Let's go cisco live!

Everything that you need to be aware of licensing for Cisco Catalyst Center

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- Introduction
- Catalyst Center Appliance
- Device Licensing
- Catalyst Center Licensing
- Essentials vs Advantage
- MIB-II Device support
- Catalyst Center License Manager

About Shai...

20+ years of industry experience

- Catalyst Center Product Manager
- Previously, I was a customer
- EX-Cisco Champion
- MBA+MSSE
- Lecturer @SJSU

Two truths and a lie

- · Was a DJ
- · I am a twin
- Coached football (not the American one)





Gayathri Devi

17+ years of NMS

Service Provider & Enterprise Networking

Engineering, Program Mgmt, Product Mgmt

Baker, Art Enthusiast



Show of Hands

How many of you have deployed Catalyst Center?

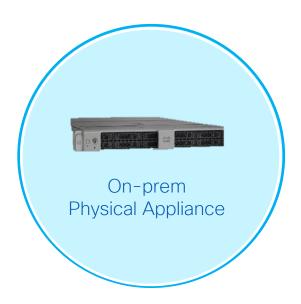


Introduction





Catalyst Center - Flexible Deployment models

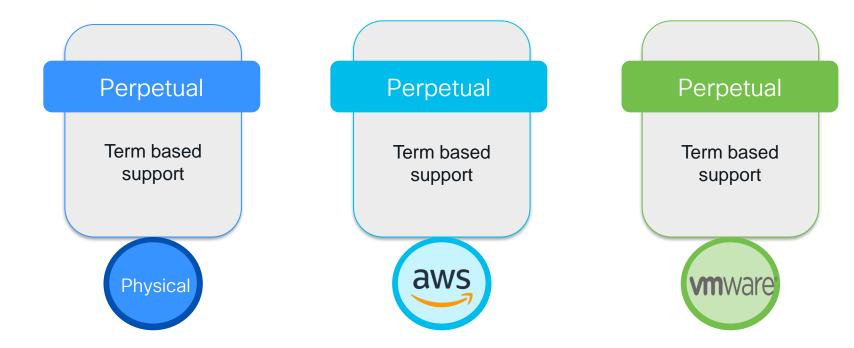






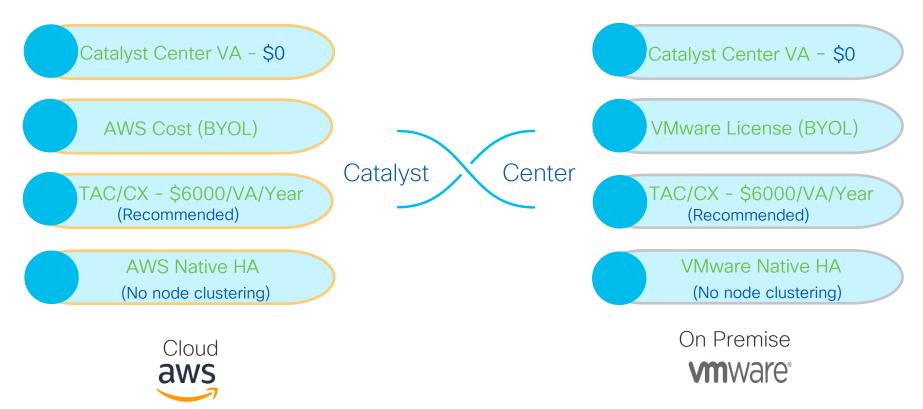


All about Appliance Licensing





What does it take to host the VA?



Recommendations for VA

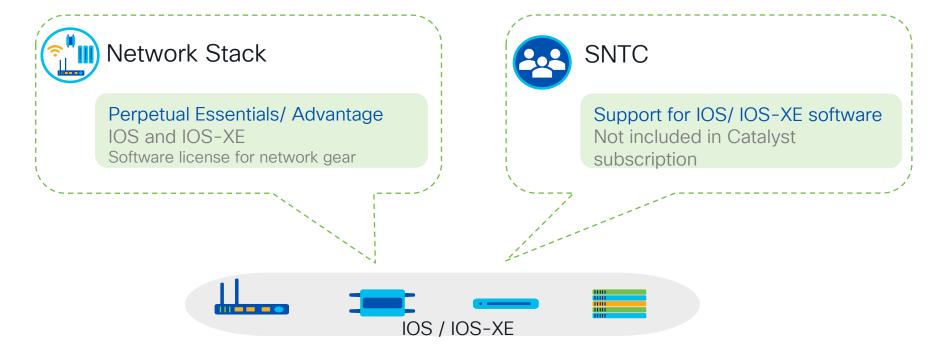
- Virtual appliance registration with Smart Account
- Purchase \$0 PID VA licenses attached
- TAC/CX support for VA optional yet recommended



Device Licensing



How does device licensing work?





Do I need a Catalyst subscription?



Catalyst subscription

Essentials/ Advantage (Subscription)
Catalyst Center software
License to manage/monitor network
gear on Catalyst Center





SWSS

Support for Catalyst Center Software Included in Catalyst subscription



Network Stack

Perpetual Essentials/ Advantage IOS and IOS-XE Software license for network gear



SNTC

Support for IOS/ IOS-XE software Not included in Catalyst subscription





Catalyst Center Licensing



Let's understand Catalyst Center device support

Device Support



Ability to add devices to Catalyst Center



Provides visibility & management in Catalyst Center



Different from HW support (SNTC)

- Does not alter/ extend device EoX timeline
- Does not offer technical support for HW



On to device classification

Supported Devices

- Visibility & management using Catalyst Center
- All current Cisco Catalyst families
- Some legacy Cisco device families

Legacy Devices

- Cisco devices which are end of sale but are not LDoS
- Not all "Legacy" devices have Catalyst license available
- Device support status varies as they reach LDoS milestone

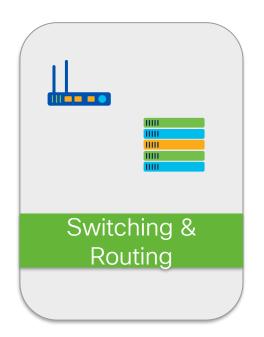


Device Classification - Generic Device

Generic Device

- Devices which do not require a Catalyst license to connect to Catalyst Center
- Support available in Catalyst Center 2.3.7 onwards
- MUST support MIB-II /SNMP to be discovered & added to Catalyst Center
- Only limited visibility provided

Catalyst Licensing Demystified









How does it work for Switches & Routers?

Devices

C9000/C8000

DNA License
Availability
Mandatory DNA
License

DNA License Requirement

Required

Functionality

Essentials/ Advantage

Pre-C9000

Optional DNA License

Required

Essentials/ Advantage*

Pre-C9000

No DNA License

No DNA License

Not required for supported devices

Unsupported devices

Generic support

No support

3rd Party

No DNA License

Not required

Generic support



^{* -} Advantage functionality varies based on device capability

What about wireless?

Devices

C9000/C8000

DNA License Availability

Mandatory DNA License DNA License Requirement

Required

Functionality

Essentials/ Advantage

Pre-C9000

Optional DNA License

Required

Essentials/ Advantage

EoL/LDoS

No DNA License

Not required

No support

3rd Party

No DNA License

Not required

Generic support

Cisco reserves the right to change functionality within Essential/Advantage/Generic Device



And IoT?

Devices

IW

IR

IE

Rockwell Stratix

IE1000, CGR2000, ➤ IR809, IR829, C819H Fluidmesh devices, S5700

3rd Party

DNA License Availability

Mandatory DNA License

Optional DNA License

Optional DNA License

Optional DNA License

No DNA License

No DNA License

DNA License Requirement

Required

Required

Required

Required

Unsupported devices

Not required

Functionality

Essentials/ Advantage

Essentials/ Advantage

Essentials/ Advantage

Essentials/ Advantage

No support

Generic support



Essentials vs Advantage



Show of Hands

How many of you are familiar with Essentials & Advantage?

NetOps - Essentials or Advantage?

Design & Onboarding

Network Discovery
Inventory
Topology
Network design
Network profiles
Plug and Play

LAN Automation
Wireless 3D Analyzer
NetFlow telemetry
Stealthwatch
Cisco Spaces
Auth Templates
SP Profiles





Config Automation

Template Hub Provisioning Model Config Editor Config Drift SD- Access
Automation
Compliance
App Telemetry
App QoS
Al Endpoint Analytics
Group Based Access
Control



Workflows

Configure Access Point Configure RLAN Configure Rogue rules Port channel config Learn Device Config App Visibility
App hosting
Stealthwatch Security
Analytics
Umbrella integration



Lifecycle Mgmt

SWIM RMA AP Refresh Security Advisory Network Bug Identifier



Patching /SMU ISSU AP Service Pack/ Device Pack AP Rolling upgrade Advanced Security Advisory





AlOps - Essentials or Advantage?

Visibility

Health Dashboards*
Out of box Reports
Issues & Events
dashboard
Issue Settings
Health Score Settings

360° views
Time travel
Issues, Events &
Remediation
User defined Issues
App Visibility &
Experience
Intel connectivity,
Apple, Samsung
Analytics



Insights

Trends & Insights
Site Analytics
Network Services
Dashboard
Network heatmap
Baselines, Network
Comparison
Al Enhanced RRM





Intelligent Capture
Spectrum Analysis
Thousand Eyes
Cisco Spaces
Webex /MS Teams 360
Path/ True Trace
Network Reasoner

F



* - some dashlets are only available with Advantage



Show of Hands

Is this just for Cisco gear?

MIB-II device support



What can Catalyst Center do with my 3rd party hardware?



Basic Discovery, Inventory, Topology



Vendor identity - "Fortinet", "Palo Alto" etc



Device Uptime



Device L3 reachability



Interface up/down status*



Show of Hands

How are you managing your licenses today?



Catalyst Center License Manager



Pre-req Check - 1

Access privilege

 SUPER-ADMIN-ROLE permissions and appropriate RBAC in Catalyst Center

Credentials

Cisco user ID and password for your Smart Account

Reachability

 Catalyst Center reachability to tools.cisco.com to register with Smart Account

Pre-req Check - 2

Manage Device

- Manage devices
- Assign to site
- Tools.cisco.com reachable

Min. required Software Version for Smart License

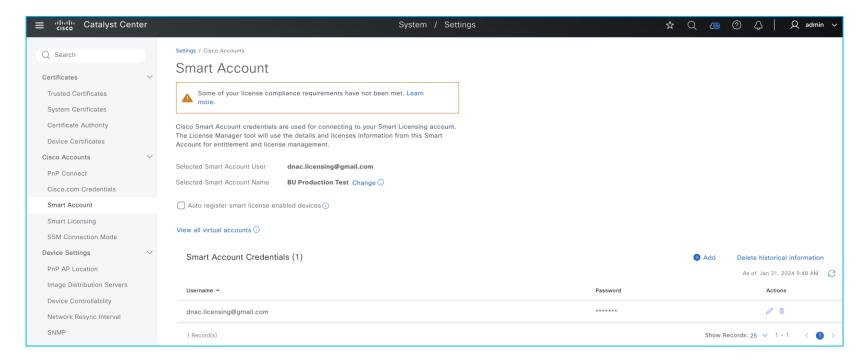
- Switches 16.9.1 or later
- Switches 17.3.2 or later (SLuP)
- Routers IOS 16.10 or later

Security

Required ports, FQDN, URL to be permitted



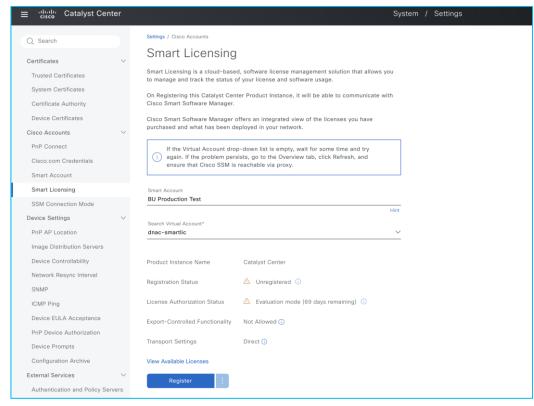
Configure Smart Account



Only one Smart account can be configured at a time

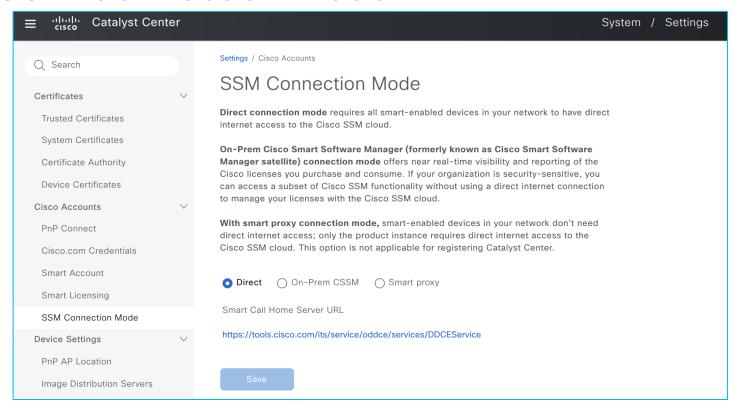


Register Smart Account





CSSM Connection Mode





Prep Check - Catalyst Center License Manager



Configure

Configure Smart Account to connect with Catalyst Center

Register

Register chosen Smart Account with CSSM

Connect

Choose appropriate connection mode for Catalyst Center to connect with CSSM

Enable

Enable auto registration of smart licensing enabled devices



Catalyst Center License Manager

View Catalyst Licenses

- Purchased and Used license count
- License Timeline and Expiration
- Device license details & License history

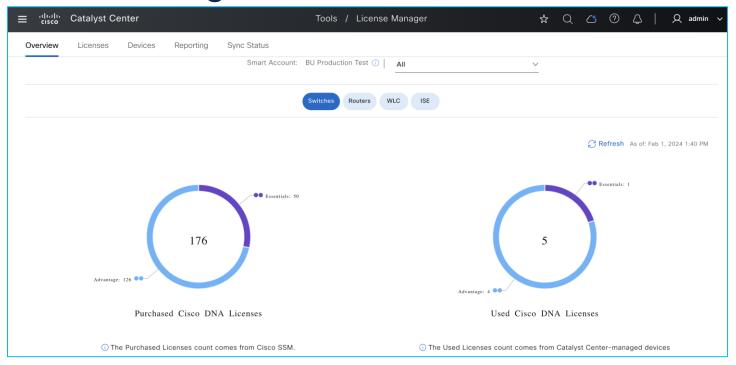
Manage Catalyst Licenses

- Register Smart license
- Change license level
- Change Virtual Account Mapping
- License Reservation

View Catalyst Center Licenses

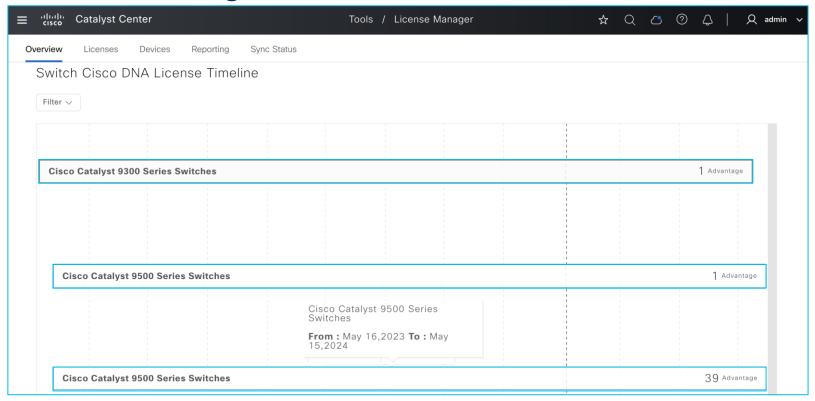


License Manager Dashboard - Overview



- Aggregate purchased and used Catalyst licenses from Smart Account
- License info for Switches, Routers, Controllers and ISE by virtual account
- Purchase and usage count by device family

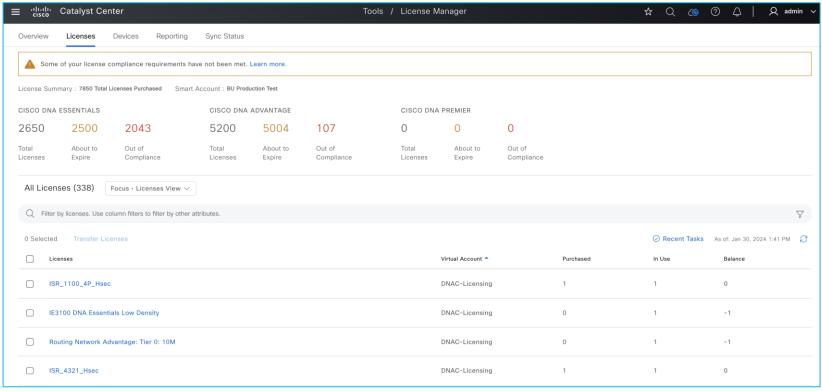
License Manager Dashboard - Timeline View



License count and validity by device family



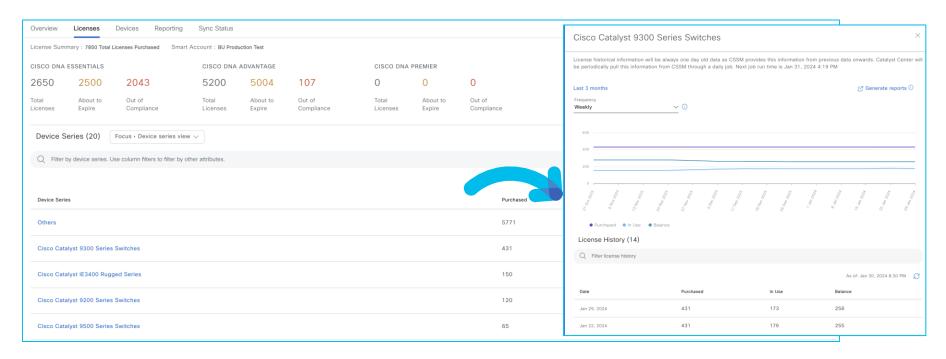
License Manager Dashboard



- Aggregate count of Catalyst license types with expiration and compliance info
- License Timeline by device type



Historical License Info - Device View



BRKOPS-2375

- License historical info* Daily, weekly, monthly frequency
- Timeline graph Purchased, In Use, Balance Info

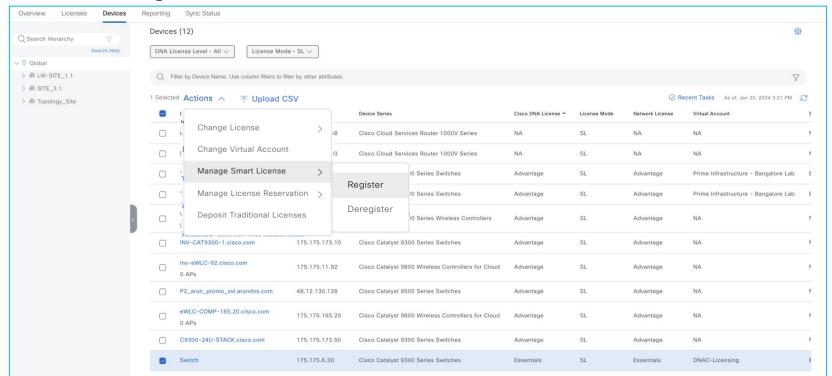


Manage Catalyst Center Licenses

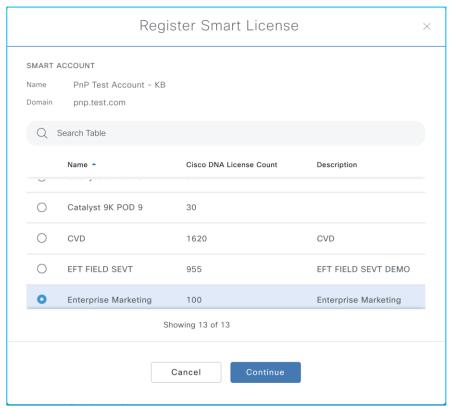


Register Smart License

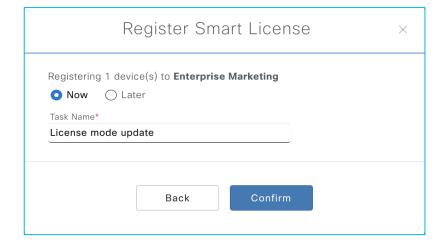
- Select device to register
- Auto-register smart enabled devices



Register Smart License





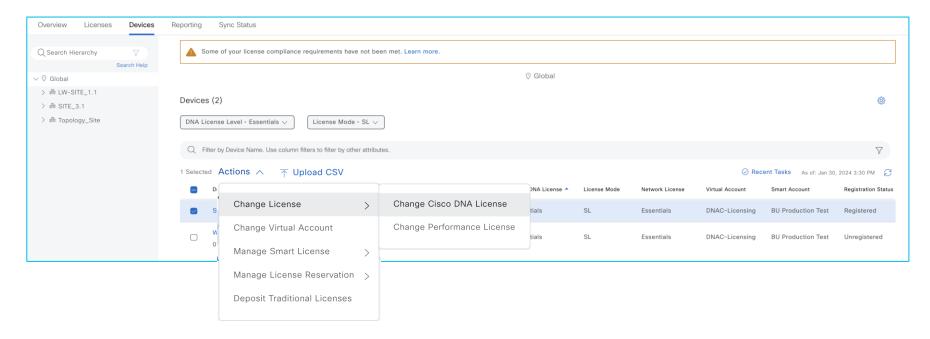




BRKOPS-2375

Change Catalyst License Level

- Select device to change license level
- Upgrade or downgrade Catalyst subscription licenses





Change Catalyst License Level

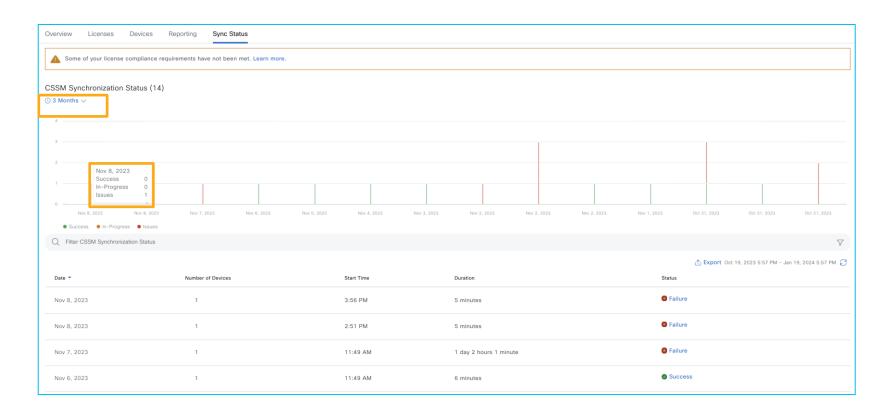
- Select desired subscription license
- On-demand or scheduled
- Optional reboot on update for changes to be in effect





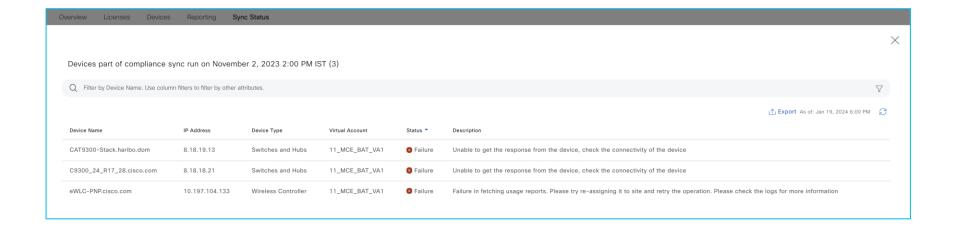


CSSM Sync Status





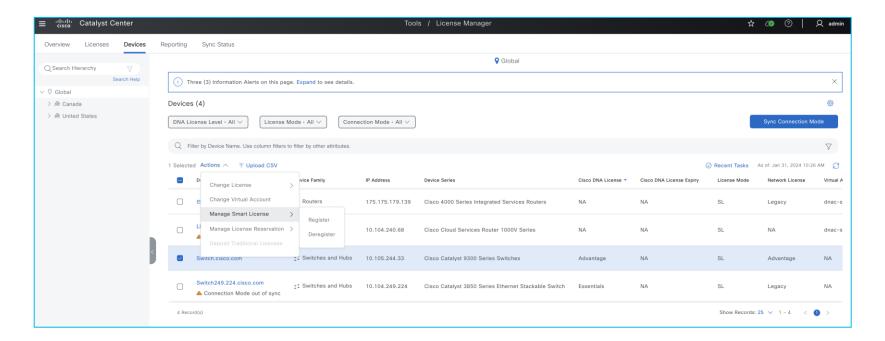
CSSM Sync Status





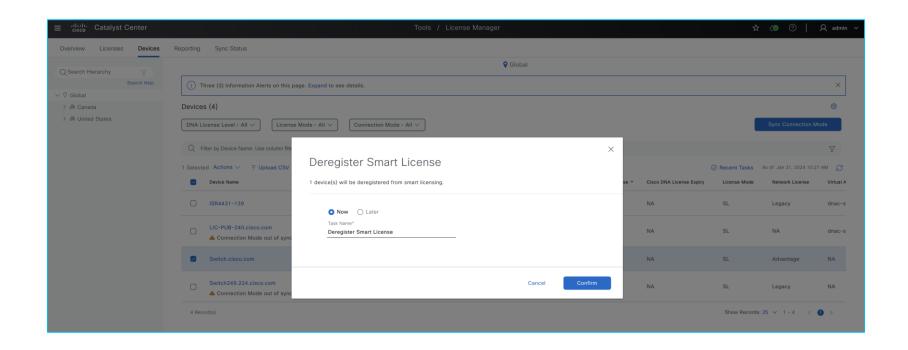
Smart License Deregister

Device deregistered from Smart Account



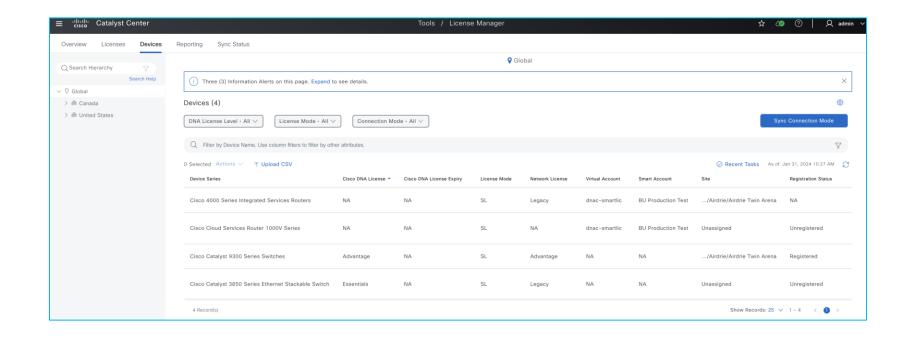


Smart license Deregister





Smart License Deregister





Catalyst Center Demo



Welcome to Catalyst Center!



▲ Some of your license compliance requirements have not been met. Learn more.

Cisco DNA Center is becoming Catalyst Center

As part of our vision to converge our products around an integrated platform, we are changing the name of Cisco DNA Center to Catalyst Center in the next release. The capability and functionality of Catalyst Center remains the same as Cisco DNA Center.

Assurance Summary







Network Snapshot



As of Feb 2, 2024 11:28 AM

Network Devices

As of Feb 2, 2024 11:28 AM

As of Feb 2, 2024 11:28 AM

Network Profiles

Wireless: 1

Unclaimed: 0

Call to Action





Key Takeaways

- Catalyst Center Virtual appliance is \$0 PID
- Catalyst Licenses differ from Device Licenses
- No license needed for 3rd party devices



Never too late to begin..

Catalyst Center Data Sheet	http://cs.co/CatalystCenterDataSheet
Catalyst Center Compatibility Matrix	http://cs.co/CompatibilityMatrix
Switching Matrix	http://cs.co/SwitchingMatrix
Wireless Matrix	http://cs.co/WirelessMatrix
Routing Matrix	http://cs.co/RoutingMatrix



Cisco Live EMEA Catalyst Center Learning Map

Monday 5th

Tuesday 6th

Wednesday 7th

Thursday 8th Friday 9th

TECOPS-2001

The Ultimate Guide to Install, Onboard, Operate your Campus Network with Catalyst Center

TECOPS-2002

How to leverage Catalyst Center to build a Zero Trust Campus Network

TECOPS-2158

Catalyst Center Out-ofthe-Box and Custom Integrations

TECOPS-2823

How to leverage Catalyst Center to its greatest potential

LTREWN-2511

Automating wireless deployments at scale using Catalyst Center

BRKOPS-2032 ×

3 Catalyst Center and ITSM Workflows: CMDB, Incident Management and SWIM

BRKOPS-2416

7 Habits for success with Cisco Catalyst Center

BRKOPS-1183

Introduction to Infrastructure as Code for Catalyst Center with Terraform

LTRSEC-2005

Building Cisco SD-Access with Cisco Catalyst Center & ISE

BRKOPS-2540

Best Practice for Prime to Catalyst Center Migration

BRKOPS-2683

Let Catalyst Center be your guide to a Zero-Trust Workplace

★ BRKOPS-2375

Everything that you need to be aware of Licensing for Catalyst Center

LTROPS-2977

Cross-Domain Automation with Catalyst Center and ACI using CI/CD Pipelines

BRKCOC-2465

Inside Cisco IT automating the network with Catalyst Center

BRKOPS-1110 ×

Unleash Your Network Potential: Catalyst Center's MIB2/SNMP Empowerment for 3rd Party Devices

BRKOPS-2357

Taking Infrastructure as Code for Catalyst Center with GitLab CI/CD to the Next Level

BRKOPS-2077

Tips and Tricks for Prime Infrastructure to Catalyst Center Migration

BRKEWN-2667

Catalyst Wireless Supercharged by Catalyst Center

BRKOPS-2038

The Flow of Things: Navigating and Properly Enabling NetFlow-based Solutions through Catalyst Center

BRKOPS-2402

Automate the Deployment of a Wireless Network with the Help of Catalyst Center

BRKOPS-2471

Custom Workflows for the Cisco DNA Center Integration with ServiceNow

--, -

BRKOPS-2521 Revolutionize Your Network Management with

Cisco Catalyst Center:
Physical or Virtual on AWS
or VMware ESXi



Catalyst Center 2.3.7

Catalyst Center 2.3.5

Prime Migration

★ BU led sessions



Catalyst

Center



Thank you



