



Cisco / Meraki



Agenda

- Short Intro of Cloud
- Catalyst Cloud Monitoring/Management
 - - Products – Switching & Wireless
 - - Onboarding APP via DASHBOARD
 - - LIVE DEMO

CAT9300-M Managed

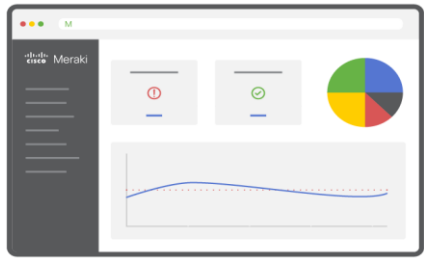
CAT9200L Monitored / CLI Launch

APP onboarding

MS130 Managed

CW91XX Series + Advanced Roaming

Cloud Platform & API Solutions



Meraki Dashboard
(single pane of glass)



Built-in solutions



Tailored solutions

API



Custom
Developed Apps



Ecosystem Partner
Apps



Wireless



Switching



SD-WAN and
Security



Gateway



Mobile Device
Management



Environmental Sensors



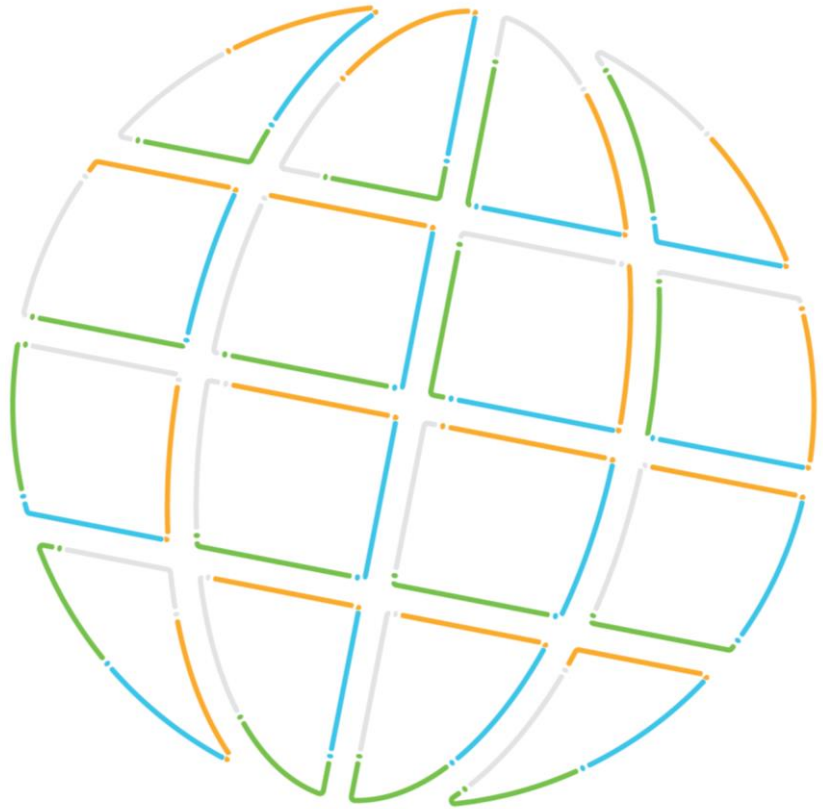
Cameras

SD-Access

SD-WAN, SASE

IOT

Catalyst Cloud Monitoring & Managed



Cloud Monitoring for Catalyst

On-premise functionality in the cloud | Deployed and managed by you

Unified view of Cisco network infrastructure

Device health and troubleshooting

Network client and traffic information

Models

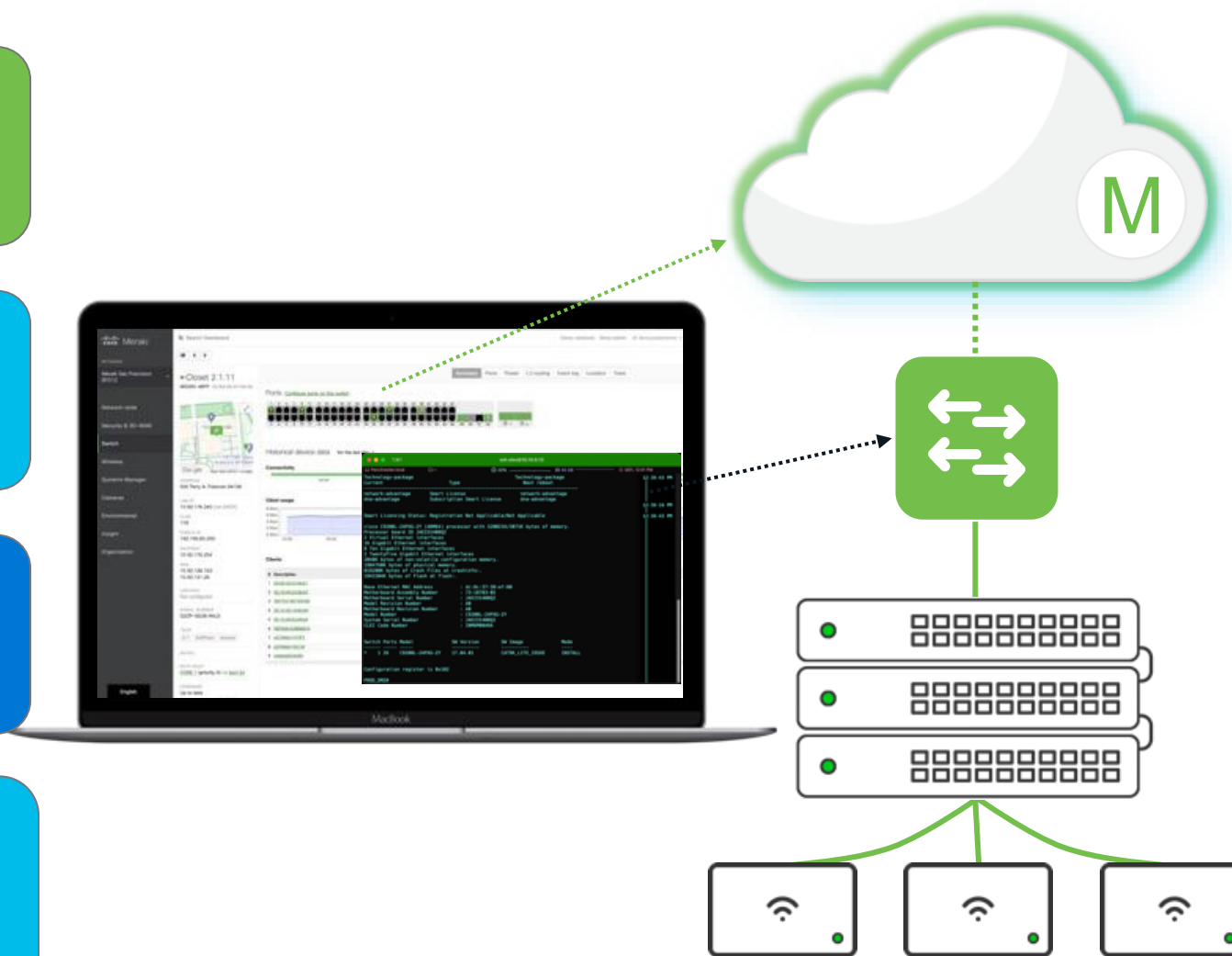
switching (92xx,933xx & 95xx) & Wireless CW 91xx and 98xx

Firmware

IOS-XE 17.3+ (Switching)
IOS-XE 17.12.X# (Wireless)

Licensing

DNA Advantage
DNA Essentials*



Cloud Monitoring Roadmap

What's next for cloud monitoring?

Today

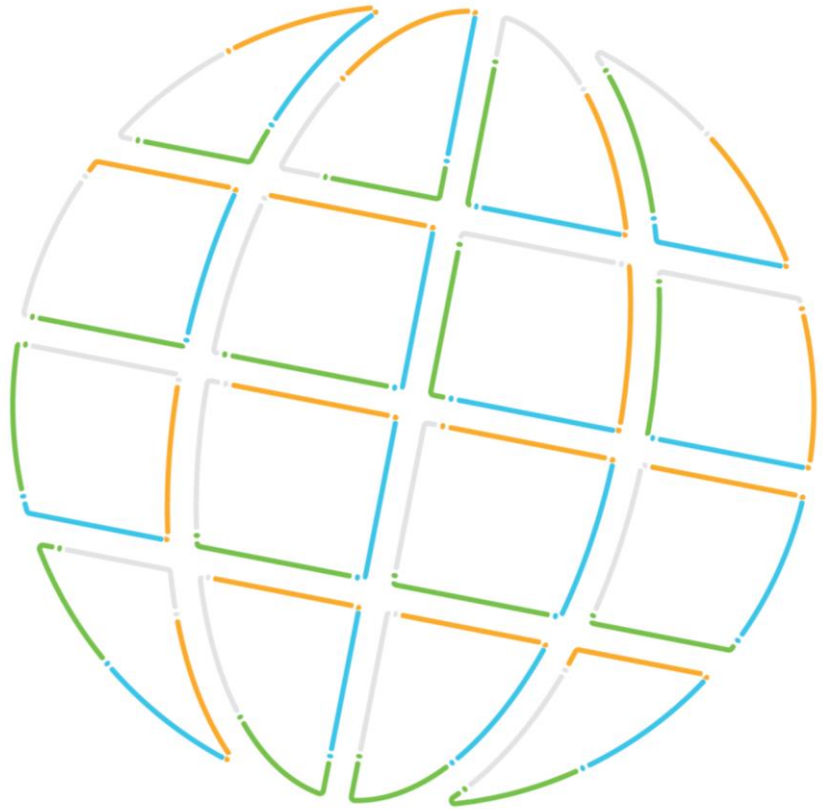
- Onboarding of 9200 / 9300 / 9500
- Catalyst Switching in Meraki Topology
- Client, port, and application visibility
- Live Tools

Next

- MS Parity/Equivalence
 - Alerts & Events
 - L2/L3 Visibility
 - More live tools
- Ongoing C9K switch support
- C9k wireless support

Strategic

- Co-existence with DNAC
- Raw IOS-XE configuration visibility
- Firmware Management
- Support for Chassis switches
- License Management / Enforcement

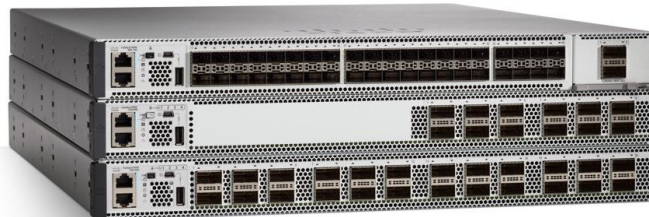


Switching

Platform roadmap

		Phase 1	Phase 2	Phase 3
Cloud Monitoring	Comprehensive network visibility ; device, client and traffic observability and insights , issue diagnosis and troubleshooting.	<p><i>Available Now</i></p> <ul style="list-style-type: none"> Catalyst 9200/L Catalyst 9300/L/X Catalyst 9500 	<p><i>Planned for 2024</i></p> <ul style="list-style-type: none"> C9800-connected APs* APs x800 models 	<p><i>Future</i></p> <ul style="list-style-type: none"> Catalyst 9400 Catalyst 9600
Cloud Management	Extended network visibility; device, client and traffic observability and insights . Added capabilities include automation, zero-trust security and programmability through APIs and ecosystem integration.	<p><i>Cat9300 November 2023</i></p> <ul style="list-style-type: none"> Catalyst 9300 Catalyst 9166/64/62 Wi-Fi 6E <p><i>CW916xx Available Now</i></p>	<p><i>Planned for late 2023</i></p> <ul style="list-style-type: none"> Catalyst 9300 Fiber Catalyst 9300L 	<p><i>Future</i></p> <ul style="list-style-type: none"> Catalyst 9200L Catalyst 9200 Catalyst 9400 Catalyst 9500 Catalyst 9600

Supported Platforms and Software for Monitoring



Models

Catalyst
9200/L
9300/L/X
9500

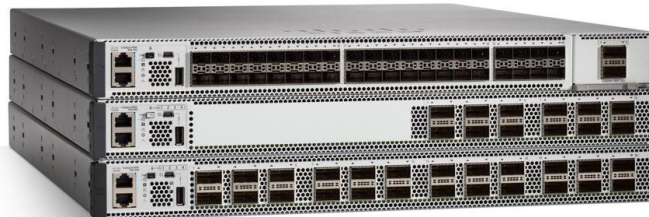
Firmware

IOS-XE 17.3+

Licensing

DNA Advantage
DNA Essentials

Supported Platforms and Software for Monitoring



Everyone can onboard their CAT9K's into Cisco Meraki Dashboard

Easy and simple via the REGISTER COMMAND / CLI

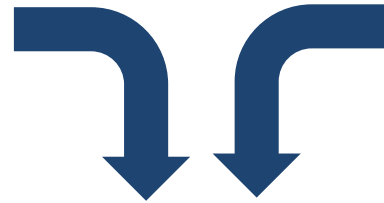
[Cisco Cloud Management for Catalyst](#)

[Catalyst 9300 migration to Meraki Cloud Management](#)



Available in DNA Essentials and DNA Advantage

Advantage Licensing
Traffic Analytics



Essentials Licensing
*** No Traffic Analytics ***

Read-only configuration

Converged client view

Port bandwidth usage

Troubleshooting tools

Firmware tracking

Unified topology

Supported Platforms and Management & SW support



Models

Catalyst

9300-24T/48T
9300-24P/48P
9300-24U/48U
9300-24UX
9300-48UXM
9300-UN

Firmware

IOS-XE 17.8.1+

Modules

9300-NM-8X
9300-NM-2Q
9300-NM-4X

Independent Software for MS and CS switches

Coming Soon

Release Agility

Organization > Firmware upgrades

What?

Firmware will independently be released for “CS” and “MS” switches, where CS includes MS390 as it is a Catalyst-based platform



Why?


Ensures **release agility** for both platforms in the portfolio as our Catalyst-based lineup expands

Independent Software for MS and CS switches

Coming Soon


Release Agility

Organization > Firmware upgrades



MS 16.1

[Release notes](#)



CS 16.1

[Release notes](#)

Network type	Networks	Current firmware version(s)	Target firmware version	Target version change log
Switch - CS (Catalyst)	Fort Knox – Enterprise Network	CS 15.21.1 (latest)	<input type="text" value="CS 16.1 (beta)"/>	CS 16.1
Switch - MS (Meraki)	Fort Knox – Enterprise Network	MS 15.21.1 (latest)	<input type="text" value="MS 16.1 (beta)"/>	MS 16.1

Next

[FAQ & Documentation](#)

What's next for Catalyst + Meraki?

Our architecture is evolving, and so is the product strategy



Lean IT
Experience

 **Migration**

CS16

Beta in Q4FY23

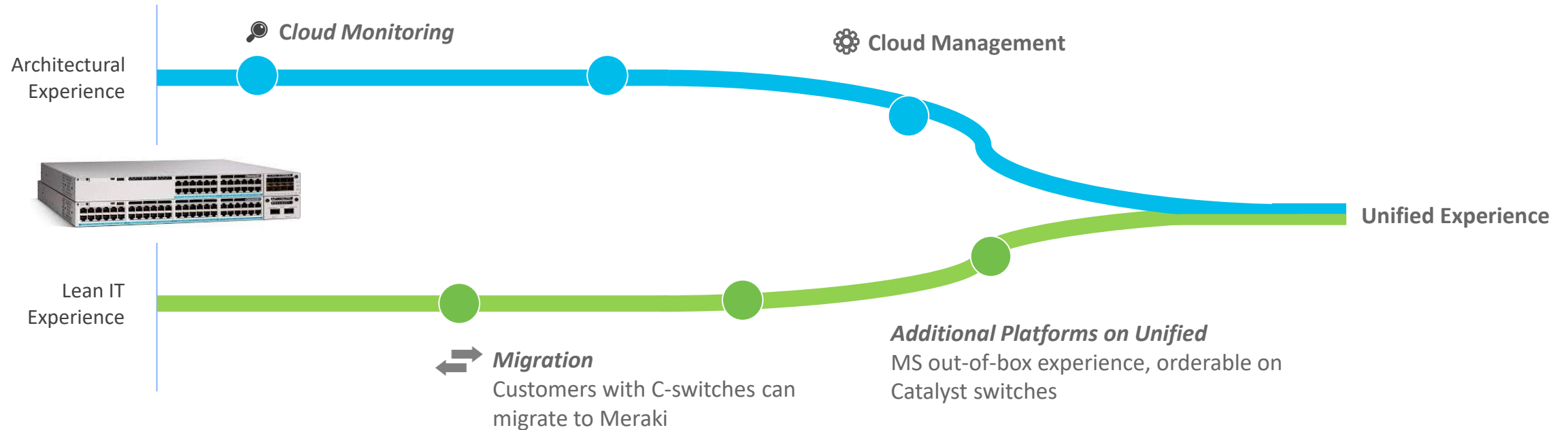
- Initial support for 9 x C9300 models
- Supported in IOS 17.9.x+ for migration to full Meraki Experience

Additional Platforms on Unified

MS out-of-box experience, orderable on Catalyst switches

What's next for Catalyst + Meraki?

Our architecture is evolving, and so is the product strategy



NEW

Introducing MS130

Power more possibilities with next-generation Meraki access switches



8 and 8P
1 GbE



8X and 12X
mGig +10G uplinks



24/24P and 48/48P
1 GbE



24X and 48X
mGig + 10G uplinks

Versatile and compact desktop switches

Powerful and full-size rack-mount switches



Boost throughput with cost effective **mGig** options



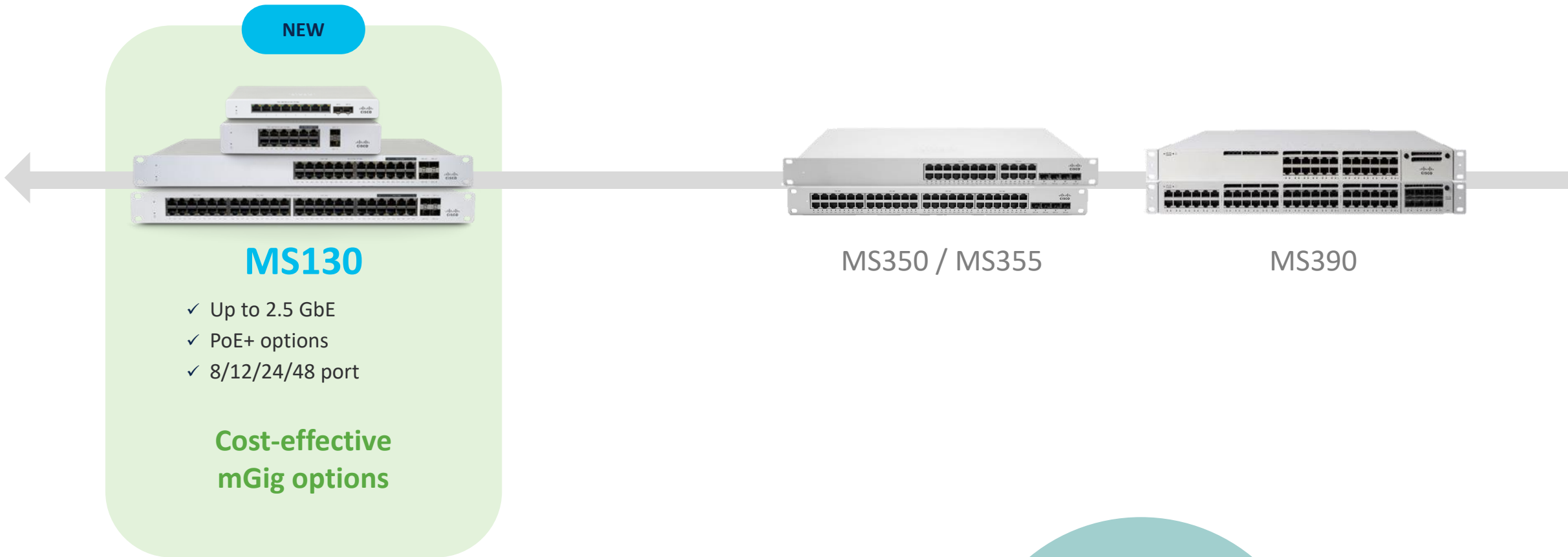
Connect all your devices with **PoE+** options



Manage it all in one **unified dashboard**

Expanding mGig into the layer 2 access portfolio

With MS130, you now have cost-effective mGig options



MS130 series overview

Gigabit SKUs



MS130-8

- 8x 1 GbE
- 2 SFP
- Compact



MS130-8P

- 8x 1 GbE + 2 SFP
- PoE+ (120 W)
- Compact



MS130-24

- 24x 1 GbE
- 4 SFP
- 1RU



MS130-24P

- 24x 1 GbE + 4 SFP
- PoE+ (370 W)
- 1RU



MS130-48

- 48x 1 GbE
- 4 SFP
- 1RU



MS130-48P

- 48x 1 GbE + 4 SFP
- PoE+ (740 W)
- 1RU

Multi-gig SKUs



MS130-8X

- 6x 1 GbE + 2x 2.5 GbE
- PoE+ (120 W)
- 2x SFP+; compact



MS130-12X

- 8x 1 GbE + 4x 2.5 GbE
- PoE+ (240 W)
- 2x SFP+; compact



MS130-24X

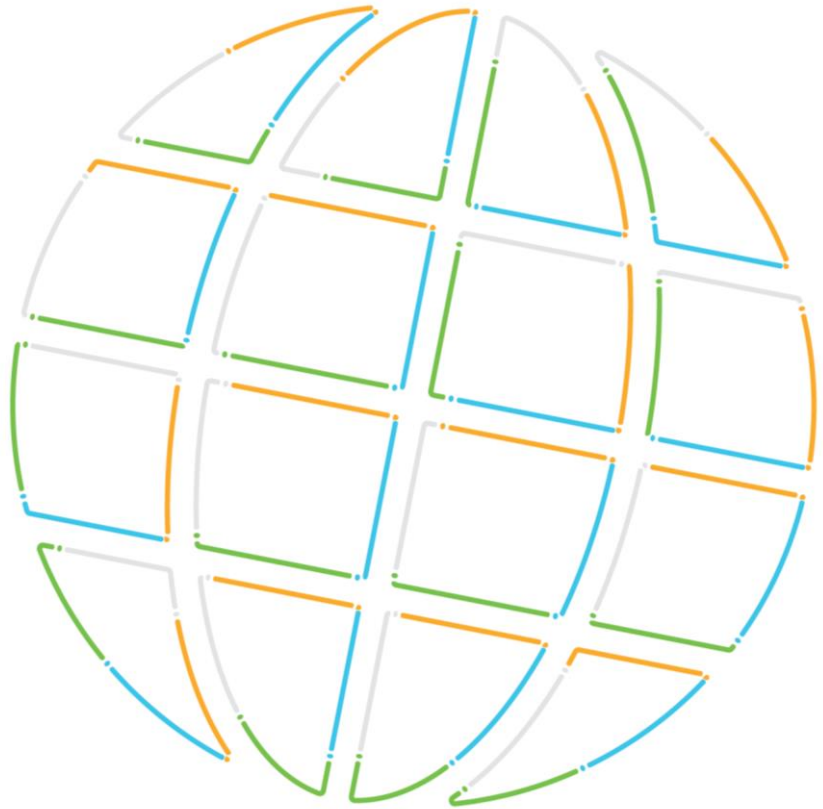
- 18x 1 GbE + 6x 2.5 GbE
- PoE+ (370 W)
- 4x SFP+; 1RU



MS130-48X

- 40x 1 GbE + 8x 2.5 GbE
- PoE+ (740 W)
- 4x SFP+; 1RU

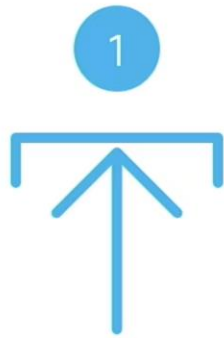
Future release only: MS130 mGig (-X) models and MS130R are hardware-ready for the Adaptive Policy feature with a [future](#) firmware upgrade and advanced license.



APP onboarding

Supported Platforms and Software for Monitoring

Migration Workflow



SW
Upgrade
IOS-XE
release
(17.8.1+)



Verify
compatibility
and
connectivity



Register
Catalyst with
the Cloud
and
receive/claim
Meraki serial



Start the
Meraki Service



add switch to
network and
configure

Cisco Meraki Dashboard Onboarding APP

Adding devices to Meraki Dashboard
Bring your Cisco Catalyst switches into the Meraki cloud.

Assign to networks
Assign devices to networks where they are currently deployed or will be deployed.

IP address	MAC Address	Model	Serial number	Assigned network
172.16.1.1	c054-a41084-06	C9500-40X	FCW2322F14X	<ul style="list-style-type: none">Core InfrastructureC9300-D1zRemote_Alex_MXtempMS250 Stack 1MS250 Stack 2MS350 Stack 2MS200 Stack

Back Next

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Adding devices to Meraki Dashboard
Bring your Cisco Catalyst switches into the Meraki cloud.

Confirm configuration changes
Your configuration changes are being applied. Details are shown below.

IP address	Model	Progress	Status
172.16.1.1	C9500-40X	<div style="width: 100%;"></div>	Applying configurations...
6/10/2022, 9:48:03 AM	Ensure old tunnel config is removed.		
6/10/2022, 9:48:03 AM	Ensure old CA certificates are removed.		
6/10/2022, 9:48:03 AM	Enable network's required IP addresses.		
6/10/2022, 9:48:13 AM	Enable STP for topology.		

Back Next

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Adding devices to Meraki Dashboard
Bring your Cisco Catalyst switches into the Meraki cloud.

Configuration pre-check
We're running your configurations and forming a multi-point checklist.

Please review the Onboarding Checklist for eligibility and connectivity requirements. When ready, click "Start Pre-Check".

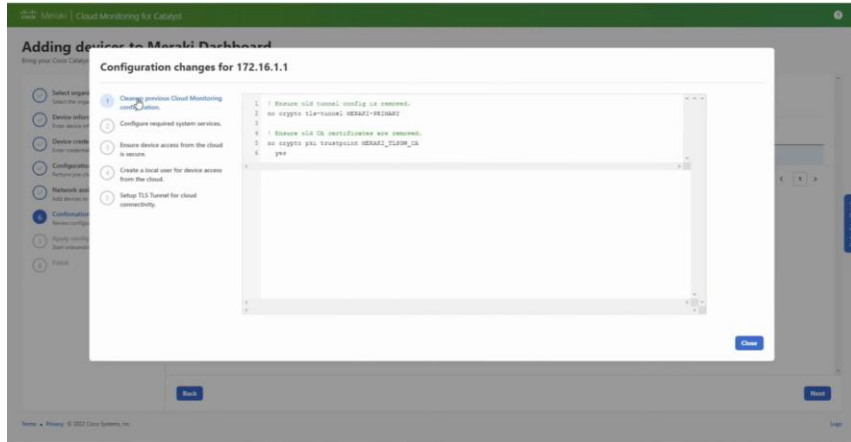
4 devices ready for pre-check

IP Address	Model	Progress	Status
172.16.1.1		<div style="width: 100%;"></div>	Checking device configuration...
6/10/2022, 9:48:03 AM	Authenticate...		
6/10/2022, 9:48:03 AM	Device authentication...		
6/10/2022, 9:48:03 AM	Check device IP addresses...		
6/10/2022, 9:48:13 AM	Check device configuration...		

Back Next

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Cisco Meraki Dashboard Onboarding APP



Cloud Monitoring for Catalyst | Onboarding (v1.6.4)

Adding devices to Meraki Dashboard

Bring your Cisco Catalyst switches into the Meraki cloud.

- Select organization
- Device information
- Device credentials
- Configuration pre-check
- Network assignment
- Confirmation
- Apply configuration**
- Finish

Confirm configuration changes

Your configuration changes are being applied. Details are shown below.

IP address	Model	Progress	Status
172.16.1.1	C9500-40X	<div style="width: 100%;"></div>	Device onboarded successfully - View

Log of configuration changes:

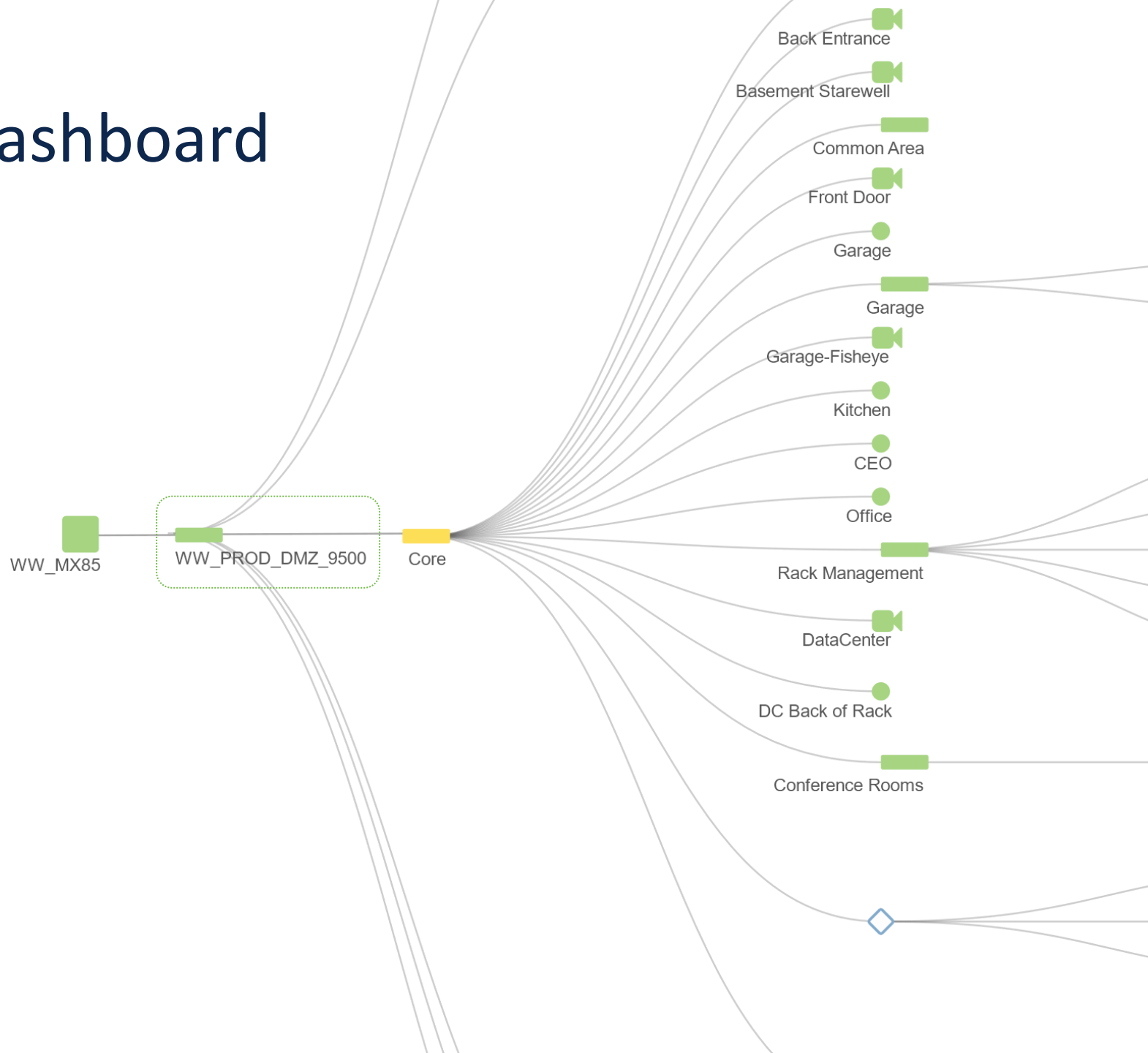
- 6/10/2022, 9:46:03 AM: Ensure old tunnel config is removed.
- 6/10/2022, 9:46:05 AM: Ensure old CA certificates are removed.
- 6/10/2022, 9:46:09 AM: Enable networkd (requires ip routing).
- 6/10/2022, 9:46:13 AM: Enable LLDP for topology.
- 6/10/2022, 9:46:20 AM: Prevent traffic that should be in the tunnel from falling back to default route when the tunnel is down.
- 6/10/2022, 9:46:22 AM: Creating local authentication group for SSH through the TLS tunnel.
- 6/10/2022, 9:46:26 AM: Creating ACL for cloud SSH ingress. Allow only port 2222 for SSH.
- 6/10/2022, 9:46:32 AM: Create ACL for cloud telemetry egress. Allow only port 2022 for SFTP to the Cloud
- 6/10/2022, 9:46:39 AM: Configuring a SSH rotary to use port 2222.
- 6/10/2022, 9:46:41 AM: Enabling SSH to VTY lines to be dedicated for cloud. Using ACL and AAA groups to secure connections.
- 6/10/2022, 9:46:50 AM: Configuring local Meraki user with SSH keys for SSH and NETCONF access.
- 6/10/2022, 9:47:08 AM: Import the correct certificate authority for SSL verification.
- 6/10/2022, 9:47:18 AM: Configure trustpoint for SSL verification.
- 6/10/2022, 9:47:31 AM: Configure TLS tunnel for Cloud Connectivity. Selecting the preferred source based on the current default route.
- 6/10/2022, 9:47:48 AM: Importing device...
- 6/10/2022, 9:47:54 AM: Committing changes...
- 6/10/2022, 9:47:55 AM: Waiting for device to become available...
- 6/10/2022, 9:48:00 AM: Waiting for device to become available...
- 6/10/2022, 9:48:01 AM: Device onboarded successfully.

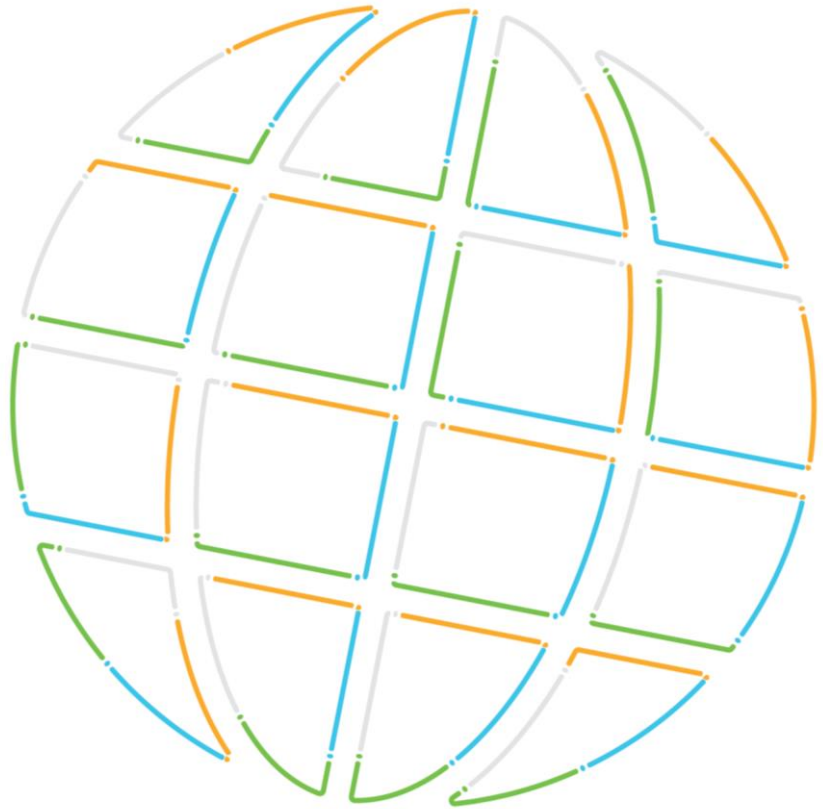
One Network, One Dashboard

Consolidated
Device Inventory

Centralized monitoring of
IOS and Meraki devices

Unified topology view





Wireless

Cloud Monitoring for Wireless – GA Scope

Supported Models

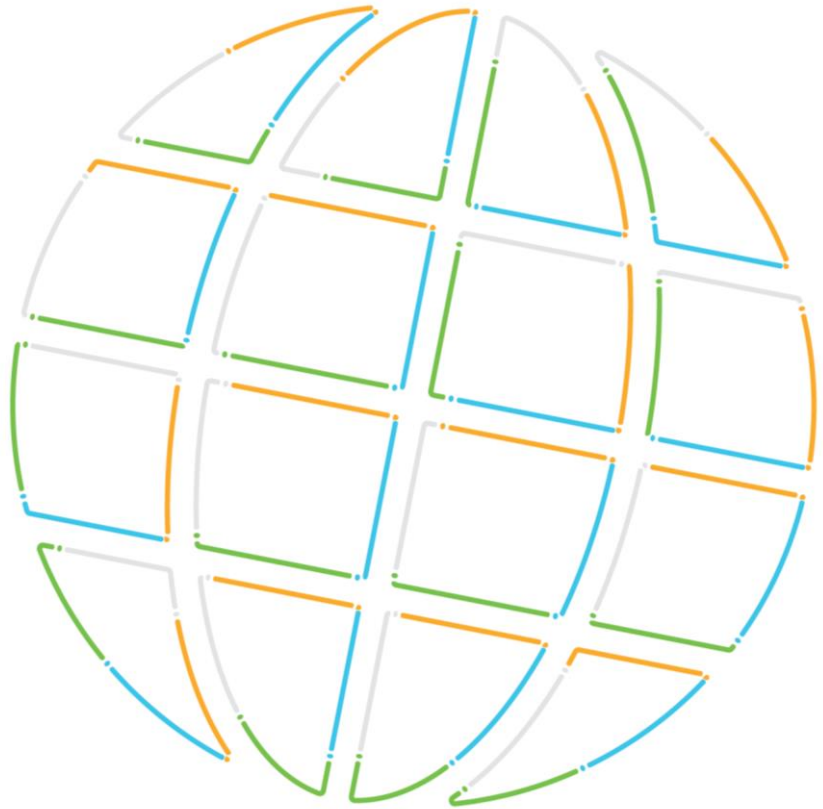
- C9100 series APs
- CW9100 series APs
- 2800 series APs
- 3800 series APs
- 4800 series APs
- 9800 series WLCs

Capabilities

- WLC status
- WLC <-> AP mappings
- AP status
- Client and traffic visibility
- Topology
- Subset of live tools
- Subset of health features

Architecture

- Physical WLCs only
- Standalone WLC supported
- Active/Standby HA supported



Access Points

One Hardware Product – Two Management Modes- Same Experience

In Meraki Management mode, **SAME**
-out of box experience – HW and SW quality
-dashboard experience -trial -support –sales
comp as all MR APs



DNA Management Mode
(C9800 + DNA)



Meraki Management Mode
(Meraki Dashboard)

Latest Wi-Fi 6E APs

Choice of management: Meraki, DNA Center, and CLI modes

CW9162



- 2x2, 2x2, 2x2
- 2.5 Gbps mGig
- Power Options: PoE, DC Power
- Scanning Radio
- IoT ready + Bluetooth 5.x
- Standard Bracket

CW9164




- 2x2, 4x4, 4x4
- 2.5 Gbps mGig
- Power Options: PoE, DC Power
- Scanning Radio
- IoT Ready + Bluetooth 5.x
- Standard Bracket

CW9166




- 4x4, 4x4, 4x4 (XOR 5/6)
- 5 Gbps mGig
- Power Options: PoE, DC Power
- IoT ready + Bluetooth 5.x
- Scanning Radio
- Environmental Sensor
- Common XOR Architecture
- Standard Bracket

MR57



- 4x4 + 4x4, 4x4 (XOR 5/6)
- Dual 5 Gbps mGig with failover
- Power Options: PoE, DC Power
- IoT ready + Bluetooth 5.x
- Scanning Radio
- XOR Architecture (High/Low band)
- Standard Bracket

C9136



- 4x4 + 8x8 + 4x4 or 4x4+4x4+4x4+4x4
- Dual 5 Gbps mGig with failover
- Power Options: PoE, DC Power
- IoT ready + Bluetooth 5.x
- Scanning Radio
- Environmental Sensor
- XOR Architecture (macro/meso)
- Standard Bracket

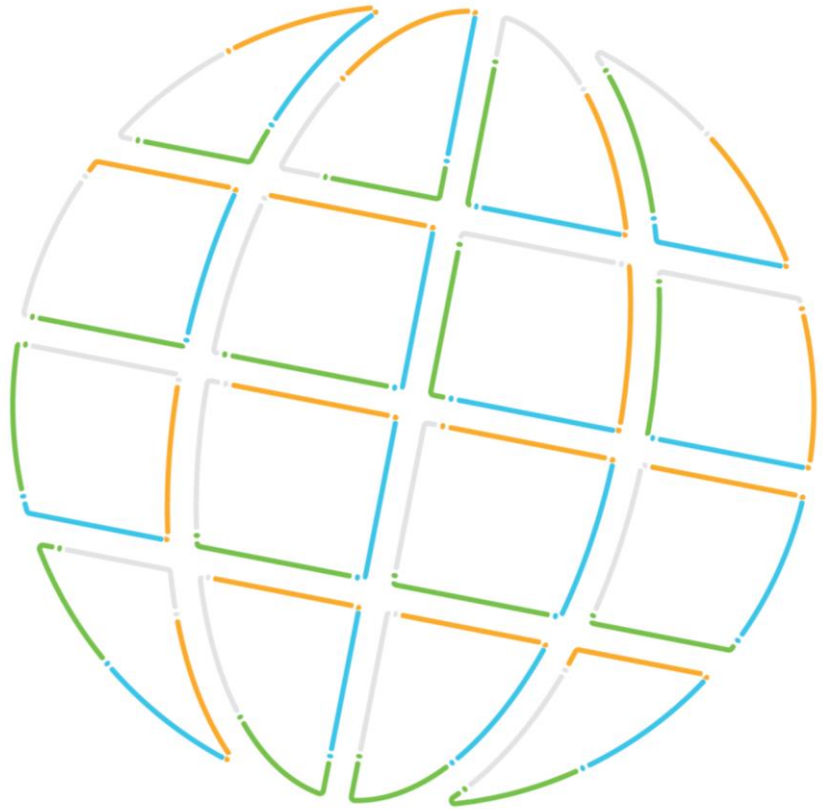


CW9164/6: Orderable July 6, FCS Aug. 26

CW9162: Orderable Sept. 13, FCS Oct. 25

(subject to change)

MR and C series APs are not convertible



LIVE DEMO

CAT9300-M Managed
CAT9200L Monitored / CLI Launch
APP onboarding
MS130 Managed
CW91XX Series + Advanced Roaming
Plus some new stuff



The bridge to possible