

The background features a vibrant, abstract design with overlapping, wavy bands of color in shades of blue, green, yellow, orange, and red. On the right side, a bright white light source radiates outwards, creating a starburst effect with sharp, colorful rays that fan across the entire image.

cisco *Live!*

Let's go

#CiscoLiveAPJC



The bridge to possible

Scalable Meraki Access Switching

Brennan Martin, Technical Leader – Meraki Switching
BRKMER-2057



#CiscoLiveAPJC



Cisco Webex App

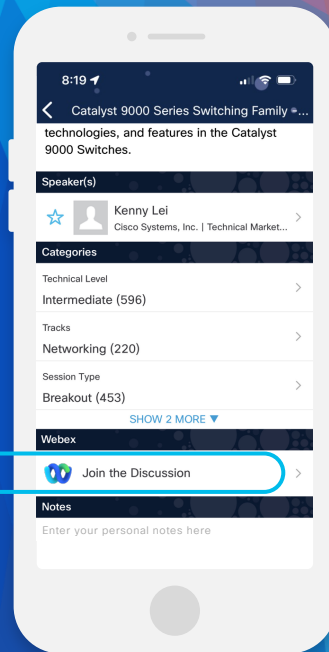
Questions?

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

How

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

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



<https://ciscolive.ciscoevents.com/ciscolivebot/#BRKMER-2057>

Engage with us: Become a Cisco Meraki Insider



Join
the community



Complete
challenges

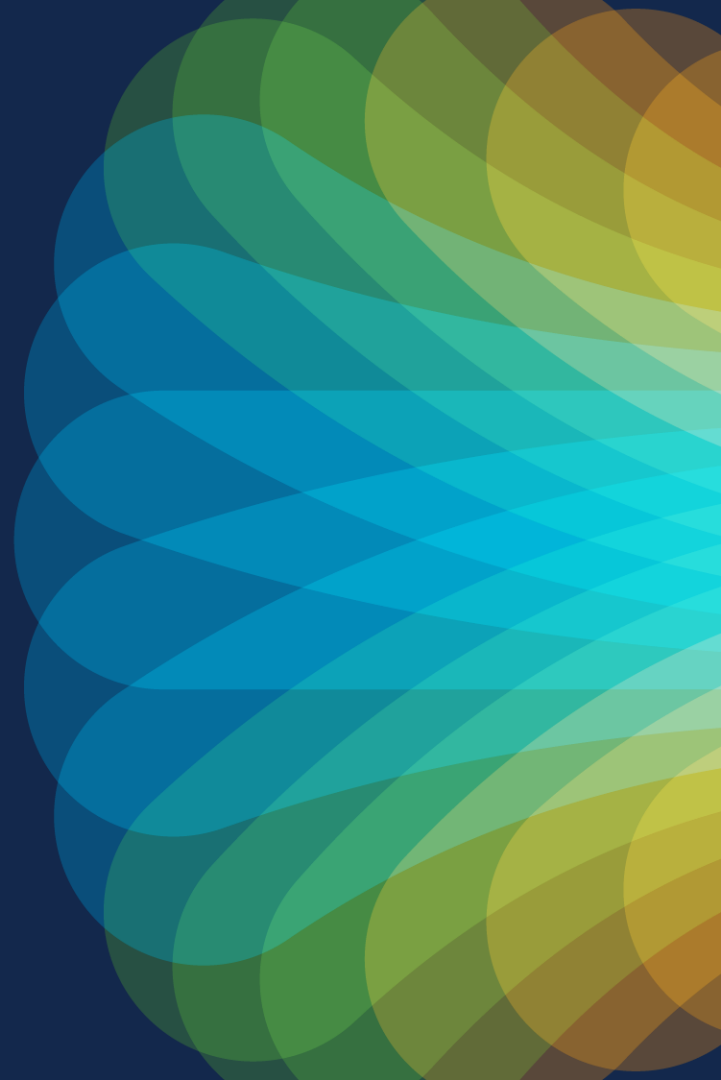


Receive
rewards

Agenda

- Introductions
- Device & Platform
- Core Networking
- Security & Zero Trust
- Catalyst & Meraki
- New Switches
- Wrap up

Who is this
funny guy, eh?



I'm a Canadian that loves building networks

- Based in Saskatoon, Saskatchewan – Canada
- 16 years in the field deploying networks
- CCIE R/S #50782
- More time underground than in data centers
- Ask me about potash



Meraki Switching is evolving



Operational simplicity



Intuitive & easy to use

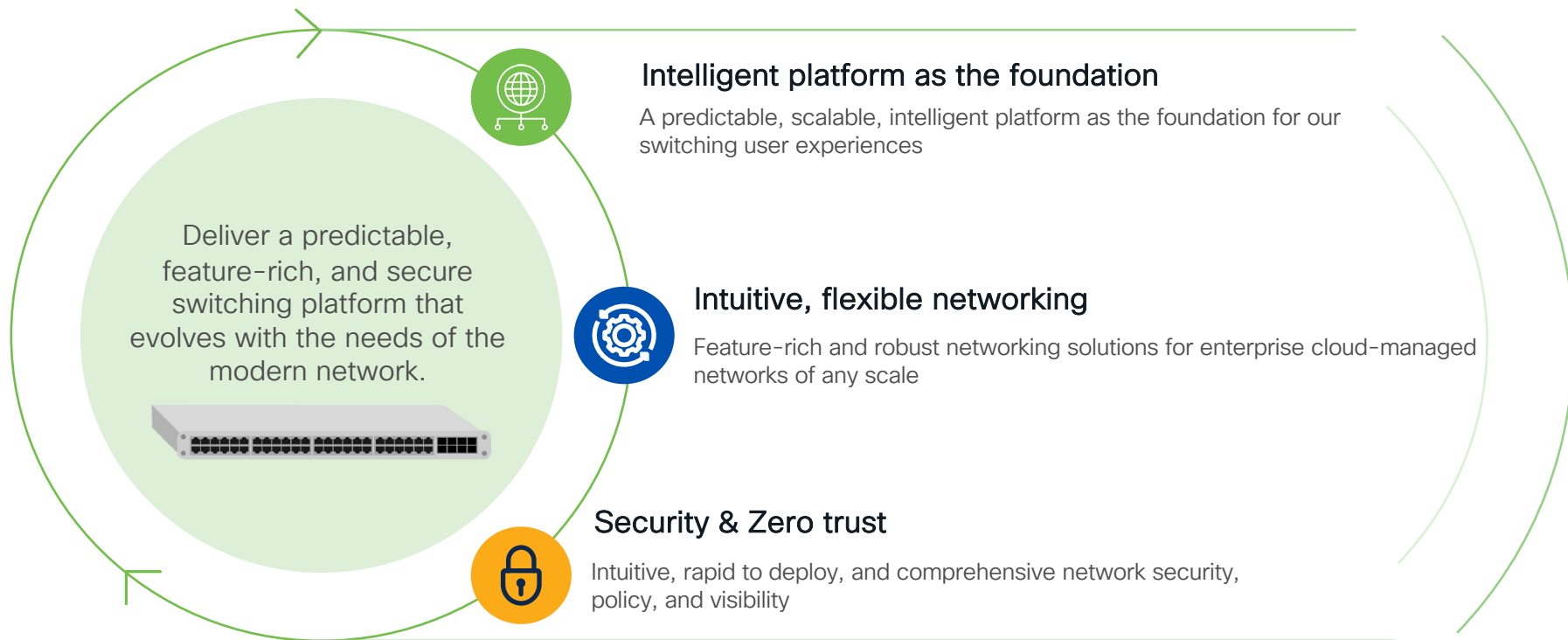


Works well together



Smarter over time

Our vision for the Meraki Switching Experience



Device & Platform

CISCO *Live!*



BRKMER-2057

NEW

ot: Sep 13 11:02:26 (CST)

Last boot reason: [View in event log](#)

Reboot reasons like "Dashboard Initiated", "Other", and "Firmware Upgrade"

Digital Optical Monitoring

Status

Connectivity 

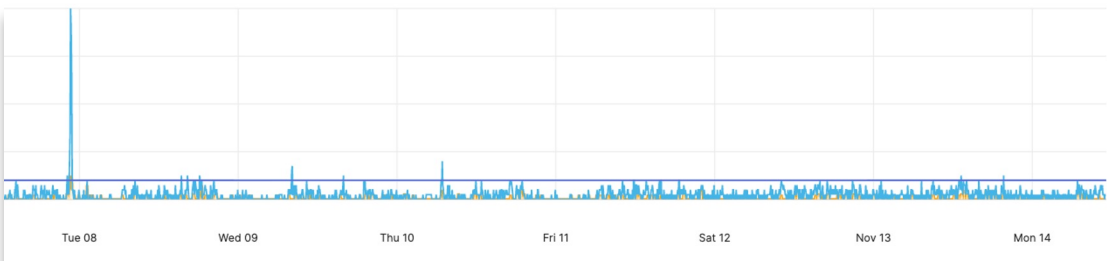
Usage 81.4 GB (3.6 GB sent, 77.8 GB received)

Traffic -

CDP/LLDP  Meraki MS350-48FP - Closet 4.1C / 51 (Meraki MS350-48FP Cloud Managed PoE Switch) [raw](#)
 VLANs Match

SFP module CISCO-OCCLARO - 10GBASE-LR: 10.3 Gbps (Part TRS5022EN-S101, Serial: ONT18270105)

DOM TX: -1 dBm RX: -9 dBm (Temperature: 38 C, 3.3 V 5mA) [view details](#)

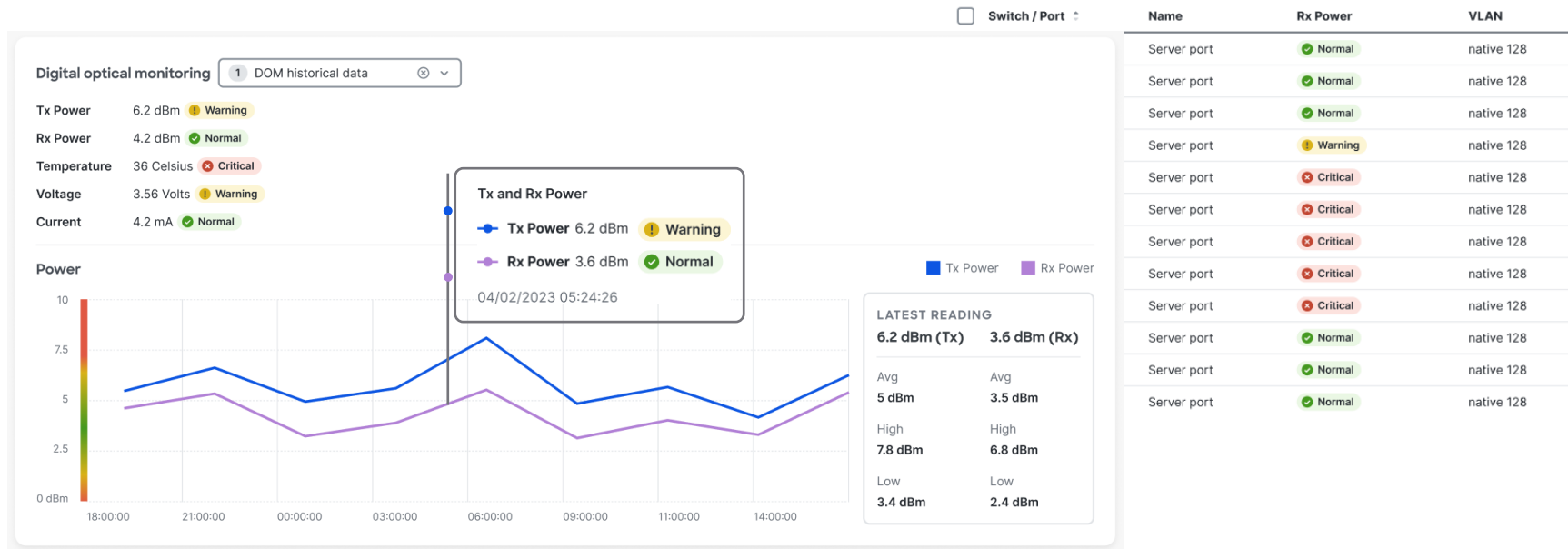


Real-time light levels*
Temperature*
Voltage*
Historical view
Available via API



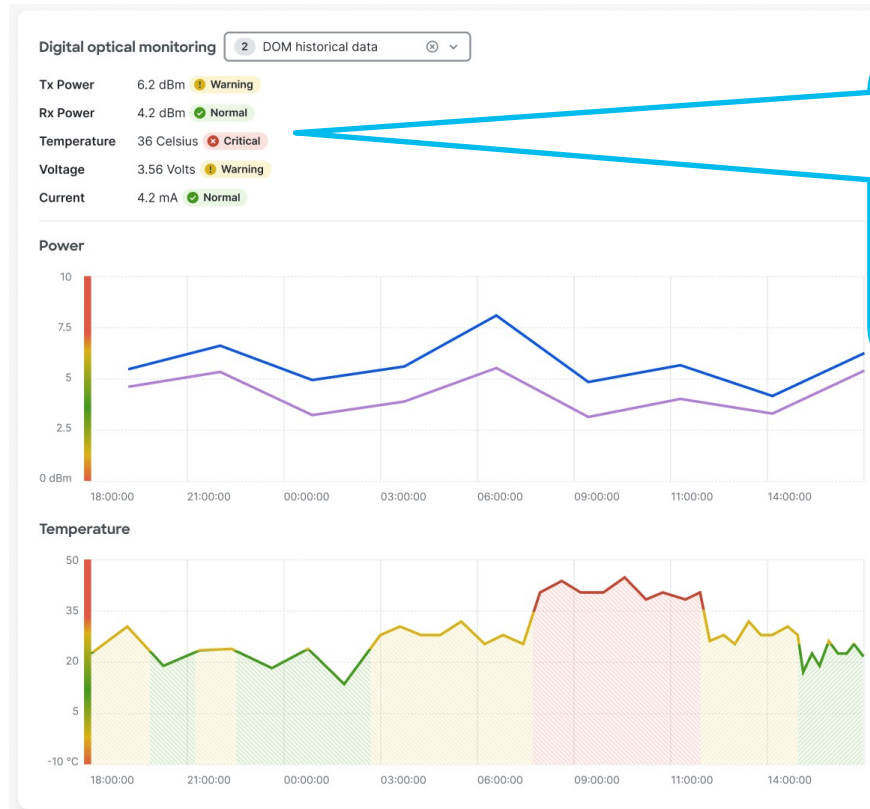
Digital Optical Monitoring

Targeted availability:
API Early Access: Spring 2024
Dashboard Early Access: Fall 2024
General Availability: Late 2024



These designs are subject-to-change prior to release

Digital Optical Monitoring



Digital optical monitoring

Select DOM historical data

Tx Power 6.2 dBm ⚠ Warning

Rx Power 4.2 dBm ✅ Normal

Temperature 36 Celsius ❌ Critical

Voltage 3.56 Volts ⚠ Warning

Current 4.2 mA ✅ Normal

- Compare multiple metrics
- Real-time and historical values
- Thresholds for supported modules

These designs are subject-to-change prior to release

Port Management at Scale with Port Profiles

The screenshot displays the Cisco DNA Center interface for managing switch port profiles. On the left, a table lists several profiles, with 'My_switch_port_profile_A' highlighted. An orange box around this profile name has a line pointing to the 'Profile' dropdown in the 'Edit switch port' modal on the right. The modal shows configuration details for a port named 'IoT Device' on switch 'SFO22-M51-FLOOR1 / 1'. The 'Profile' dropdown is set to 'My_switch_port_profile_A'. Below the modal, three network switch icons labeled 'Site 1', 'Site 2', and 'Site n' are shown. Blue lines connect the 'My_switch_port_profile_A' profile to specific ports on each of these switches, illustrating how a single profile can be applied across multiple sites and ports.

Switch port profiles

Q Search 15 total profiles

Name	Date created	# ports
My_switch_port_profile_A	January 12, 12:34 AM	2
My_switch_port_profile_B	January 12, 12:34 AM	5
Switch port profile name 3	January 12, 12:34 AM	0
Switch port profile name 4	January 12, 12:34 AM	12
Switch port profile name 5	January 12, 12:34 AM	33
Switch port profile name 6	January 12, 12:34 AM	0

Edit switch port

Switch / port SFO22-M51-FLOOR1 / 1

Port name IoT Device

Profile My_switch_port_profile_A

Port status ☒ Enabled

Type Access

Access policy Open

VLAN 1

Voice VLANs All

Link negotiation Auto negotiate

RSTP ☒ Enabled

STP guard Disabled

Port schedule Unscheduled

Adaptive policy group 11: IoT

Port isolation ☐ Enabled

Trusted DAI ☐ Enabled

Peer SGT capable ☒ Enabled

UDLD Alert only

Tags Two X Three X

PoE ☒ Enabled

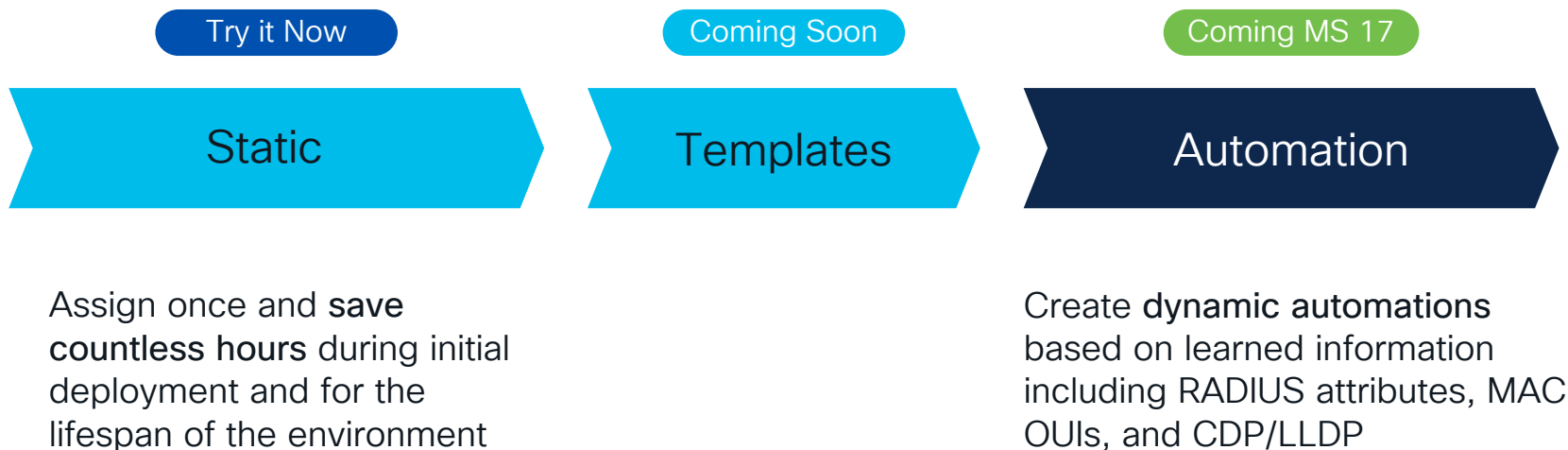
Cancel Save

Available Now

Building-blocks containing configuration settings for a switchport that can be applied to one or thousands of ports.

Port Profiles evolution

Using Automation to add customization and scale to SecurePort



Staged Upgrades get better



Convert to Staged Upgrade



Defer, Reschedule, and Rollback



Better Upgrade Monitoring



Full API support

this version will run 1 switch network (5 switch
[Home](#)

[CONVERT TO STAGED UPGRADE](#)



Staged upgrades

Beta



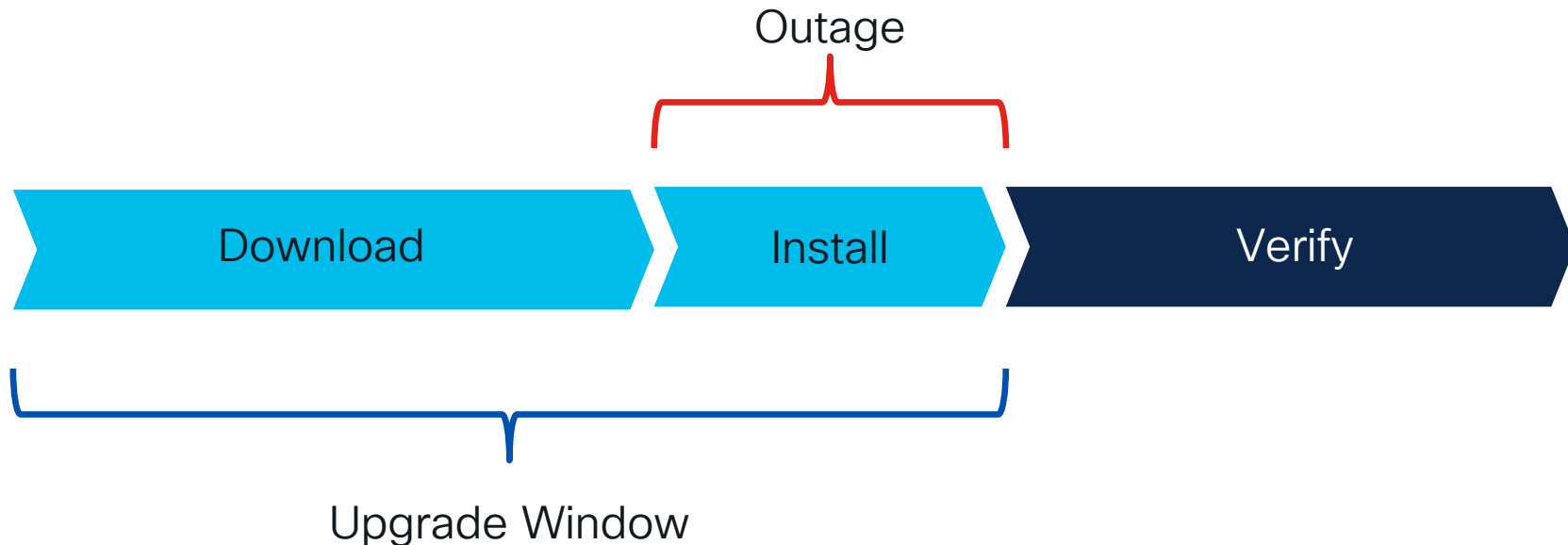
An upgrade is currently in progress, monitor it [here](#)

Groups

Sequence

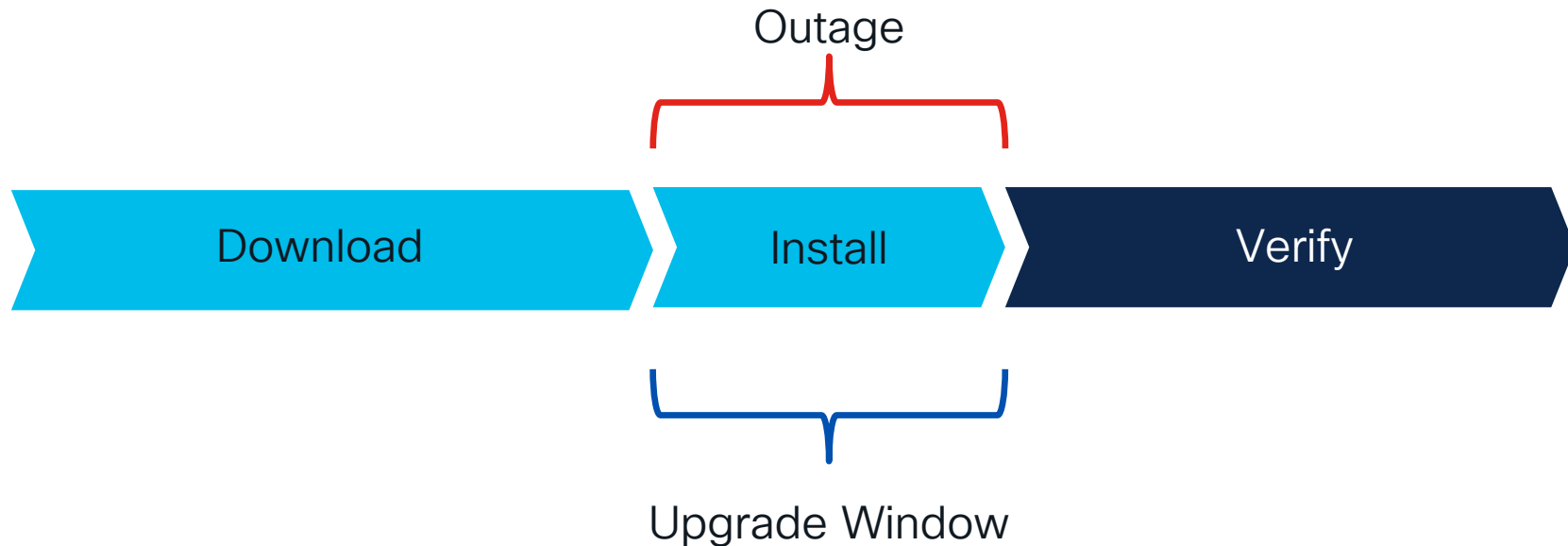
How about shorter upgrade windows?

Firmware Predownload



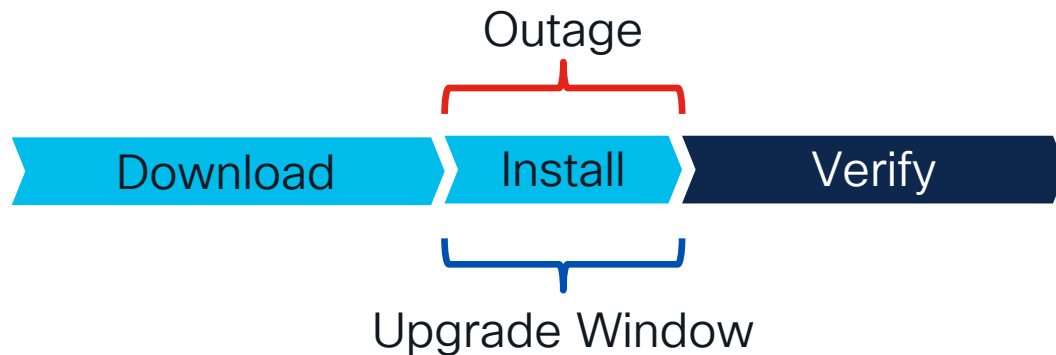
How about shorter upgrade windows?

Firmware Predownload



How about shorter upgrade windows?

Firmware Predownload



Napkin math

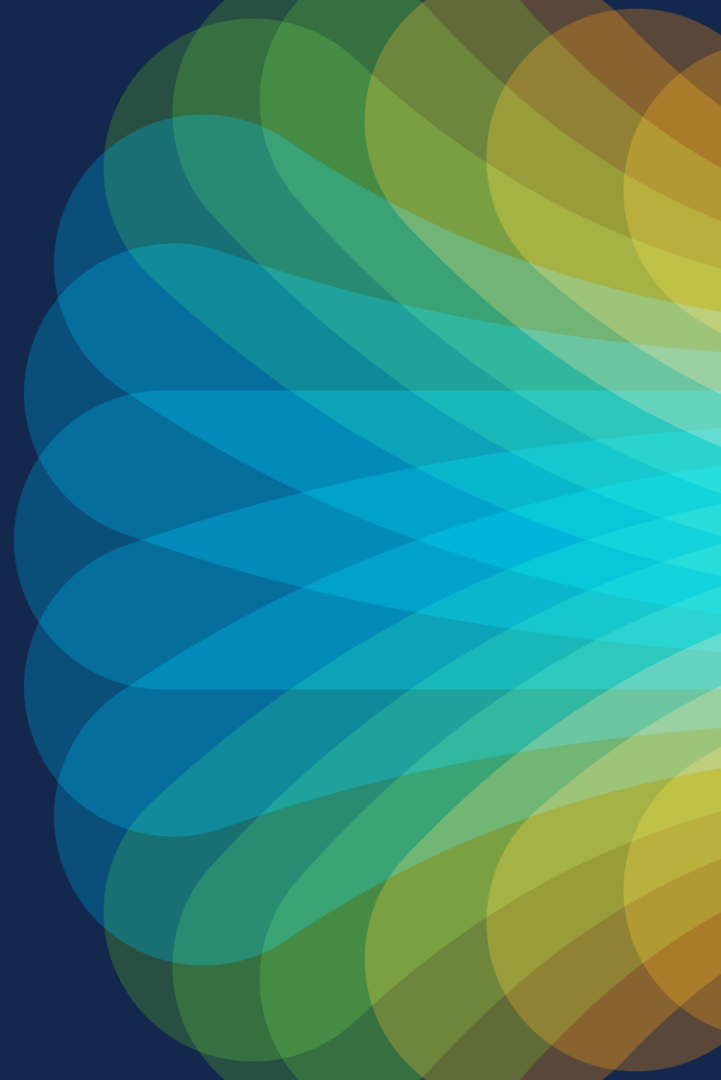
100 switches with 100Mbps goodput:

- MS 30 min > 5 min
- CS 2h44 min > 10 min



Independent Firmware

for Meraki and Catalyst



To each their own

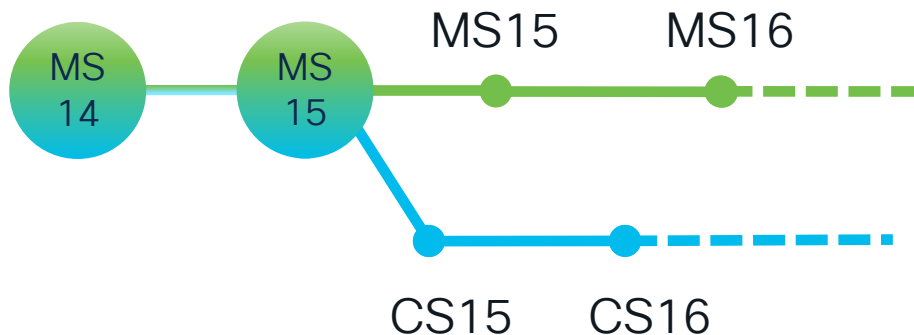
MS and new CS firmware releases

Available Now

Release Agility

What?

Firmware will independently be released for “CS” and “MS” switches



MS For Meraki Switches

MS1xx, 2xx, 3xx (excluding MS390), 4xx

CS For Catalyst-based Switches

MS390 + Future Catalyst-based hardware platforms

Why?

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

What does it look like?


CS 15.21.1
Released Mar 31, 2023
[Release notes](#)


MS 15.21.1
Released Mar 31, 2023
[Release notes](#)

Catalyst



Meraki



Bulk edit firmware versions				
Network type	Networks	Current firmware version(s)	Target firmware version	Target version change log
Switch - CS (Catalyst)	Maple Syrup Vault	MS 14.33.1	CS 15.21.1 (latest stable)	CS 15.21.1
Switch - MS (Meraki)	Canadas Wonderland	MS 14.33.1	MS 15.21.1 (latest stable)	MS 15.21.1

- MS model switches continue to run MS firmware
- MS390 and other Catalyst-based switches upgrade to and run CS firmware

Topology 2.0 New and Improved!

Early Access

An *enhanced version* of your network topology map that is more interactive and intuitive.



New Frontend Framework



Health Overview



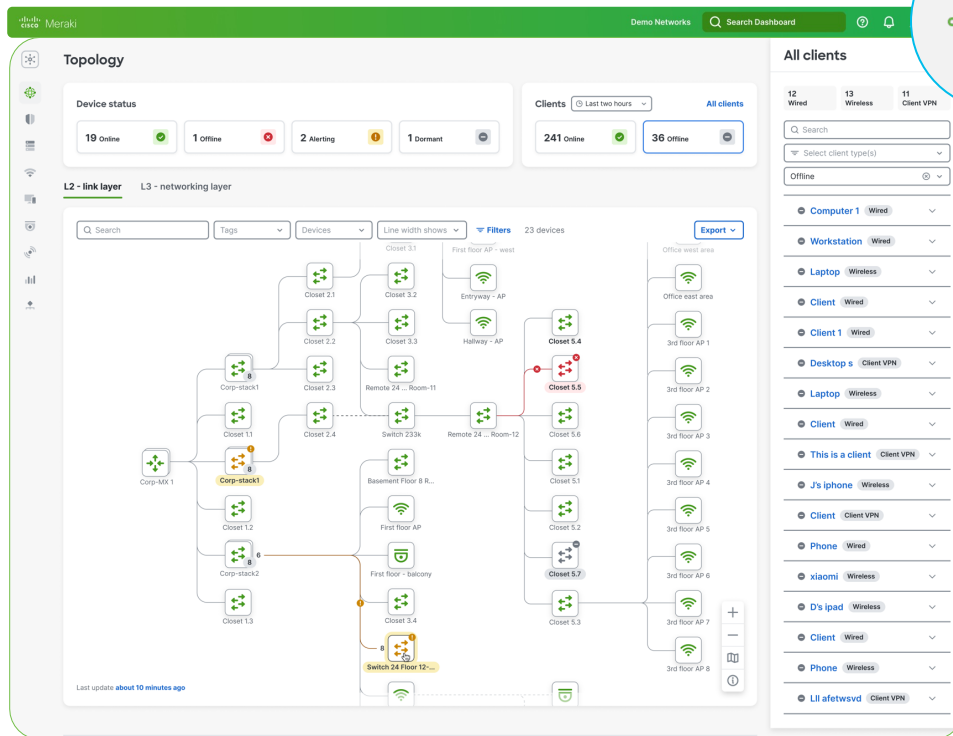
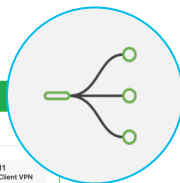
Modernized Icons



Device Details



Client Details

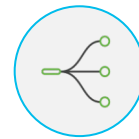


Topology 2.0 designs are subject to change prior to release



Your network binoculars

High level view of your Health and Clients



Health
overview

Device status

19 Online



1 Offline



2 Alerting



1 Dormant



Clients

Last two hours

All clients

241 Online

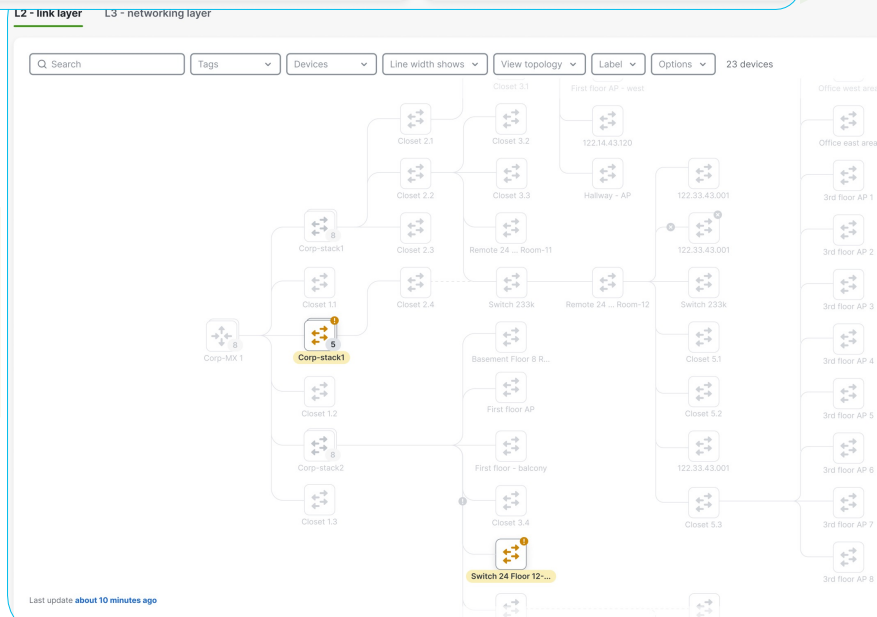


36 Offline



Client
overview

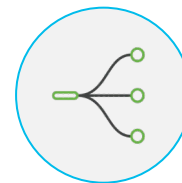
Focus on what's
important!





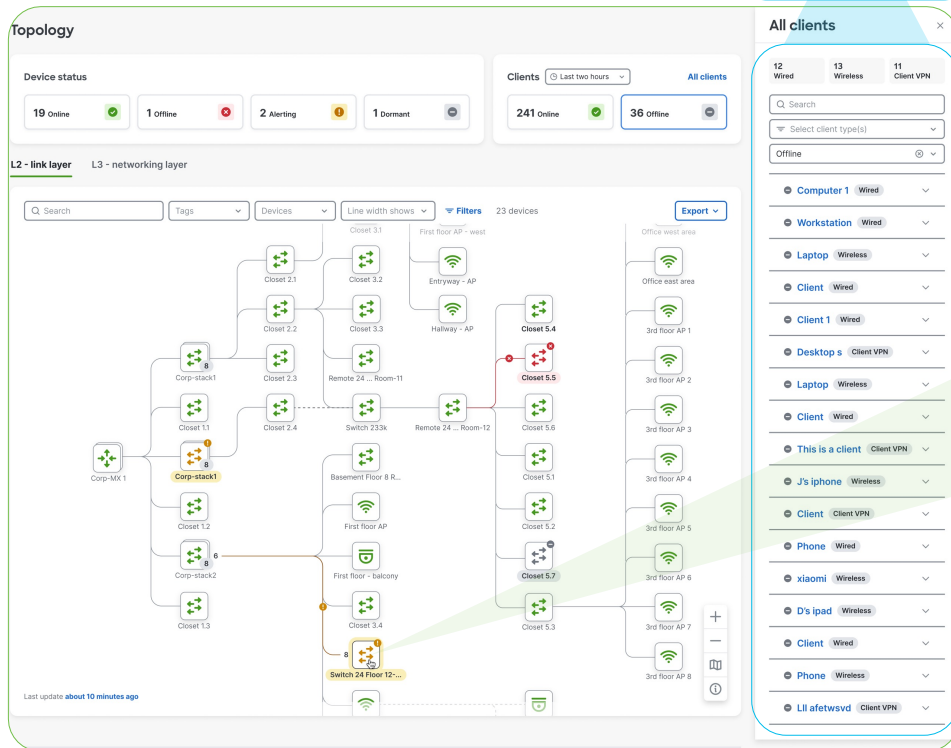
Client Details

One of the most requested topology wishes!



Client List

Client Details



raspberrypi Wired

Status Last seen Mar 20, 11:23 AM
MAC address 70:01:b5:76:21:c4
IP 192.68.1.1
Port 25



25

Switch 24 Floor 12-1



raspberrypi

Available Now in Early Access

Topology 2.0

Future enhancements

And we are not done yet! This is just the start



Enhanced Device Visibility



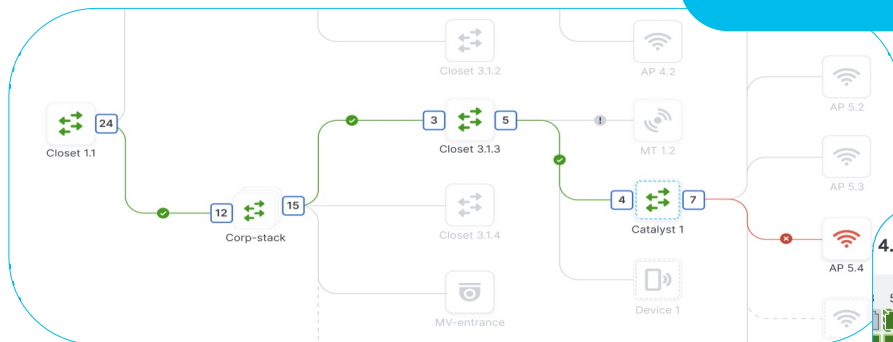
Enhanced Filtering and Views



Enhanced Troubleshooting

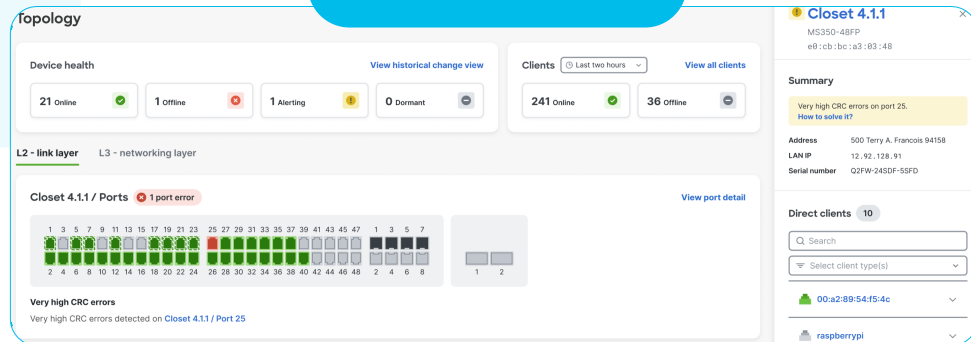
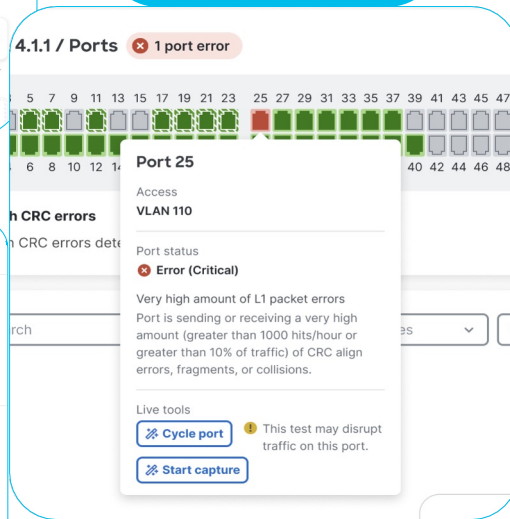


Visio Export



Client connectivity path

Troubleshooting Tools



Firmware Upgrade Status provides visibility

#	Name	Upgrade status	Connectivity	Firmware version
1	✓ CAMPUS-SFO-IDF1.1.1-MS390-24UX	Scheduled	<div></div>	MS 14.33.1
2	✓ CAMPUS-SFO-IDF1.1.2-MS390-24UX	Scheduled	<div></div>	MS 14.33.1
3	✓ CAMPUS-SFO-IDF2.1.1-MS355-24X	Started	<div></div>	MS 14.33.1
4	⚠ CAMPUS-SFO-IDF2.1.1.1 Monitor Only	Skipped	<div></div>	IOS XE 17.8.1
5	✓ CAMPUS-SFO-IDF2.1.1.2-MS225-24P	Completed	<div></div>	Not running configured version
6	✓ CAMPUS-SFO-MDF1.1-MS425-16-CORE1	Completed	<div></div>	MS 14.33.1

FIRMWARE

Update scheduled

Upgrade Status: Started

Current version: Not running configured version

Upgrading to: MS 15.14.2

Upgrade Statuses:

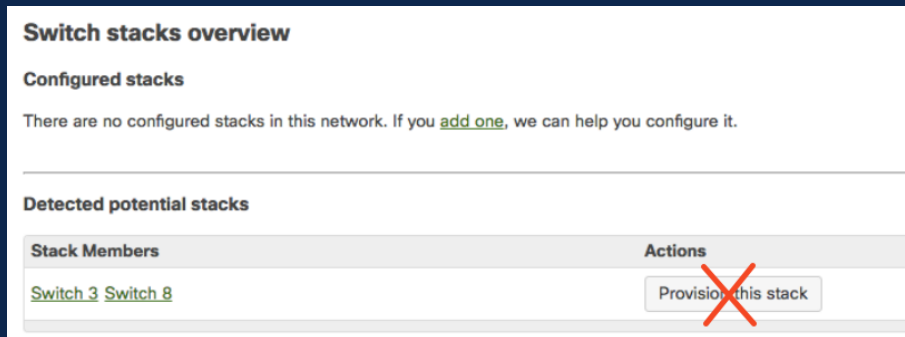
~~Pending~~ > Scheduled ✓

- Started
- Skipped
- Cancelled
- Completed

Auto Stacking

No, I didn't connect stack cables by accident...

- You rack, Dash stacks
- Automatic stack naming
- Like Catalyst



Switch Stack Role

RSTP ROOT
This stack

FIRMWARE
Up to date
Current version: MS 15.20

CONFIG
Up to date

VLAN PROFILE
Default Profile

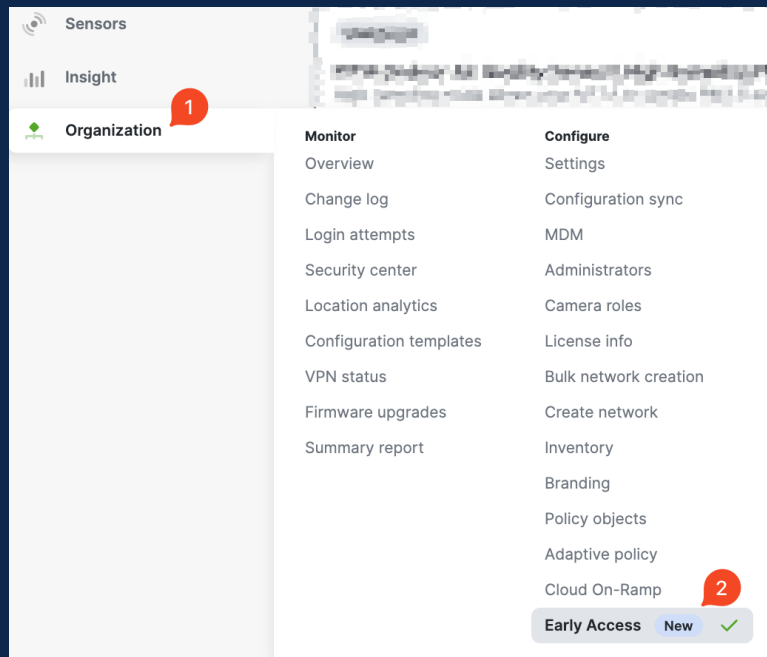
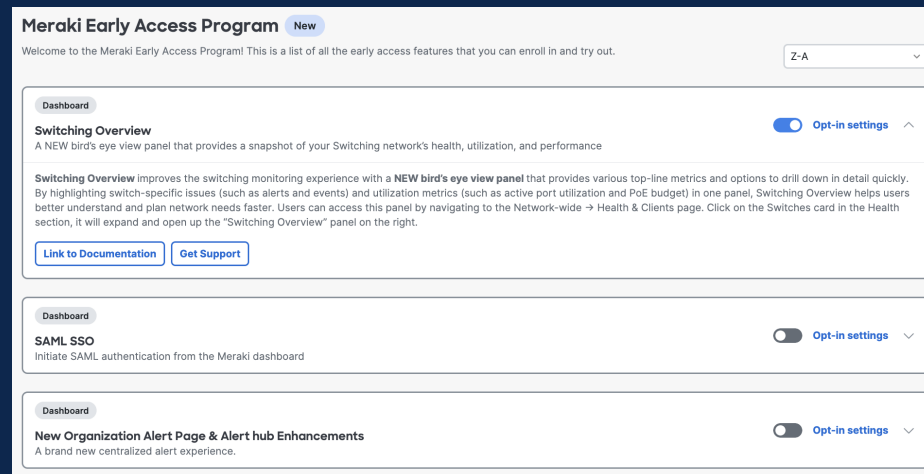
TOPOLOGY
[Show](#)

SWITCH STACK
[STK-MS355](#)
Role: Active 

L3 ROUTING STATUS
Enabled
[Configure layer 3 settings](#)

- One of three states:
 - Active
 - Standby
 - Member
- All MS switches
 - MS 15.18+

Meraki Early Access Program



Easily test-drive new features

Core Networking

Port Mirroring from LAG bundles

Create Port Mirror ×

Add source ports:

MS210-Patch Panel / AGGR/1

Select destination port:

MS210-Patch Panel / 1

▼

Cancel

Create Mirror

Local Status Page Packet Capture

Take PCAPs from the LSP to assist when troubleshooting dashboard connectivity

- 1, 3, 5 minute duration
- Automatic local file download

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	CiscoMer_s21:e19:05	CiscoMer_S21:3a1:5f	ARP	64	Who has 10.100.100.17 Tell 10.100.100.33
2	0.000098	CiscoMer_S21:3a1:5f	CiscoMer_s21:e19:05	ARP	64	10.100.100.17 is at c4:80:02:52:1a:15
3	0.000100	10.100.100.33	10.100.100.17	ICMP	64	64 bytes of data from 10.100.100.33 to 10.100.100.17: Seq=1000000000, Info: PTO 0x13c
4	0.156585	200.200.40.129	10.100.100.32	TCP	70	30001 → 53537 [ACK] Seq=1 Ack=1 Win=102 Len=0 TSV=205621316 TSC=10935714
5	0.720703	10.100.100.31	8.8.8.8	IOMP	102	Echo (ping) request id=6x6c47, seq=55395/25560, ttl=200 (request in 6)
6	0.762562	8.8.8.8	10.100.100.31	IOMP	102	Echo (ping) reply id=6x6c47, seq=55395/25560, ttl=112 (request in 5)
7	0.800440	10.100.100.33	8.8.8.8	IOMP	102	Echo (ping) request id=6x4078, seq=4304/53264, ttl=200 (request in 8)
8	0.850561	8.8.8.8	10.100.100.33	IOMP	102	Echo (ping) reply id=6x4078, seq=4304/53264, ttl=112 (request in 7)

9.1.729212CiscoMeas:97/81Scanning-tree:for:STP53_BST_Boot = 0/0/ab-46-3d-ca:97/51Cost = 0Port = 8x8838

Packet Capture

Switch

AZ-MS120-24P

Port:

5

Duration:

✓ 1 minute

2 minute

5 minute

Start capture

n 11)

in 10)

14)

in 13)

TSecr=18935978

n 21)

in 20)

24)

in 23)

Secr=1742336322

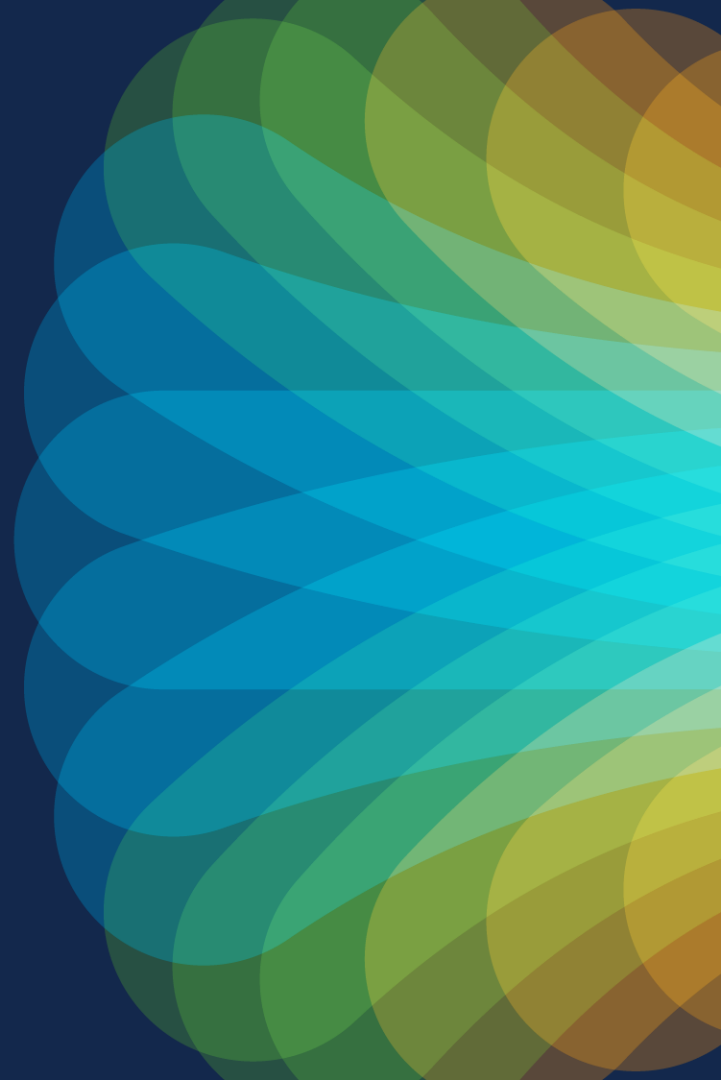
rak1:R05BCW LTE & B02.11

Secr=3724117520

TSecr=1742336972

Sneak Peek

Reimagining Switch Stacks in Dashboard



Switch Stacks

Stack attributes

Address: 500 Terry A. Francols Blvd, San Francisco, CA 94158
Stack MAC address: 00:18:0a:4f:00:01
VLAN profile: 125

L3 routing status: Not enabled
[Configure layer 3 settings](#)

Firmware: Up to date
Upgrade status: Completed
Current version: MS 16.2.1

Stack members Multi-select ports ⓘ

Rack order	Status	Name	Role	Model	MAC address	Connectivity	Serial number
1	Active	Closet 2.2.1	Active	MS250-48FP	8c:8d:db:ff:48:6f	<div></div>	Q2QW-8F3P-CS8K
2	Member	Closet 2.2.2	Member	MS250-48FP	8c:8d:db:ff:68:47	<div></div>	Q2QW-8JWU-647E 18.92.176.234

All stack members on a single page

Same configurable flex table

Configure ports in this stack [+ Add member](#)

Diagram illustrating a 52-card deck layout, organized into 10 columns and 2 rows. The cards are numbered 1 to 52. The layout shows a sequence of cards, with some cards highlighted in green (columns 19, 21, 23, 37, 41, 43, 49, 50, 51, 52) and one card highlighted in orange (column 44). The cards are arranged in a grid, with the first row containing cards 1 through 48, and the second row containing cards 49 through 52. The cards are numbered 1 to 52, with the last two columns (51 and 52) containing an upward arrow icon.

We've never had 432 ports on a single page



Switch Stacks

||||

||||

||||

||||

||||

Configure multiple ports

See Active, Standby, & Members

Stack members ☐ Multi-select ports ⓘ

[Configure ports in this stack](#) [+ Add member](#)

☐	Rack order	Status	Name	Role	Model	MAC address	Connectivity	Serial number	Local IP	⚙
☐	1	●	Closet 2.2.1	Active	MS250-48FP	0c:8d:db:ff:48:6f	<div><div></div></div>	Q2QW-8F3P-CS8K	10.92.176.235	...
<p>AGO</p>										
> ☐	2	●	Closet 2.2.2	Member	MS250-48FP	0c:8d:db:ff:60:47	<div><div></div></div>	Q2QW-8JWU-647E	10.92.176.234	...
> ☐	3	●	Closet 2.2.3	Member	MS250-48FP	0c:8d:db:ff:60:47	<div><div></div></div>	Q2QW-8JWU-647E	10.92.176.234	...
> ☐	4	●	Closet 2.2.4	Member	MS250-48FP	0c:8d:db:ff:60:47	<div><div></div></div>	Q2QW-8JWU-647E	10.92.176.234	...
> ☐	5	●	Closet 2.2.5	Member	MS250-48FP	0c:8d:db:ff:60:47	<div><div></div></div>	Q2QW-8JWU-647E	10.92.176.234	...
> ☐	6	●	Closet 2.2.6	Member	MS250-48FP	0c:8d:db:ff:60:47	<div><div></div></div>	Q2QW-8JWU-647E	10.92.176.234	...
> ☐	7	●	Closet 2.2.7	Member	MS250-48FP	0c:8d:db:ff:60:47	<div><div></div></div>	Q2QW-8JWU-647E	10.92.176.234	...
> ☐	8	●	Closet 2.2.8	Member	MS250-48FP	0c:8d:db:ff:60:47	<div><div></div></div>	Q2QW-8JWU-647E	10.92.176.234	...

Port key

■ Enabled/Full speed

■ Reduced speed

■ Disabled

■ Disconnected

■ Error (Warning)

■ Error (Critical)

⚡ Active PoE draw

🔒 Authenticated via SecurePort

🔒 Authenticated via SecurePort (PoE)

⏸ Blocking

↑ Detected as uplink

Ⓢ Low power

↔ Pass-through

■ Stacked port

[Documentation on switch ports](#) ⓘ

Switch Stacks

Collapsible Hierarchy

Member Status Rollup

Collapsible Hierarchy		2 Alerting		11 Online	
		Status		Tags	
		Device Type		123 results	
Status		Name	MAC address	Connectivity	
>	☐	7 1 Closet 2.2 Rack 01	00:18:0a:4f:00:01	Stack (8)	
∨	☐	2 Closet 5.1 - Interconnect	00:18:0a:4f:00:01	Stack (2)	
∨	☐	1 1 3.1 Access Blue	00:18:0a:4f:00:01	Stack (2)	
	☐	1 ExampleDevice-12345	98:18:88:fb:70:f4		
	☐	1 ExampleDevice-12345	98:18:88:fb:70:f4		
	☐	1 ExampleDevice-12345	98:18:88:fb:70:f4		
	☐	1 ExampleDevice-12345	98:18:88:fb:70:f4		

Named VLANs automates translation for you

VLAN profiles

You're modifying the default profile.

Edit profiles

Profile name

Iname

Named VLANs

[Add a Named VLAN](#)

#	VLAN name	VLAN ID	Actions
1	<input type="text" value="Employee"/>	<input type="text" value="100"/>	Save Cancel
2	IOT	110	✎ ✕
3	DMZ	999	✎ ✕

VLAN Groups

[Add a VLAN group](#)

#	Group name	VLAN list	Actions
1	<input type="text" value="Employees"/>	<input type="text" value="100-109"/>	Save Cancel
2	IOTDevices	110-119	✎ ✕
3	Guest	999-1000	✎ ✕

Edit switch port

Name

Port status
☒ Enabled

Type

Access policy

VLAN

Voice VLAN

Link negotiation

Single VLAN ID
to Name

Group of
VLANs to Name

RADIUS based
assignment*

Early Access

Static
Assignment

*Also available for MR beginning in MR30

**Available in Early Access

Security & Zero Trust

Wake-on-LAN via API

Add automation to Security with 802.1X Control Direction



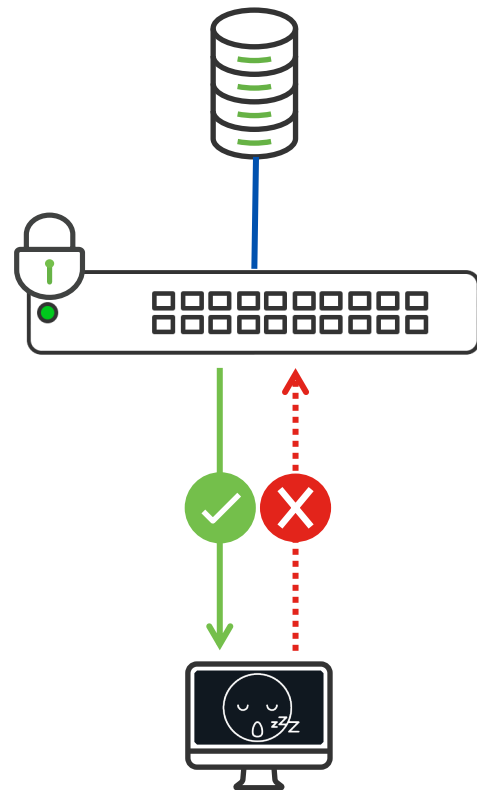
Energy Savings
Put those endpoints to sleep and
then wake-on-lan!



Security
Robust Authentication with 802.1X
Control Direction



Programmability
Automate wake-on-lan via the Dashboard API



It's not nice to do it twice

Duplicate rule detection for ACLs

User-defined rules

#	Policy	IP Version	Protocol	Source	Src port	Destination	Dst port	Vlan	Comment	
I	Deny	IPv4	Any	Any	Any	10.21.99.98/32	Any	Any		×
II 2	Deny	IPv6	Any	Any	Any	2001:feed:face::3/128	Any	Any		×
II 3	Allow	IPv4	Any	Any	Any	8.8.4.4/32	Any	Any		×
II 4	Allow	IPv4	TCP	Any	Any	10.11.30.168/32	22	30		×
II 5	Deny	IPv6	Any	Any	Any	2001:feed:face::3/128	Any	Any		×
	Allow	Any	Any	Any	Any	Any	Any	Any	Default rule	

Add a rule

ACL Hit Counter

MS16

- Live Tool
- Visibility into Policies
- Real-time monitoring of ACL hits

ACL Hit Counter Duration: 30 sec Run

ACL Hit Counter Table - 30 sec Refresh Close

Search...

Policy	IP Version	Protocol	Source	Src port	Destination	Dst port	Vlan	Hits	IPv4	IPv6
allow	ipv4	any	216.157.128.0/20	Any	Any	Any	Any	0	0	-
allow	ipv4	any	Any	Any	216.157.128.0/20	Any	Any	0	0	-
allow	ipv4	any	158.115.128.0/19	Any	Any	Any	Any	196	196	-
allow	ipv4	any	Any	Any	158.115.128.0/19	Any	Any	0	0	-
allow	ipv6	any	2620:12F:C000::/44	Any	Any	Any	Any	0	-	0
allow	ipv6	any	Any	Any	2620:12F:C000::/44	Any	Any	0	-	0
deny	ipv4	any	Any	Any	10.21.99.98/32	Any	Any	6	6	-
allow	ipv4	any	Any	Any	8.8.4.4/32	Any	Any	8	8	-
allow	ipv4	any	Any	Any	1.1.1.1/32	Any	Any	4	4	-
allow	both	any	Any	Any	Any	Any	Any	73	43	30

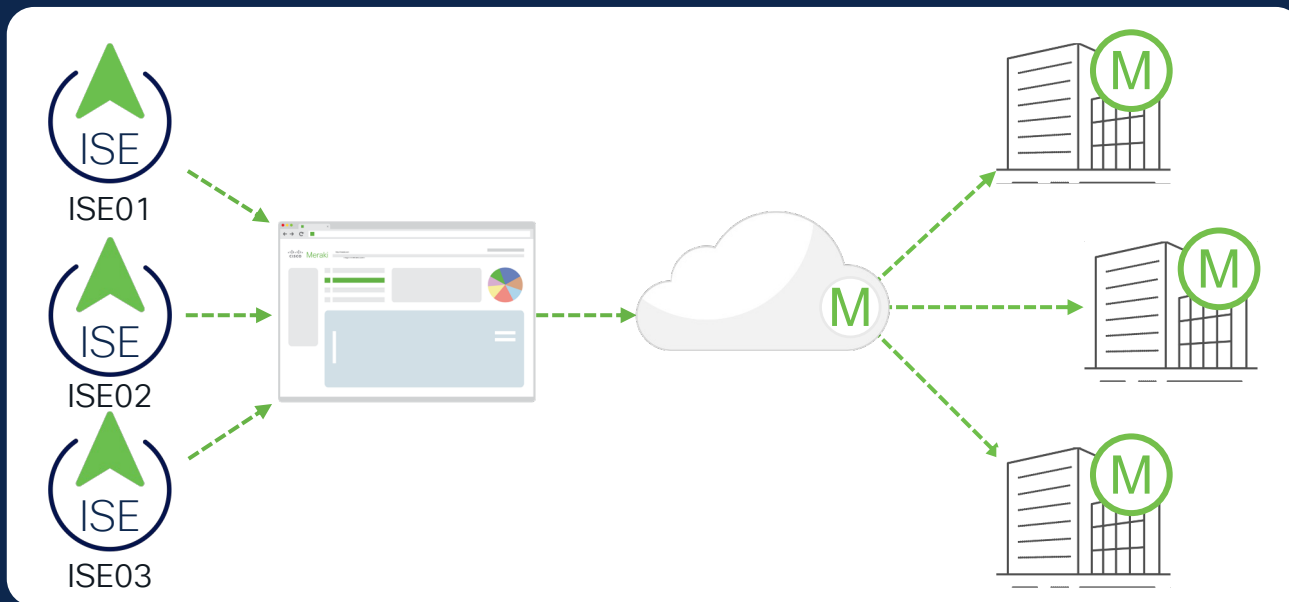
10 results per page 1 2 >

Org-Wide RADIUS Server Configurations

Configure Once
Re-Use Everywhere

Starting with Switching
Access Policies

Coming to MX and MR
post GA



Org-Level Configuration Modularity

RADIUS servers

Reusable RADIUS servers for access policies across this organization.

Name	Server	Auth Port	Acct Port	Applied networks	Actions
WW_PROD_ISE_01	10.10.0.40	1812	1813	.Wayward_Pines - switch	⋮
WW_PROD_ISE_02	10.10.0.41	1812	1813	.Wayward_Pines - switch	⋮
MSTME_ISE	172.16.0.30	1812	1813	None	⋮

+ Add a RADIUS server

- Organization > Settings
- Switching > Access Policies
- Automatically populates server info
- Up to 100 servers at Organization level
- Max 3 Auth/Acct servers per Access Policy

Access policies

Name

ISE_MD_Crit

Authentication method

my RADIUS server

Radius Servers

#	Name	Host	Port	Secret	Actions
1	WW_PROD_ISE_01	10.10.	1812	Show	⋮
2	WW_PROD_ISE_02	10.10.	1812	Show	⋮

2

+ Add a server

- ☒ WW_PROD_ISE_01
- ☒ WW_PROD_ISE_02
- ☐ MSTME_ISE

Radius Accounting Servers

#	Name	Host	Port	Secret	Actions
1	WW_PROD_ISE_01	10.10.	1813	Show	⋮
2	WW_PROD_ISE_02	10.10.	1813	Show	⋮

2 Select RADIUS

+ Add a server

Catalyst + Meraki =



This is the same intuitive Meraki monitoring experience



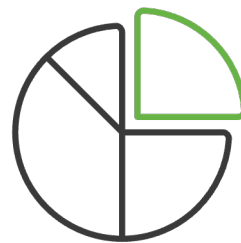
Centralized
view of the
entire
network



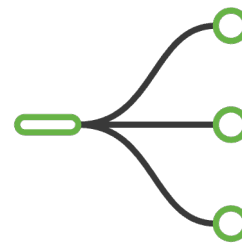
Realtime
status of
switch
health



Remote
monitoring



Layer 7
visibility*



Network
topology

*(DNA Advantage License required for full feature set)

These are the currently supported platforms



Models

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

Firmware
IOS-XE 17.3+

Licensing
Advantage
Essentials

Embedded Read-Only CLI

CLI experience directly in Dashboard

Allows read-only (show) commands

Visibility of info not in Dashboard

```
Welcome to Meraki Terminal...
Note: You can enter "show ?" anytime to get the list of currently supported commands and shortcuts
Sw5-C9300L-48# show version
Cisco IOS XE Software, Version 17.03.05
Cisco IOS Software [Amsterdam], Catalyst L3 Switch Software (CAT9K_IOSXE), Version 17.3.5, RELEASE SOFTWARE (fc2)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2022 by Cisco Systems, Inc.
Compiled Wed 09-Feb-22 10:41 by mcpre

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with ABSOLUTELY NO WARRANTY. You can redistribute and/or modify such
GPL code under the terms of GPL Version 2.0. For more details, see the
documentation or "License Notice" file accompanying the IOS-XE software,
or the applicable URL provided on the flyer accompanying the IOS-XE
software.

ROM: IOS-XE ROMMONBOOTLDR: System Bootstrap, Version 17.8.1r[FC2], RELEASE SOFTWARE (P)

Sw5-C9300L-48 uptime is 17 weeks, 4 days, 11 minutes
Uptime for this control processor is 17 weeks, 4 days, 12 minutes
System returned to ROM by Reload Command
System image file is "flash:packages.conf"
```

Demo

Embedded Read-only CLI

Packet capture

Packet captures directly in Dashboard

No manual configuration of EPC/SPAN

Port selection & filter application

Direct download from Dashboard

Early Access

Packet capture for switches ▼

Switch:

Ports:

Output:

Duration (secs):

Filter expression:

File name:

Start capture

Sample filter expressions

ipv4 protocol udp 198.51.100.0/24

set various explicit filters

mac 0030.9629.9f84 0000.0000

set a filter for MAC addresses

ipv4 198.51.100.0/24 host 198.51.

set a filter for IPv4 traffic

See more [examples](#).

This capture will stop after 60 seconds.
traffic statistics will not be recorded.

[Packet capture logs](#)

Event log

View syslog information in Dashboard

Consolidated view for all switches

Filter by device, severity, specific text

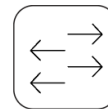
Coming Soon

Event log for Catalyst switches (monitor only) ▾

Switch:	Any	Before:	04/21/2023	14:14	(PDT)
Event Search:		Severity:	All		
Search	Reset filters				
Download as ▾					« newer older »
Time (PDT) ▾	Switch	Facility	Severity	Event type	Details
Apr 21 14:13:44	Sw5-C9300L-48	DMI	6	AUTH_PASSED	Switch 1 R0/0: dmiauthd: User
Apr 21 14:13:42	Sw5-C9300L-48	SEC_LOGIN	6	LOGIN_SUCCESS	Login Success [user: meraki-user] [Source: 18.232.244.158] [localport: 2222] at 21:12:02 UTC Fri Apr 21 2023
Apr 21 14:13:41	Sw5-C9300L-48	SEC_LOGIN	6	LOGIN_SUCCESS	Login Success [user: meraki-user] [Source: 18.232.244.158] [localport: 2222] at 21:12:01 UTC Fri Apr 21 2023
Apr 21 14:13:41	Sw5-C9300L-48	SYS	7	LOGOUT	User meraki-user has exited tty session 61(18.232.244.158)
Apr 21 14:13:40	Sw5-C9300L-48	SEC_LOGIN	6	LOGIN_SUCCESS	Login Success [user: meraki-user] [Source: 18.232.244.158] [localport: 2222] at 21:11:59 UTC Fri Apr 21 2023
Apr 21 14:13:28	Sw5-C9300L-48	SEC_LOGIN	6	LOGIN_SUCCESS	Login Success [user: meraki-user] [Source: 18.232.244.158] [localport: 2222] at 21:11:48 UTC Fri Apr 21 2023
Apr 21 14:13:28	Sw5-C9300L-48	DMI	6	AUTH_PASSED	Switch 1 R0/0: dmiauthd: User
Apr 21 14:13:27	Sw5-C9300L-48	SYS	7	LOGOUT	User meraki-user has exited tty session 61(18.232.244.158)
Apr 21 14:13:17	Sw5-C9300L-48	SEC_LOGIN	6	LOGIN_SUCCESS	Login Success [user: meraki-user] [Source: 18.232.244.158] [localport: 2222] at 21:11:36 UTC Fri Apr 21 2023
Apr 21 14:13:14	Sw5-C9300L-48	DMI	6	AUTH_PASSED	Switch 1 R0/0: dmiauthd: User
Apr 21 14:13:12	Sw5-C9300L-48	SEC_LOGIN	6	LOGIN_SUCCESS	Login Success [user: meraki-user] [Source: 18.232.244.158] [localport: 2222] at 21:11:32 UTC Fri Apr 21 2023
Apr 21 14:13:11	Sw5-C9300L-48	SEC_LOGIN	6	LOGIN_SUCCESS	Login Success [user: meraki-user] [Source: 18.232.244.158] [localport: 2222] at 21:11:31 UTC Fri Apr 21 2023
Apr 21 14:13:11	Sw5-C9300L-48	SYS	7	LOGOUT	User meraki-user has exited tty session 61(18.232.244.158)
Apr 21 14:13:10	Sw5-C9300L-48	SEC_LOGIN	6	LOGIN_SUCCESS	Login Success [user: meraki-user] [Source: 18.232.244.158] [localport: 2222] at 21:11:29 UTC Fri Apr 21 2023
Apr 21 14:12:58	Sw5-C9300L-48	SEC_LOGIN	6	LOGIN_SUCCESS	Login Success [user: meraki-user] [Source: 18.232.244.158] [localport: 2222] at 21:11:17 UTC Fri Apr 21 2023
Apr 21 14:12:57	Sw5-C9300L-48	DMI	6	AUTH_PASSED	Switch 1 R0/0: dmiauthd: User
Apr 21 14:12:56	Sw5-C9300L-48	SYS	7	LOGOUT	User meraki-user has exited tty session 61(18.232.244.158)
Apr 21 14:12:45	Sw5-C9300L-48	SEC_LOGIN	6	LOGIN_SUCCESS	Login Success [user: meraki-user] [Source: 18.232.244.158] [localport: 2222] at 21:11:04 UTC Fri Apr 21 2023
Apr 21 14:12:44	Sw5-C9300L-48	SYS	6	CONFIG_I	Configured from console by mars on vty1 (172.30.255.182)
Apr 21 14:12:44	Sw5-C9300L-48	DMI	6	AUTH_PASSED	Switch 1 R0/0: dmiauthd: User
Apr 21 14:12:43	Sw5-C9300L-48	SYS	7	LOGOUT	User meraki-user has exited tty session 61(18.232.244.158)
Apr 21 14:12:42	Sw5-C9300L-48	SEC_LOGIN	6	LOGIN_SUCCESS	Login Success [user: meraki-user] [Source: 18.232.244.158] [localport: 2222] at 21:11:02 UTC Fri Apr 21 2023
Apr 21 14:12:29	Sw5-C9300L-48	DMI	6	AUTH_PASSED	Switch 1 R0/0: dmiauthd: User
Apr 21 14:12:28	Sw5-C9300L-48	SYS	7	LOGOUT	User meraki-user has exited tty session 61(18.232.244.158)
Apr 21 14:12:27	Sw5-C9300L-48	SEC_LOGIN	6	LOGIN_SUCCESS	Login Success [user: meraki-user] [Source: 18.232.244.158] [localport: 2222] at 21:10:47 UTC Fri Apr 21 2023
Apr 21 14:12:14	Sw5-C9300L-48	DMI	6	AUTH_PASSED	Switch 1 R0/0: dmiauthd: User
Apr 21 14:12:13	Sw5-C9300L-48	SYS	7	LOGOUT	User meraki-user has exited tty session 61(18.232.244.158)
Apr 21 14:12:12	Sw5-C9300L-48	SEC_LOGIN	6	LOGIN_SUCCESS	Login Success [user: meraki-user] [Source: 18.232.244.158] [localport: 2222] at 21:10:32 UTC Fri Apr 21 2023
Apr 21 14:12:04	Sw5-C9300L-48	SYS	7	TTY_EXPIRE_TIMER	(exec timer expired, tty 1 (172.30.255.182)), user mars
Apr 21 14:11:59	Sw5-C9300L-48	DMI	6	AUTH_PASSED	Switch 1 R0/0: dmiauthd: User
30 total					

Firmware upgrades for Cloud-Monitored Catalyst

Coming Soon



IOS XE 17.9.2

Released Mar 15, 2023

[Release notes](#)

Firmware upgrades

Overview Schedule upgrades Scheduled changes

Cloud Managed Cloud Monitored

Q Search

All networks ▾

Any status ▾

2 Items selected [Select all 25 items](#)

☐	Device	Network	Current firmware
☒	C9200-1	San Jose - Building 23 - switch	IOS-XE
☒	Stack1234	San Jose - Building 23 - switch	IOS-XE 17.3.1
☐	test [2]	Stack Testing - switch	IOS-XE 17.9.2
☐	sw2018	Shanghai - Lab - switch	IOS-XE 17.3.4b
☐	xSW3-9300LM	Wireless Test - VX - switch	IOS-XE 17.9.2
☐	C9200-24-16-2038	San Jose - MM - Midgard - switch	IOS-XE 17.9.4
☐		Test Network - switch	IOS-XE null

View current IOS-XE version

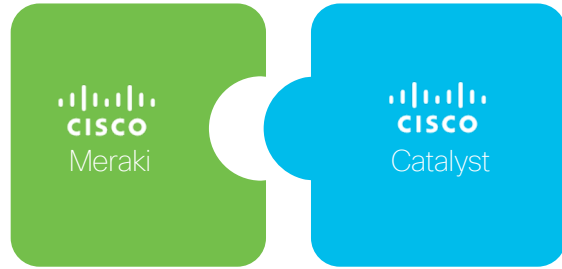
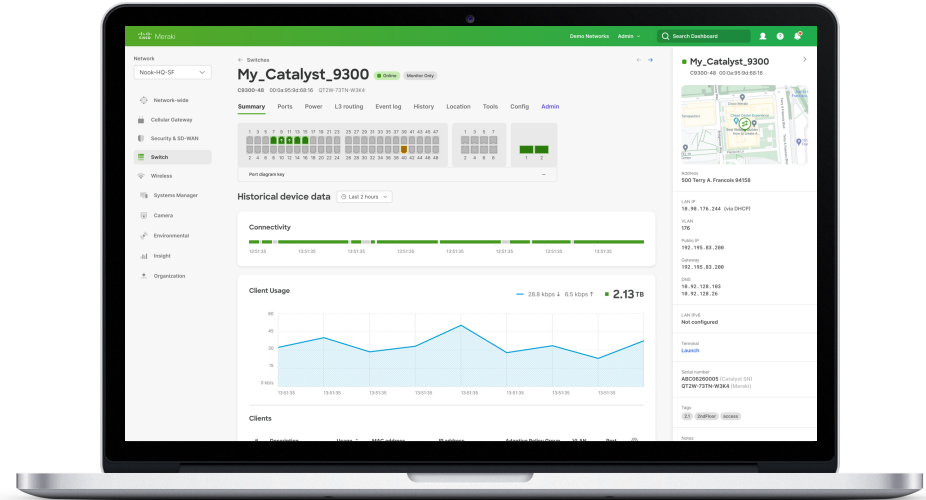
Select a target IOS-XE version

Upgrade on your schedule

Cloud Management for Catalyst

#1 in cloud management

#1 in networking hardware



Cloud Platform



Wireless



Switches

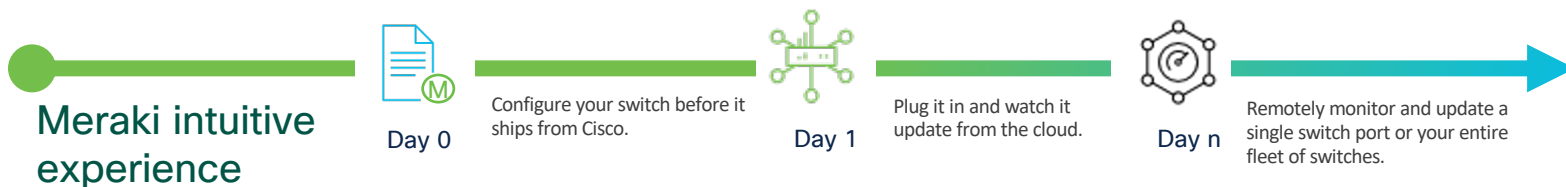


Ecosystem

Public preview: 13x C9300 switches can migrate to Meraki management mode

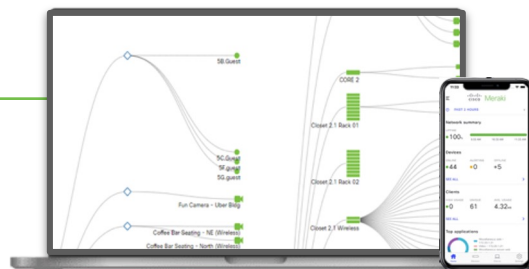
[Getting Started](#)

The Evolution Of The Cisco Switching Experience



Meraki switching (MS)

New platforms with the Meraki experience customers love



Maximize operational efficiency with one unified cloud management experience



Catalyst switching (CS)

Day 0 Meraki experience available

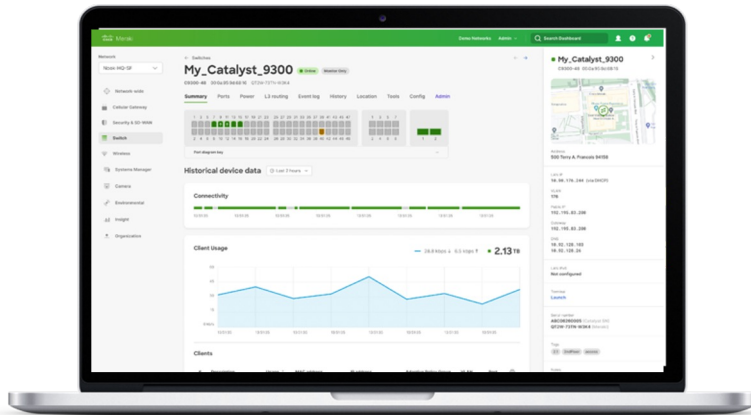
Foundational

Advanced

Catalyst 9300-M

When Simplification and Functionality Meet

It has never been easier to onboard and manage your Catalyst switches.



Simply powerful

Catalyst 9300-M

- 9x C9300-M SKUs; target ship date: FY24 Q2
- C9300-M fiber SKUs; target ship date: 2HFY24
- Migration is in public preview

SIMPLE

- Manage and provision thousands of ports in one place
- Real-time health monitoring and guided resolutions
- Out-of-the-box management and analytics on an intuitive dashboard

SCALABLE

- Centralized visibility and control across the network
- Manage all Meraki product lines in one place, from security to IoT
- True zero-touch provisioning and remote troubleshooting

FLEXIBLE

- Schedule and stage firmware upgrades remotely
- Programmable integrations with Meraki APIs and ecosystems
- Monitor and manage all Meraki licenses from one single UI

SECURE

- Intent-based security with Adaptive Policy
- Real-time traffic analytics with layer 7 visibility, rich telemetry, and endpoint modeling
- Seamlessly integrate TrustSec

Catalyst 9300-M Series Overview

Orderable With Meraki Day-0 Experience

Gigabit

Up to 1 GbE



C9300 24/48 T

- 24/48x 1G copper
- Data only
- 40G/10G/1G fiber modular uplink options

C9300 24/48 P

- 24/48x 1G copper
- 30 W PoE+
- 40G/10G/1G fiber modular uplink options



C9300 24/48 U

- 24/48x 1G copper
- 60 W UPoE
- 40G/10G/1G fiber/10G mGig copper modular uplink options

Multigig

Up to 10 GbE (mGig)



C9300 24 UX

- 24x 10G mGig
- 60 W UPoE
- 40G/10G/1G fiber modular uplink option

C9300 48 UXM

- 36x 2.5G mGig and 12x 10G mGig
- 60 W UPoE
- 40G/10G/1G fiber uplink option



C9300 48 UN

- 48x 5G mGig
- 60 W UPoE
- 40G/10G/1G fiber/10G mGig copper modular uplink option

Fiber aggregation

10/1 GbE SFP+ fiber



C9300 24S/48S

- 24/48 port 1G SFP
- 40G/10G/1G fiber modular uplink options



C9300X 12Y

- 10G/1G (SFP28)
- 100G hardware-based IPsec

C9300X 24Y

- 10G/1G (SFP28)
- 100G hardware-based IPsec

Gigabit and multi-gig SKUs FCS: Nov 15 2023

Fiber SKUs migration public preview is available;
-M SKUs are coming in Early 2024.

Catalyst 9300-M Series Overview

Orderable With Meraki Day-0 Experience

Catalyst 9300 modular uplinks



4x 10G/1G SFP



8x 1/10G SFP/SFP+



2x 100G/40G SFP/SFP+



2x 40G QSFP

SFP/direct attach cables

SFP-1GB-SX
SFP-1GB-LX10

SFP-10GB-LR
SFP-10GB-ER

SFP-10GB-SR
SFP-10GB-LRM

QSFP-40G-LR
QSFP-40G-SR4
QSFP-40G-CSR4
QSFP-40G-SR-BD

CBL-TA-1M
CBL-TA-3M



50 cm-1 m-3 m



30 cm-150 cm

All relevant Meraki optics are supported on C9300-M models.

StackWise® and StackPower

Power supplies



315 W
AC



715 W
AC/DC



1100 W
AC

Modular fan



Catalyst 9300-M Highlights

Advanced networking without compromising operational efficiency and scalability, from day 0 to day n



Catalyst 9300-M

SIMPLE. SCALABLE. FLEXIBLE. SECURE.

Modular uplinks

Hot-swappable uplink modules for flexible hardware upgrades and easier management.

Adaptive policy

Micro-segmentation of users, devices, and applications to simplify security and access policies.

StackPower

Create additional power capacity by pooling sources to power more PoE devices.

Wide range of mGig speeds

PoE on all 24/48-ports along with SFP and mGig and the option to address legacy infrastructure issues.

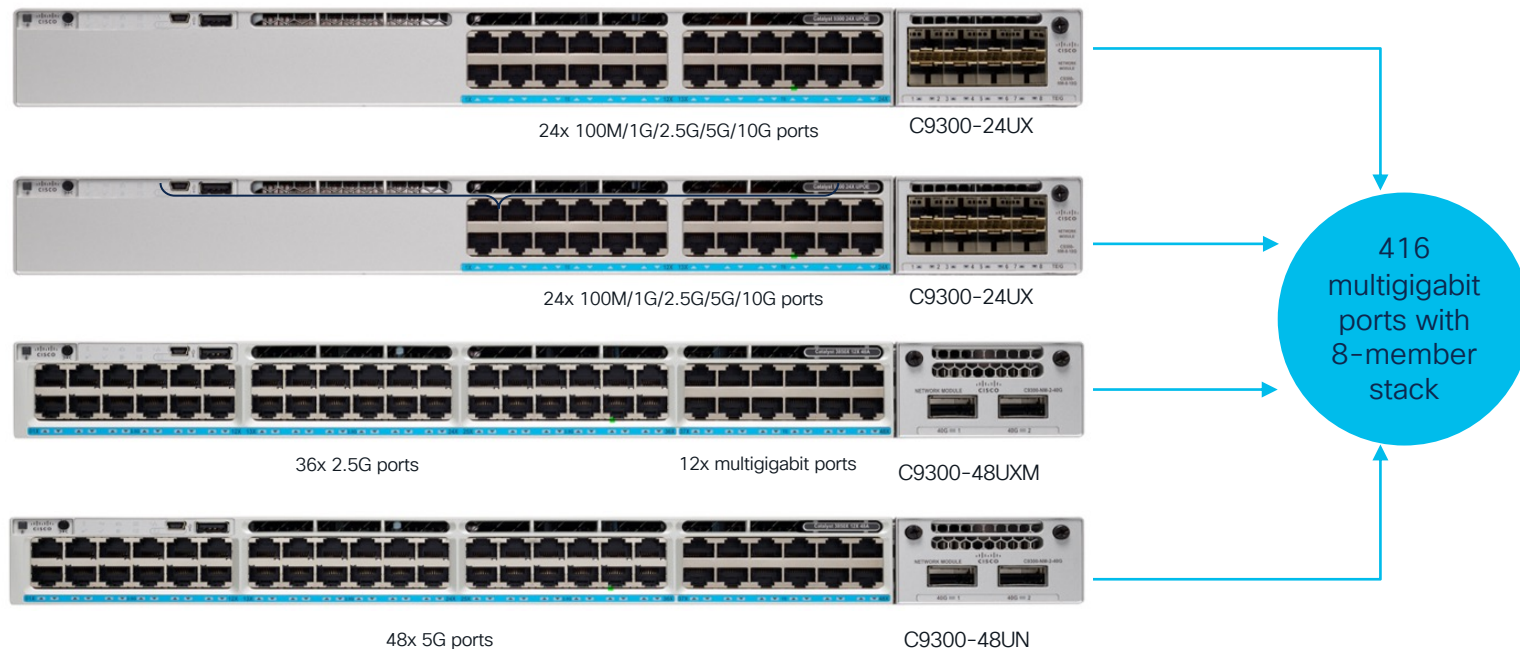
60 W UPoE density

Power your smart space needs with UPOE and IEEE 802.3bt support.

Improved physical stacking

Up to 480 Gbps to provide more throughput for Wi-Fi 6 and IoT and higher network resilience.

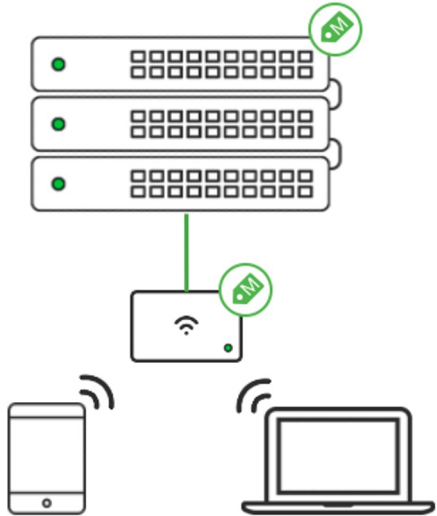
Catalyst 9300-M multigigabit Series with UPOE



Highest 2.5G and multigigabit density in the industry

Easy Segmentation with Meraki Switching

Adaptive Policy



Please note: Adaptive Policy feature is available with Advanced licenses.

Group Policy ACLs

UI Screenshot of Meraki Group Policy ACL configuration for 'IoT_Restricted'.

Name: IoT_Restricted

Schedule: Scheduled disabled

Bandwidth: Use network default (unrestricted)

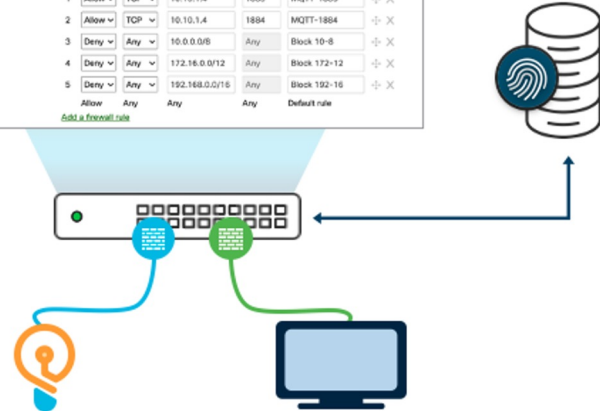
Hostname visibility: Use network default

Firewall and traffic shaping: Custom network firewall & shaping rules

Layer 3 firewall:

#	Policy	Protocol	Destination	Port	Comment	Actions
1	Allow	TCP	10.10.1.4	1883	MQTT-1883	⬅ ➡ ✕
2	Allow	TCP	10.10.1.4	1884	MQTT-1884	⬅ ➡ ✕
3	Deny	Any	10.0.0.0/8	Any	Block 10-8	⬅ ➡ ✕
4	Deny	Any	172.16.0.0/12	Any	Block 172-12	⬅ ➡ ✕
5	Deny	Any	192.168.0.0/16	Any	Block 192-16	⬅ ➡ ✕
	Allow	Any	Any	Any	Default rule	

[Add a firewall rule](#)



Healthcare

Elevated, secure experiences

- Safeguard network access and protect data with intent-based security and micro-segmentation across Meraki firewalls, access points, and switches with Adaptive Policy
- Gain resilience with Catalyst StackPower
- Simplify operational complexity, streamline remote firmware updates, and troubleshoot faster without dedicated on-site IT staff

Catalyst 9300-M

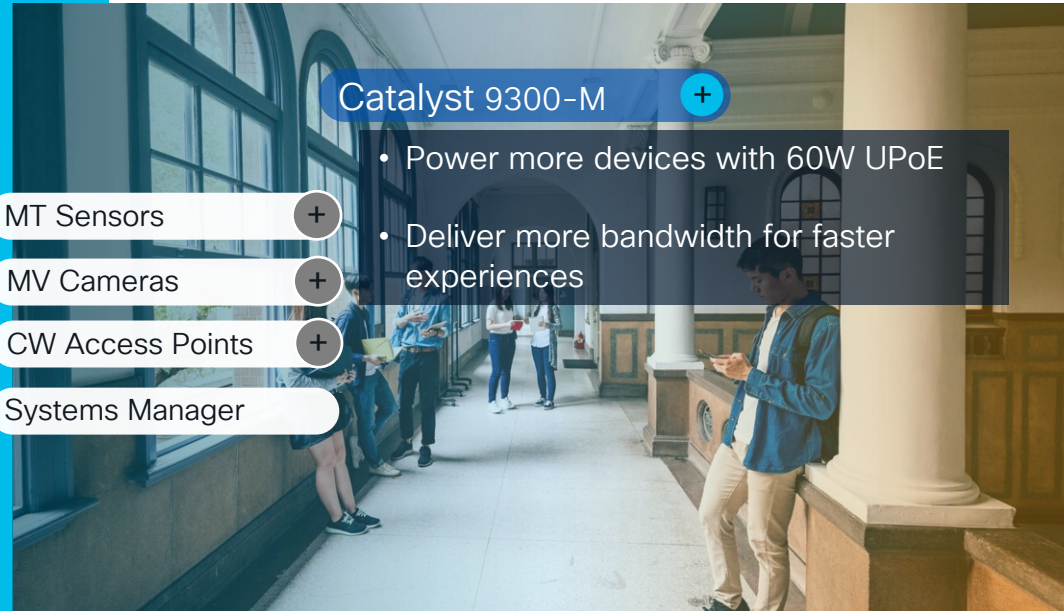


- Provide uninterrupted and secured access to business critical applications and protect data to power elevated and patient experiences
- Higher resilience with Cisco StackPower Redundant
- Keep networks secure with endpoint visibility and pro manage across sites

Education

Immersive, safe experiences

- Safeguard network access with intent-based security and micro-segmentation with Adaptive Policy
- Provide highly engaging learning experiences while ensuring network and physical safety for students and faculty
- Simplify operational complexity, get faster troubleshooting, find anomalies, and contain ransomware faster with deeper visibility and control



Enterprise Campus

Resilient Experiences

- Safeguard network access with intent-based security with Adaptive Policy
- Gain resilience with Catalyst StackPower
- Streamline IT operations by managing all Meraki products across all locations in one centralized cloud dashboard or extensive APIs

- MX Appliance +
- MT Sensors +
- MV Cameras +
- CW Access Points +
- Systems Manager

Catalyst 9300-M

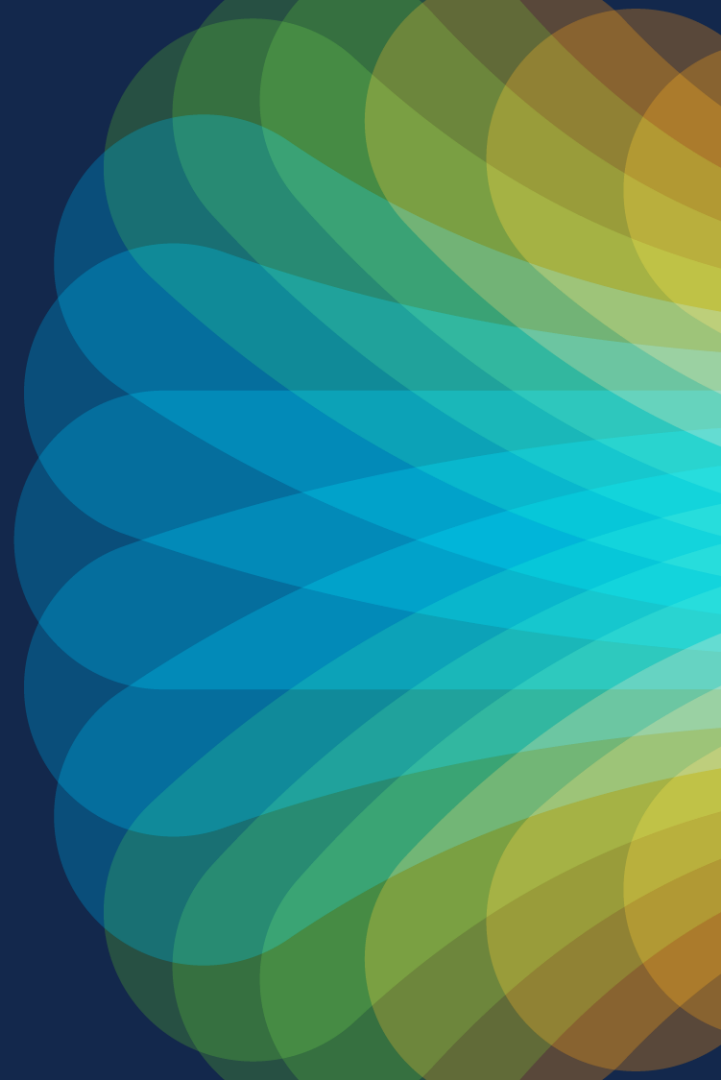


Uninterrupted and secured access to business-critical applications and networks
High-performing switches delivering high bandwidth and power for Wi-Fi 6/6E access points

More to come!

Power more possibilities

with the newest additions to the Meraki switching portfolio



Introducing MS130 NEW

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

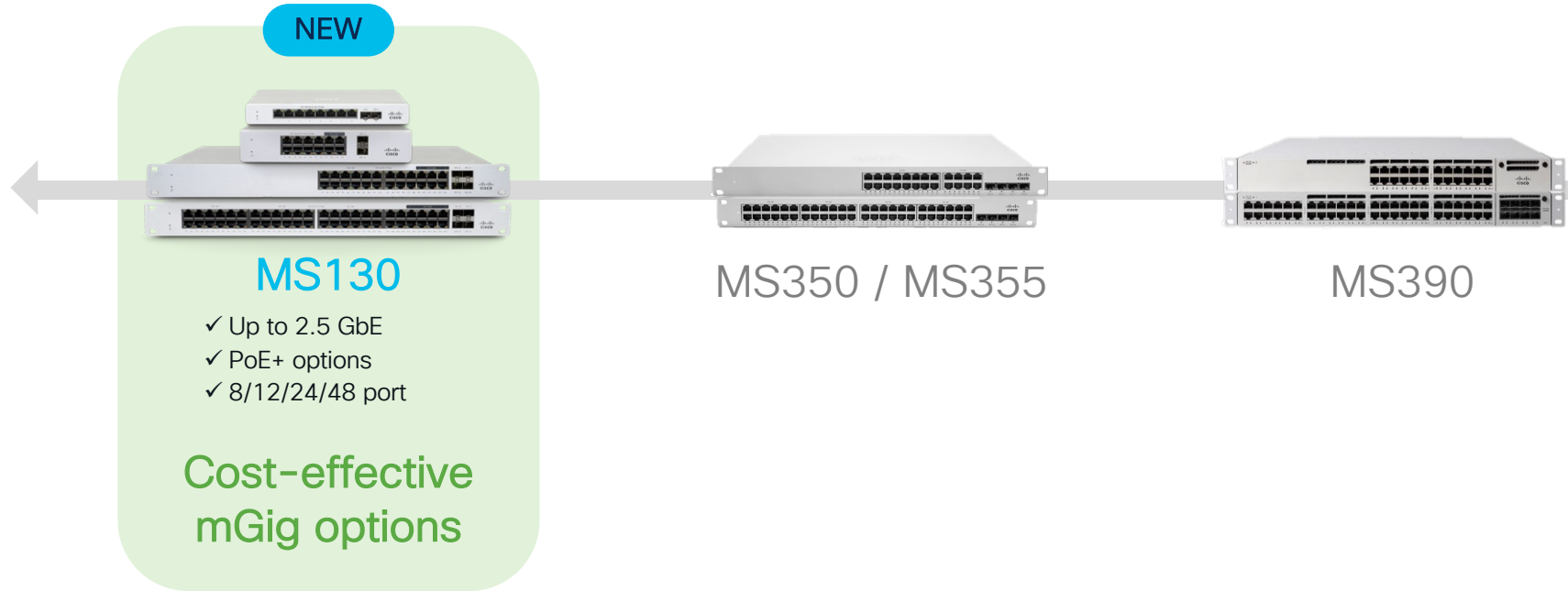


Connect all your devices with **PoE+** options



Manage it all in one **unified dashboard**

Expanding mGig into the L2 access portfolio



MS130 Compact

Bring the network and PoE to the distributed Edge

MS130-8
1 GbE speeds



MS130-8X
6x 1 GbE + 2x 2.5 GbE w/
PoE+



MS130-8P
1 GbE speeds w/ PoE+



MS130-12X
8x 1 GbE + 4x 2.5 GbE w/ PoE+



A new addition to the family

MS130-8X



Not enough?
8 ports
(6x 1 GbE + 2x 2.5 GbE)

NEW

MS130-12X



Just right!
12 ports
(8x 1 GbE + 4x 2.5 GbE)

MS130-24X



More than enough?
24 ports
(18x 1 GbE + 6x 2.5 GbE)

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.

Office space

Flexible Throughput

MS130-8X Switch

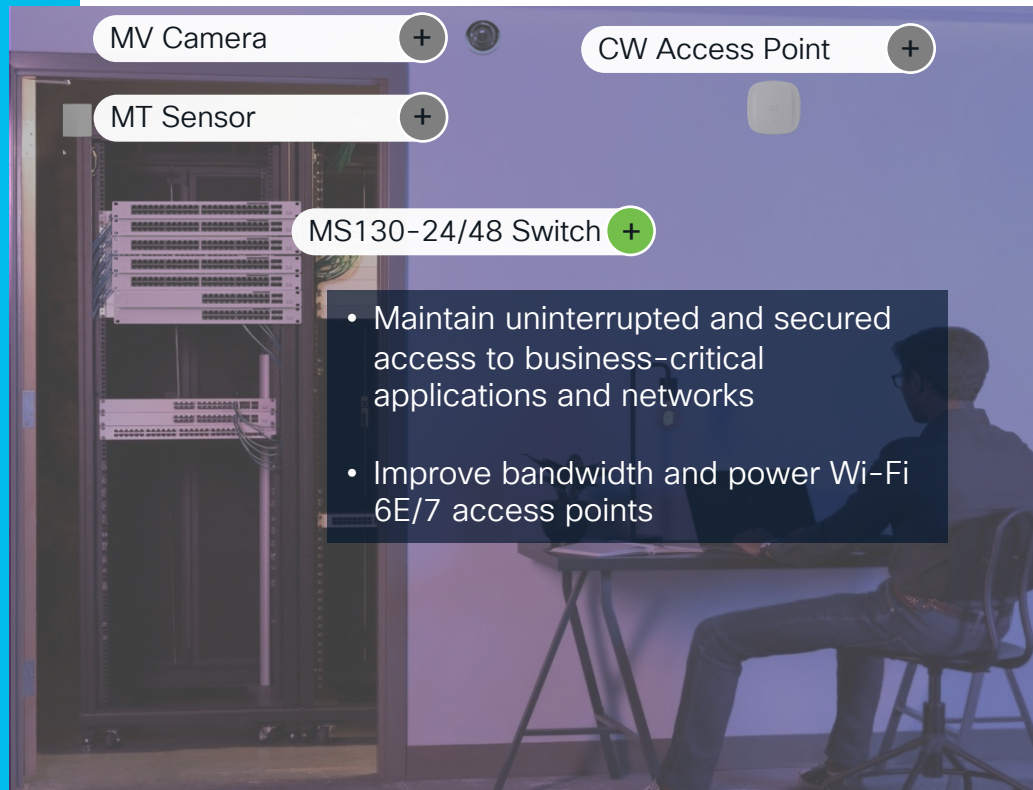
CW Access Point

MV Camera

Connect and power collaboration tools (video conference, smart whiteboards, etc.), digital signature, access security, and teleworking

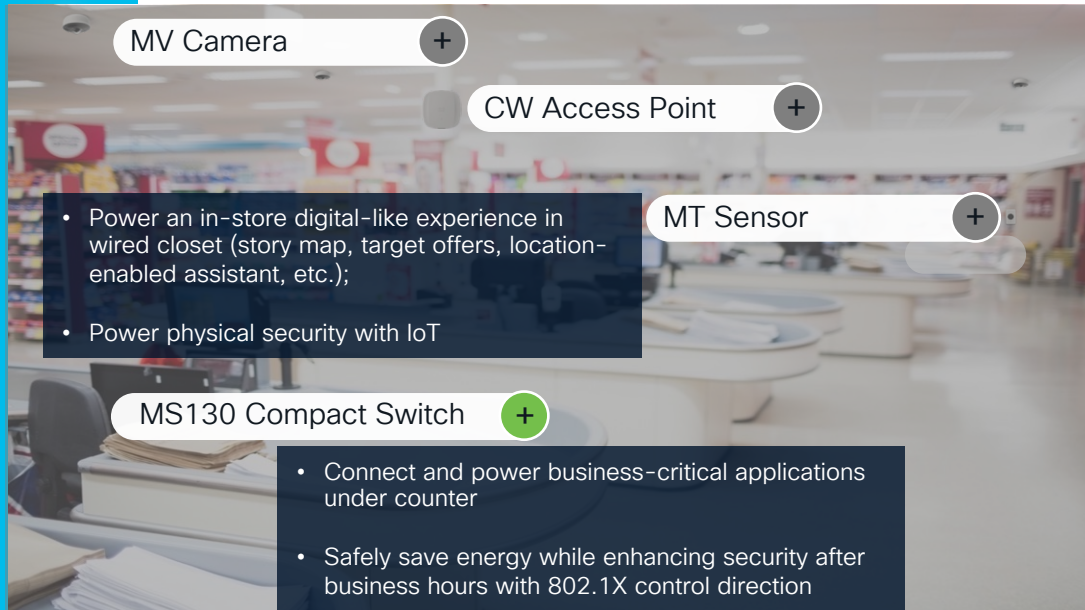
Network closet

High Density Connectivity



Retail

Compact Access



But what if your
space is rougher
around the
edges?





Customers have
been using MS

Drive-thru

Outdoor
Kiosks

Parking Lots

Recreation

Regardless of what the
data sheet says

Dirty spaces

Storage

Remote
Areas

Endless
more...

Say hello to the first Meraki cloud-managed ruggedized switch



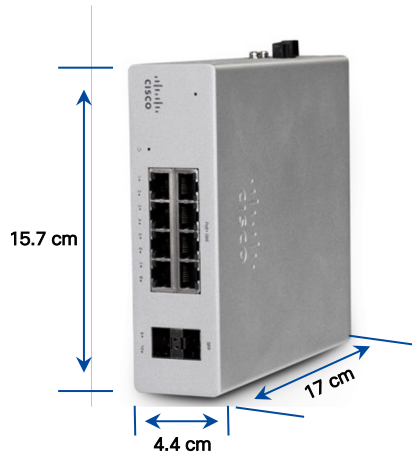
As low as
-40°C

Up to
70°C

Extend the network with MS130R

Now Available

Perfect for connecting outdoor access points, cameras, and other IoT devices in hot/cold/tight environments



Connectivity and power wherever you need it

Power more use cases with 30 W PoE+, IP30 protection, and support from -40°C to 70°C .
(-40°F to 158°F)



Flexible mounting and power options

Mount via DIN rail, rack, or wall mount with multiple external power supply options.



One dashboard, any environment

Bring the powerful Meraki cloud-native platform to challenging environments.



Drive-thru
menu boards



Parking
lots



Outdoor access points
and cameras



Hospitality and
entertainment



Outdoor
kiosks



Non-temperature
-controlled spaces



Pop-up
locations



Toll
booths

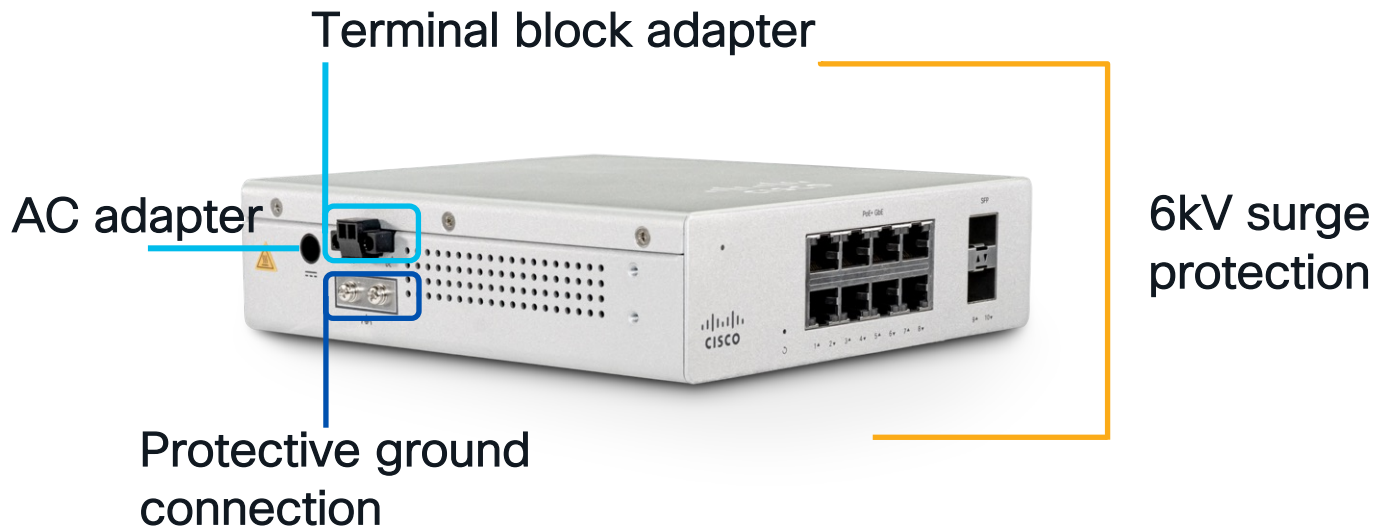
Future release: MS130 mGig (-X) models and MS130R are hardware-ready for the Adaptive Policy feature with a future firmware upgrade and advanced license.

CISCO *Live!*

Designed for adapting to non-traditional environments



DIN rail mounting



Flexible Deployment Options

Mounting options



DIN rail



Wall mount



Rack mount

Mounting brackets included in the box

Power supply options



Meraki AC adapter
MA-PWR-300W-INDADP

Also compatible with Cisco's IE DIN rail power supplies

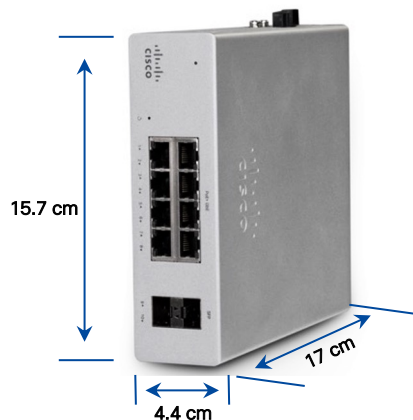


PWR-IE240W-PCAC-L



PWR-IE480W-PCAC-L

MS130R Specifications



Dimensions	4.4 cm x 15.7 cm x 17 cm (1.75 in x 6.18 in x 6.69 in)
Interface and uplinks	8x 1 GbE RJ45 and 2x 10 GbE SFP+
PoE+ Budget	Up to 240 W
Power Input	54 V, 2.78 A
Power Supply	External AC adapter or DIN rail power supply options
Operating Temperature	As low as -40 °C up to 70 °C (-40 °F - 158 °F)
Weight	2.12 lbs (0.96 kg)
Supported Cisco ruggedized SFPs	<ul style="list-style-type: none"> • GLC-SX-MM-RGD • GLC-LX-SM-RGD • GLC-ZX-SM-RGD • GLC-T-RGD

	Installation environments			
	Fan/blower equipped enclosure	Vented enclosure	Sealed enclosure	Desktop
Ventilation	200 LFM	40 LFM	0 LFM	40 LFM
Operating Temperature limits	-40 °C to 70 °C -40 °F to 158 °F	-40 °C to 65 °C -40 °F to 149 °F	-40 °C to 60 °C -40 °F to 140 °F	Vertical -40 °C to 60 °C Horizontal -40 °C to 55 °C

Where does MS130R fit?

It is

An extension of MS130 for hot/cold/tight spaces with PoE+ across 8 GE ports

IP30 rated to protect against tools and wires (>2.5 mm)

Capable of operating in extended temperature ranges of 40 °C to 70 °C (-40 °F to 158 °F)

Part of the powerful Meraki cloud-managed dashboard and full stack solutions that continue to be our strongest value proposition

It is not

An industrial switch with industrial application protocol support or integrations

IP67 rated or waterproof

A switch with digital inputs/outputs, redundant power inputs, or alarm relays

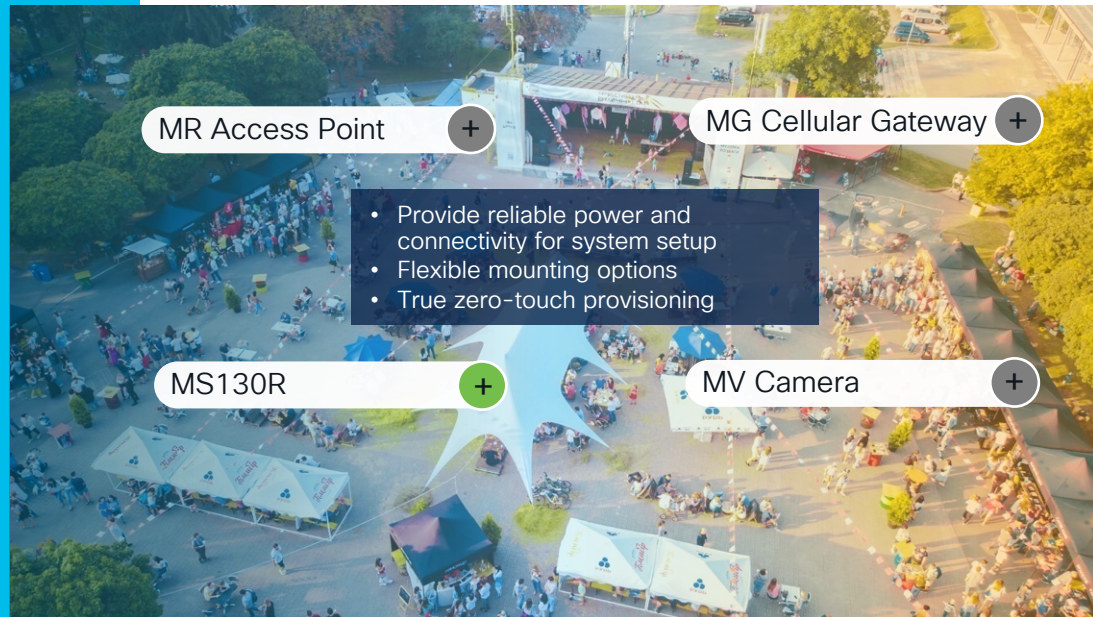
Equivalent to the Cisco IE switching portfolio

MS130R use cases



Pop-up
locations

Short-term networks



Drive-thru

Outdoor
Kiosks

Parking Lots

Recreation

Hot, Cold, & Tight Spaces

Dirty spaces

Storage

Remote
Areas

Endless
more...

MG Cellular Gateway +

MR Access Point +

MV Camera +

MS130R +

- Provide power and connectivity to the menu board system setup
- Leverage port profiles to streamline configuration management

MS130R +

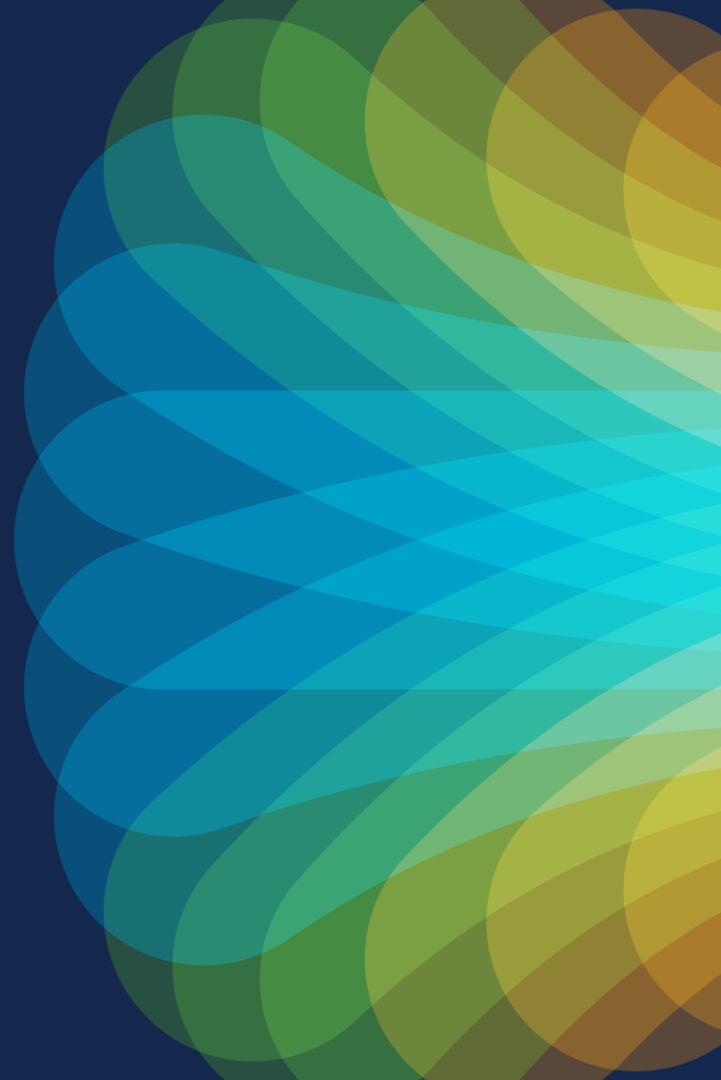
MR Access Point +

MV Camera +

- Provide reliable power and connectivity for remote areas

- Provide reliable power and connectivity beyond traditional cable limit
- Compact and durable

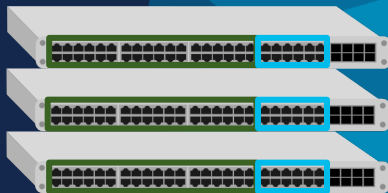
Q&A



Check out MS130R
our first ruggedized switch!



Get Ready for Port Profile
Automations



Try out Topology 2.0



Did you know?

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one-on-one session with
a technical expert!

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



Meet the Expert Opening Hours:

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

Session Surveys

We would love to know your feedback on this session!

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



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the community



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challenges



Receive
rewards

Continue your education



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- Book your one-on-one Meet the Expert meeting
- Attend the interactive education with DevNet, Capture the Flag, and Walk-in Labs
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The bridge to possible

Thank you

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#CiscoLiveAPJC

The background is a vibrant, abstract graphic featuring a rainbow color palette. On the left, there are horizontal, wavy bands of color transitioning from red at the top to blue at the bottom. On the right, a bright white light source emits a series of sharp, radiating lines in various shades of blue, green, and yellow, creating a sunburst or starburst effect.

cisco *Live!*

Let's go

#CiscoLiveAPJC