 30, 2023 📅

8:06 PM ▾

Time Zone

Europe/Prague ▾

INITIATE FLASH CLEANUP AFTER ACTIVATION

Flash clean up will store only the running image and remove all previous images saved on the device.

Initiate Flash Cleanup After Activation

Schedule Task and Clean Up

You can schedule software distribution, activation, and cleanup of device memory.

📘 Your time zone will be used as the default site time zone.

Software Distribution

Now Later

Software Activation

After Distribution

INITIATE FLASH CLEANUP AFTER ACTIVATION

Flash clean up will store only the running image and remove all previous images saved on the device.

Initiate Flash Cleanup After Activation

Summary

Review your scheduled task. Click [Edit](#) to make changes or [Submit](#) to schedule the activation.

3 Devices to Update 1 Device Series 1 Sites

Task Name

Task Name Update Access Layer PRG07

Selected Devices

Filter Devices 🔍

Device Name	Device Series	Site	Current Image	Update Image	Update Order
C9300-E1.enprglab.local (192.168.101...	Cisco Catalyst 9300 Series Switches	Global/Prague/PRG07	cat9k_iosxe.17.09.03.SPA.bin	cat9k_iosxe.17.09.04a.SPA.bin	Parallel Order
C9300-E2.enprglab.local (192.168.101...	Cisco Catalyst 9300 Series Switches	Global/Prague/PRG07	cat9k_iosxe.17.09.03.SPA.bin	cat9k_iosxe.17.09.04a.SPA.bin	Parallel Order
C9300-E3.enprglab.local (192.168.101...	Cisco Catalyst 9300 Series Switches	Global/Prague/PRG07	cat9k_iosxe.17.09.03.SPA.bin	cat9k_iosxe.17.09.04a.SPA.bin	Sequential Order

3 Record(s) Show Records: 25 1 - 3 < 1 >

Done! Image update scheduled.

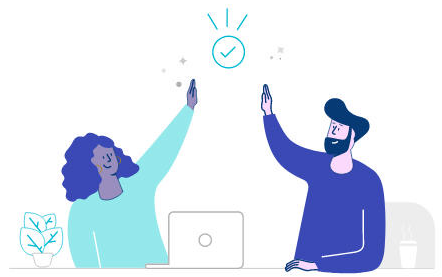
✔ Successfully scheduled distribution

What's Next?

Image Update Status

[Image Repository](#)

[Workflows Home](#)



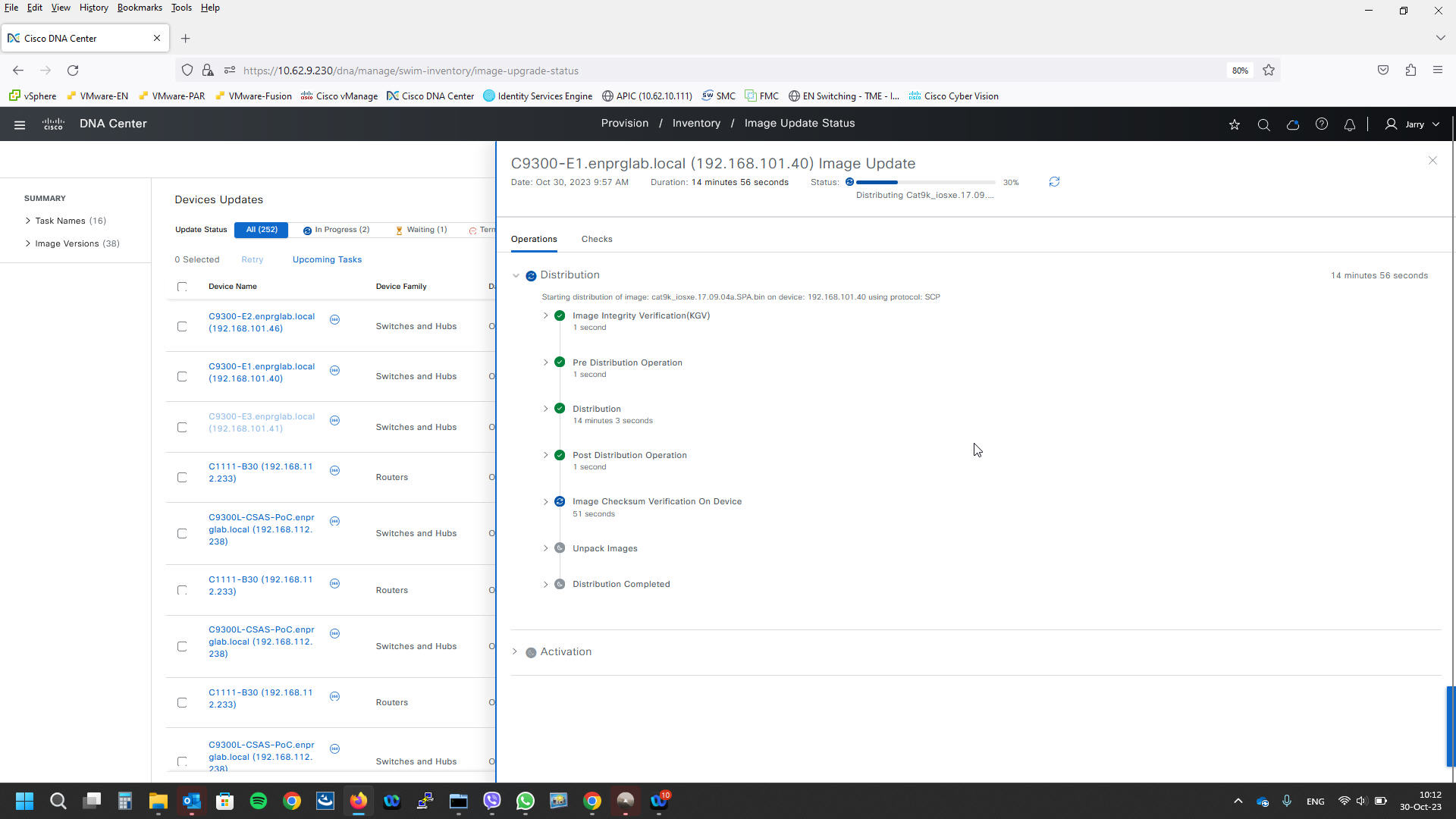
SUMMARY
> Task Names (16)
> Image Versions (38)

Devices Updates

Update Status: All (252) In Progress (2) Waiting (1) Terminated (0) Success (204) Failure (45)

0 Selected [Retry](#) [Upcoming Tasks](#) As of: Oct 30, 2023 9:57 AM

Device Name	Device Family	Date Updated	Duration	Image Version	Task Name	Status	Actions
<input type="checkbox"/> C9300-E2.enprglab.local (192.168.101.46)	Switches and Hubs	Oct 30, 2023	8 seconds	17.09.04a.0.6	Update Access Layer PRG07	Estimating Progress... Distributing Cat9k_iosxe.17.09...	Retry
<input type="checkbox"/> C9300-E1.enprglab.local (192.168.101.40)	Switches and Hubs	Oct 30, 2023	8 seconds	17.09.04a.0.6	Update Access Layer PRG07	Estimating Progress... Distributing Cat9k_iosxe.17.09...	Retry
<input type="checkbox"/> C9300-E3.enprglab.local (192.168.101.41)	Switches and Hubs	Oct 30, 2023	9 seconds	NA	Update Access Layer PRG07	Waiting	Retry
<input type="checkbox"/> C1111-B30 (192.168.11.2.233)	Routers	Oct 18, 2023	10 hours 42 seconds	17.03.04a.0.5574	Task3	Failed to distribute c1100-universalk9.17.03.04a.SPA.bin	Retry
<input type="checkbox"/> C9300L-CSAS-PoC.enprglab.local (192.168.112.238)	Switches and Hubs	Oct 18, 2023	7 minutes 40 seconds	17.09.03.0.4 , 17.09.03.0.4111	Task3	Successfully updated with cat9k_iosxe.17.09.03.SPA.bin , cat9k_iosxe.17.09.03.CSCwe38403.SPA.smu.bin	Retry
<input type="checkbox"/> C1111-B30 (192.168.11.2.233)	Routers	Oct 18, 2023	12 seconds	17.03.04a.0.5574	task800	Failed to distribute c1100-universalk9.17.03.04a.SPA.bin	Retry
<input type="checkbox"/> C9300L-CSAS-PoC.enprglab.local (192.168.112.238)	Switches and Hubs	Oct 18, 2023	7 minutes 39 seconds	17.09.03.0.4 , 17.09.03.0.4111	task800	Successfully updated with cat9k_iosxe.17.09.03.SPA.bin , cat9k_iosxe.17.09.03.CSCwe38403.SPA.smu.bin	Retry
<input type="checkbox"/> C1111-B30 (192.168.11.2.233)	Routers	Oct 17, 2023	6 seconds	17.03.04a.0.5574	Task3	Failed to distribute c1100-universalk9.17.03.04a.SPA.bin	Retry
<input type="checkbox"/> C9300L-CSAS-PoC.enprglab.local (192.168.112.238)	Switches and Hubs	Oct 17, 2023	1 second	17.09.03.0.4 , 17.09.03.0.19 , 17.09.03.0.4111	Task3	Successfully distributed cat9k_iosxe.17.09.03.SPA.bin , cat9k_iosxe.17.09.03.CSCwe38403.SPA.smu.bin , cat9k_iosxe.17.09.03.CSCwe36743.SPA.s	Retry



SUMMARY
> Task Names (16)
> Image Versions (38)

Devices Updates

Update Status All (252) In Progress (2) Waiting (1) Terminated (0)

0 Selected Retry Upcoming Tasks

Device Name	Device Family	Update Status
C9300-E2.enprglab.local (192.168.101.46)	Switches and Hubs	In Progress
C9300-E1.enprglab.local (192.168.101.40)	Switches and Hubs	In Progress
C9300-E3.enprglab.local (192.168.101.41)	Switches and Hubs	In Progress
C1111-B30 (192.168.11.2.233)	Routers	In Progress
C9300L-CSAS-PoC.enprglab.local (192.168.112.238)	Switches and Hubs	In Progress
C1111-B30 (192.168.11.2.233)	Routers	In Progress
C9300L-CSAS-PoC.enprglab.local (192.168.112.238)	Switches and Hubs	In Progress
C1111-B30 (192.168.11.2.233)	Routers	In Progress
C9300L-CSAS-PoC.enprglab.local (192.168.112.238)	Switches and Hubs	In Progress

C9300-E1.enprglab.local (192.168.101.40) Image Update

Date: Oct 30, 2023 9:57 AM Duration: 14 minutes 56 seconds Status: 30%

Operations Checks

- Distribution 14 minutes 56 seconds
 - Starting distribution of image: cat9k_iosxe.17.09.04a.SPA.bin on device: 192.168.101.40 using protocol: SCP
 - Image Integrity Verification(KGV) 1 second
 - Pre Distribution Operation 1 second
 - Distribution 14 minutes 3 seconds
 - Post Distribution Operation 1 second
 - Image Checksum Verification On Device 51 seconds
 - Unpack Images
 - Distribution Completed

> Activation

SUMMARY

- > Task Names (16)
- > Image Versions (38)

Devices Updates

Update Status: All (252) In Progress (2) Waiting (1) Terminated (0)

0 Selected [Retry](#) [Upcoming Tasks](#)

Device Name	Device Family	Update Status
C9300-E2.enprglab.local (192.168.101.46)	Switches and Hubs	In Progress
C9300-E1.enprglab.local (192.168.101.40)	Switches and Hubs	Completed
C9300-E3.enprglab.local (192.168.101.41)	Switches and Hubs	In Progress
C1111-B30 (192.168.11.2.233)	Routers	In Progress
C9300L-CSAS-PoC.enprglab.local (192.168.112.238)	Switches and Hubs	In Progress
C1111-B30 (192.168.11.2.233)	Routers	In Progress
C9300L-CSAS-PoC.enprglab.local (192.168.112.238)	Switches and Hubs	In Progress
C1111-B30 (192.168.11.2.233)	Routers	In Progress
C9300L-CSAS-PoC.enprglab.local (192.168.112.238)	Switches and Hubs	In Progress

C9300-E1.enprglab.local (192.168.101.40) Image Update

Date: Oct 30, 2023 9:57 AM Duration: 32 minutes 29 seconds Status: ✔ Successfully updated with cat9k_iosxe.17.09.04a.SPA.bin

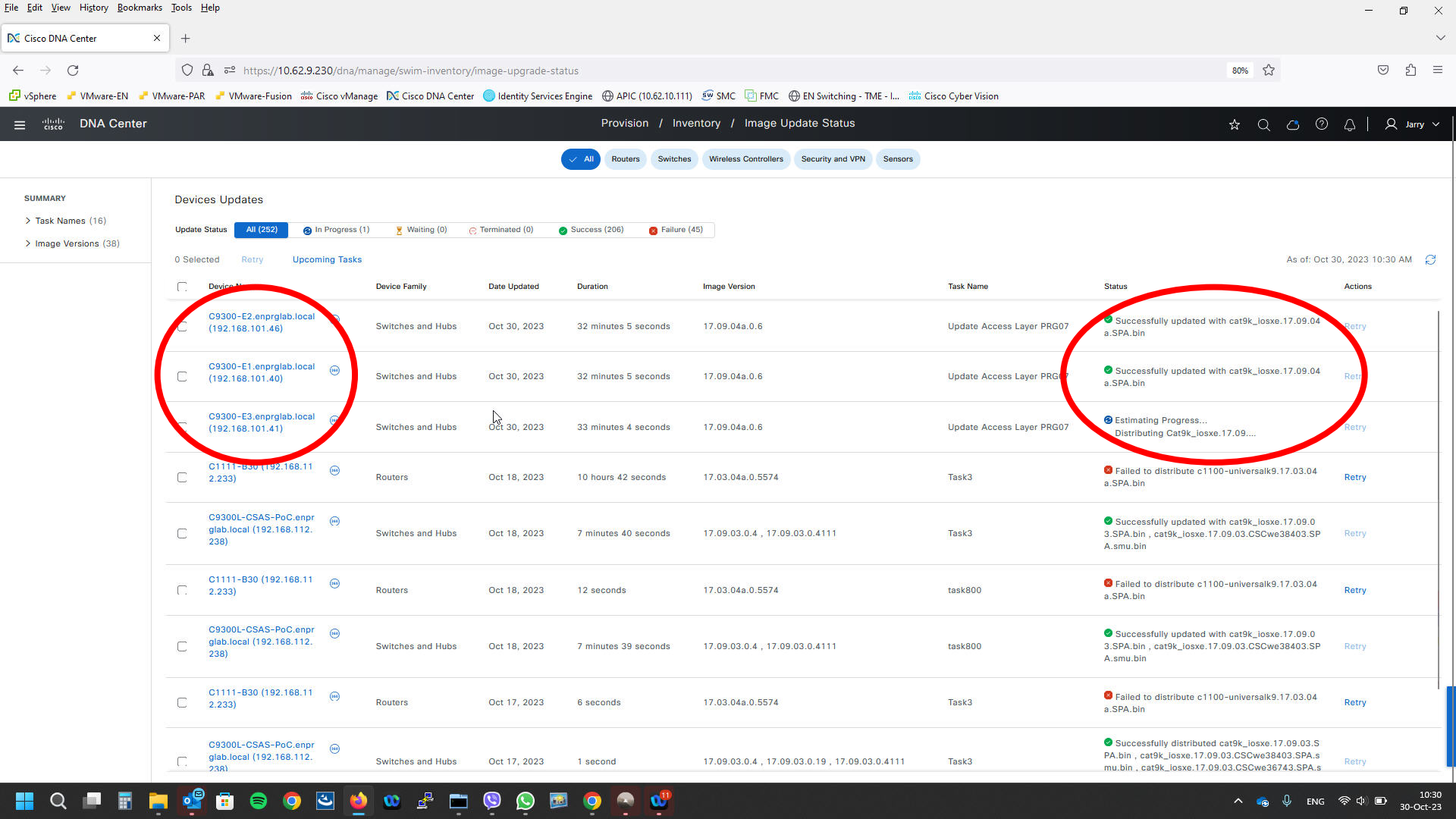
Operations

- ✔ Image Checksum Verification On Device
1 minute 40 seconds
- ✔ Unpack Images
44 seconds

✔ Activation

15 minutes 42 seconds

- NETCONF Activation of image : cat9k_iosxe.17.09.04a.SPA.bin on device : 192.168.101.40 completed successfully.
- ✔ Pre Activation Operation
4 seconds
 - ✔ Image Activation
15 minutes 18 seconds
 - ✔ Install Commit
5 seconds
 - ✔ Remove Inactive Images
3 seconds
 - ✔ Collect Running Image Details
3 seconds
 - ✔ Verify Image Activation
1 second
 - ✔ Post Activation Operation
8 seconds



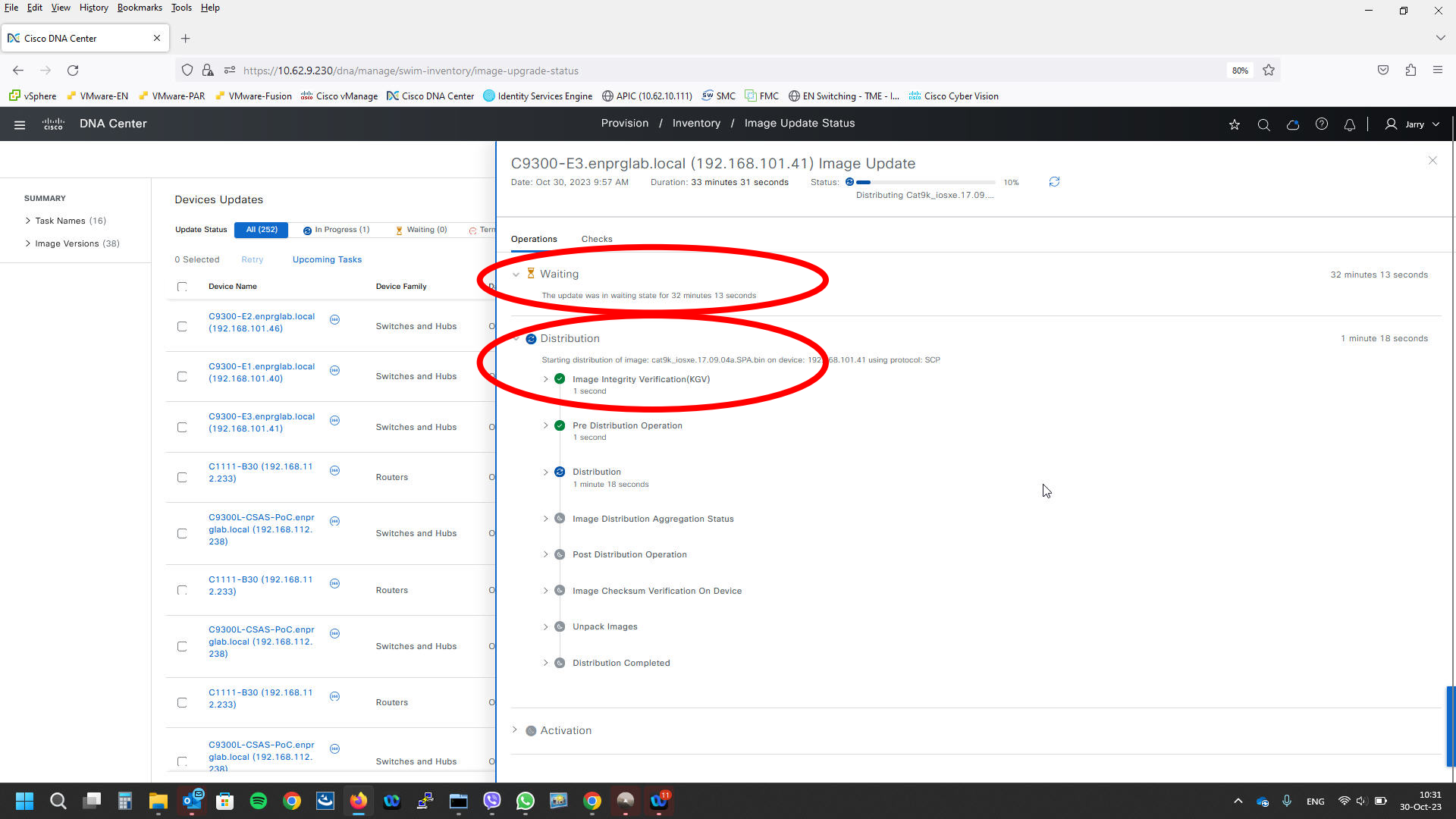
Devices Updates

Update Status: All (252) In Progress (1) Waiting (0) Terminated (0) Success (206) Failure (45)

0 Selected Retry Upcoming Tasks

As of: Oct 30, 2023 10:30 AM

Device ID	Device Family	Date Updated	Duration	Image Version	Task Name	Status	Actions
C9300-E2.enprglab.local (192.168.101.46)	Switches and Hubs	Oct 30, 2023	32 minutes 5 seconds	17.09.04a.0.6	Update Access Layer PRG07	Successfully updated with cat9k_losxe.17.09.04.a.SPA.bin	Retry
C9300-E1.enprglab.local (192.168.101.40)	Switches and Hubs	Oct 30, 2023	32 minutes 5 seconds	17.09.04a.0.6	Update Access Layer PRG07	Successfully updated with cat9k_losxe.17.09.04.a.SPA.bin	Retry
C9300-E3.enprglab.local (192.168.101.41)	Switches and Hubs	Oct 30, 2023	33 minutes 4 seconds	17.09.04a.0.6	Update Access Layer PRG07	Estimating Progress... Distributing Cat9k_losxe.17.09.04.a.SPA.bin	Retry
C1111-B30 (192.168.11.2.233)	Routers	Oct 18, 2023	10 hours 42 seconds	17.03.04a.0.5574	Task3	Failed to distribute c1100-universalk9.17.03.04.a.SPA.bin	Retry
C9300L-CSAS-PoC.enprglab.local (192.168.112.238)	Switches and Hubs	Oct 18, 2023	7 minutes 40 seconds	17.09.03.0.4 , 17.09.03.0.4111	Task3	Successfully updated with cat9k_losxe.17.09.03.0.4.SPA.bin , cat9k_losxe.17.09.03.0.4111.CSCwe38403.SPA.smu.bin	Retry
C1111-B30 (192.168.11.2.233)	Routers	Oct 18, 2023	12 seconds	17.03.04a.0.5574	task800	Failed to distribute c1100-universalk9.17.03.04.a.SPA.bin	Retry
C9300L-CSAS-PoC.enprglab.local (192.168.112.238)	Switches and Hubs	Oct 18, 2023	7 minutes 39 seconds	17.09.03.0.4 , 17.09.03.0.4111	task800	Successfully updated with cat9k_losxe.17.09.03.0.4.SPA.bin , cat9k_losxe.17.09.03.0.4111.CSCwe38403.SPA.smu.bin	Retry
C1111-B30 (192.168.11.2.233)	Routers	Oct 17, 2023	6 seconds	17.03.04a.0.5574	Task3	Failed to distribute c1100-universalk9.17.03.04.a.SPA.bin	Retry
C9300L-CSAS-PoC.enprglab.local (192.168.112.238)	Switches and Hubs	Oct 17, 2023	1 second	17.09.03.0.4 , 17.09.03.0.19 , 17.09.03.0.4111	Task3	Successfully distributed cat9k_losxe.17.09.03.0.4.SPA.bin , cat9k_losxe.17.09.03.0.19.CSCwe38403.SPA.smu.bin , cat9k_losxe.17.09.03.0.4111.CSCwe36743.SPA.smu.bin	Retry



C9300-E3.enprglab.local (192.168.101.41) Image Update

Date: Oct 30, 2023 9:57 AM Duration: 1 hour 4 minutes 1 second Status: ● Successfully updated with cat9k_iosxe.17.09.04a.SPA.bin

Operations Checks

- > ⌚ Waiting 32 minutes 13 seconds
- > ● Distribution 16 minutes 8 seconds
- > ● Activation 15 minutes 37 seconds

Devices Updates

Update Status **All (252)** ● In Progress (1) ⌚ Waiting (0) ⊗ Terminated (0)

0 Selected ↺ Retry ➡ Upcoming Tasks

<input type="checkbox"/>	Device Name	Device Family	D
<input type="checkbox"/>	C9300-E2.enprglab.local (192.168.101.46)	Switches and Hubs	0
<input type="checkbox"/>	C9300-E1.enprglab.local (192.168.101.40)	Switches and Hubs	0
<input type="checkbox"/>	C9300-E3.enprglab.local (192.168.101.41)	Switches and Hubs	0
<input type="checkbox"/>	C1111-B30 (192.168.11.2.233)	Routers	0
<input type="checkbox"/>	C9300L-CSAS-PoC.enprglab.local (192.168.112.238)	Switches and Hubs	0
<input type="checkbox"/>	C1111-B30 (192.168.11.2.233)	Routers	0
<input type="checkbox"/>	C9300L-CSAS-PoC.enprglab.local (192.168.112.238)	Switches and Hubs	0
<input type="checkbox"/>	C1111-B30 (192.168.11.2.233)	Routers	0
<input type="checkbox"/>	C9300L-CSAS-PoC.enprglab.local (192.168.112.238)	Switches and Hubs	0

252 Record(s)

Some devices may have design or provision conflicts. Please see the "Template Status" column for more info.

This release enables new telemetry subscription for Cisco DNA Center Assurance data and optimizes existing subscriptions applied to the applicable devices which have been discovered with NETCONF. Apply Fix To provision subscriptions on devices that have not been discovered with NETCONF, rediscover the devices.

Application Telemetry actions will move soon to Application Visibility Setup.

- PRG07
- DEVICE WORK ITEMS
- Unreachable
- Unassigned
- Failed Provision
- Non Compliant
- Outdated Software Image
- No Golden Image
- Failed Image Prechecks
- Under Maintenance
- Security Advisories
- Marked for Replacement

Devices (13) Focus: Software Images

Click here to apply basic or advanced filters or view recently added devices

0 Selected Tag Add Device Image Update Image Update

Device Name	IP Address
<input type="checkbox"/> C3850-PEN2-PRG07.enprglab.local C3K-PEN	192.168.101.41
<input type="checkbox"/> C9500-A.enprglab.local C9500-A	192.168.101.42
<input type="checkbox"/> C9500-B.enprglab.local C9500-B	192.168.101.43
<input type="checkbox"/> C3650-AH.enprglab.local SDA DHCP Server	192.168.101.44
<input type="checkbox"/> C9300-E3.enprglab.local TS-Edge, Update-FNF, ...	192.168.101.45
<input type="checkbox"/> C9300-E1.enprglab.local Update-FNF, WoL-D	192.168.101.46
<input type="checkbox"/> C9300-E2.enprglab.local Update-FNF, WoL-D	192.168.101.47
<input type="checkbox"/> Switch-192-168-101-58.enprglab.local Update-FNF, WoL-D	192.168.101.48

C9300-E3.enprglab.local (192.168.101.41) Image Update

Date: Oct 30, 2023 9:57 AM Duration: 1 hour 3 minutes 52 seconds Status: Successfully updated with cat9k_iosxe.17.09.04a.SPA.bin

Operations Checks

Filter Checks

Scripts	Operation	Pre Check	Post Check	Differences
Spanning Tree Summary Check	Activate	✓	✓	✓ No Differences
CDP neighbors Check	Activate	✓	✓	✓ No Differences
Interface Check	Activate	✓	⚠	⚠ 1 Differences
Fabric Device Upgrade Check	Activate	✓	N/A	View Output
Config register check	Activate	✓	N/A	View Output
Startup config check	Activate	✓	✓	✓ No Differences
Fabric Device Upgrade Check	Distribution	✓	N/A	View Output
Flash check	Distribution	✓	N/A	View Output

Some devices may have design or provision conflicts. Please see the "Template Status" column for more information.

This release enables new telemetry subscription for Cisco DNA Center Assurance data and optimizes existing subscriptions. This release also applies to the applicable devices which have been discovered with NETCONF. Apply Fix To provision subscriptions on devices that have not been discovered with NETCONF, rediscovers the devices.

Application Telemetry actions will move soon to [Application Visibility Setup](#).

PRG07

DEVICE WORK ITEMS

- Unreachable
- Unassigned
- Failed Provision
- Non Compliant
- Outdated Software Image
- No Golden Image
- Failed Image Prechecks
- Under Maintenance
- Security Advisories
- Marked for Replacement

Devices (13) Focus: [Software Images](#)

0 Selected [Tag](#) [Add Device](#) [Image Update](#) [Image Update](#)

<input type="checkbox"/>	Device Name	IP Address
<input type="checkbox"/>	C3850-PEN2-PRG07.enprglab.local C3K-PEN	192.168.140.30
<input type="checkbox"/>	C9500-A.enprglab.local C9500-A	192.168.144.30
<input type="checkbox"/>	C9500-B.enprglab.local C9500-B	192.168.143.30
<input type="checkbox"/>	C3650-AH.enprglab.local SDA DHCP Server	192.168.138.14
<input type="checkbox"/>	C9300-E3.enprglab.local TS-Edge, Update-FNF, ...	192.168.138.14
<input type="checkbox"/>	C9300-E1.enprglab.local Update-FNF, WoL-D	192.168.138.14
<input type="checkbox"/>	C9300-E2.enprglab.local Update-FNF, WoL-D	192.168.138.14
<input type="checkbox"/>	Switch-192-168-101-58.enprglab.local Update-FNF, WoL-D	192.168.101.58

[Image Update](#) / [Interface Check](#)

Interface Check

Last Checked: Oct 30, 2023 11:01 AM

Pre Check

Status: ● Script executed successfully

10	Vlan1040	192.168.139.30	YES	NVRAM	up	up
11	Vlan1041	192.168.140.30	YES	NVRAM	up	up
12	Vlan1042	192.168.143.30	YES	NVRAM	up	up
13	Vlan2001	192.168.144.30	YES	NVRAM	up	up
14	Vlan2045	192.168.138.14	YES	NVRAM	up	up
15	Vlan2508	169.254.1.1	YES	manual	up	up
16	GigabitEthernet0/0	unassigned	YES	NVRAM	administratively down	down
17	GigabitEthernet1/0/1	unassigned	YES	unset	up	up
18	GigabitEthernet1/0/2	unassigned	YES	unset	down	down
19	GigabitEthernet1/0/3	unassigned	YES	unset	down	down
20	GigabitEthernet1/0/4	unassigned	YES	unset	down	down

Post Check

Status: ⚠ Script executed successfully. Difference present in Pre-Post Checks.

10	Vlan1040	192.168.139.30	YES	NVRAM	up	up
11	Vlan1041	192.168.140.30	YES	NVRAM	up	up
12	Vlan1042	192.168.143.30	YES	NVRAM	up	up
13	Vlan2001	192.168.144.30	YES	NVRAM	up	up
14	Vlan2045	192.168.138.14	YES	NVRAM	up	up
15	Vlan2508	169.254.1.1	YES	NVRAM	up	up
16	GigabitEthernet0/0	unassigned	YES	NVRAM	administratively down	down
17	GigabitEthernet1/0/1	unassigned	YES	unset	up	up
18	GigabitEthernet1/0/2	unassigned	YES	unset	down	down
19	GigabitEthernet1/0/3	unassigned	YES	unset	down	down
20	GigabitEthernet1/0/4	unassigned	YES	unset	down	down

All Routers Switches Wireless Controllers Security and VPN Sensors

SUMMARY

- > Task Names (16)
- > Image Versions (38)

Devices Updates

Update Status All (252) In Progress (0) Waiting (0) Terminated (0) Success (207) Failure (45)

0 Selected Retry Upcoming Tasks

As of: Oct 30, 2023 11:02 AM

Device Name	Device Family	Date Updated	Duration	Image Version	Task Name	Status	Actions
C9300-E2.enprglab.local (192.168.101.46)	Switches and Hubs	Oct 30, 2023	32 minutes 5 seconds	17.09.04a.0.6	Update Access Layer PRG07	Successfully updated with cat9k_iosxe.17.09.04.a.SPA.bin	Retry
C9300-E1.enprglab.local (192.168.101.40)	Switches and Hubs	Oct 30, 2023	32 minutes 5 seconds	17.09.04a.0.6	Update Access Layer PRG07	Successfully updated with cat9k_iosxe.17.09.04.a.SPA.bin	Retry
C9300-E3.enprglab.local (192.168.101.41)	Switches and Hubs	Oct 30, 2023	1 hour 3 minutes 52 seconds	17.09.04a.0.6	Update Access Layer PRG07	Successfully updated with cat9k_iosxe.17.09.04.a.SPA.bin	Retry
C1111-B30 (192.168.11.2.233)	Routers	Oct 18, 2023	10 hours 42 seconds	17.03.04a.0.5574	Task3	Failed to distribute c1100-universalk9.17.03.04.a.SPA.bin	Retry
C9300L-CSAS-PoC.enprglab.local (192.168.112.238)	Switches and Hubs	Oct 18, 2023	7 minutes 40 seconds	17.09.03.0.4 , 17.09.03.0.4111	Task3	Successfully updated with cat9k_iosxe.17.09.03.3.SPA.bin , cat9k_iosxe.17.09.03.CSCwe38403.SPA.smu.bin	Retry
C1111-B30 (192.168.11.2.233)	Routers	Oct 18, 2023	12 seconds	17.03.04a.0.5574	task800	Failed to distribute c1100-universalk9.17.03.04.a.SPA.bin	Retry
C9300L-CSAS-PoC.enprglab.local (192.168.112.238)	Switches and Hubs	Oct 18, 2023	7 minutes 39 seconds	17.09.03.0.4 , 17.09.03.0.4111	task800	Successfully updated with cat9k_iosxe.17.09.03.3.SPA.bin , cat9k_iosxe.17.09.03.CSCwe38403.SPA.smu.bin	Retry
C1111-B30 (192.168.11.2.233)	Routers	Oct 17, 2023	6 seconds	17.03.04a.0.5574	Task3	Failed to distribute c1100-universalk9.17.03.04.a.SPA.bin	Retry
C9300L-CSAS-PoC.enprglab.local (192.168.112.238)	Switches and Hubs	Oct 17, 2023	1 second	17.09.03.0.4 , 17.09.03.0.19 , 17.09.03.0.4111	Task3	Successfully distributed cat9k_iosxe.17.09.03.SPA.bin , cat9k_iosxe.17.09.03.CSCwe38403.SPA.smu.bin , cat9k_iosxe.17.09.03.CSCwe36743.SPA.smu.bin	Retry

SUMMARY
 > Task Names (16)
 > Image Versions (38)

Devices Updates

Update Status **All (252)** In Progress (0) Waiting (0) Terminated (0)

0 Selected [Retry](#) [Upcoming Tasks](#)

Device Name	Device Family	Date
<input type="checkbox"/> C9300-E2.enprglab.local (192.168.101.46)	Switches and Hubs	Oct 18, 2023 9:20 AM
<input type="checkbox"/> C9300-E1.enprglab.local (192.168.101.40)	Switches and Hubs	Oct 18, 2023 9:20 AM
<input type="checkbox"/> C9300-E3.enprglab.local (192.168.101.41)	Switches and Hubs	Oct 18, 2023 9:20 AM
<input type="checkbox"/> C1111-B30 (192.168.11.2.233)	Routers	Oct 18, 2023 9:20 AM
<input type="checkbox"/> C9300L-CSAS-PoC.enprglab.local (192.168.112.238)	Switches and Hubs	Oct 18, 2023 9:20 AM
<input type="checkbox"/> C1111-B30 (192.168.11.2.233)	Routers	Oct 18, 2023 9:20 AM
<input type="checkbox"/> C9300L-CSAS-PoC.enprglab.local (192.168.112.238)	Switches and Hubs	Oct 18, 2023 9:20 AM
<input type="checkbox"/> C1111-B30 (192.168.11.2.233)	Routers	Oct 18, 2023 9:20 AM
<input type="checkbox"/> C9300L-CSAS-PoC.enprglab.local (192.168.112.238)	Switches and Hubs	Oct 18, 2023 9:20 AM

252 Record(s)

C9300L-CSAS-PoC.enprglab.local (192.168.112.238) Image Update

Date: Oct 18, 2023 9:20 AM Duration: 7 minutes 40 seconds Status: ✔ Successfully updated with cat9k_iosxe.17.09.03.SPA.bin , cat9k_iosxe.17.09.03.CSCwe38403.SPA.smu.bin

Operations Checks

- ✔ Distribution 0 second
- ✔ Activation 0 second
- ✔ SMU Distribution 1 second
- ✔ SMU Activation 7 minutes 28 seconds
- ✔ SMU Distribution 0 second
 Distribution skipped for device IP 192.168.112.238 as running image and upgrade image version are same for cat9k_iosxe.17.09.03.CSCwe38403.SPA.smu.bin
- ✔ SMU Activation 8 seconds
 SMU Activation of image: cat9k_iosxe.17.09.03.SPA.bin,C9800-SW-iosxe-wlc.17.09.03.SPA.bin on device: 192.168.112.238 completed successfully
 - ✔ Pre Activation Script Execution 1 second
 - ✔ Activation 3 seconds
 - ✔ Remove Inactive Images Execution 5 seconds
 - ✔ Post Activation Script Execution 1 second

Browser tabs: Cisco DNA Center, vSphere, VMware-EN, VMware-PAR, VMware-Fusion, Cisco vManage, Cisco DNA Center, Identity Services Engine, APIC (10.62.10.111), SMC, FMC, EN Switching - TME - I..., Cisco Cyber Vision

Browser address bar: https://10.62.9.230/dna/provision/devices/inventory/list

Page Header: Provision / Inventory

Notifications:

- Some devices may have design or provision conflicts. Please see the "Template Status" column for more information. [Update CLI Templates](#)
- This release enables new telemetry subscription for Cisco DNA Center Assurance data and optimizes existing subscriptions for performance. An additional subscription is provided in this release for Security-Group Policy monitoring on switching platforms. These telemetry subscriptions are configured via NETCONF and will be applied to the applicable devices which have been discovered with NETCONF. Apply Fix To provision subscriptions on devices that have not been discovered with NETCONF, rediscover the devices with NETCONF, and update the Telemetry Settings with the Force Configuration Push option.
- Application Telemetry actions will move soon to Application Visibility Setup.

Navigation: All, Routers, Switches, Wireless Controllers, Access Points, Sensors

Left Sidebar: DEVICE WORK ITEMS

- Unreachable
- Unassigned
- Failed Provision
- Non Compliant
- Outdated Software Image
- No Golden Image
- Failed Image Prechecks
- Under Maintenance
- Security Advisories
- Marked for Replacement

Main Content: Devices (13) Focus: Software Images

Search: Click here to apply basic or advanced filters or view recently applied filters

0 Selected Tag Add Device Image Update Image Update Status Actions

As of: Oct 30, 2023 11:03 AM

Device Name	IP Address	Device Family	Reachability	Software Image	OS Update Status	Site	Provisioning Status	Manageability	Device Series
<input type="checkbox"/> C9500-B.enprglab.local C9500-B	192.168.101.35	Switches and Hubs (WLC Capable)	Reachable	cat9k_iosxe.17.09.03.SPA.bin	Device Uptodate See Details	.../Prague/PRG07	Success See Details	Managed	Cisco Catalyst 9500 Ser
<input type="checkbox"/> C3650-AH.enprglab.local SDA DHCP Server	192.168.115.82	Switches and Hubs	Reachable	cat3k_caa-universalk9.16.12.06...	Device Uptodate	.../Prague/PRG07	Success See Details Out of Sync	Managed	Cisco Catalyst 3650 Ser
<input type="checkbox"/> C9300-E3.enprglab.local TS-Edge, Update-FNF, ...	192.168.101.41	Switches and Hubs (WLC Capable)	Reachable	cat9k_iosxe.17.09.04a.SPA.bin	Device Uptodate See Details	.../Prague/PRG07	Success See Details	Managed	Cisco Catalyst 9300 Ser
<input type="checkbox"/> C9300-E1.enprglab.local Update-FNF, WoL-D	192.168.101.40	Switches and Hubs (WLC Capable)	Reachable	cat9k_iosxe.17.09.04a.SPA.bin	Device Uptodate See Details	.../Prague/PRG07	Success See Details	Managed	Cisco Catalyst 9300 Ser
<input type="checkbox"/> C9300-E2.enprglab.local Update-FNF, WoL-D	192.168.101.46	Switches and Hubs (WLC Capable)	Reachable	cat9k_iosxe.17.09.04a.SPA.bin	Device Uptodate See Details	.../Prague/PRG07	Success See Details	Managed	Cisco Catalyst 9300 Ser
<input type="checkbox"/> Switch-192-168-101-58.enprglab.local Update-FNF, WoL-D	192.168.101.58	Switches and Hubs (WLC Capable)	Reachable	cat9k_iosxe.17.09.03.SPA.bin	Device Uptodate See Details	.../Prague/PRG07	Success See Details	Managed	Cisco Catalyst 9300 Ser
<input type="checkbox"/> C9200L-PEN2-E1.enprglab.local	192.168.138.131	Switches and Hubs	Unreachable	cat9k_lite_iosxe.17.09.03.SPA.bin	Device Uptodate See Details	.../Prague/PRG07	Success See Details	Managed Device Unreachable	Cisco Catalyst 9200 Ser
<input type="checkbox"/> C9200L-PEN.enprglab.local	192.168.138.129	Switches and Hubs	Reachable	cat9k_lite_iosxe.17.06.04.SPA.bin Needs Update	Distribution Pending	.../Prague/PRG07	Success See Details Out of Sync	Managed	Cisco Catalyst 9200 Ser

File Edit View History Bookmarks Tools Help

Cisco DNA Center x Cisco DNA Center x +

https://10.62.9.230/dna/provision/devices/inventory/device-details?deviceId=a7b2c9d5-3f9a-421a-9411-b39408514c5e 80%

vSphere VMware-EN VMware-PAR VMware-Fusion Cisco vManage Cisco DNA Center Identity Services Engine APIC (10.62.10.111) SMC FMC EN Switching - TME - L... Cisco Cyber Vision

DNA Center ☆ 🔍 🌐 🕒 🔔 | 👤 Jarry

All Devices / C9300-E3.enprglab.local

C9300-E3.enprglab.local Run Commands View 360

TS-Edge Update-FNF WoL-D

Reachable Managed IP Address: 192.168.101.41 Device Model: Cisco Catalyst 9300 Switch Device Role: ACCESS Uptime: 4 mins Site: Global/Prague/PRG07

DETAILS

Interfaces >

Hardware & Software

Configuration

Power

Fans

SFP Modules

User Defined Fields

Config Drift

REP Rings

Wireless Info

SECURITY

Advisories

FIELD NOTICES

Field Notices

Potential Field Notices

COMPLIANCE

Summary

You can now fix all configuration compliance issues on this device. You will be able to review before the fix is applied. [Fix All Configuration Compliance Issues](#)

Compliance Summary [View Preference for Acknowledged Violations](#)

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

EoX - End of Life [🕒](#)
Compliance last run on: Oct 28th, 2023, 06:59:08 AM
Module : **Compliant**
Software : **Non-Compliant**
Hardware : **Compliant**

Network Settings [🕒](#)
Non-Compliant since May 15th, 2023, 12:28:40 PM
Compliance last run on: Oct 28th, 2023, 06:59:08 AM
8 General: 8
Open Violations

Startup vs Running Configuration [🕒](#)
Compliance last run on: Oct 28th, 2023, 06:59:08 AM
6 days since in sync
Lines added: 0
Lines removed: 0
Lines modified: 0

Network Profiles [🕒](#)
Non-Compliant since Sep 13th, 2022, 08:35:06 PM
Compliance last run on: Oct 28th, 2023, 06:59:09 AM
1 CLI Template: 1
Open Violations

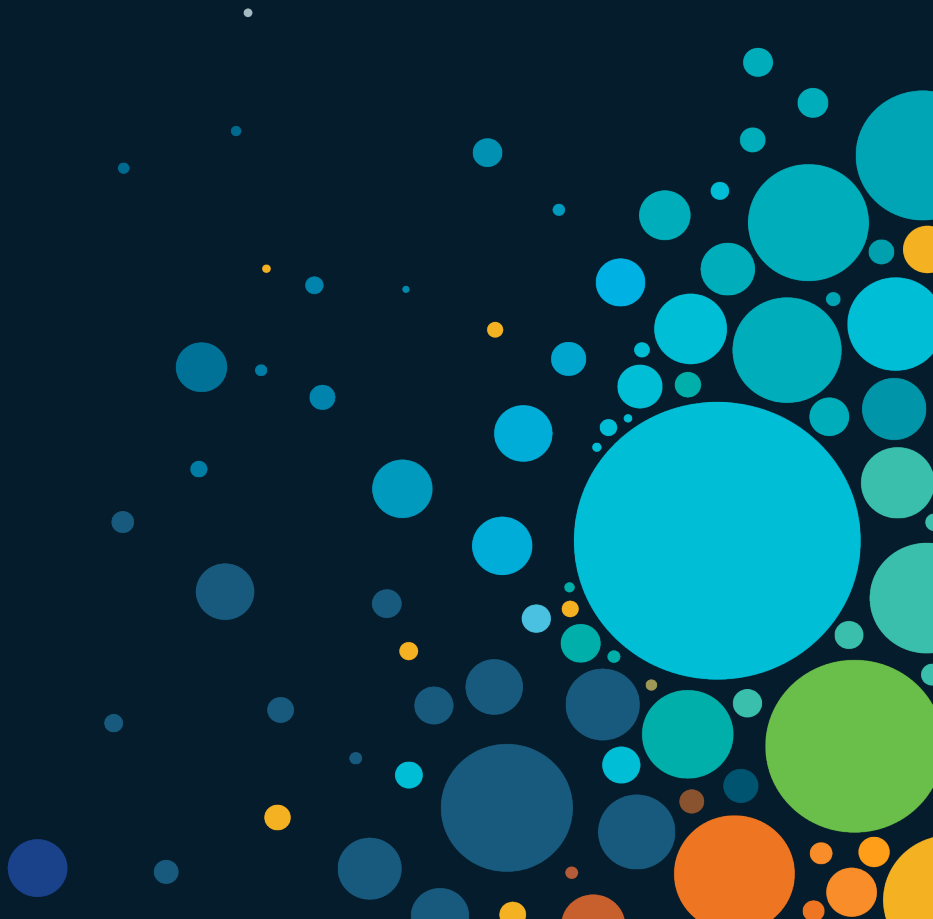
Fabric BETA [🕒](#)
Non-Compliant since Oct 28th, 2023, 06:59:24 AM
Compliance last run on: Oct 28th, 2023, 06:59:24 AM
5 Segment: 3
Authentication Profile: 2
Open Violations

Software Image [🕒](#)
Compliant since Oct 30th, 2023, 11:01:43 AM
Compliance last run on: Oct 30th, 2023, 11:01:43 AM
17.09.04a Running Version: **17.9.4a**
Golden Image Version

Critical Security Advisories [🕒](#)
Compliant since Apr 9th, 2021, 05:42:34 PM
Compliance last run on: Oct 28th, 2023, 06:59:08 AM
0

92

Kontrola souladu s politikami



Soulad uložené a běžící konfigurace

The screenshot displays the Cisco DNA Center interface for a specific device. The browser address bar shows the URL: `https://10.62.9.230/dna/provision/devices/inventory/device-details?deviceId=c1072b5e-225b-4e4f-99db-051e08a904e9&defaultTab=Summary`. The page title is "Cisco DNA Center".

The main content area shows the "Compliance Summary" for device "C3650-AH.enprglab.local". The summary includes the following cards:

- Startup vs Running Configuration:** This card is circled in red. It shows a red status icon and indicates that the device is "32 days since out of sync". It also lists "Lines added: 1", "Lines removed: 0", and "Lines modified: 0".
- Software Image:** Shows a green status icon, indicating compliance. The running version is "16.12.06".
- Critical Security Advisories:** Shows a green status icon, indicating compliance. The number of advisories is "0".

The left sidebar contains navigation options: DETAILS (Interfaces, Hardware & Software, Configuration, Power, Fans, SFP Modules, User Defined Fields, Config Drift), SECURITY (Advisories), and COMPLIANCE (Summary).

Soulad uložené a běžící konfigurace

DETAILS

Interfaces

Ethernet Ports

Native VLANs

Hardware & Software

Configuration

Power

Fans

SFP Modules

User Defined Fields

Config Drift

SECURITY

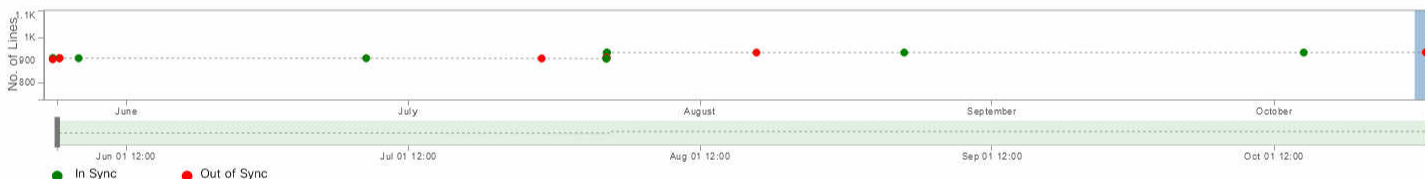
Advisories

COMPLIANCE

Summary

Compliance Summary / Startup vs Running Configuration

Change History



Startup Config (933 Lines) - October 17, 2022 3:30 PM

```
13 address-family ipv6
14 exit-address-family
15 logging buffered 1048576 informational
16 enable secret 9 *****
17 aaa new-model
18 aaa group server radius dnac-client-radius-group
```

Running Config (934 Lines) - October 17, 2022 3:30 PM

```
13 address-family ipv6
14 exit-address-family
15 logging buffered 1048576 informational
16 no logging console
17 enable secret 9 *****
18 aaa new-model
19 aaa group server radius dnac-client-radius-group
```

🔔 The tooltip indicates that the no. of lines added/removed/modified may not match with the contents listed in the diff viewer. This is because the position between the modified commands is either displayed as inappropriate lines or is displayed separately that does not represent the modification made.

Sync Device Config, will allow the system to overwrite startup config with running config to make the device configuration compliant.

Soulad běžící konfigurace s konfigurační šablonou

Cisco Webui - Log In | vSphere - PLZ01 Client 1 - Summary | PLZ01 Client 1 | Cisco DNA Center | CSCxq18527: Bug Search Tool

https://10.62.9.230/dna/provision/devices/inventory/device-details?deviceId=1f0cb3e0-68d1-4cc9-b821-ca783f33709e&defaultTab=Summary

Cisco DNA Center

All Devices / C3850-PCE.enprglab.local

C3850-PCE.enprglab.local | Run Commands | View 360 | Last updated: 5:00 PM | Refresh

TS-B-VN

Reachable | Managed | IP Address: 192.168.112.217 | Device Model: Cisco Catalyst38xx stack-able ethernet switch | Role: ACCESS | Uptime: 153 days 8 hrs 14 mins | Site: Global/Pardubice/PAR01

DETAILS

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

SECURITY

- Advisories

COMPLIANCE

- Summary

Compliance Summary

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

Compliance Item	Status	Last Run	Details
Startup vs Running Configuration	Compliant	Nov 17th, 2022, 12:00:00 AM	88 days since in sync Lines added: 0 Lines removed: 0 Lines modified: 0
Network Profiles	Non-Compliant	Jul 2nd, 2022, 01:00:02 AM	3 Changes CLI Template: 3
Software Image	Compliant	Apr 19th, 2022, 04:31:34 PM	16.12.07 Golden Image Version Running Version: 16.12.7
Critical Security Advisories	Compliant	Apr 19th, 2022, 11:29:58 PM	0

Soulad běžící konfigurace s konfigurační šablonou

Cisco Webui - Log In × vSphere - PLZ01 Client 1 - Sum... × PLZ01 Client 1 × Cisco DNA Center × CSCVq18527: Bug Search Tool × +

← → ↻ <https://10.62.9.230/dna/provision/devices/inventory/device-details?deviceId=1f0cb3e0-68d1-4cc9-b821-ca783f33709e&defaultTab=Summary> 90% ☆

vSphere VMware-EN VMware-PAR VMware-Fusion Cisco vManage Cisco DNA Center Identity Services Engine APIC (192.168.130.10) SMC FMC

Cisco DNA Center 🔍 ⓘ 🟢 🔔

All Devices / C3850-PCE.enprglab.local

C3850-PCE.enprglab.local [Run Commands](#) [View 360](#) Last updated: 5:00 PM [Refresh](#)

TS-B-VN

🟢 Reachable | 🟢 Managed | IP Address: 192.168.112.217 | Device Model: Cisco Catalyst38xx stack-able ethernet switch | Role: ACCESS | Uptime: 153 days 8 hrs 14 mins | Site: Global/Pardubice/PAR01

DETAILS ▾

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

SECURITY

- Advisories

COMPLIANCE

- Summary

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

[CLI Template \(3\)](#)

CLI Deviations As of: Nov 18, 2022 5:00 PM [🔄](#)

🔍 Search Table ▾

Template

- Configure interfaces-shockwave
- Configure Virtual Networks**
- Miscellaneous configuration

3 Records Show Records: 10 ▾ 1 - 3 < 1 >

Realize Template: Configure Virtual Networks ⓘ

96	96	no ip redirects
97	97	ip route-cache same-interface
98	98	!
99		router bgp 65010
100		address-family ipv4 vrf IoT
101		redistribute connected
102		neighbor 192.168.112.142 remote-as 65535
103		neighbor 192.168.112.142 update-source Vlan1631
104		neighbor 192.168.112.142 activate
105		exit-address-family
106	99	!
107	100	!

Soulad se softwarovou politikou

Cisco DNA Center Identity Services Engine

https://10.62.9.230/dna/provision/devices/inventory/device-details?deviceId=4e5496e6-7a5b-4f75-871c-46bfab88d94f&defaultTab=Summary

Cisco DNA Center

All Devices / C3850-PEN1-PLZ01.enprglab.local

C3850-PEN1-PLZ01.enprglab.local Run Commands View 360

Last updated: 1:08 PM Refresh

Reachable Managed IP Address: 192.168.138.154 Device Model: Cisco Catalyst38xx stack-able ethernet switch Role: ACCESS Uptime: 1 hr 7 mins Site: Global/Plzen/PLZ01

DETAILS

Interfaces

Ethernet Ports

Native VLANs

Hardware & Software

Configuration

Power

Fans

SFP Modules

User Defined Fields

Config Drift

SECURITY

Advisories

COMPLIANCE

Summary

Compliance Summary

Next Compliance check is scheduled on October 04, 2022 5:44 PM [Run Compliance Check](#)

Compliance Item	Status	Last Run	Details
Startup vs Running Configuration	Compliant	Oct 4th, 2022, 12:35:45 PM	1 hr since in sync Lines added: 0 Lines removed: 0 Lines modified: 0
Software Image	Non-Compliant	Oct 4th, 2022, 01:05:18 PM	16.12.07 Golden Image Version Running Version: 16.12.6
Critical Security Advisories	Not Applicable	Oct 4th, 2022, 12:32:44 PM	NA Device was either added after the last scan or was not reachable during the...

Soulad milníky životního cyklu zařízení a softwaru

Search Hierarchy [dropdown] Search Help

Two (2) Warning Alerts on this page. Expand to see detail.

Global

- Global
 - Unassigned Devices
 - Bratislava
 - Jezeri
 - Kounov
 - Kralovec
 - mnt
 - Pardubice
 - Plzen
 - Prague
 - Temp-PI-DNC-coexistence
 - TEST-DS
 - Warehouse-test
 - Zatec

DEVICES (63)

FOCUS: Inventory

Filter Add Device Tag Actions Take a Tour

	Device Name	IP Address	Device Family	Reachability	EoX Status	Manageability	Compliance
<input type="checkbox"/>	APF4DB.E821.84B2	192.168.138.34	Unified AP	Unreachable	Not Scanned	Managed	N/A
<input type="checkbox"/>	APF4DB.E643.851C	192.168.138.4	Unified AP	Reachable	Not Scanned	Managed	N/A
<input type="checkbox"/>	APF4DB.E643.853A	192.168.105.12	Unified AP	Reachable	Not Scanned	Managed	N/A
<input type="checkbox"/>	apl.meraki.com	apl.meraki.com	Meraki Dashboard	Reachable	Not Scanned	Managed	N/A
<input type="checkbox"/>	bauhaus	10.62.8.126	Unified AP	Reachable	Not Scanned	Managed	N/A
<input type="checkbox"/>	C9k8-CL-Lab.enprglab.local	10.62.8.69	Wireless Controller	Reachable	1 alert	Managed	Non-Compliant
<input type="checkbox"/>	C1101-4P-Branch-11.prg.cisco.com	192.168.112.133	Routers	Reachable	1 alert	Managed	Non-Compliant
<input type="checkbox"/>	C1111-B30 BTS	192.168.112.233	Routers	Reachable	1 alert	Managed	Non-Compliant
<input type="checkbox"/>	C2980X-B12.enprglab.local	192.168.113.165	Switches and Hubs	Unreachable	1 alert	Managed Device Unreac...	Compliant
<input type="checkbox"/>	C3650-AH.enprglab.local SDA DHCP Server	192.168.115.82	Switches and Hubs	Reachable	3 alerts	Managed	Non-Compliant
<input type="checkbox"/>	C3850-PCE.enprglab.local TS-B-VN	192.168.112.217	Switches and Hubs	Reachable	4 alerts	Managed	Non-Compliant
<input type="checkbox"/>	C3850-PEN1-PLZ01.enprglab.local C3k-PEN	192.168.138.154	Switches and Hubs	Reachable	4 alerts	Managed	Non-Compliant

C3850-PCE.enprglab.local

IP Address: 192.168.112.217
Product Family: Switches and Hubs
Last Scan: Nov 12, 2022 3:00 AM

Hardware Software Module

Announcement

Aug 19, 2020

End of Sale

Feb 17, 2021

Last Ship

Feb 17, 2021

End of Vulnerability / Security Support

Aug 18, 2022

Last Date of Support

Feb 28, 2026

Hlídní zranitelností programového vybavení

C9300-FiaB-PLZ01: Cisco C9300 X vSphere - PLZ01 Client 1 - Sumi X PLZ01 Client 1 X Cisco DNA Center X +

https://10.62.9.230/dna/provision/devices/inventory/device-details?deviceId=6f4cf274-68c6-40c2-b171-5d667eddf1fc&defaultTab=Summary 90% ☆

vSphere VMware-EN VMware-PAR VMware-Fusion Cisco vManage Cisco DNA Center Identity Services Engine APIC (192.168.130.10) SMC FMC

Cisco DNA Center

All Devices / C1101-4P-Branch-11.prg.cisco.com

C1101-4P-Branch-11.prg.cisco.com Run Commands View 360

Last updated: 4:52 PM Refresh

Reachable Managed IP Address: 192.168.112.133 Device Model: Cisco 1100 Integrated Services Router Role: BORDER ROUTER Uptime: 7 days 9 hrs 56 mins Site: Global/Jezeri/Zamek Jezeri

DETAILS

Interfaces

- Ethernet Ports
- Virtual Ports

Hardware & Software

Configuration

Power

Fans

SFP Modules

User Defined Fields

Config Drift

SECURITY

Advisories

COMPLIANCE

Summary

Compliance Summary

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

Start-up vs Running Configuration ⓘ

Compliance last run on: Nov 11th, 2022, 12:06:06 PM

581 days
since in sync

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

Software Image ⓘ

Compliance last run on: Nov 11th, 2022, 12:06:06 PM

NA
Golden image is not available.

Running Version: 16.9.4

Critical Security Advisories ⓘ

Non-Compliant since Nov 10th, 2022, 01:00:30 AM
Compliance last run on: Nov 17th, 2022, 01:00:24 AM

2

Hlídní zranitelností programového vybavení

C9300-FiaB-PLZ01: Cisco C9300 X vSphere - PLZ01 Client 1 - Sum X PLZ01 Client 1 Cisco DNA Center X

https://10.62.9.230/dna/provision/devices/inventory/device-details?deviceId=8f4cf274-68c6-40c2-b171-5d667eddf1fc&defaultTab=Summary 90% ☆

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Cisco DNA Center

All Devices / C1101-4P-Branch-11.prg.cisco.com

C1101-4P-Branch-11.prg.cisco.com Run Commands View 360 Last updated: 4:52 PM Refresh

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COMPLIANCE

Summary

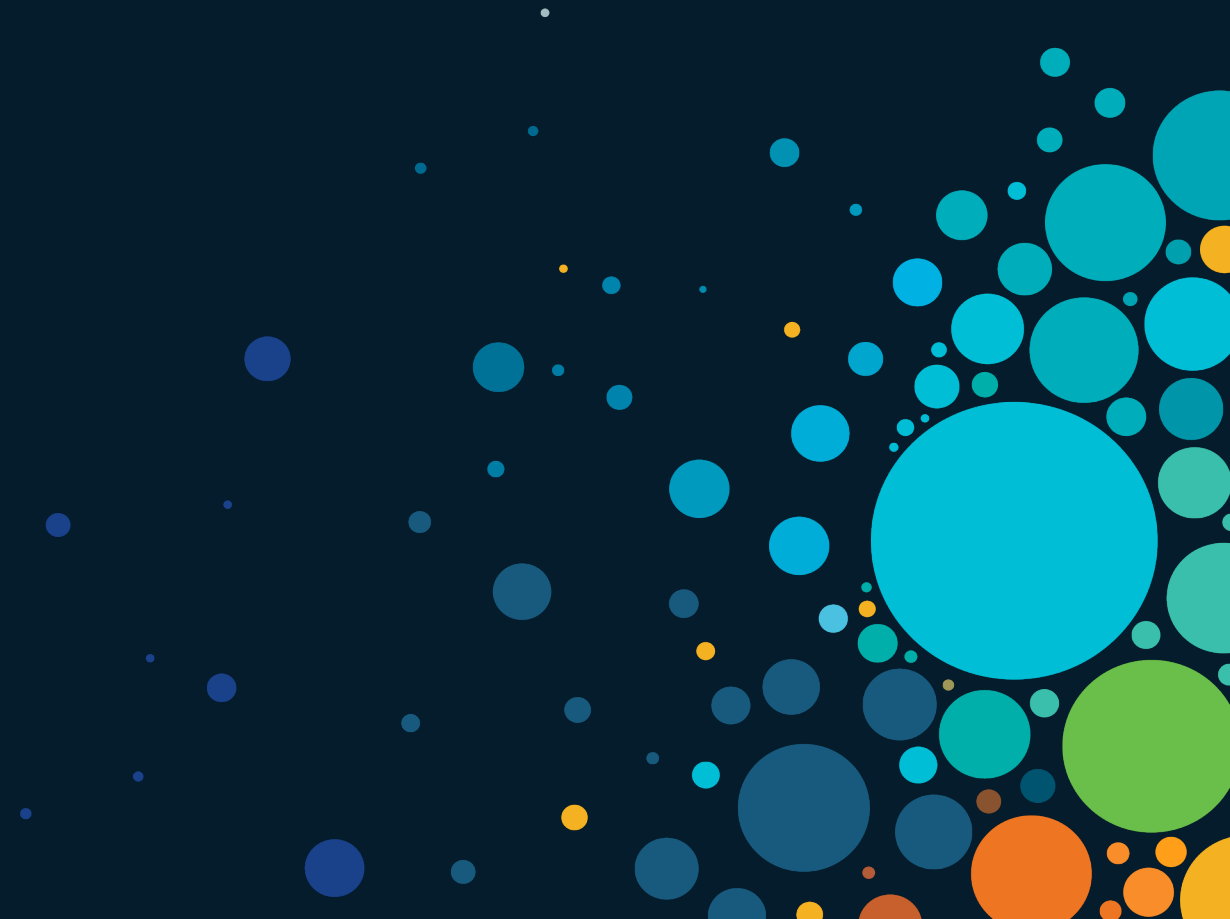
Compliance Summary / Critical Security Advisories

Advisories (2) Manage All

Filter

Advisory ID	Advisory Title	CVSS Score	Impact	Fixed Versions	CVE	Custom Match Pattern	Known Since (days)	Last Updated
cisco-sa-ioxPE-KgGvCAf9	Cisco IOx for IOS XE Software Privilege Escalation Vulnerability	9.8	Critical	N/A	CVE-2020-3227	Add match pattern	898	06/03/2020
cisco-sa-aaa-Yx47ZT8Q	Cisco IOS XE Software NETCONF and RESTCONF Authentication Bypass Vulnerability	9.8	Critical	16.9.8 16.9.8	CVE-2021-1619	Add match pattern	422	09/22/2021

Dohled sítě



Hlavní trendy v provozu sítí



Wi-Fi kam se podíváš

92% internetového provozu pochází z Wi-Fi

mGig a nové Wi-Fi standardy

Wi-Fi Only Office

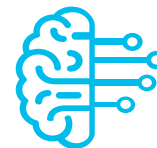


IOT

Kombinace Wi-Fi, IP a IOT

Menší a chytřejší budovy

Silnější PoE

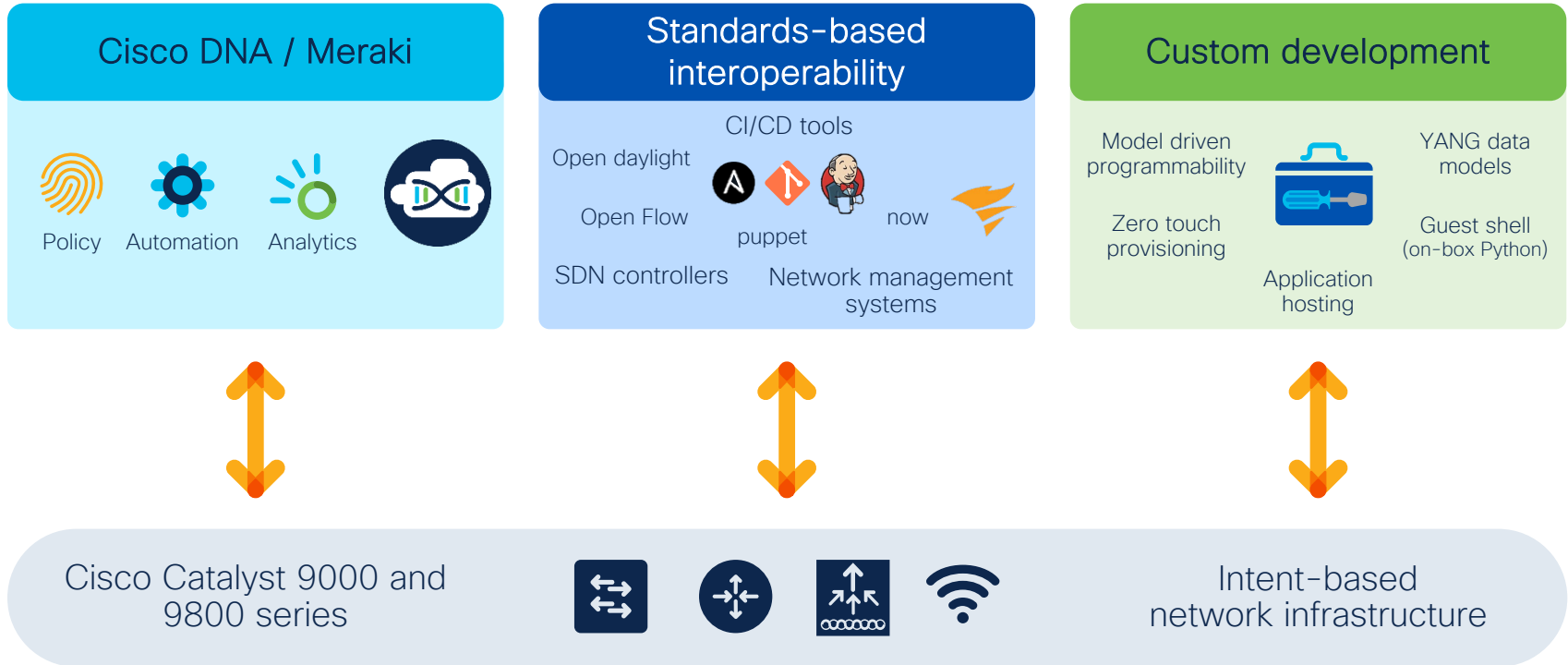


Vizibilita a využití AI/ML přístupu

Optimalizace sítě a identifikace chování.

Podrobnější vhled v rámci spotřeby

Flexibilní možnost správy Cisco Catalyst



Klíčové oblasti AIOps

Client & App Assurance

Tools to distinguish between client and application anomalies and network anomalies.



Wireless



Switching



Routing

RF Assurance

Tools to automate RF tuning to optimize client connectivity and performance on Wi-Fi.



Wireless

Infrastructure Assurance

Tools to flag network and service issues, determine root cause, recommend actions and auto-remediate.



Wireless



Switching



Routing

Serviceability

Tools to reduce support engagement and to help improve support experience when engaged.



Wireless

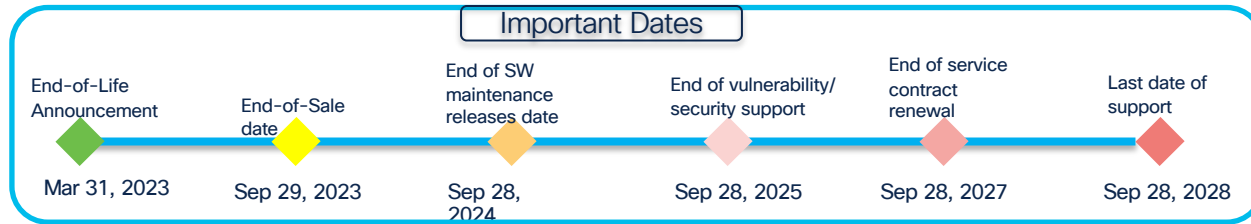


Switching



Routing

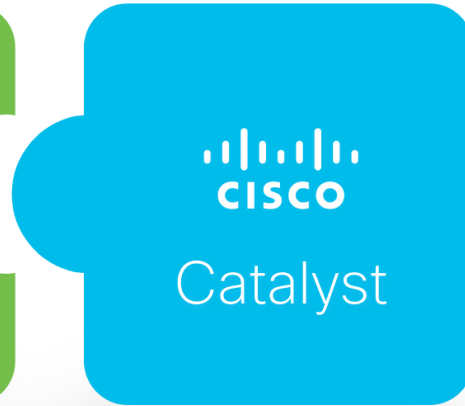
Prime EoL/EoS



Accelerating the transition to a cloud-managed networking experience

#1

in cloud
managed
networks

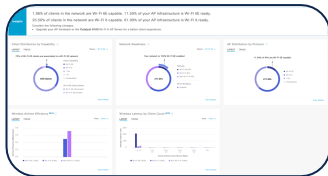


#1

in
networking

Využití AIOps

Wi-Fi 6E Integrations



Wireless 3D Analyzer



AI-Enhanced RRM

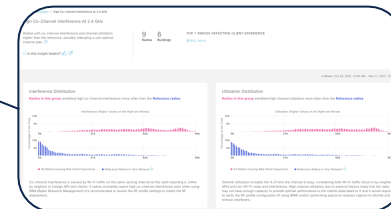


ThousandEyes

AI Network & Endpoint Analytics



Performance Advisories

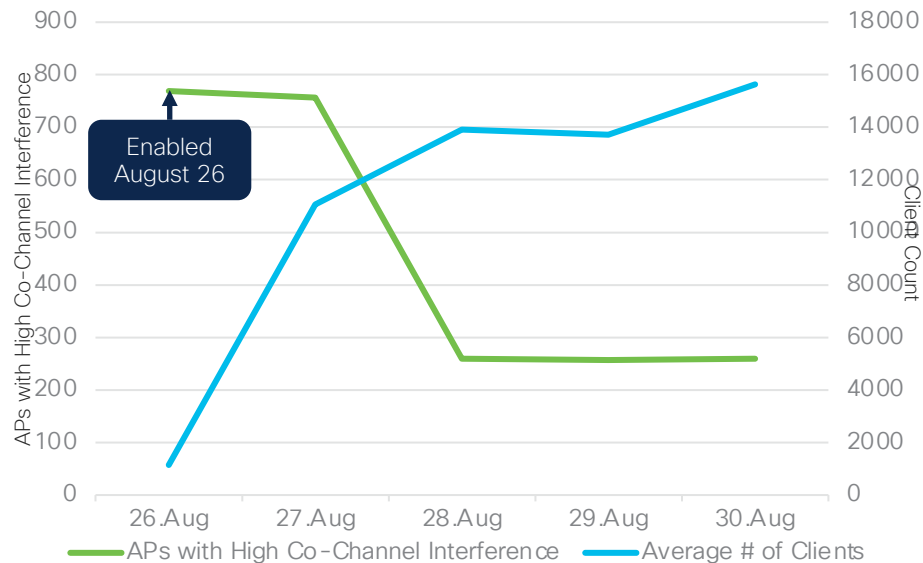


Device Ecosystem Partnerships

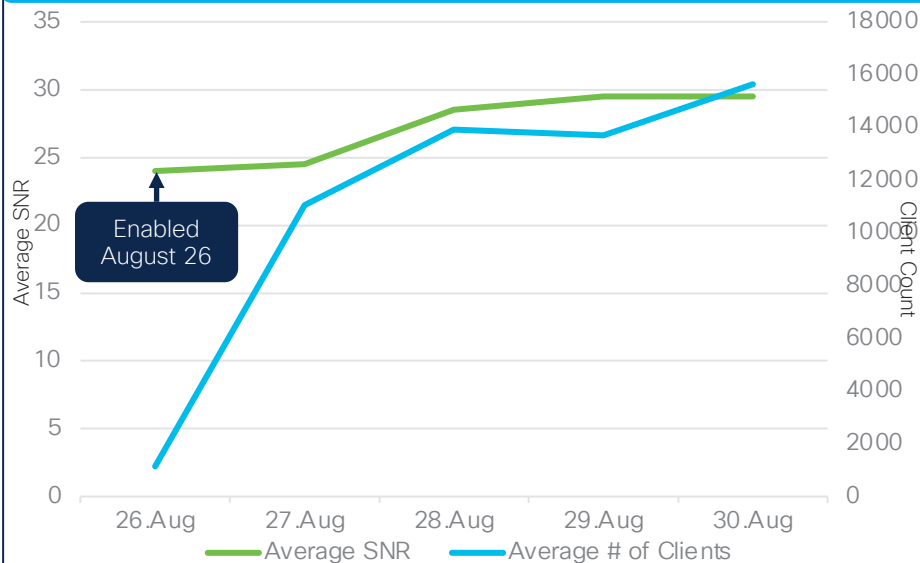


AI-Enhanced RRM Significantly Improved the Wireless Experience at Cisco IMPACT in August 2023

APs with High Co-Channel Interference Decreased by 28%!



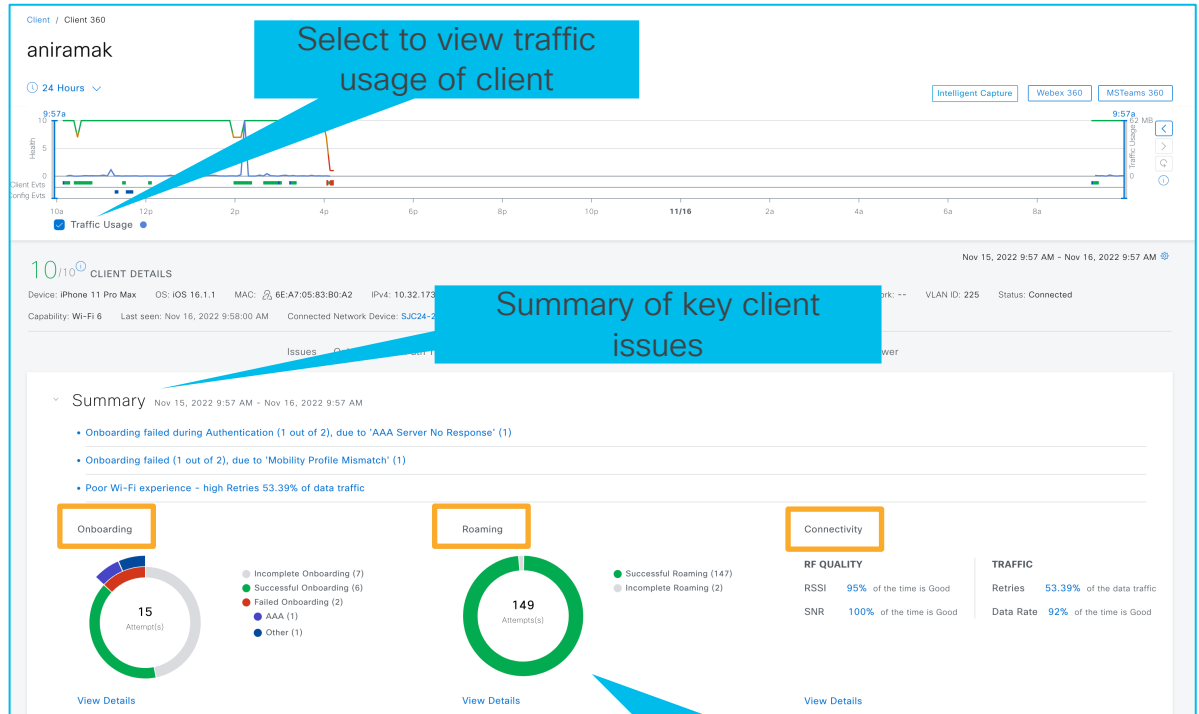
Client SNR Increased by ~4dB!



AI-Enhanced RRM converged the wireless network within 6 hours and continued to improve the wireless experience in the high-density environment after a large influx of clients began to join.

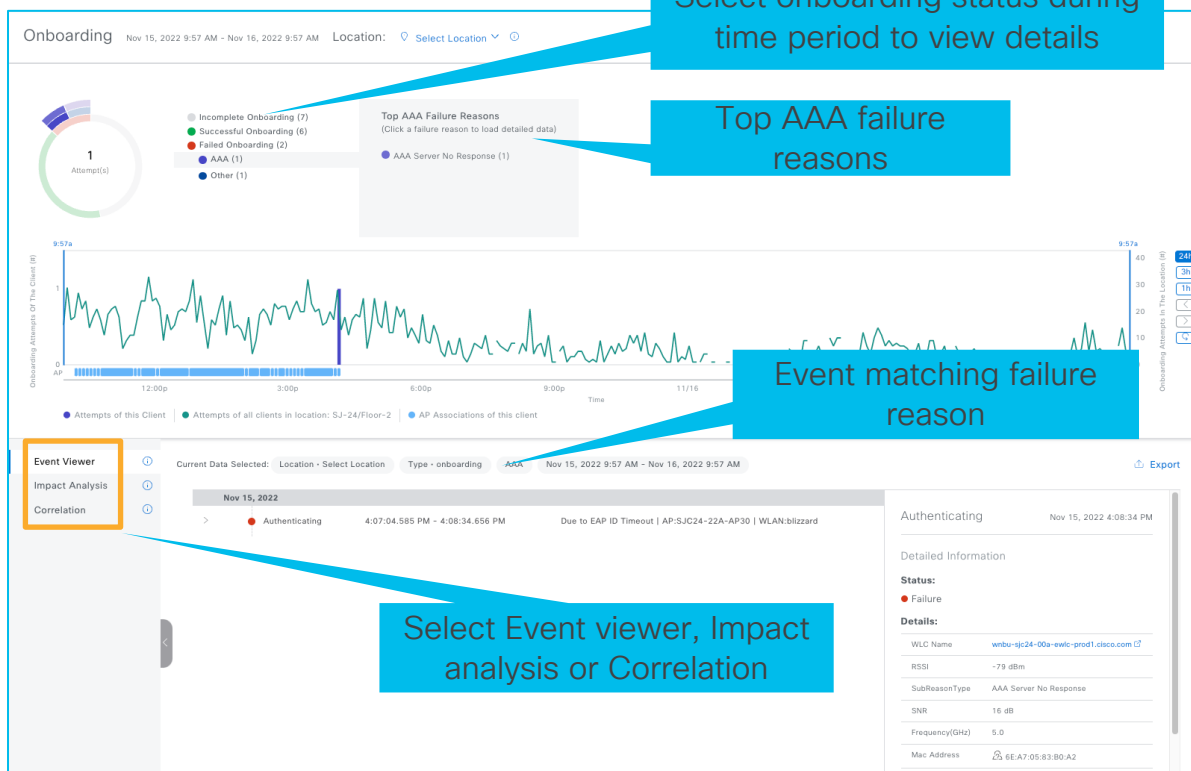
Client Troubleshooting

- ❖ Easily troubleshoot client issues
- ❖ Client 360 displays summary of key issues
- ❖ Client traffic usage can be seen in timeline
- ❖ Onboarding, Roaming, Connectivity details including issues



Client Troubleshooting

- ❖ View Top failure reasons
- ❖ Event viewer displays event correlating to issue
- ❖ Impact analysis can be used to view Top AP's, floors, SSID's and device types impacted by same issue
- ❖ Correlation can be used to select KPI's for client, AP, WLC and switch



AppX: Microsoft Teams integration Client 360

Meeting Name	MS Teams Score	Network APM Score	Duration	Start Time	End Time	Status	Meeting Type	Participants (n)
cisco light2 participated in a peer-to-peer call	●	●	00:05 h	May 16, 2022 9:10 AM	May 16, 2022 9:15 AM	Ended	Peer To Peer	2
cisco light2 participated in a peer-to-peer call	●	●	00:05 h	May 16, 2022 9:03 AM	May 16, 2022 9:08 AM	Ended	Peer To Peer	2
cisco light2 participated in a peer-to-peer call	●	●	00:05 h	May 16, 2022 8:49 AM	May 16, 2022 8:54 AM	Ended	Peer To Peer	2

CISCO LIGHT2 PARTICIPATED IN A PEER-TO-PEER CALL

Audio Quality Video Quality Share Quality

7/10 MS Teams Score
6/10 Network APM Score
ASR1K_Site2.cisco.com , ISR4K_Site3.cisco.com Exporters

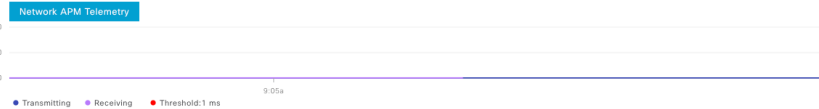
Packet Loss

MS Teams Telemetry
Transmitting 3.9%
Receiving



Jitter

MS Teams Telemetry
Transmitting 0ms
Receiving



Event Analytics



Challenge/Pain Points

- As a network administrator I would like the events dashboard to be more interactive and provide comprehensive analytics and powerful visualisation of the network events. It should provide valuable insights into network performance, security, and troubleshooting

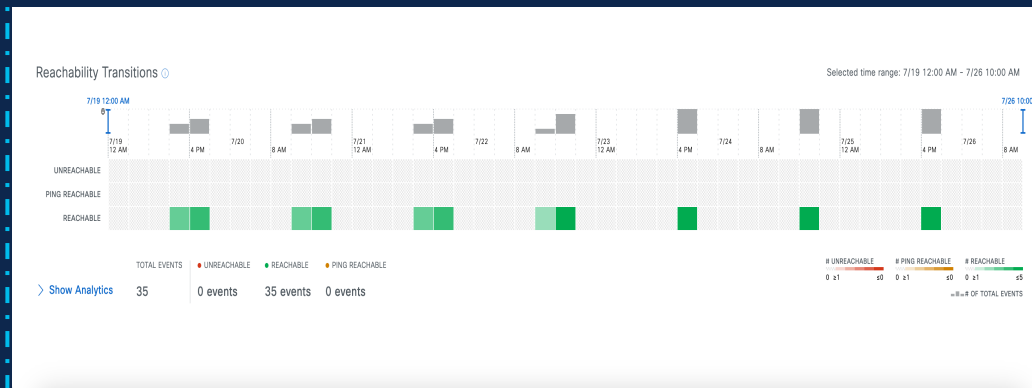
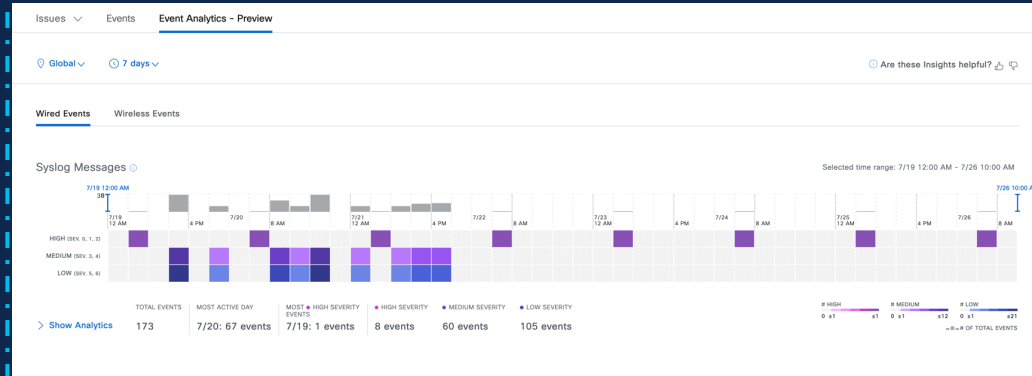
Feature Capability

- Event Analytics aggregates and processes event data, extracting relevant metrics and generating insightful analytics.
- It offers a user-friendly interface that allows users to explore data visually through intuitive graphs and charts to allow specific focus on areas of the network, time periods and event types of interest
- Type of events supported are Syslog and Reachability

Platform/Dependency

- Event Analytics needs to be enabled under AI Analytics
- Requires DNA Advantage License

Assurance -> Issues and Events -> Event Analytics - Preview



Site Analytics Enhancement



Challenge/Pain Points

- As a network administrator, I need an option to identify my best and worst performing sites based on client KPI metrics

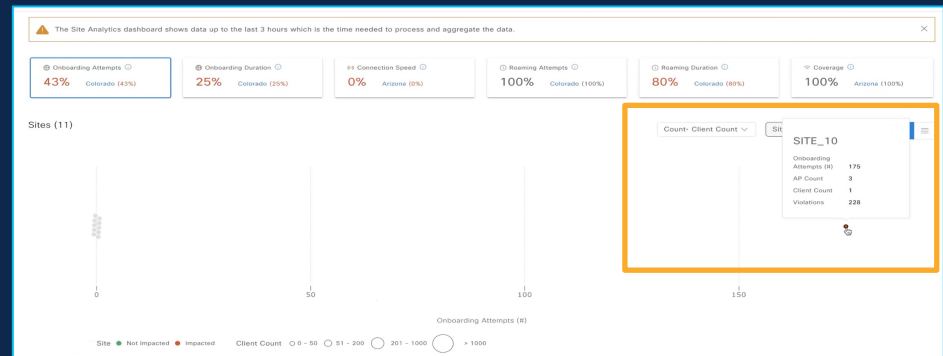
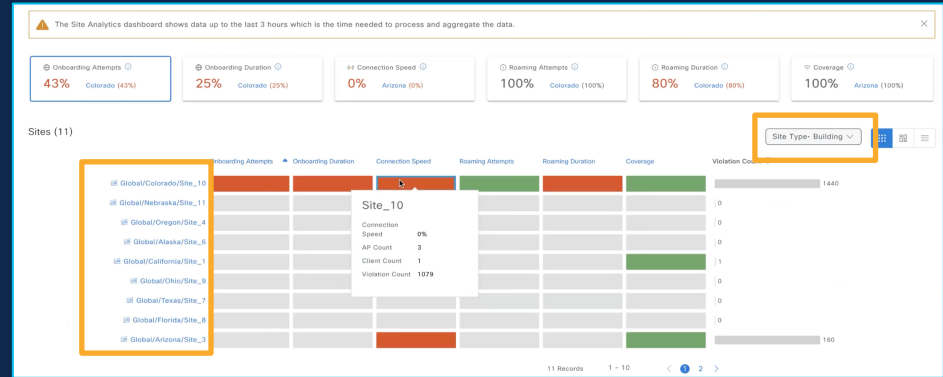
Feature Capability

- Site Analytics dashboard introduces new KPI trends based on site hierarchy which will provide insights into best and worst performing sites in the network.
- New capabilities introduced in site analytics dashboard include
 - Overall Site SLA distribution Analysis - To identify the Top(Worst) Impacted Sites
 - Site 360 – Site Analytics SLA Dashboard
 - SSID and Band Filtering
 - Bubble Charts to better identify high client count sites with failed SLAs and drill down.

Platform/Dependency

- AI Network Analytics should be enabled
- Requires DNA Advantage License

Assurance -> Dashboard -> Health - AI Analytics -> Site Analytics



ICAP-OTA Sniffer (AP 360)



Challenge/Pain Points

- To troubleshoot client onboarding issues along with the current ICAP feature as a network admin I would also like to run a sniffer to troubleshoot environmental problems and to capture management frames.

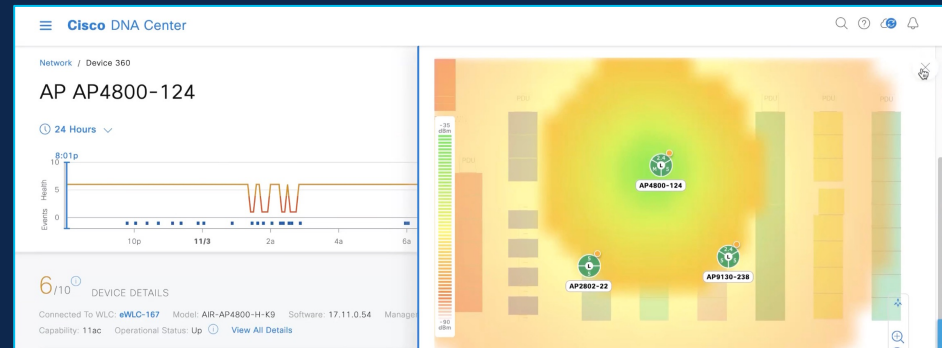
Feature Capability

- Ability to launch OTA Capture from AP 360 and Client 360. This will enable AP to capture all the packets on the WiFi channel and send it to Catalyst Center for analysis
- OTA capture makes use of available AP radio channel and converts into sniffer mode.
- Option to convert either a Radio or complete AP into Sniffer mode

Platform/Dependency

- Need 'Automation - Intelligent Capture' package to be installed
- Requires DNA Advantage License

Provision -> Inventory -> Device 360



200 Events in different areas such as ...

Backup/Restore

Fabric

AP Anomaly

Wired Connectivity

CPU and Memory Utilization

Onboarding

Software Image Management

Compliance

Device hardware and software

Application Experience

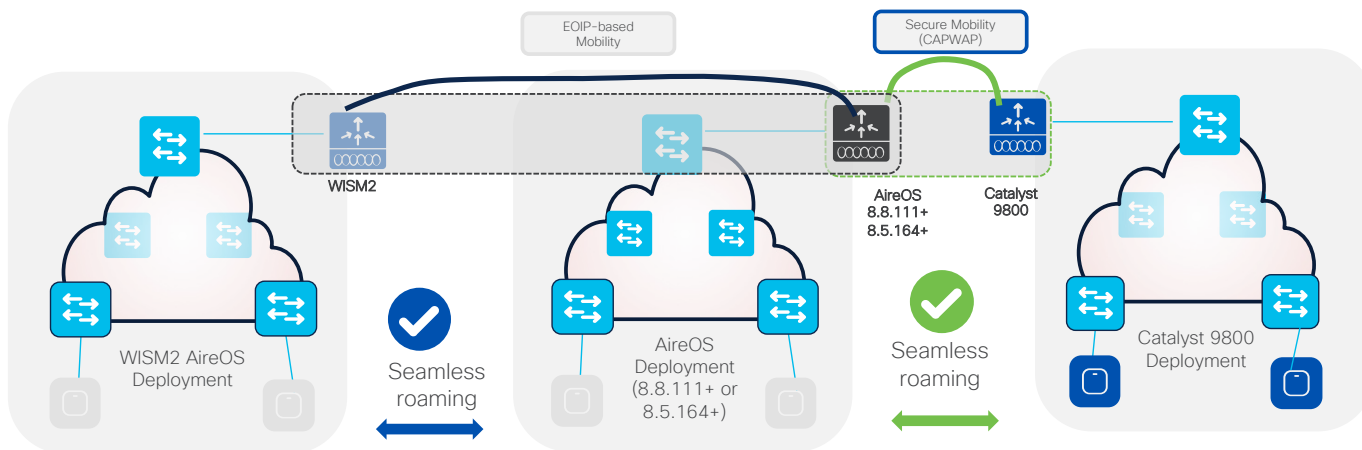
Device Availability

Wireless Connectivity

Sensor Test Troubleshooting

Migrace ze stávajících řešení

Postupná migrace a kompatibilita



1100



2009

x600



2018

Srpen 2012

Prosinec 2021

916x



Červen 2022

Sequential Approach to Prime Migration

1



Understanding DNA Center

Learn about DNAC Capabilities, extent of Prime Parity and differentiated use cases compared to Prime

2



Assess Prime Usage and DNA Center Compatibility

PDART Tool provides a comprehensive summary of Prime Usage, DNAC compatibility of network devices, use cases, network scale and other relevant details

3



Prepare for Data Migration

Follow recommendations from PDART report. If required, upgrade Prime, optimize network hierarchy, onboard DNAC appliance etc.

4



Initiate Data Migration

Use Data Migration Tool (co-existence tool) within Prime to easily and securely port your network from Prime to DNAC

5



Complete Data Migration

Verify on DNAC that the necessary network elements, sites, maps, templates and credentials have been ported from Prime

6

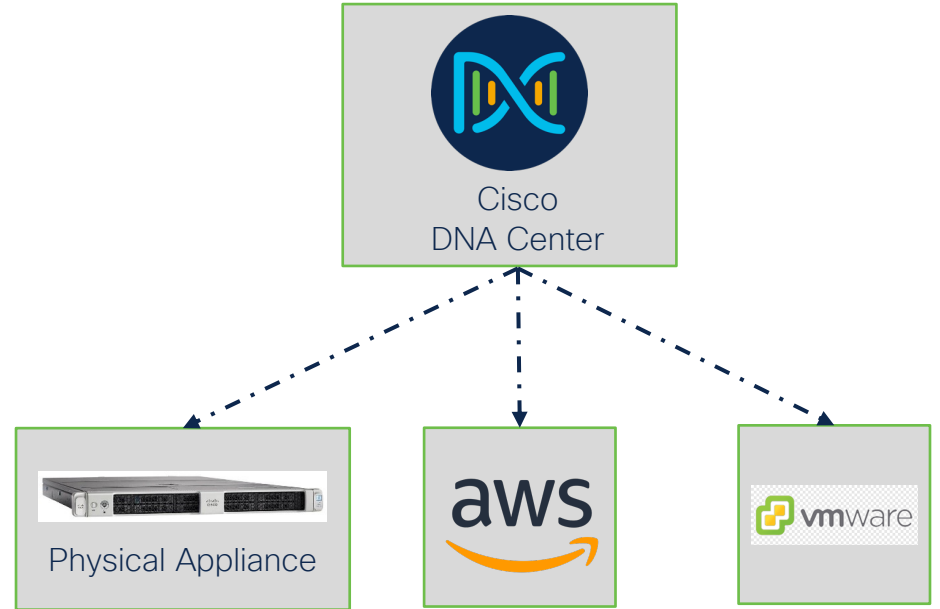


Adopt DNA Center

DNAC offers superior automation, vastly greater visibility, complete with AI driven analytics that help keep your network healthy and reduce your operational expenditure

Cisco DNA Center on ESXi Form Factor

- 1 Virtual Appliance running on customer's ESXi
- 2 Feature Parity and Upgrade Process same as Physical Appliance
- 3 Cisco DNA Center VA Cost - \$0
- 4 VMware Licensing (customer)



Cloud Monitoring for Catalyst

Unified View of Cisco Network Infrastructure

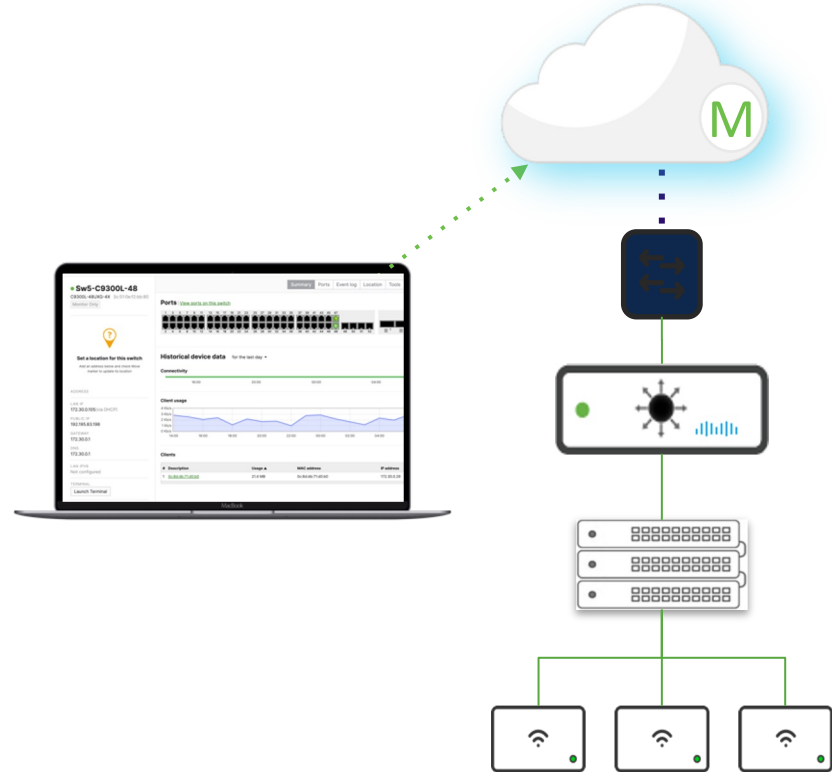
Centralized monitoring of IOS-XE and Meraki devices
Unified topology view
Consolidated device inventory

Device health and troubleshooting

Port-level packet and error counters
Remote troubleshooting
Email and webhook alerts for proactive response

Network client and traffic information

See connected devices across your network
Application visibility into network traffic





Requirements

Supported Platforms and Firmware

Models

Catalyst 9200/L/CX
Catalyst 9300/L/X
Catalyst 9500*

Firmware

IOS-XE 17.3+

Licensing

DNA Advantage
DNA Essentials

**Please note that client-level utilization and traffic information is not currently supported on Catalyst 9500 models*

Power of the platform

EFT

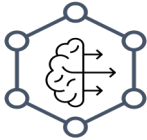
AI Services



Cisco Security Cloud



AI Endpoint Analytics



AI-Driven Assurance



AI-Enhanced RRM



Cisco AI Analytics Cloud

Management

Cisco DNA Center



Catalyst Cloud Monitoring

Cisco Meraki Dashboard



Infrastructure



Catalyst 9800 Series Wireless Controllers



Cisco Wireless 91xx Access Points

Diskuze

