

Is this how your typical network management looks like?





Let's Deploy Catalyst Center Global Manager (CCGM)

Single Pane of Glass for Catalyst Centers

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Product Management, @shaisilberman

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Technical Marketing Engineer, @psbagga

cisco Live !

Cisco Webex App

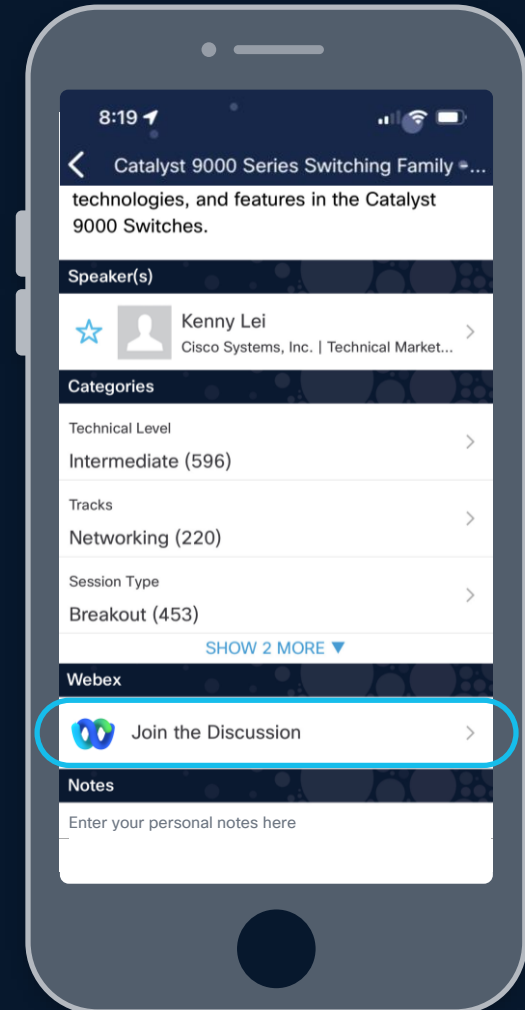
Questions?

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

How

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

Webex spaces will be moderated by the speaker until June 13, 2025.



Birth of CCGM

Session Journey

- Why do you need CCGM?
- What it is and what it is not?
- What do I need to get CCGM deployed? How do I deploy CCGM?
- How do I add my Catalyst Centers to CCGM?
- What all can I do on CCGM? – Monitoring, Troubleshooting, etc.
- Under the hood of CCGM
- Does CCGM have APIs?

About Sh.ai



20+ years of industry experience

- Catalyst Center Product Manager
- TME Leader
- MBA+MSSE
- Previously, Director of IT @SJSU
- Lectured Networking @SJSU

About Prabhjit



14+ Years with Cisco

- 3+ Years in TAC
- 3+ Years in Solution Testing (4G/LTE, VoLTE)
- 3+ Years as Cloud Engineer
- 5+ Years as a TME in SDA and Catalyst Center

The background of the slide is an abstract composition of vibrant, blurred light streaks in shades of blue, yellow, and orange, creating a sense of motion and energy. A dark blue rectangular box is positioned in the center-left, serving as a backdrop for the main text.

Why do you need CCGM?

Wide Platform Adoption and Growth

**33
Million**
Managed Devices

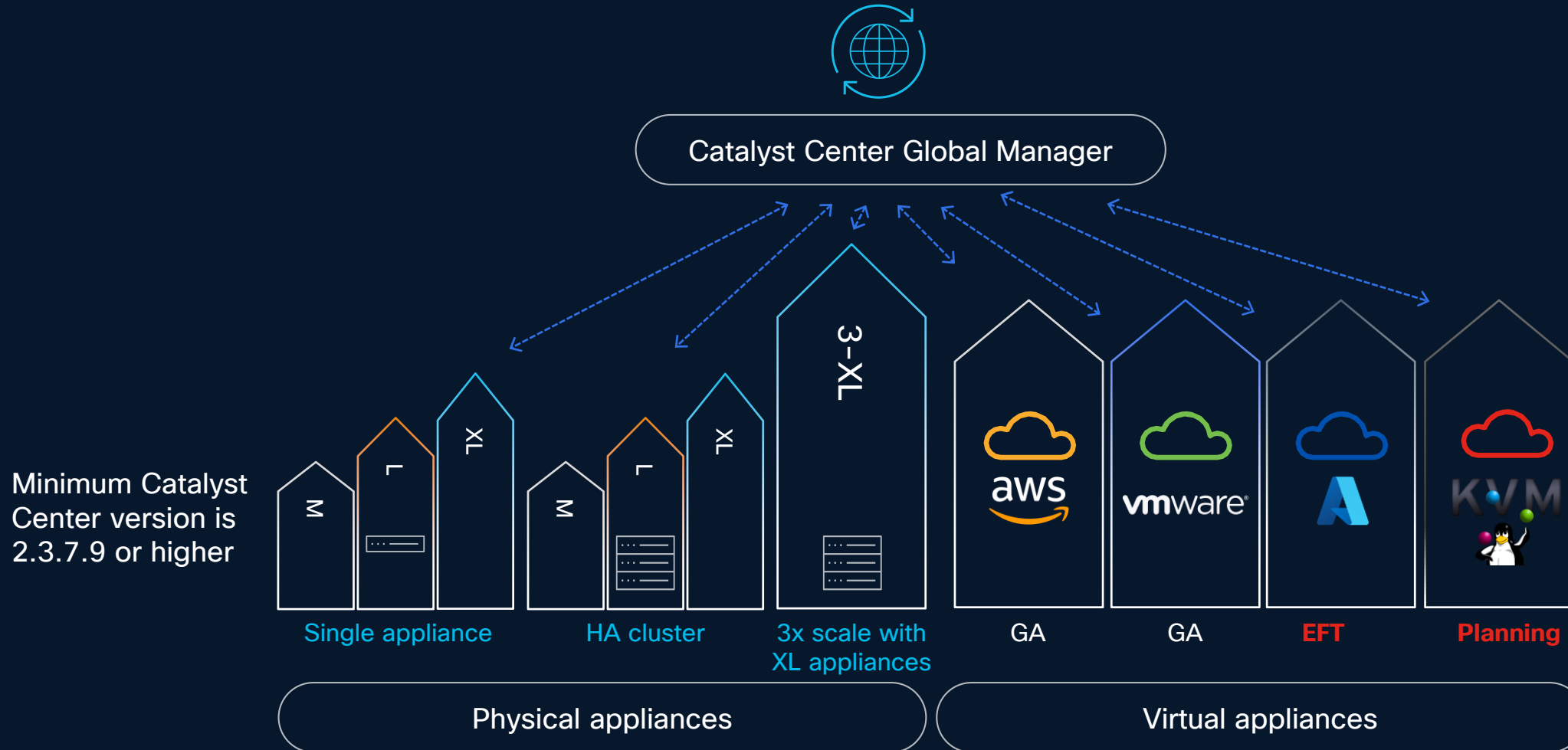
17M+ Devices on
Catalyst Center

16M+ Devices on
Meraki

1B+
Connected Clients

Global Manager operational evolution

Single pane of glass for simplified architecture



Catalyst Center platform system scale

As of 2.3.7.x

Description	Medium appliance DN3-HW-APL	Large appliance DN3-HW-APL-L	Extra large appliance DN3-HW-APL-XL	3 XL cluster	Virtual Appliances
Endpoints (concurrent)	25,000	40,000	100,000	300,000	25,000
Network devices	5,000	8,000	25,000	35,000	5,000
APs	4,000	6,000	13,000	25,000	4,000
Sites	2,500	5,000	10,000	10,000	2,500
Access control policies	25,000	25,000	25,000	25,000	25,000
Access contracts	500	500	500	500	500
Per fabric site scale					
Fabric nodes	500	600	1,200	1,200	500
VNs	64	128	256	256	64
IP pools	100	300	1,000	1,000	100

← Latency between DNAC to device: 200ms (RTT) →

BIG NUMBERS

As of 2.3.7.x

Description	3 XL cluster
Endpoints (concurrent)	300,000
Network devices	35,000
APs	25,000
Sites	10,000
Access control policies	25,000
Access contracts	500
Per fabric site scale	
Fabric nodes	1,200
VNs	256
IP pools	1,000

x25

Scale with CCGM
187,500,000
21,875,000
15,625,000

Cisco Catalyst Manager of Managers



Global Catalyst Center Deployments Management

True or False?

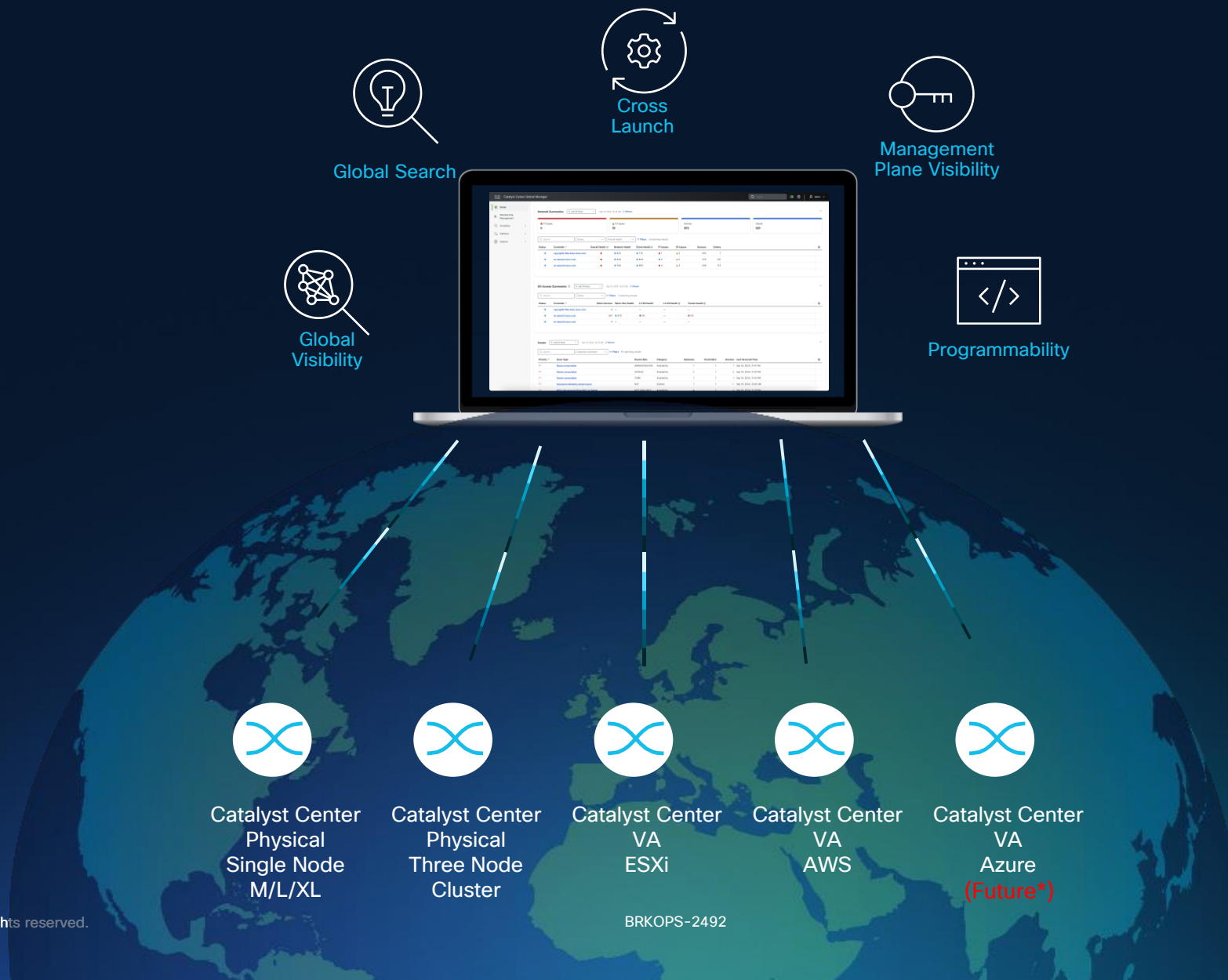


**CCGM cannot
run outside of
United States**

Catalyst Center Global Manager

What it is and what it is not?

Catalyst Center Global Manager use cases



Catalyst Center Global Manager use cases

Global Search

Global search via

- IP Address
- Hostname
- MAC address
- other metadata

Cross Launch

- Controller x-launch without additional authentication
- Cross-launch into 360 view of the client/device

Mgmt Plane Visibility

- Enhanced Administrative Efficiency
- System Health / Monitoring
- Appliance Health / Monitoring

Global Visibility

- Monitoring of networks, sites, clients, devices
- Aggregated inventory reporting
- P1/P2/P3 issues drill-down from any Catalyst Center

Programmability

- Open APIs for 3rd party solutions integration
- APIs for monitoring mgmt plane health
- APIs to query global networks/devices/ inventory details
- Enroll in CCGM Notification

Catalyst Center
Physical
Single Node
M/L/XL

Catalyst Center
Physical
Three Node
Cluster

Catalyst Center
VA
ESXi

Catalyst Center
VA
AWS

Catalyst Center
VA
Azure
(Future*)

Managing Between Management and Network Layers

Global visibility and operations of Catalyst Center **management layer**

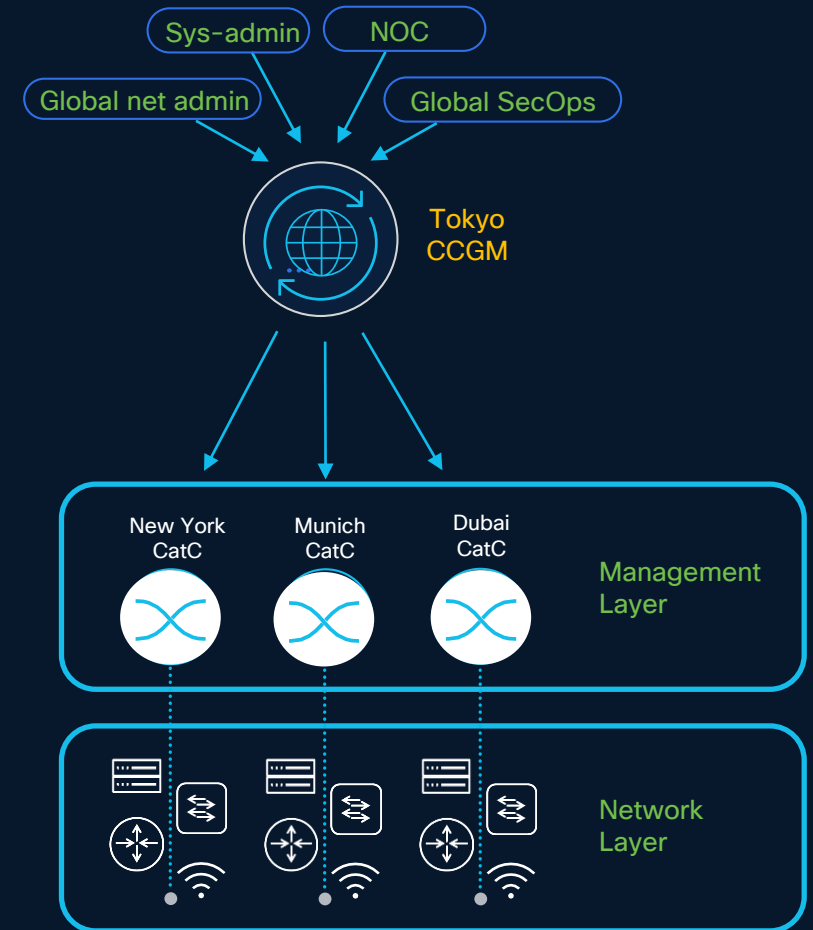


- See Appliance health
- See Appliance Status
- Seamless logon to CatC Controller

Global visibility of the **network layer**

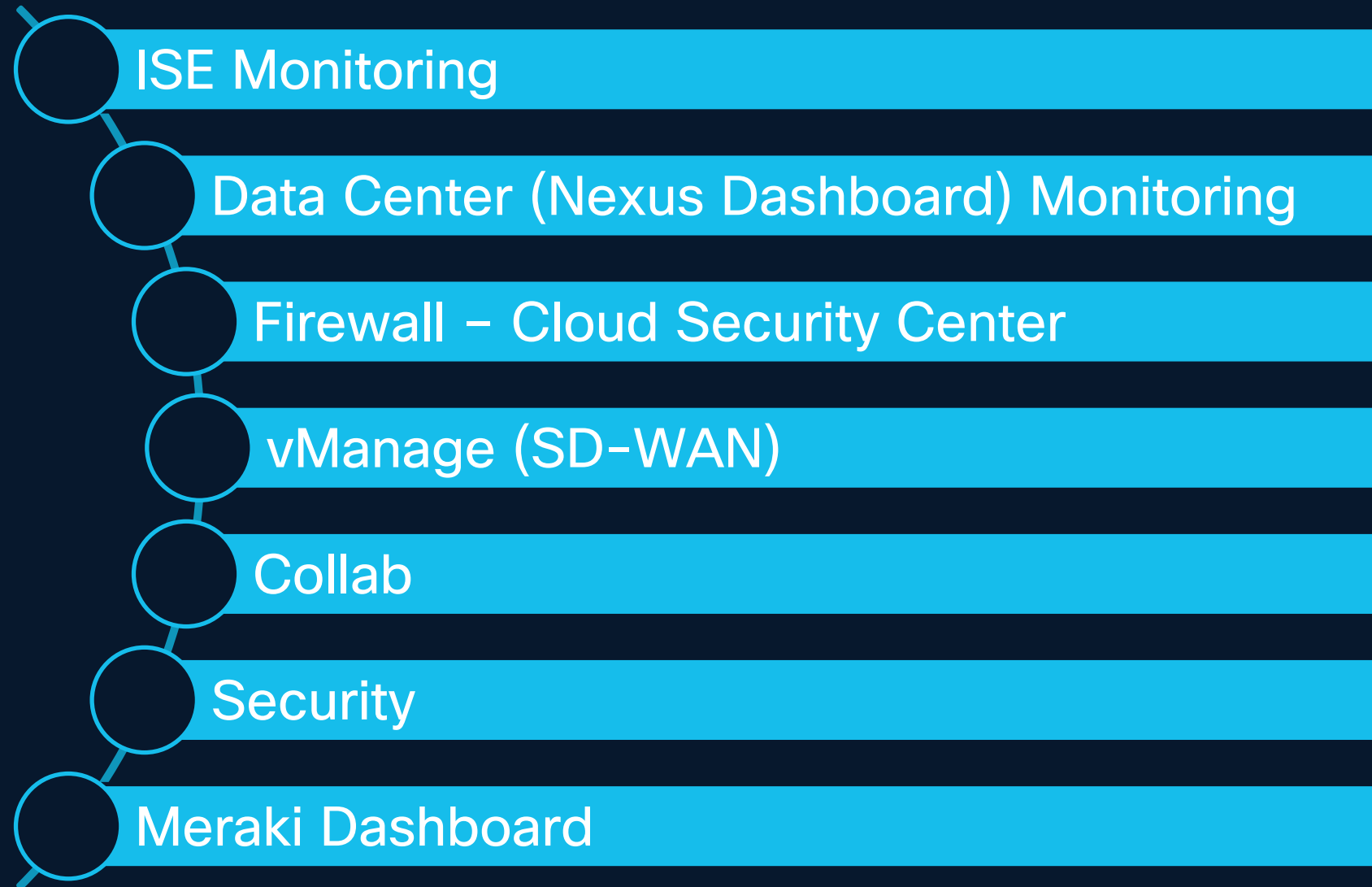


- See global device/client status
- See global device up/down
- See global events/issues
- Global search across multiple CatC domains (i.e. MAC address)



What CCGM is NOT (today) – out of scope

Phase 1

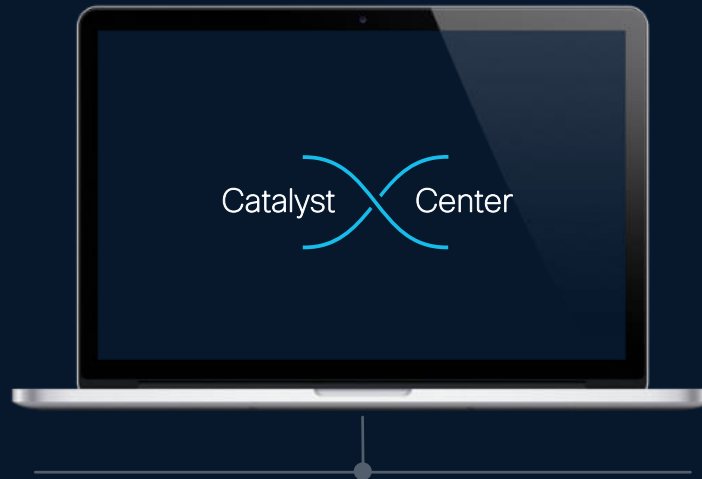


The background of the slide is a dark blue field filled with dynamic, flowing light streaks in various shades of blue and a hint of orange. These streaks create a sense of motion and depth. A solid dark blue rectangular box is positioned on the left side of the slide, serving as a backdrop for the main text.

What do I need to get
CCGM deployed?

Catalyst Center Requirements

For use with CCGM



Physical and virtual infrastructure



- Release 2.3.7.9 or higher



- IP Reachability to CCGM



- HTTPS/PORT 443 between CCGM and CatC



- No more than 350 msec Latency between CCGM and CatC



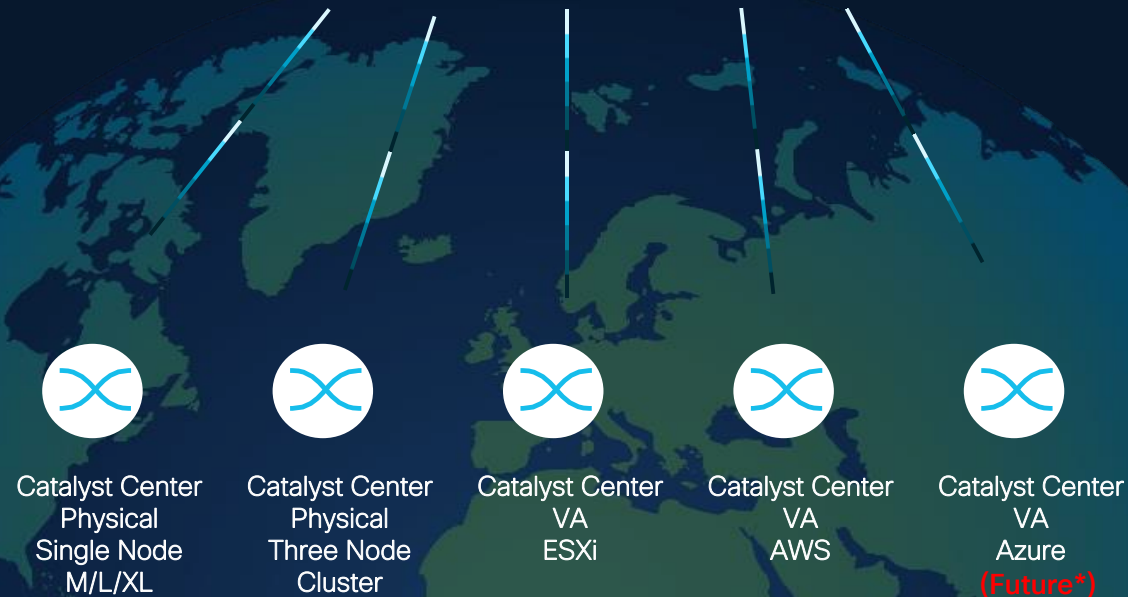
- Smart Account and Virtual Account Created for Catalyst Center registration with CCGM

True or False?



**CCGM can support
Catalyst Center 2.3.7.9
or higher**

Catalyst Center Global Manager Requirements



vmware

- vCenter and ESXi host running 7.0.x or higher



- 8 vCPU
- 16 GB RAM
- 100 GB + 550GB SSD HDD



- 25 Controllers (Catalyst Centers) can be added to CCGM



- Up to 350 msec latency between CCGM and CatC



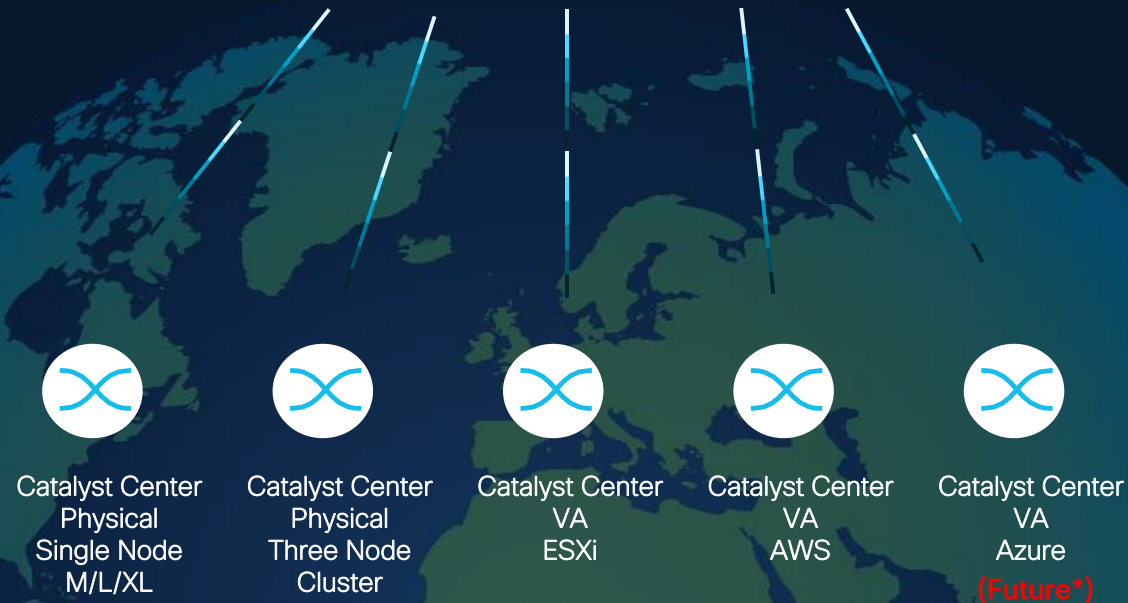
- Smart Account and Virtual Account Created for Catalyst Center registration with CCGM

True or False?



**Can CCGM
run in AWS?**

What about Licensing?



- CCGM license is included with your active DNA license



- There is no additional cost

- There is no separate support contract

- Tied to your Smart Account and Virtual Account

- CCGM entitlement also included with your active DNA entitlement

True or False?

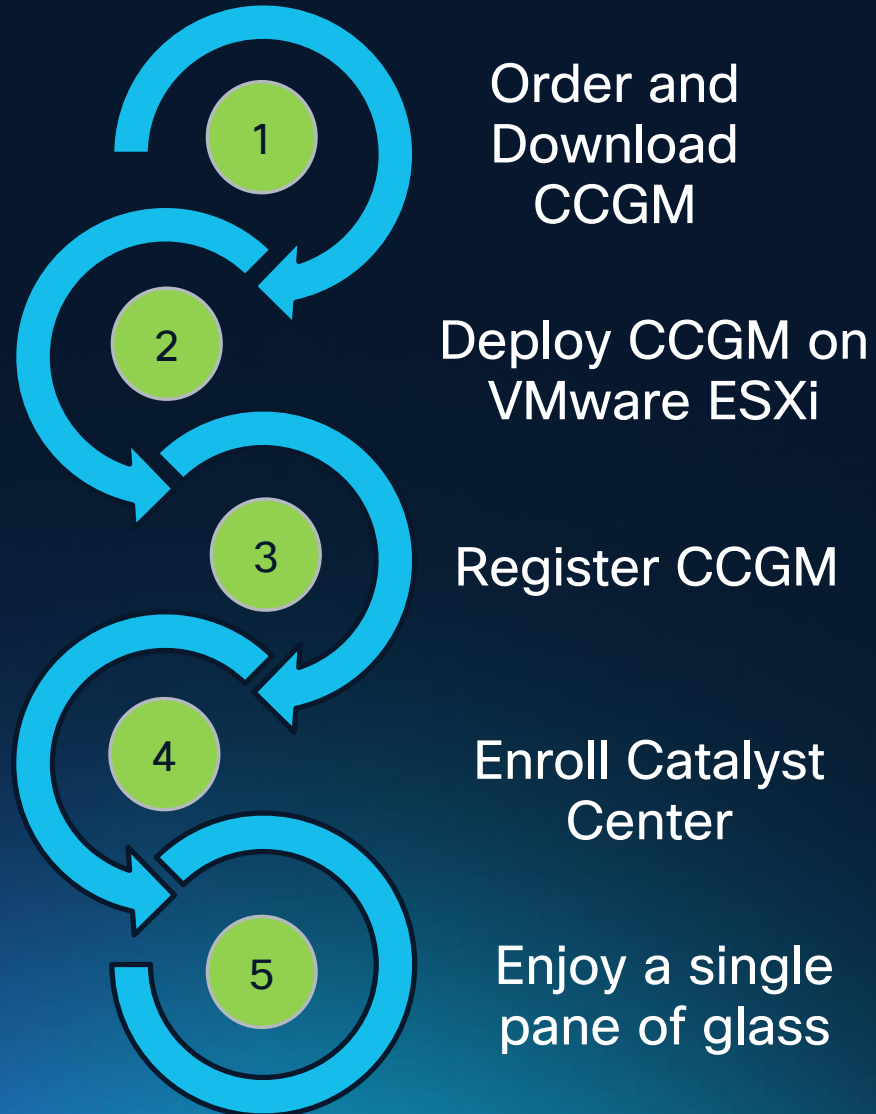


**CCGM is
expensive!**

How do I add my Catalyst Centers to CCGM?

How to get started

In ~1 hour
(excluding download)



It all starts with placing a new \$0 order for CCGM on Cisco.com (CCW)

CCW is the system where orders are placed with Cisco by your account team or partner. Is stands for Cisco Commerce Workspace

What is Cloud Registration Service
(CRS)?

Automate way for Catalyst Centers
to register to CCGM

1

Cisco Ordering Tool CCW



New CCGM

Smart Account Name:
CatalystCenterTME

Virtual Account Name: CCGM-
USA

APIs



2

Cloud Registration Service (CRS)

New Profile is Created

Smart Account Name:
CatalystCenterTME

Virtual Account Name: CCGM-
USA



Order CCGM

Download and
Deploy CCGM

~45 mins



Register CCGM

~1 mins

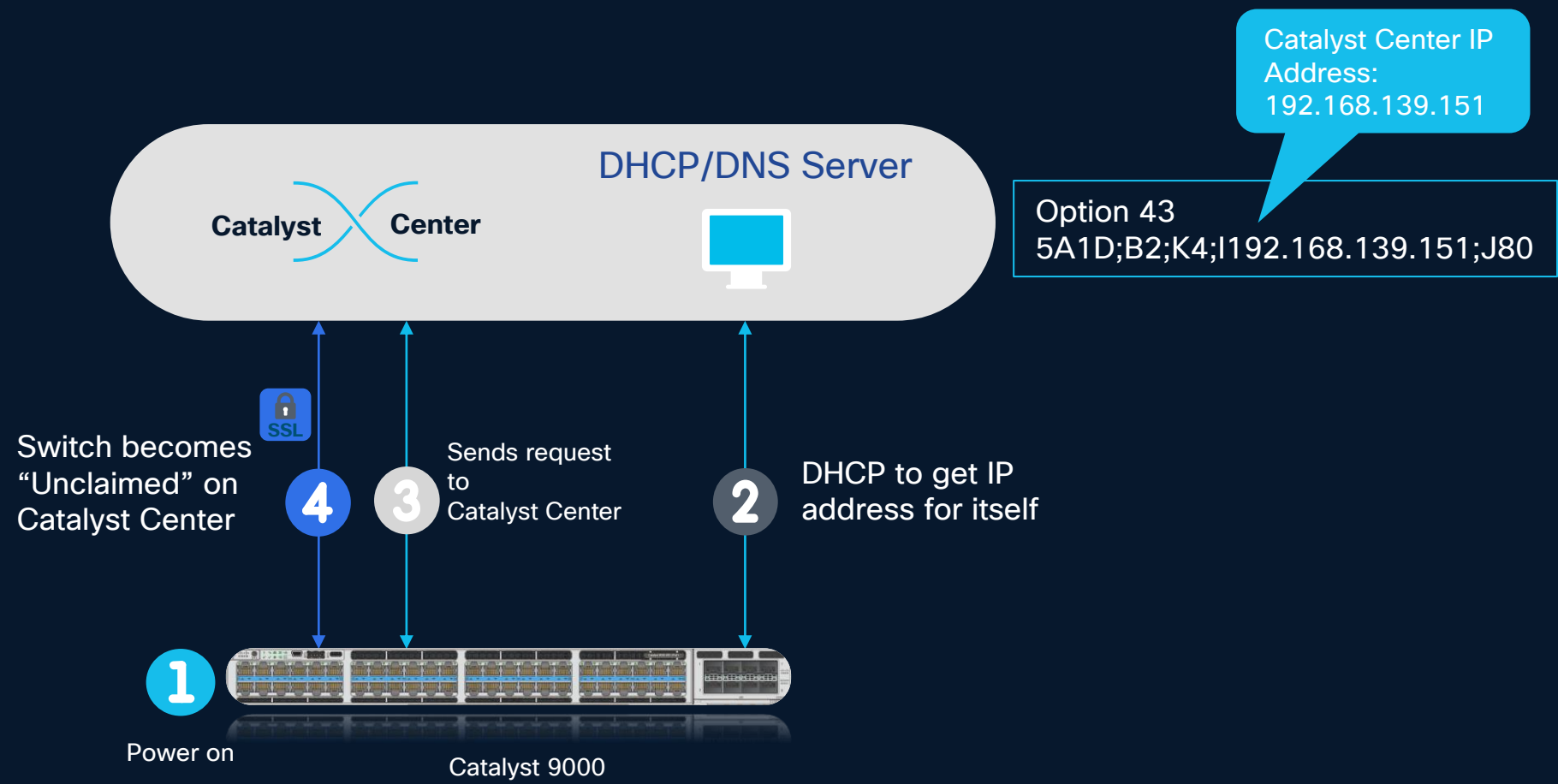
Enroll Catalyst
Center

~1 mins

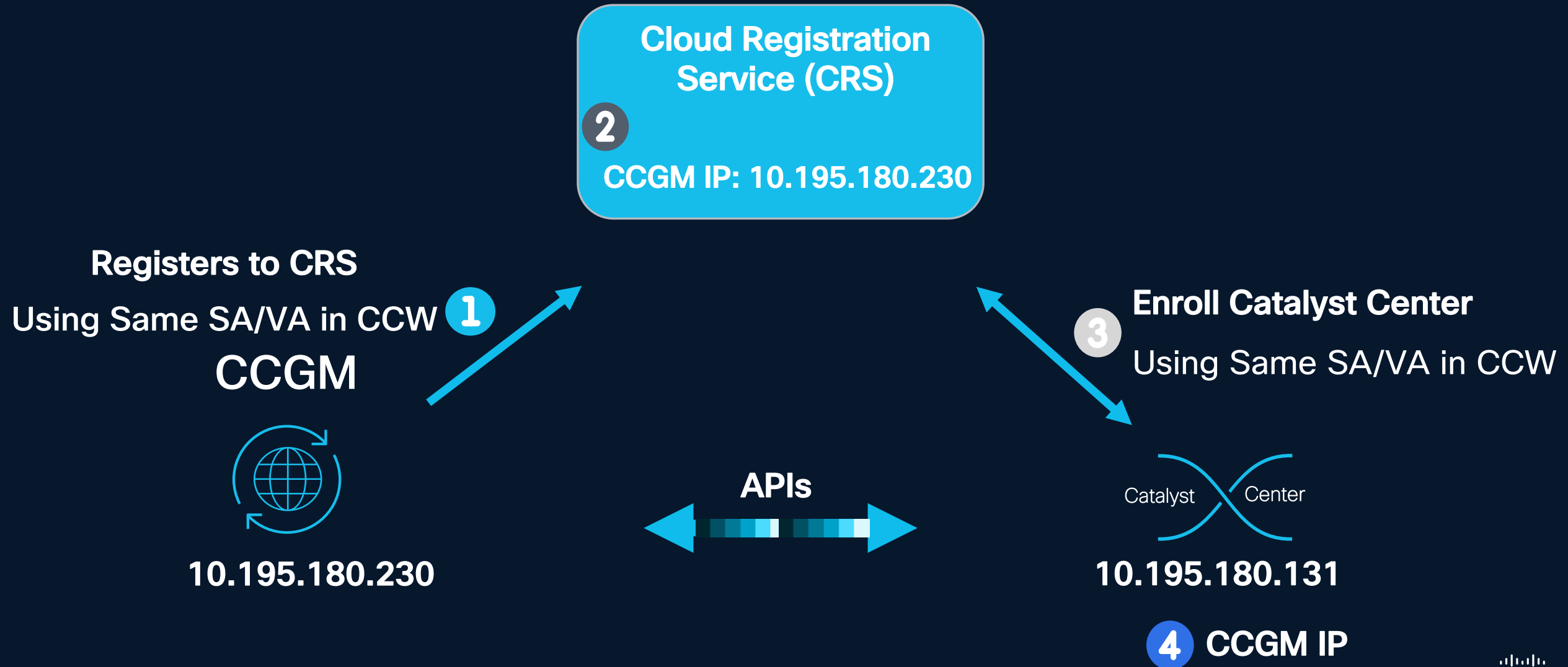


Enjoy CCGM

Same way as PnP!



How to add Catalyst Center to CCGM



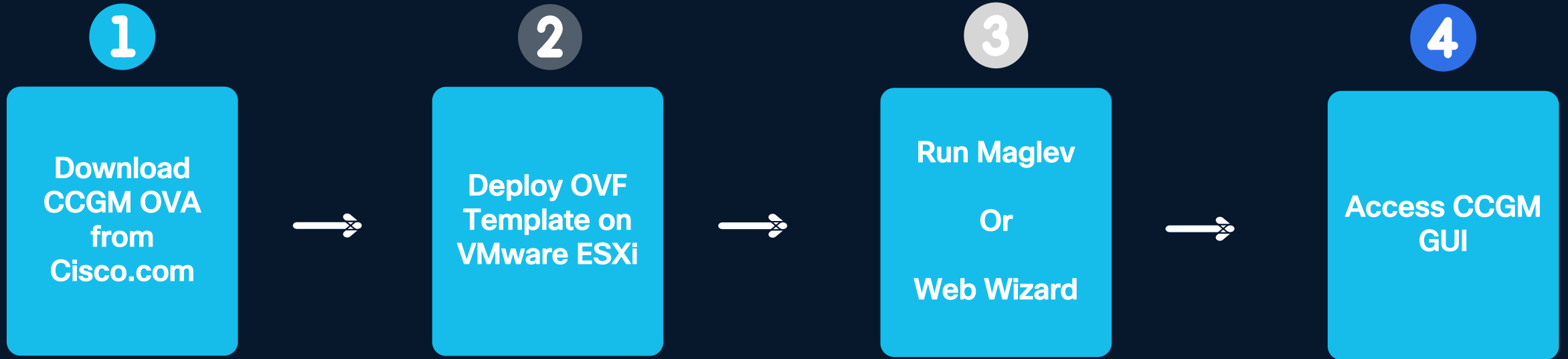
How can I Deploy CCGM?



Same as Catalyst Center

Powered by maglev

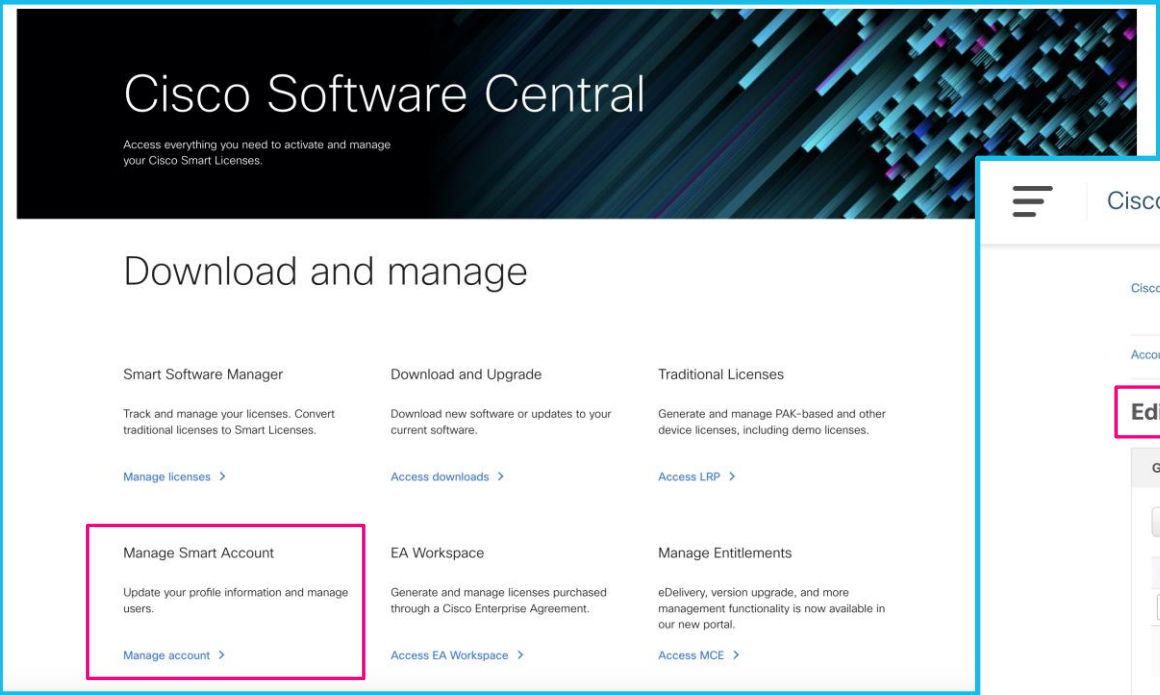
Deploy CCGM



All tied to your Smart Account and Virtual Account

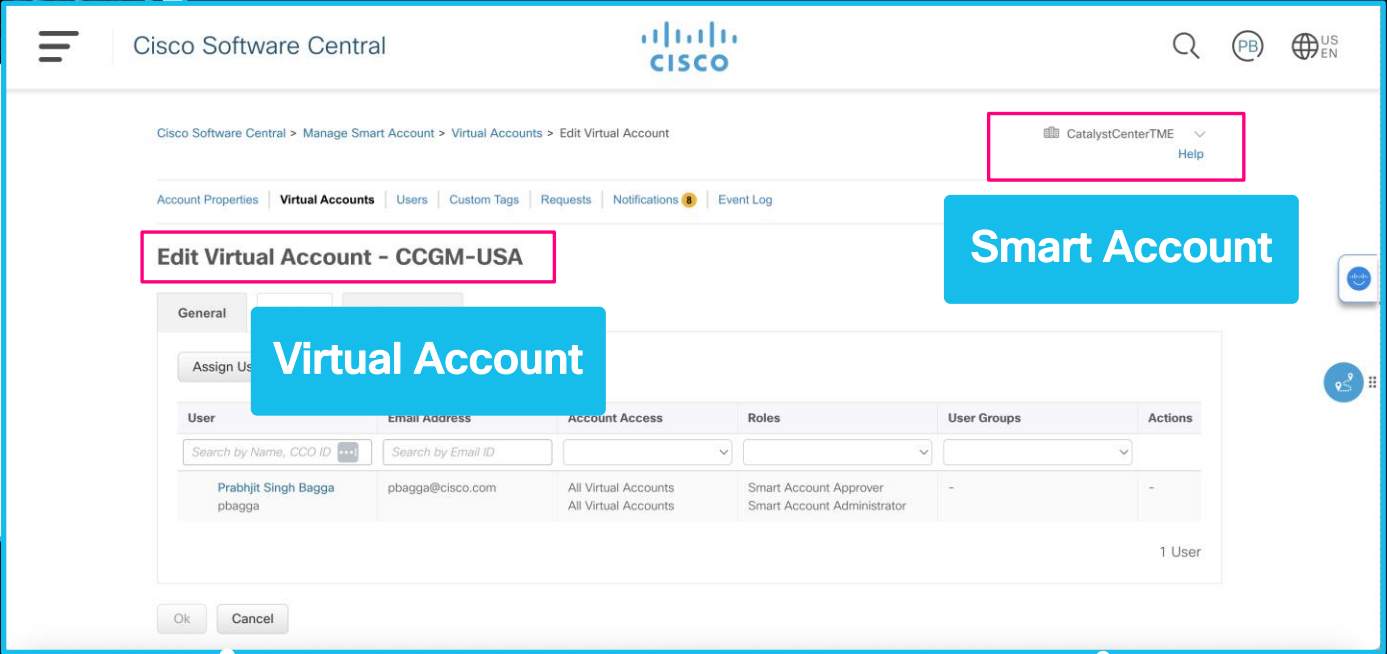
1

software.cisco.com



2

Note the SA and VA



Order CCGM

10 mins

Download and Deploy CCGM

~60 mins

Register CCGM

~30 mins

Enroll Catalyst Center

~2 mins

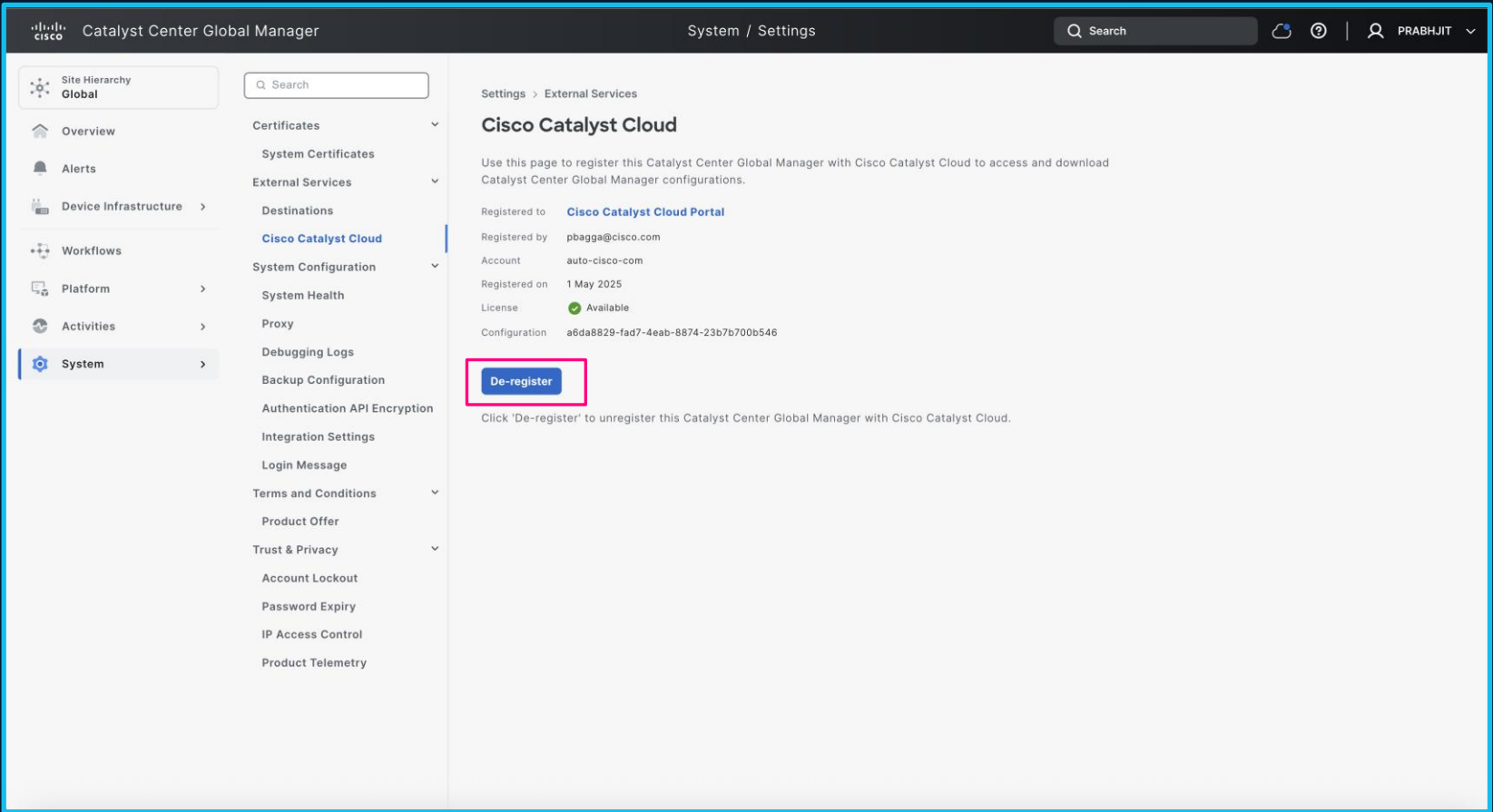
Enjoy CCGM



All tied to your Smart Account and Virtual Account

3

First Time Registration



Order CCGM

10 mins

Download and Deploy CCGM

~60 mins



Register CCGM

~30 mins

Enroll Catalyst Center

~2 mins

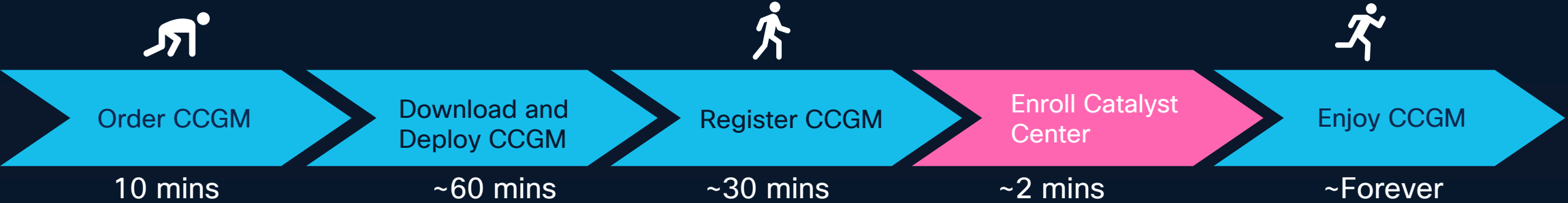
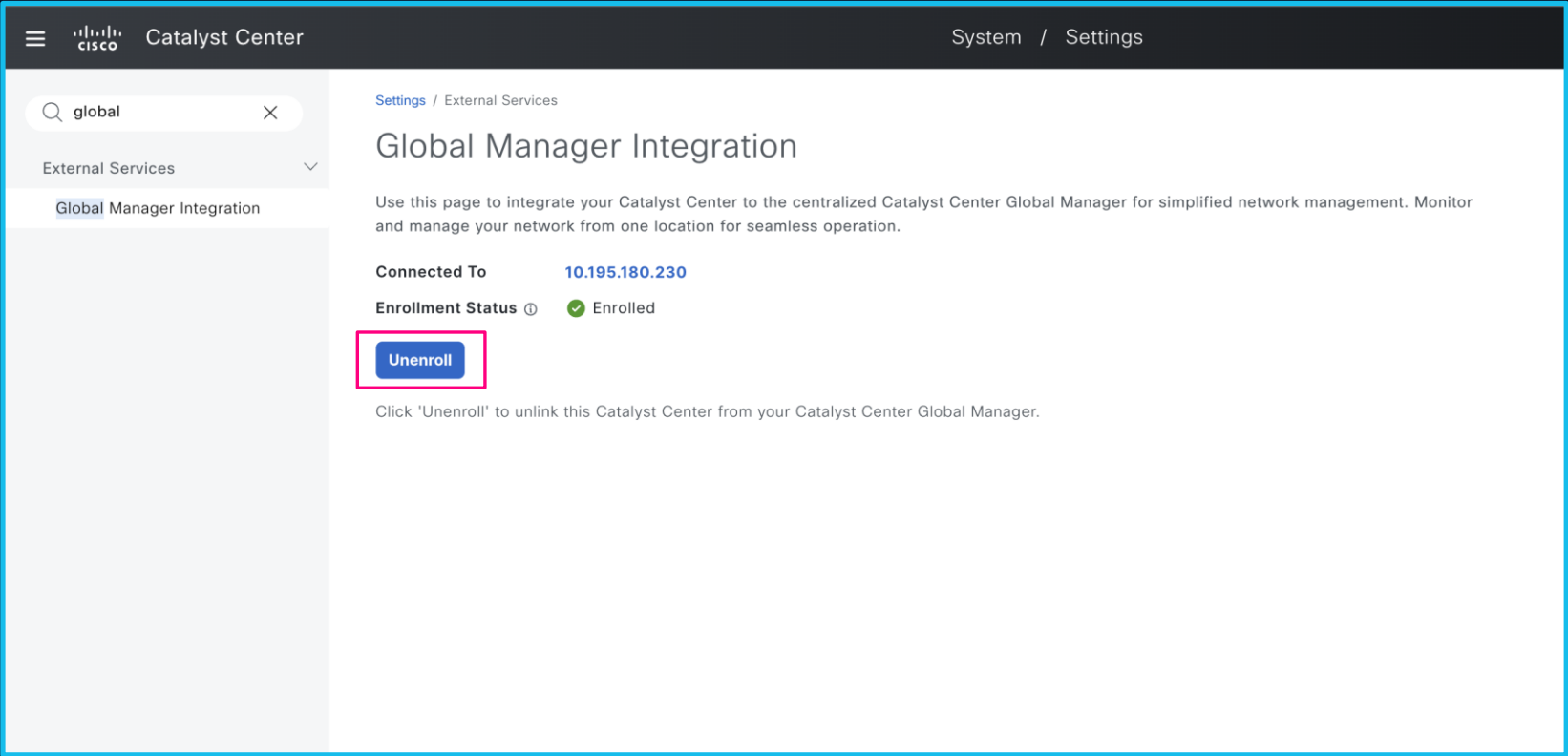


Enjoy CCGM

Add Catalyst Center to CCGM

1

Settings > Global Manager
Integration > Enroll



Demo



Software Download

[Downloads Home](#) / [Special Release](#)

[Expand All](#)[Collapse All](#)

Selected Releases



Cisco CCGM 1.1.1

Release Cisco CCGM 1.1.1

Related Links and Documentation

- No related links or documentation -

File Information

Release Date

Size

Deployment Guide for Catalyst Center Global Manager 1.1.1

07-May-2025

2.42 MB



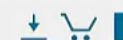
[Deployment-Guide-CCGM-1.1.1-VA.tar.gz](#)

[Advisories](#)

Cisco signature for the file Deployment-Guide-CCGM-1.1.1-VA.tar.gz (Refer to Deployment Guide for verifying)

07-May-2025

0.00 MB



[Deployment-Guide-CCGM-1.1.1-VA.tar.gz.sig](#)

[Advisories](#)

Public key to verify the Cisco signature of the images (Refer Deployment Guide for verifying)

09-Apr-2025

0.00 MB



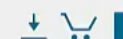
[CCGM-1.1.1-VA_cisco_image_verification_key.pub](#)

[Advisories](#)

Cisco Catalyst Center Global Manager SW Virtual Appliance 1.1.1 (Refer to Deployment Guide for verifying OVA image)

09-Apr-2025

22113.44 MB



[CCGM-SW-1.1.1-VA.ova](#)

[Advisories](#)

Release Notes for Catalyst Center Global Manager 1.1.1

09-Apr-2025

0.20 MB



[Release-Notes-CCGM-1.1.1-VA.tar.gz](#)



What all can I do on CCGM?



Order CCGM

10 mins



Download and
Deploy CCGM

~60 mins

Register CCGM

~30 mins



Enroll Catalyst
Center

~2 mins

Enjoy CCGM

CISCO Live !

Home Page

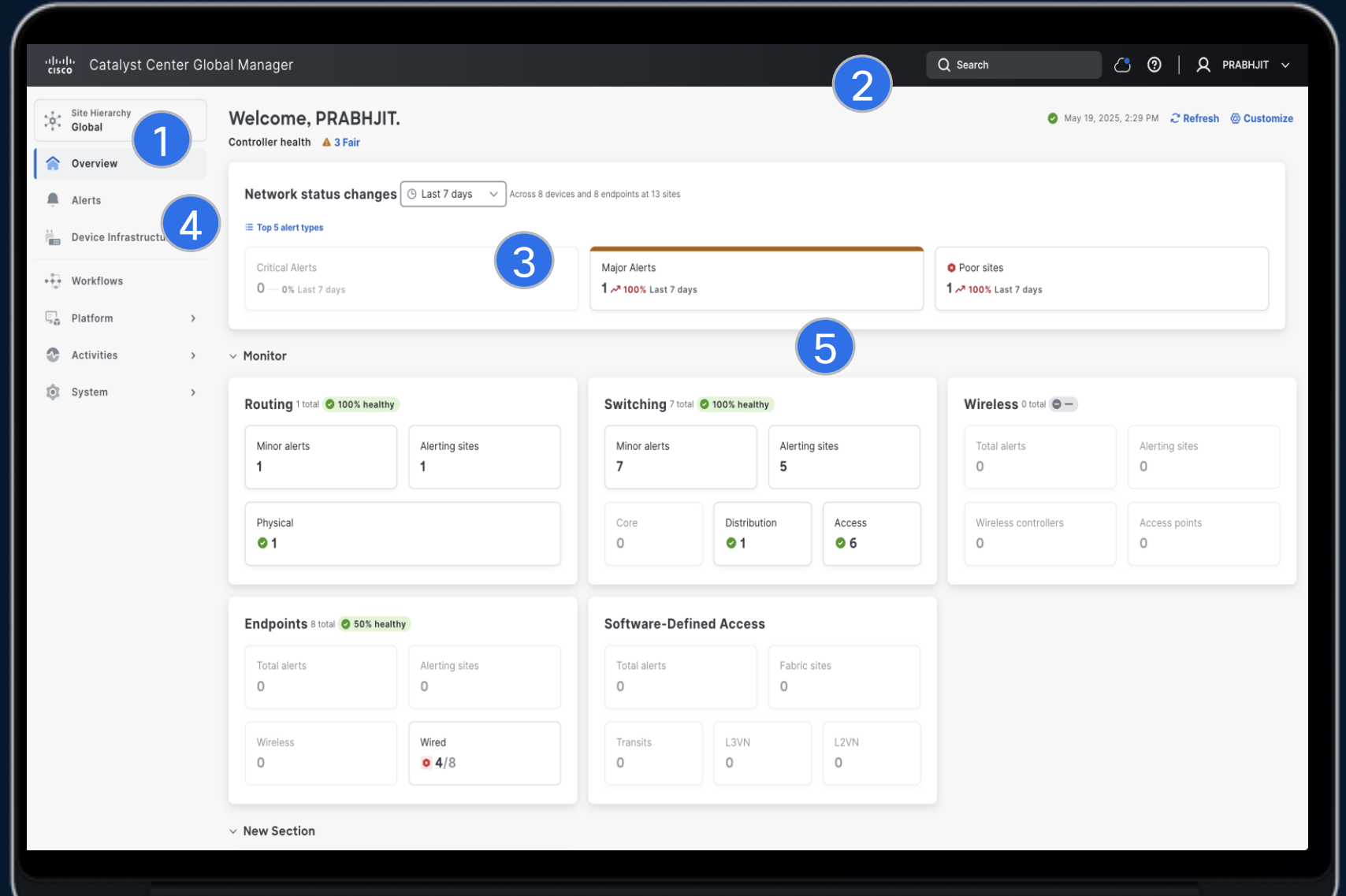
1 Consolidated Site Hierarchy

2 Global Search

3 Top Alerts, Issues, Poor Sites

4 Alerts, Device Inventory Dashboard, Workflows

5 Monitor Fabric and Non-Fabric Devices



Monitoring Catalyst Centers from CCGM

1

Name of your Catalyst Center

2

IP Address of your Catalyst Center

3

Health and Connectivity of your Catalyst Center

4

Health Status Details of your Catalyst Center

5

Cross Launch to System 360 or System Health

Cisco Catalyst Center Global Manager

System / Controllers

Search

PRABHJIT

Site Hierarchy Global

Overview

Alerts

Device Infrastructure

Workflows

Platform

Activities

System

Controllers

Search

1 Health

Connectivity

Type

Controller	IP address	Health	Connectivity
10.195.180.132	10.195.180.132	Fair	Reachable
10.195.180.219	10.195.180.219	Fair	Reachable
Catalyst Center - San Jose	10.195.180.131	Fair	Reachable

Controller Details

View controller details, or cross launch to controller for further details.

Controller name Catalyst Center - San Jose

View details [System 360](#)

IP address 10.195.180.131

Connectivity Reachable

Health status Fair

Description

- Missing Configuration: Cisco IMC is not configu...
- The following URLs are not reachable directly: ...
- A newer Cisco trusted certificate bundle is avai...

Type of controller Catalyst Center

Enterprise VIP 192.168.30.104

Management VIP 10.195.180.131

Cluster configuration single-node

Node hostname 192.168.30.104

Cancel Edit

Global Search in CCGM

1

Enter IP Address, Hostname, Serial number, Mac address of Devices/Clients

2

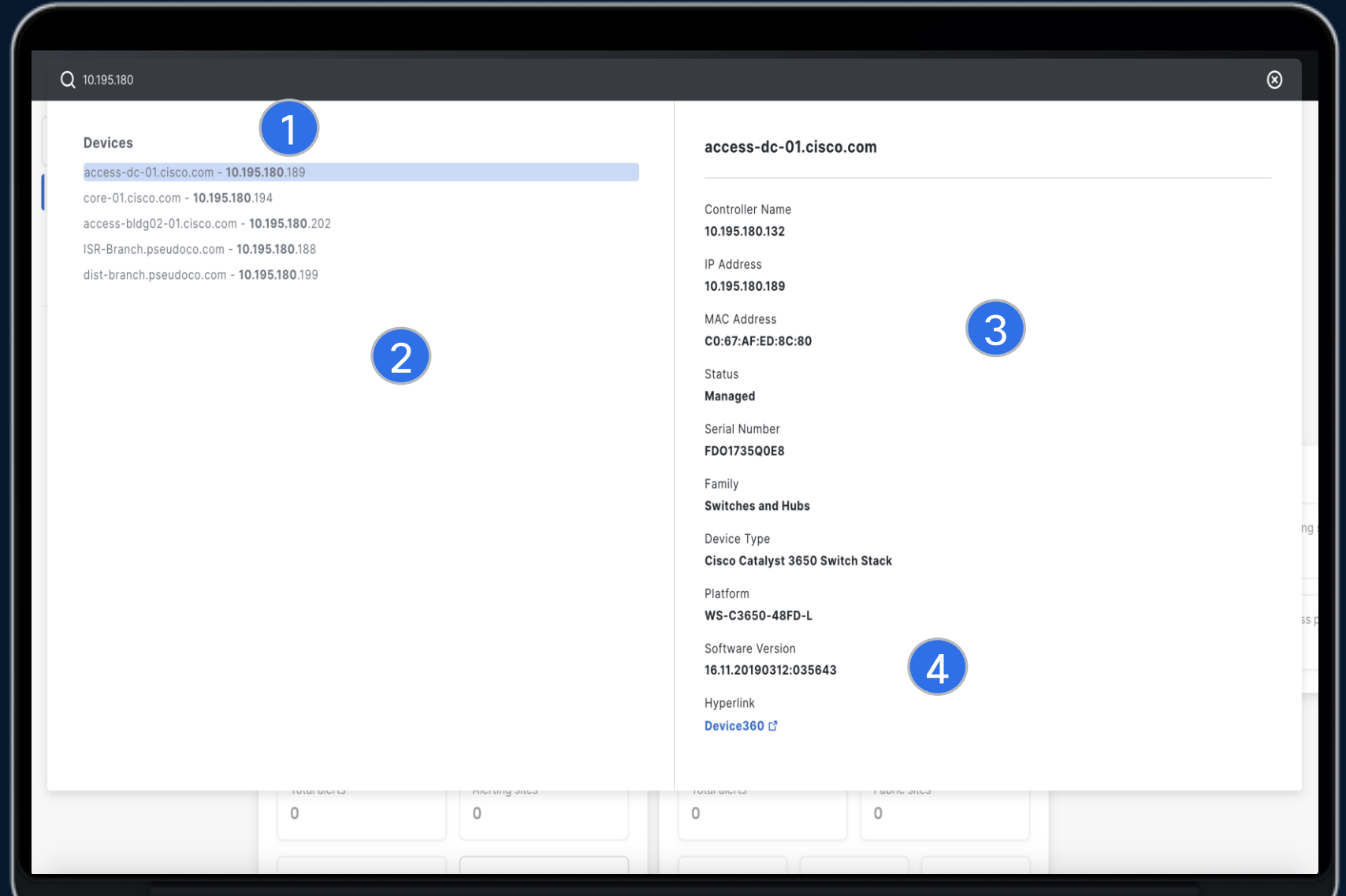
Select right Device/Client

3

View Details of the Device/Client

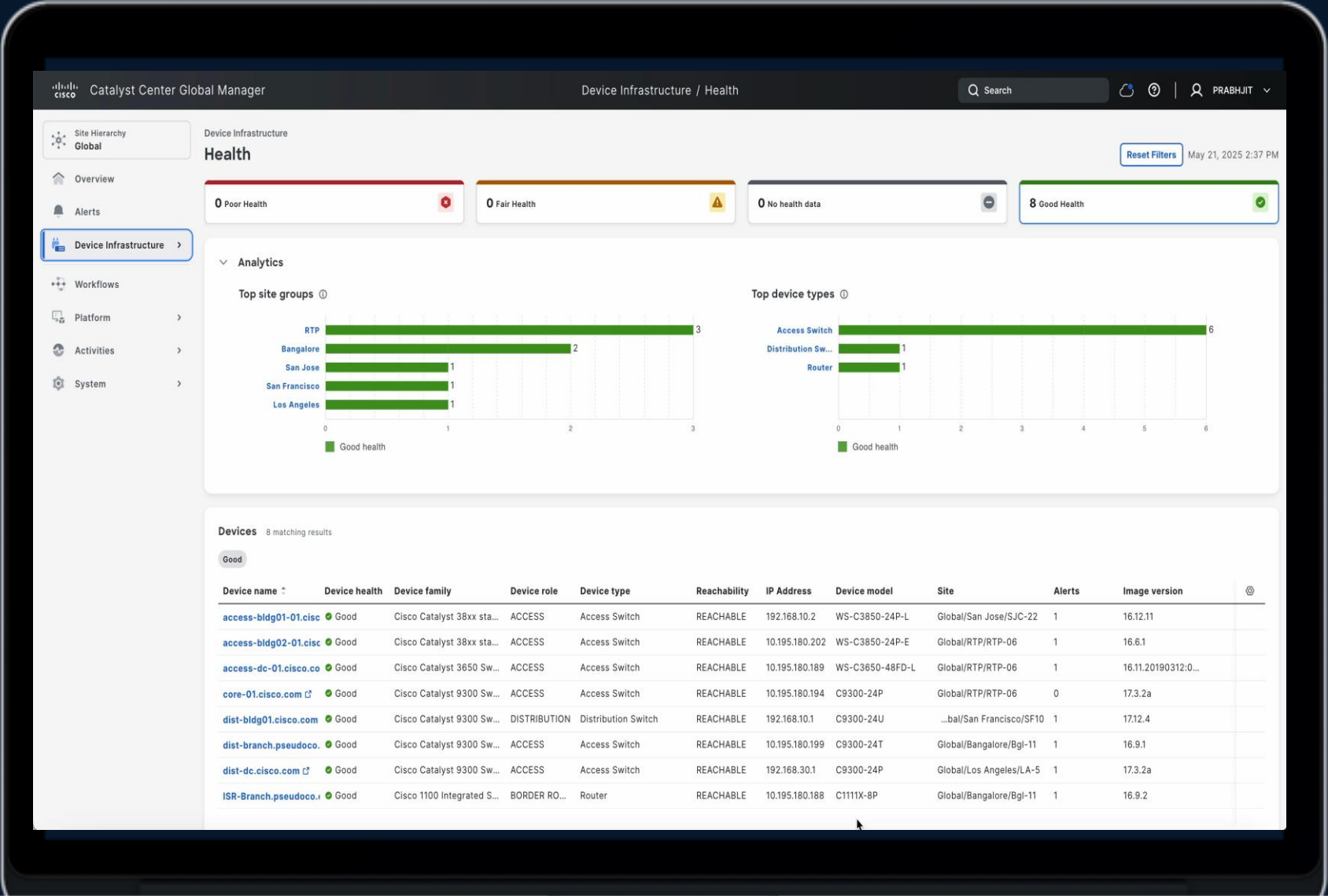
4

Cross Launch into Device 360/Client 360



Device Inventory

- 1 Consolidated view of Devices Inventory across Catalyst Centers
- 2 Filter on a Site name to see devices for just that site
- 3 Click on a Device to go to the Device 360 on Catalyst Center



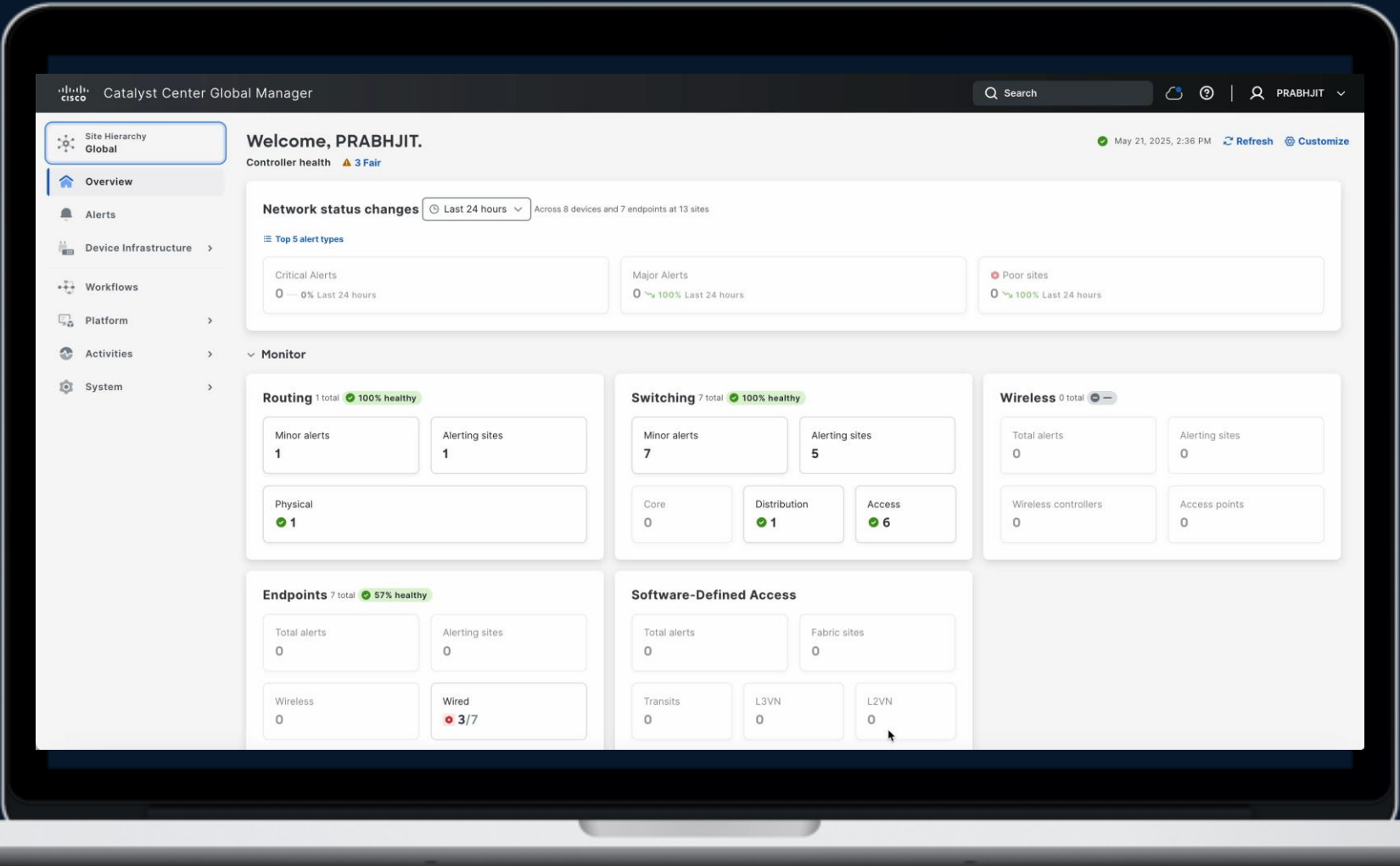
Consolidated Site Hierarchy

- 1

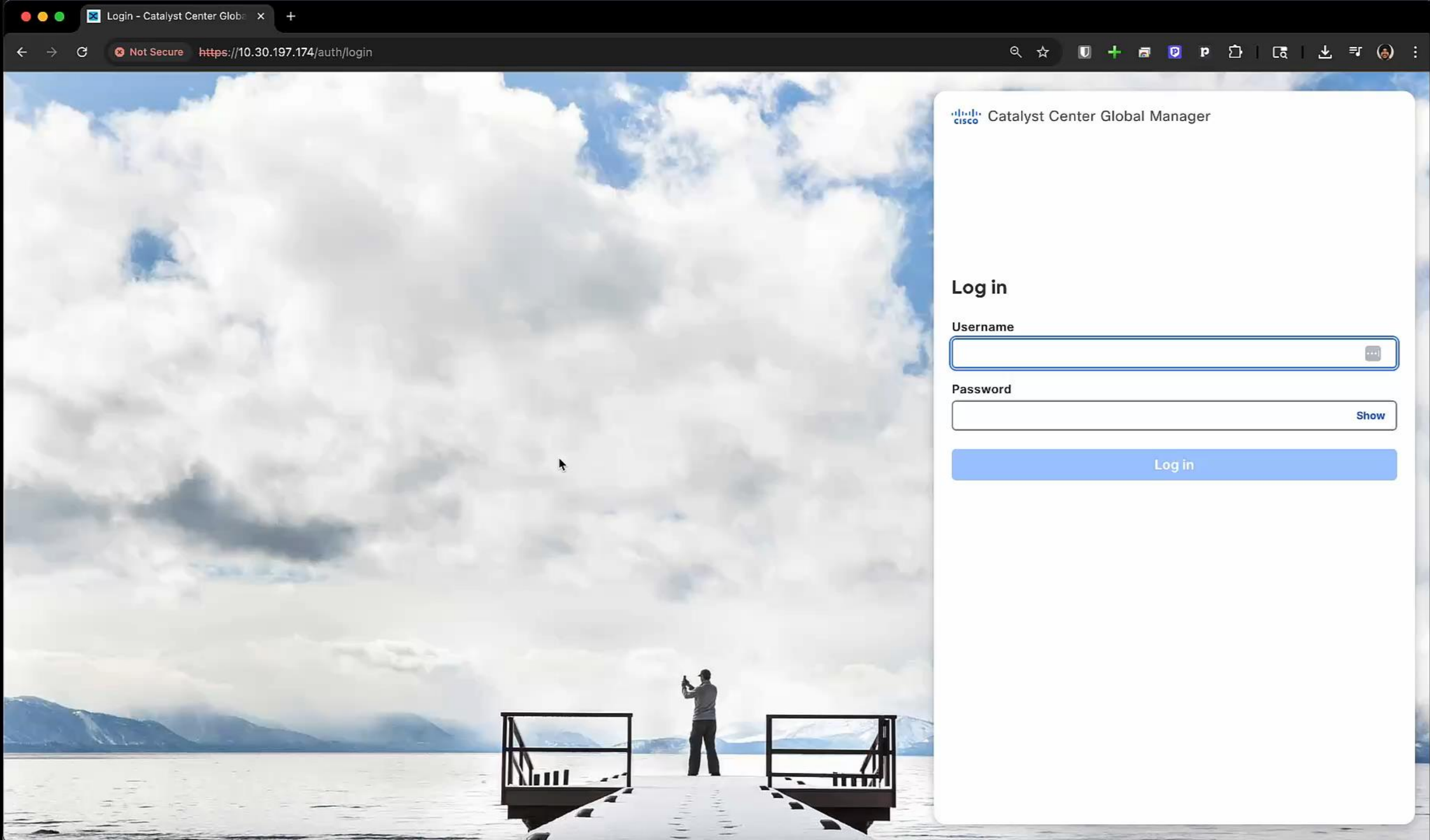
Consolidated view of all Sites across Catalyst Centers
- 2


Filter on a Site name to see Dashboard view for just that site
- 3

Click on Alerts, Poor Sites or Devices to Cross Launch



Demo



 Catalyst Center Global Manager

Log in

Username

Password

 [Show](#)

Log in

Under The Hood of CCGM

CCGM Design/Architecture Principles

Flexible Design



CCGM should be able to support heterogeneous controllers across multiple releases

Independent Release



CCGM and individual controllers should be able to update independently

Standard Communication



CCGM communicates with controllers through public REST APIs

Data Ownership



Data from Catalyst Center is displayed not stored

Controller Independence



Each managed controller continues to operate independently

Fundamental Elements of CCGM Architecture

Establish Trust



Secure Communication Channel



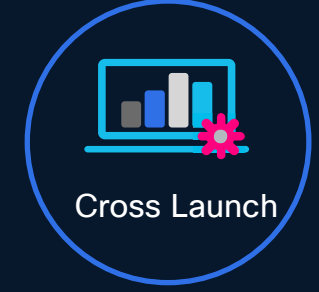
Centralized Authorization



API Aggregation



Consistent UI Seamless Navigation



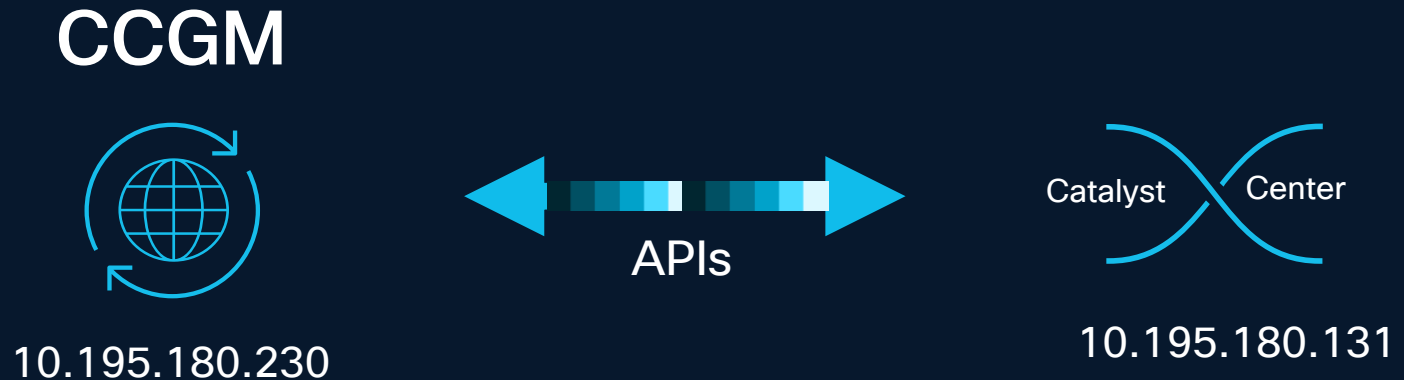
Certificates and Token Exchange between CCGM and Controllers

Centralized Authorization in CCGM and Distributed Authorization in Controllers

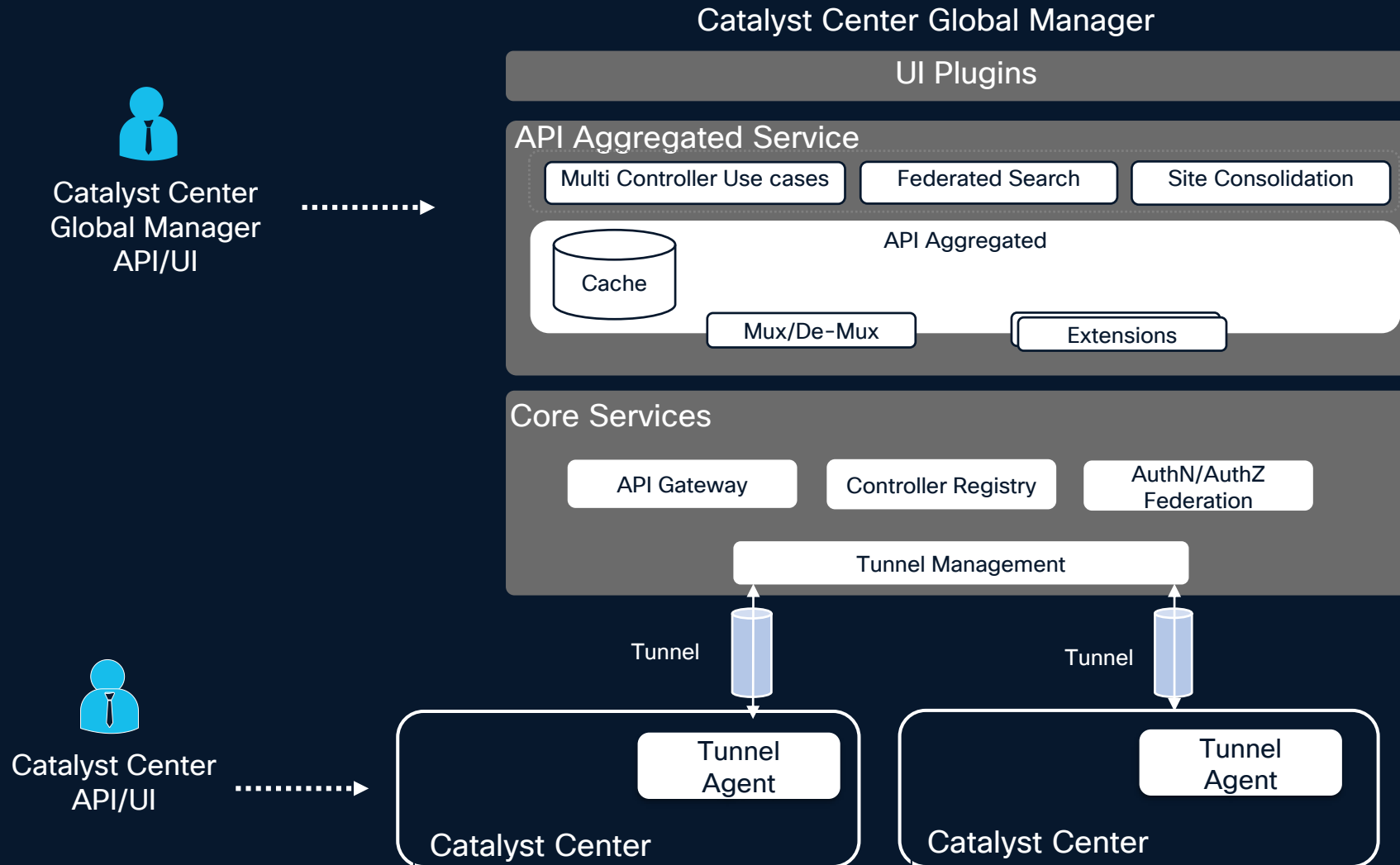
APIs from many Controllers Consolidated in Consistent UI on CCGM

Secure Communication between CCGM and Catalyst Center

- 1 Certificate Exchange between CCGM and Catalyst Center
- 2 Every API Calls via Token
- 3 User credentials validated for Token Exchange
- 4 Self or Third-Party Certificates
- 5 Local User or External Authentication using AAA server



CCGM Architecture Details



True or False?

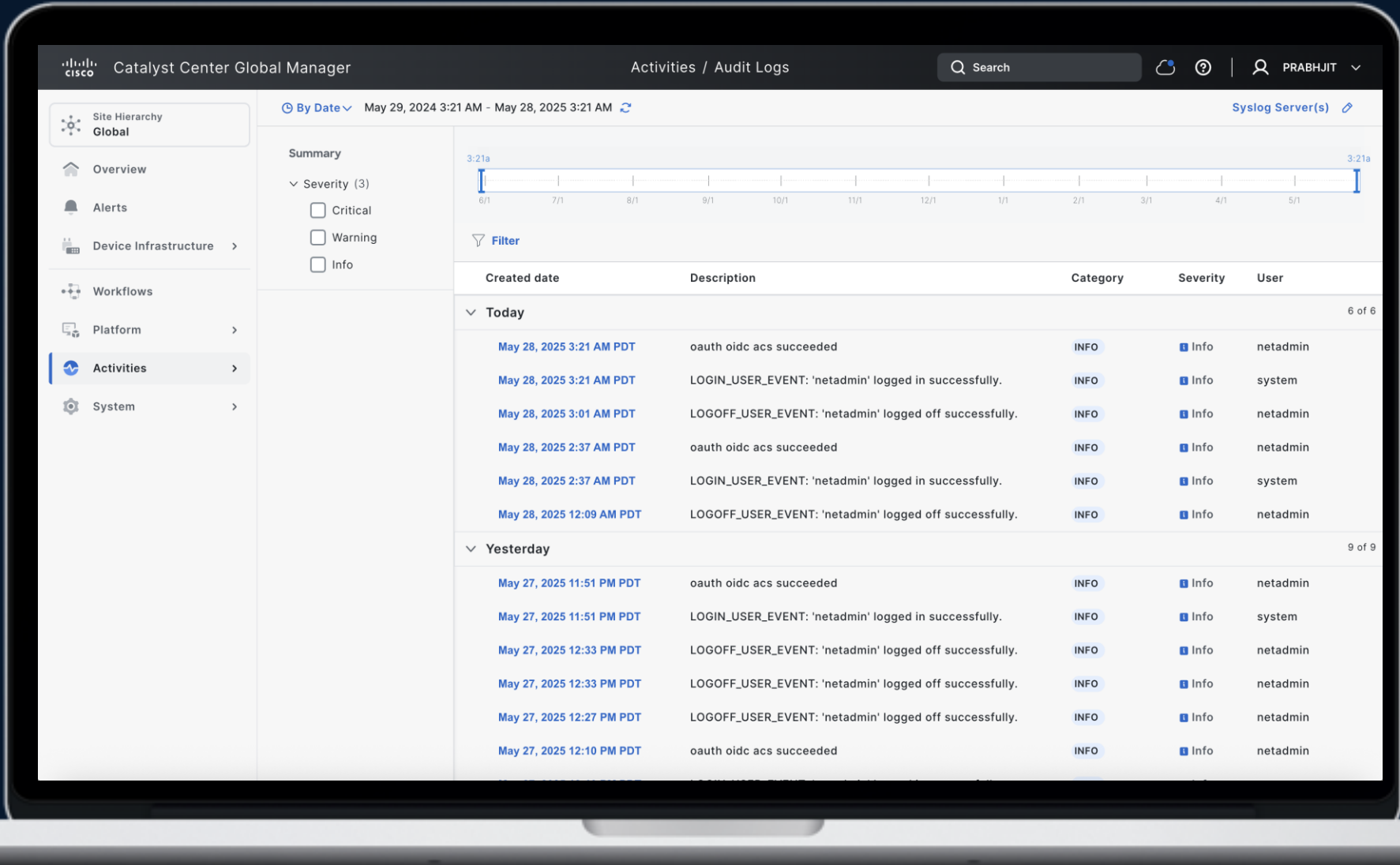


**CCGM can run
on top of my
existing Catalyst
Center?**

CCGM Housekeeping

Track login activities via Audit Logs

- 1 Activities > Audit Logs
- 2 Record System Events and Configuration Changes
- 3 Track User Logins
- 3 Export audit logs to a remote syslog server



How can I upgrade CCGM?

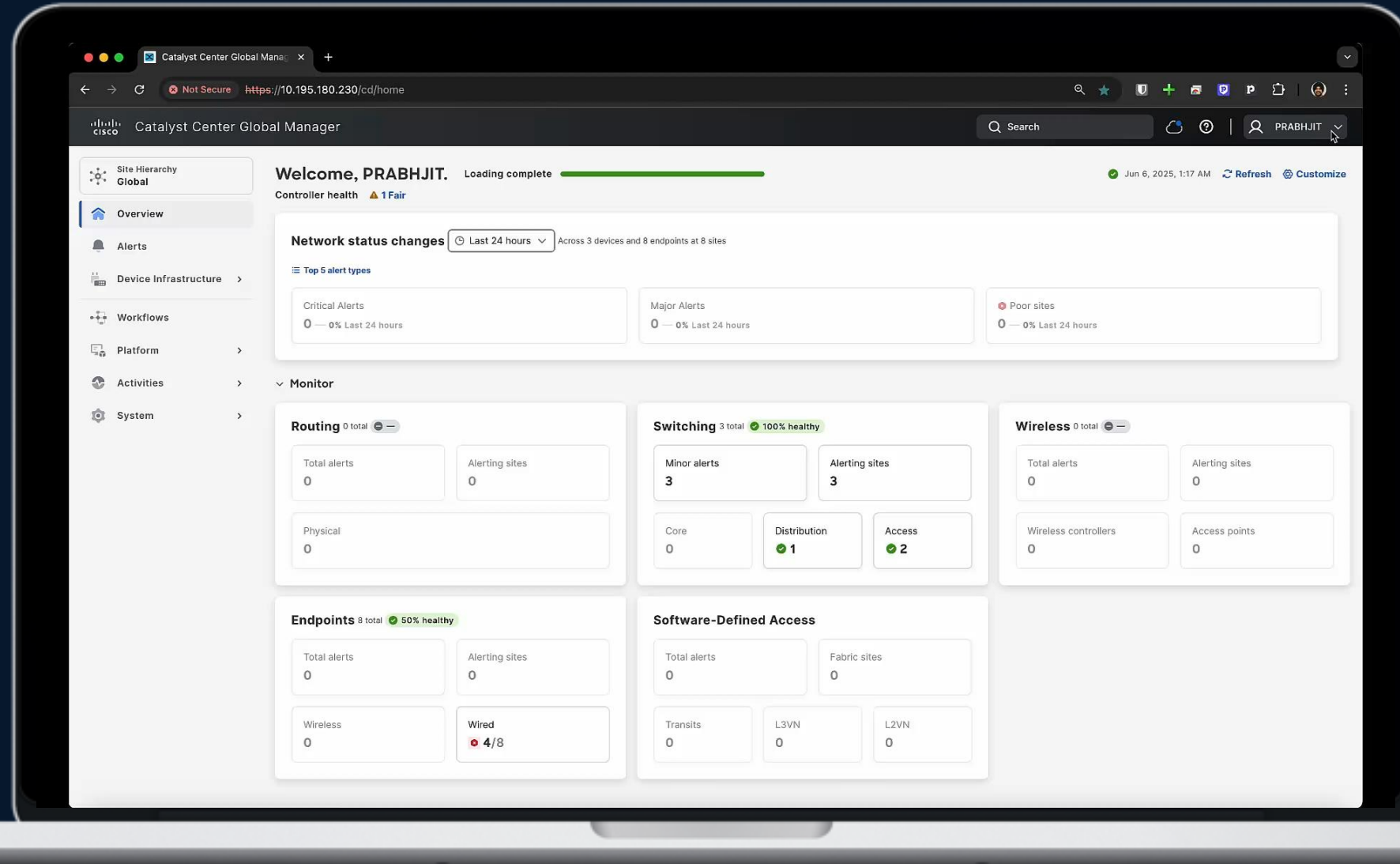
Inline Upgrade.. Same as Catalyst Center

1 Top Right Software Management

2 Check Release Notes to Learn More

3 Upgrade now or Schedule Later

4 CCGM Upgraded



Why Backup CCGM?

Why?

- Protection against Failures
- Loss of Data
- Troubleshooting Faster

What?

- Databases
- Credentials
- File Systems & Files
- Network Assurance
- Analytics Data

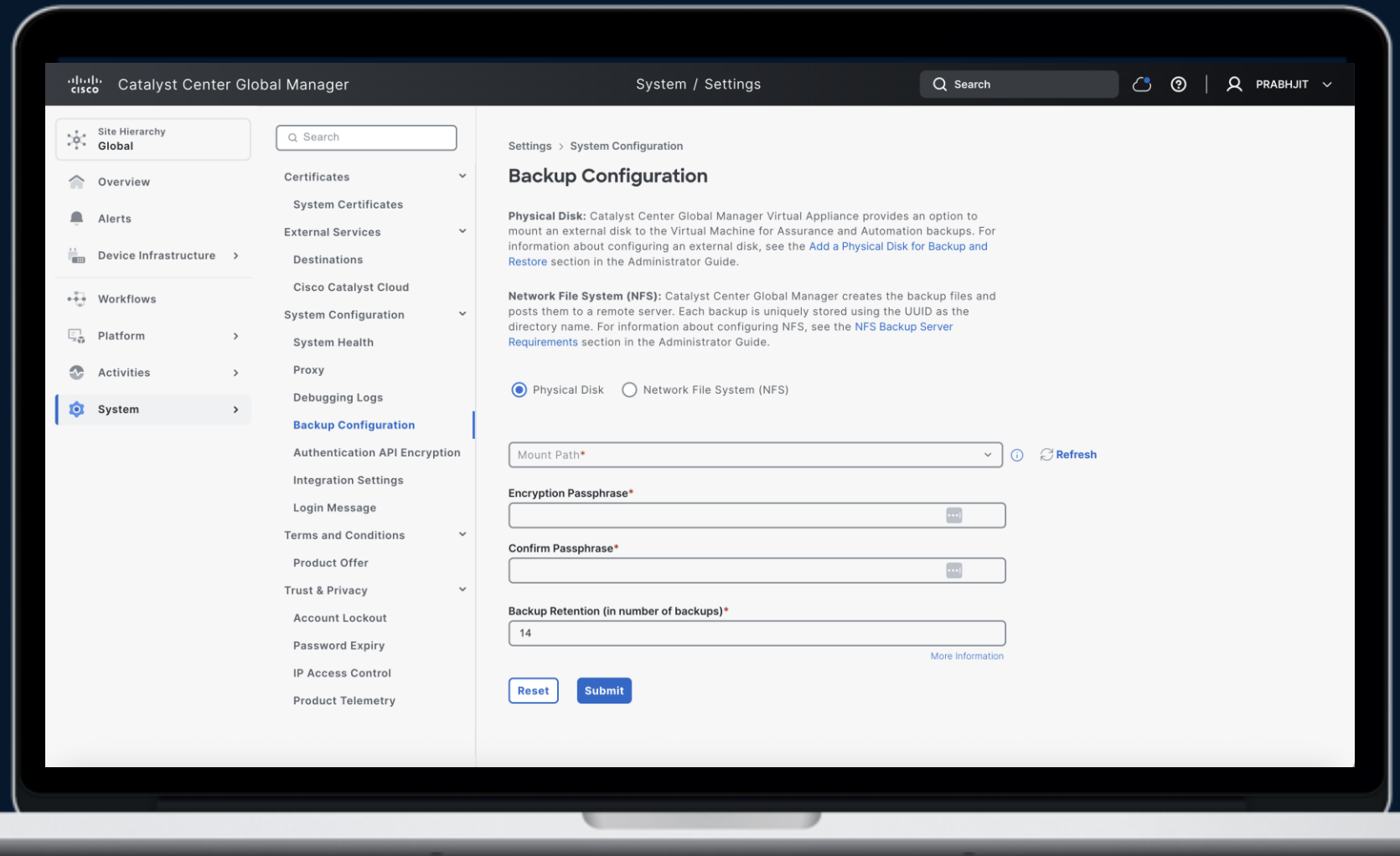
How does it work?

1 Backup using NFS Server – v3 or v4

2 Backup using Local Disk on VMWare ESXi Host

3 CCGM > Settings > Backup and Restore

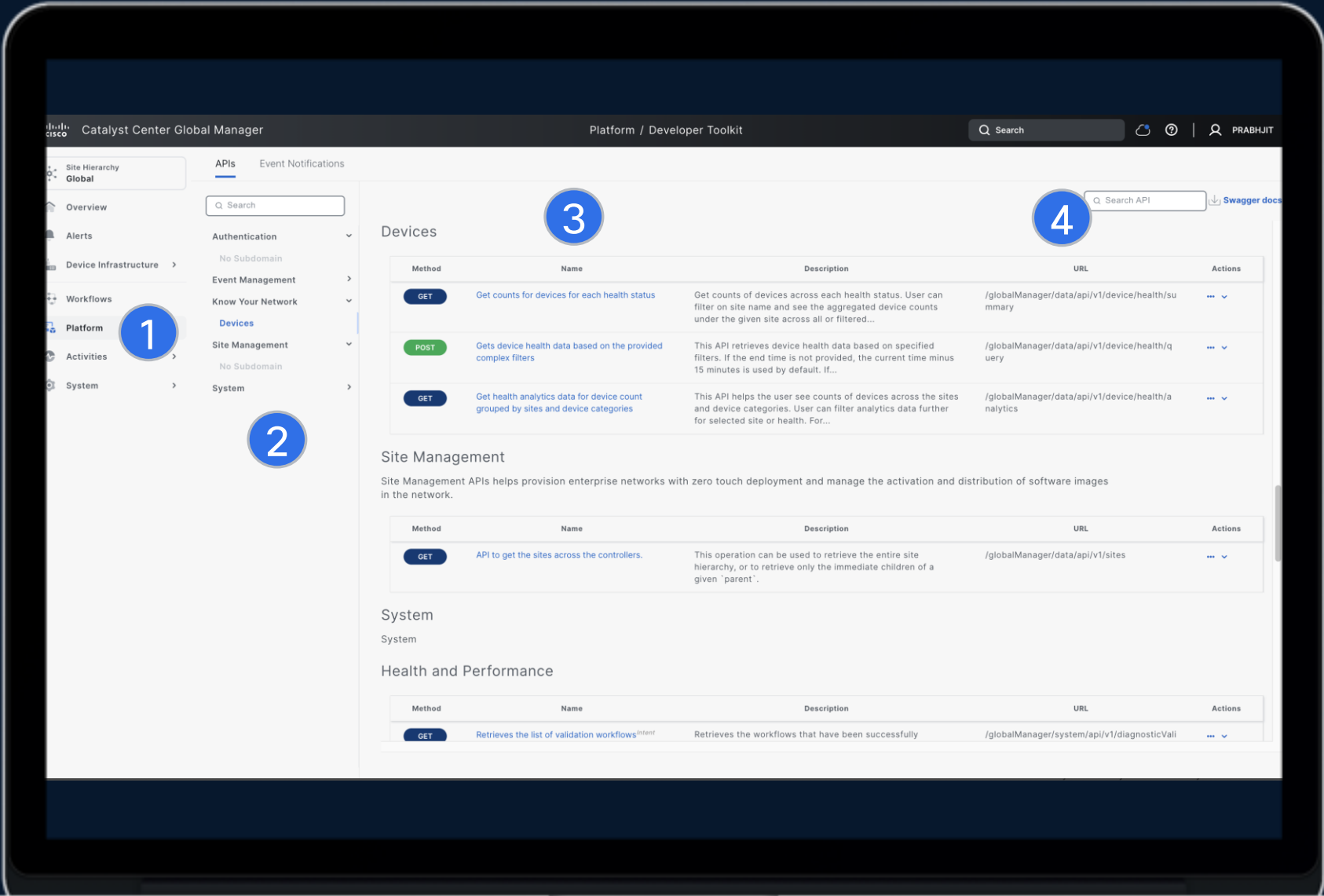
3 Restore using exiting backup



What about CCGM APIs?

CCGM APIs

- 1 Consolidated Site Hierarchy
- 2 Global Search
- 3 Top Alerts, Issues, Poor Sites
- 4 Alerts, Device Inventory Dashboard, Workflows
- 5 Monitor Fabric and Non-Fabric Devices



Subscribe to CCGM Notifications

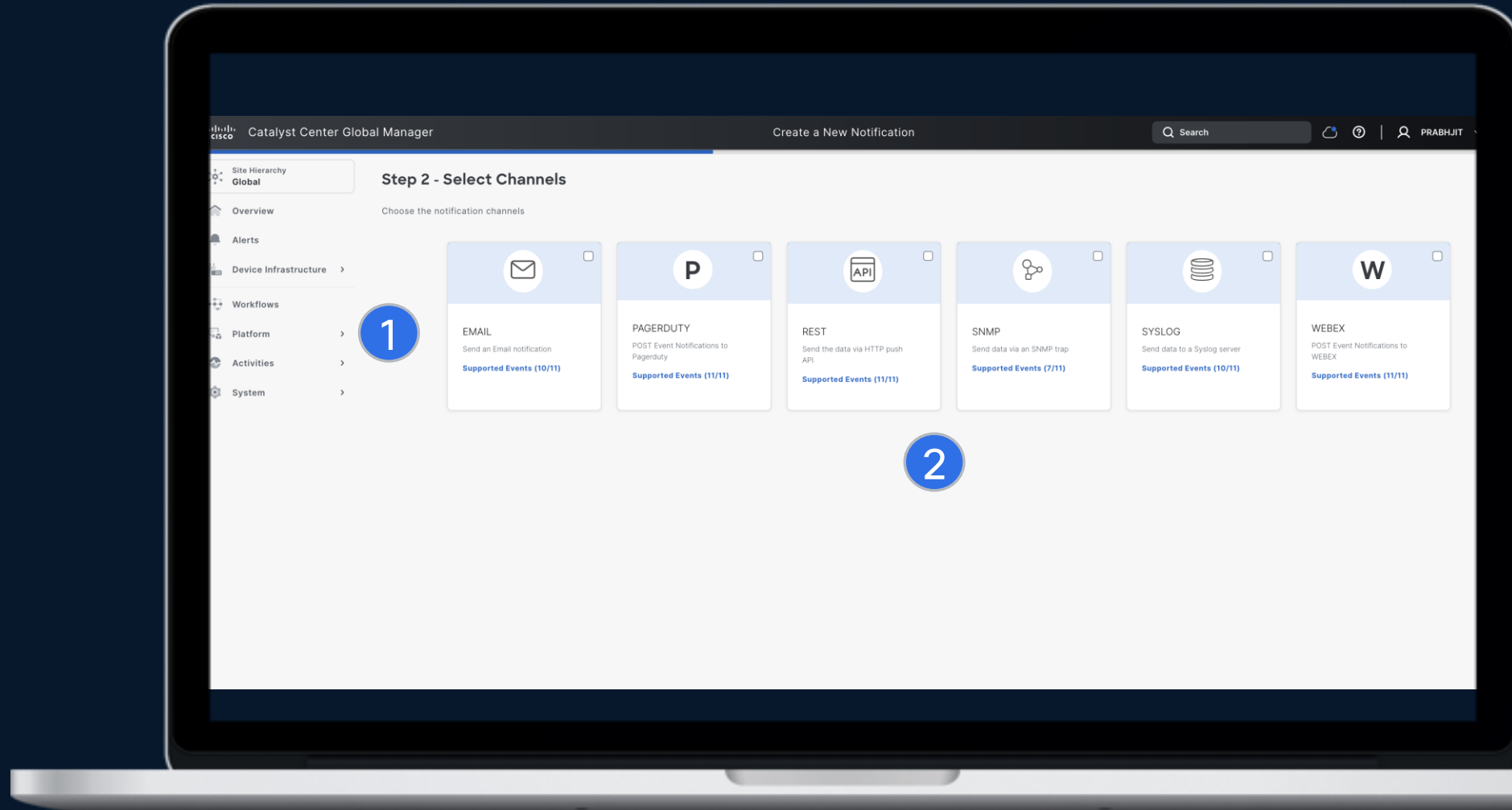
1 Select Notifications

2 Select Channels

3 Select Duration

4 Alerts, Device Inventory Dashboard, Workflows

5 Monitor Fabric and Non-Fabric Devices



True or False?



**CCGM is
AWESOME!**

Complete your session evaluations



Complete a minimum of 4 session surveys and the Overall Event Survey to be entered in a drawing to win 1 of 5 full conference passes to Cisco Live 2026.



Earn 100 points per survey completed and compete on the Cisco Live Challenge leaderboard.



Level up and earn exclusive prizes!



Complete your surveys in the Cisco Live mobile app.

Continue your education



Visit the Cisco Showcase for related demos



Book your one-on-one Meet the Engineer meeting



Attend the interactive education with DevNet, Capture the Flag, and Walk-in Labs



Visit the On-Demand Library for more sessions at www.CiscoLive.com/on-demand

Contact me at: pbagga@cisco.com

Thank you

CISCO Live !

