Cisco Cloud Networking

...aneb Enterprise Networking spravovaný z cloud dashboardu

Stanislav Kraus
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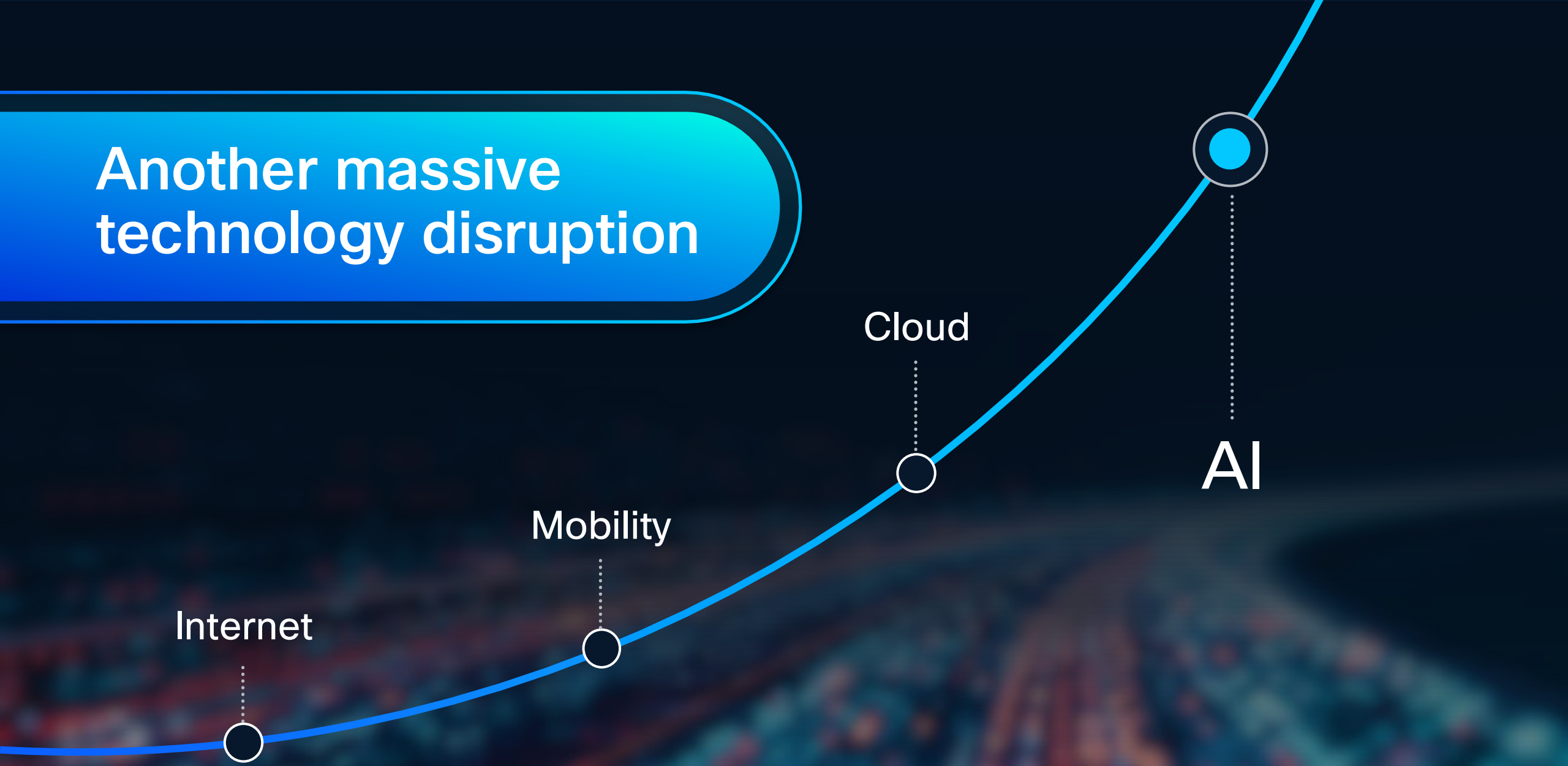
3.2.2026

Another massive technology disruption

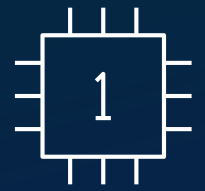


Architecture for the AI-Ready Secure Network

Operational simplicity
powered by AI

Security
fused into the network

Scalable devices
ready for AI



cisco

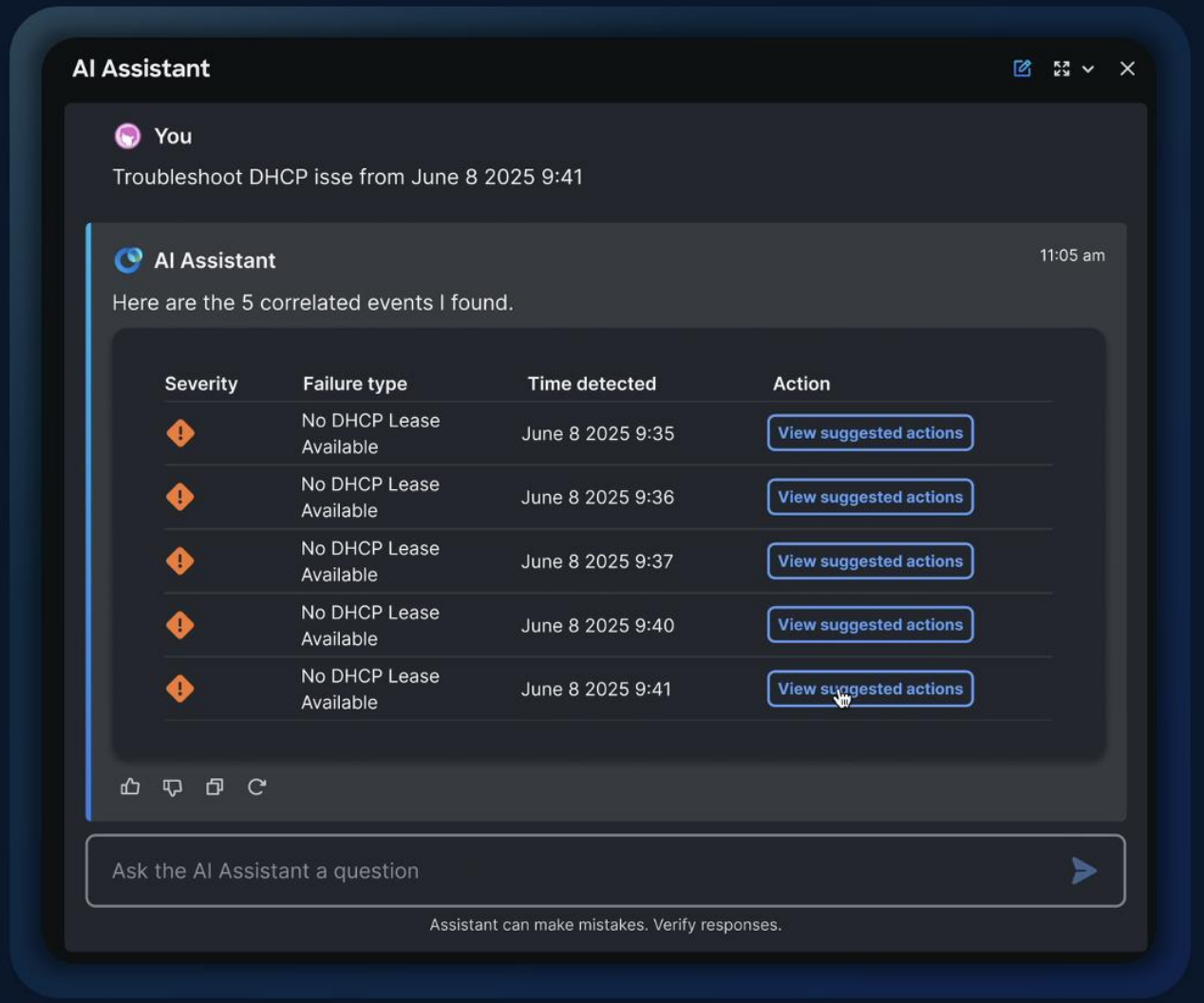
Simplifying operations by Unifying our platforms

Catalyst		Meraki
Catalyst Center	MANAGEMENT	**Meraki Dashboard**
Catalyst License	LICENSE	**Meraki License**
Catalyst Hardware	CISCO HARDWARE	**Meraki Hardware**

AI Assistant

Rapid troubleshooting and RCA

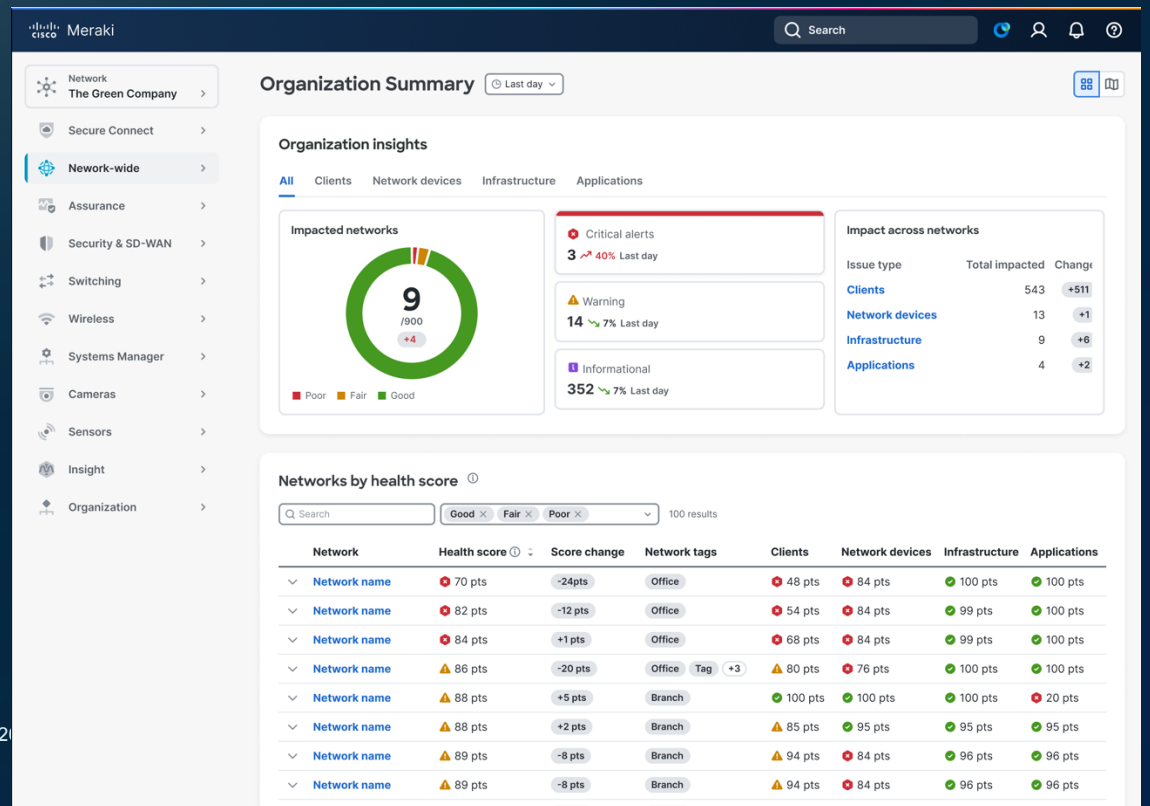
- Finds root cause—not just the alert
- Provides full stack visibility
- Pinpoints the issue and guides the fix

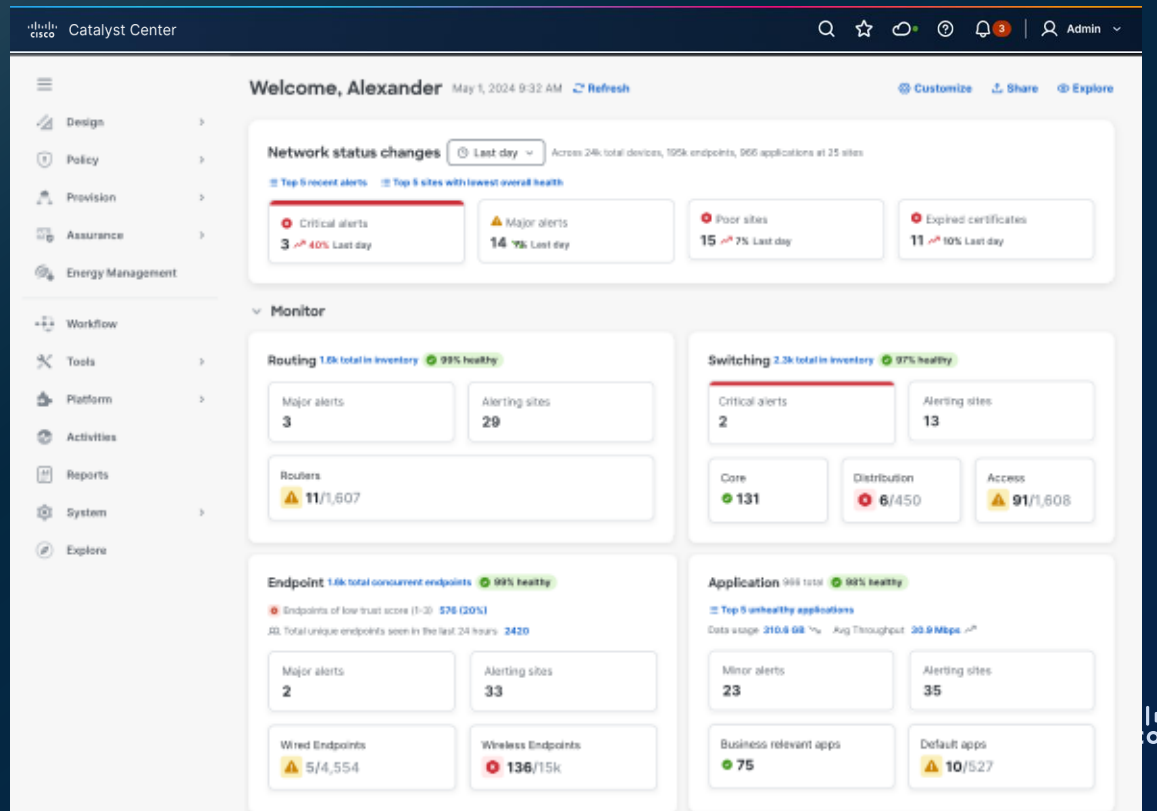


Common experience: Meraki & Catalyst Center

AVAILABLE NOW

Bringing together the power of **Catalyst** and simplicity of **Meraki**

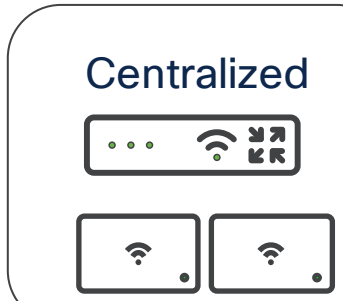
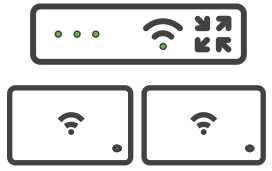
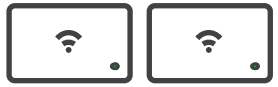
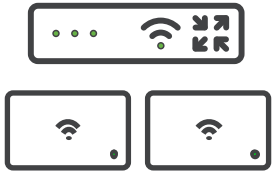
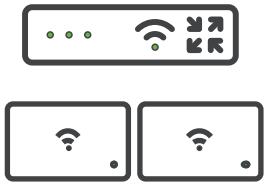
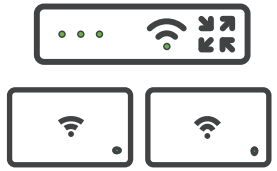
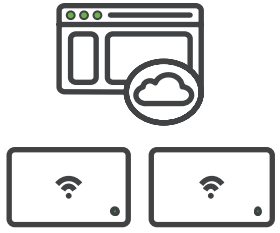




Wireless

Deliver simplified outcomes to all customers

Architecture	Customer Managed	Hybrid Monitor	Cloud Management
Centralized	Local Mode	Cloud Connected Controller	Campus Gateway
Distributed	FlexConnect		Traditional Meraki

Cloud Monitoring Wireless Controller Portfolio

WLC Requirements

Connecting WLC to Dashboard

Adding WLC & AP to Dashboard

CW9800H1 / CW9800H2
6,000 APs, 64,000 clients

C9800-80
6,000 APs, 64,000 clients
(EoS Dec 31, 2025)

CW9800M
3,000 APs, 32,000 clients

CW9800L
500 APs, 10,000 clients

C9800-40
2,000 APs, 32,000 clients
(EoS Dec 31, 2025)

C9800-L
250 APs, 5,000 clients

C9800-CL
1,000 APs, 10,000 clients

C9800-CL
1K, 3K, or 6K APs
10K, 32K or 64K clients

Up to 200 APs | Up to 500 APs | Up to 1000 APs | Up to 3000 APs | Up to 6000 APs

Distributed branch and small campus | Medium campus | Large campus

Scales up to
5,000 APs
and 50,000 clients

Easy migration for
existing LAN
controller
architectures

No need to
re-cable, change
VLANs, or disrupt
operations

Introducing

The New Campus Gateway

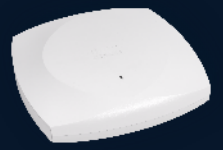
Cisco Campus Gateway

Cloud Managed/Monitored Wi-Fi 7 Access Points

CW9172H

6 Spatial Streams

Dorm Rooms, Hospitality



CW9174E

8/10 Spatial Streams

External antennas

NEW!

CW9176D1

12 Spatial Streams

Integrated Directional

UWB

CW9179F

16 Spatial Streams

LPV/Stadium

CW9171I

4 Spatial Streams

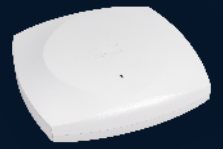
Omnidirectional

NEW!

CW9172I

6 Spatial Streams

Omnidirectional

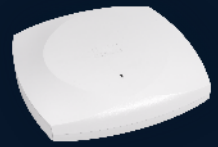


CW9174I

8/10 Spatial Streams

Omnidirectional

NEW!

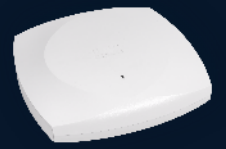


CW9176I

12 Spatial Streams

Omnidirectional

UWB



CW9178I

16 Spatial Streams

Omnidirectional

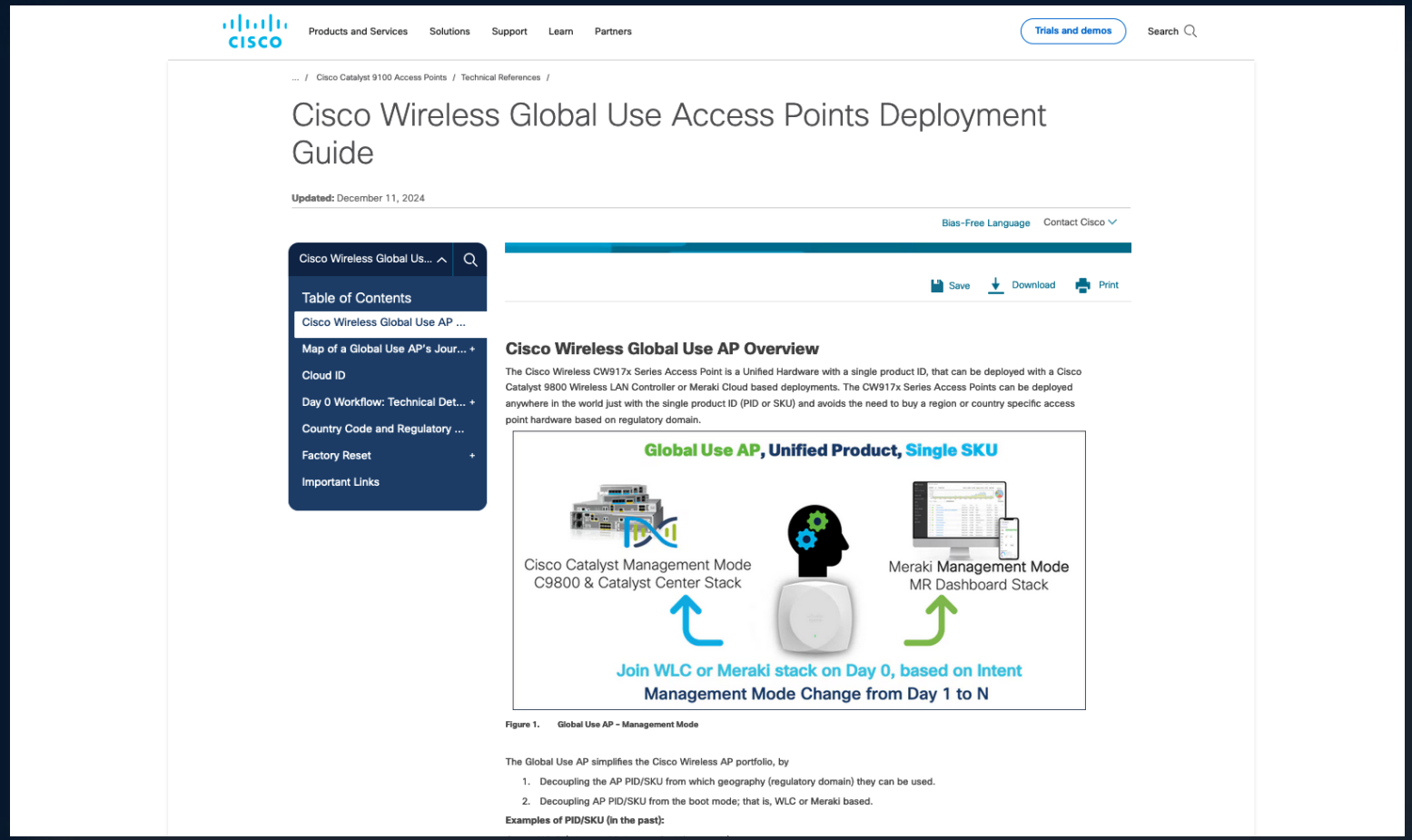
UWB

Wi-Fi 7 | Global Use AP | Unified License | AI Optimized

GUAP – Global Use AP Deployment Guide

Reference

- Link: global-use-ap-dg.html



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Cisco Wireless Global Use Access Points Deployment Guide

Updated: December 11, 2024

Bias-Free Language Contact Cisco

Save Download Print

Table of Contents

- Cisco Wireless Global Use AP ...
- Map of a Global Use AP's Jour... +
- Cloud ID
- Day 0 Workflow: Technical Det... +
- Country Code and Regulatory ...
- Factory Reset +
- Important Links

Cisco Wireless Global Use AP Overview

The Cisco Wireless CW917x Series Access Point is a Unified Hardware with a single product ID, that can be deployed with a Cisco Catalyst 9800 Wireless LAN Controller or Meraki Cloud based deployments. The CW917x Series Access Points can be deployed anywhere in the world just with the single product ID (PID or SKU) and avoids the need to buy a region or country specific access point hardware based on regulatory domain.

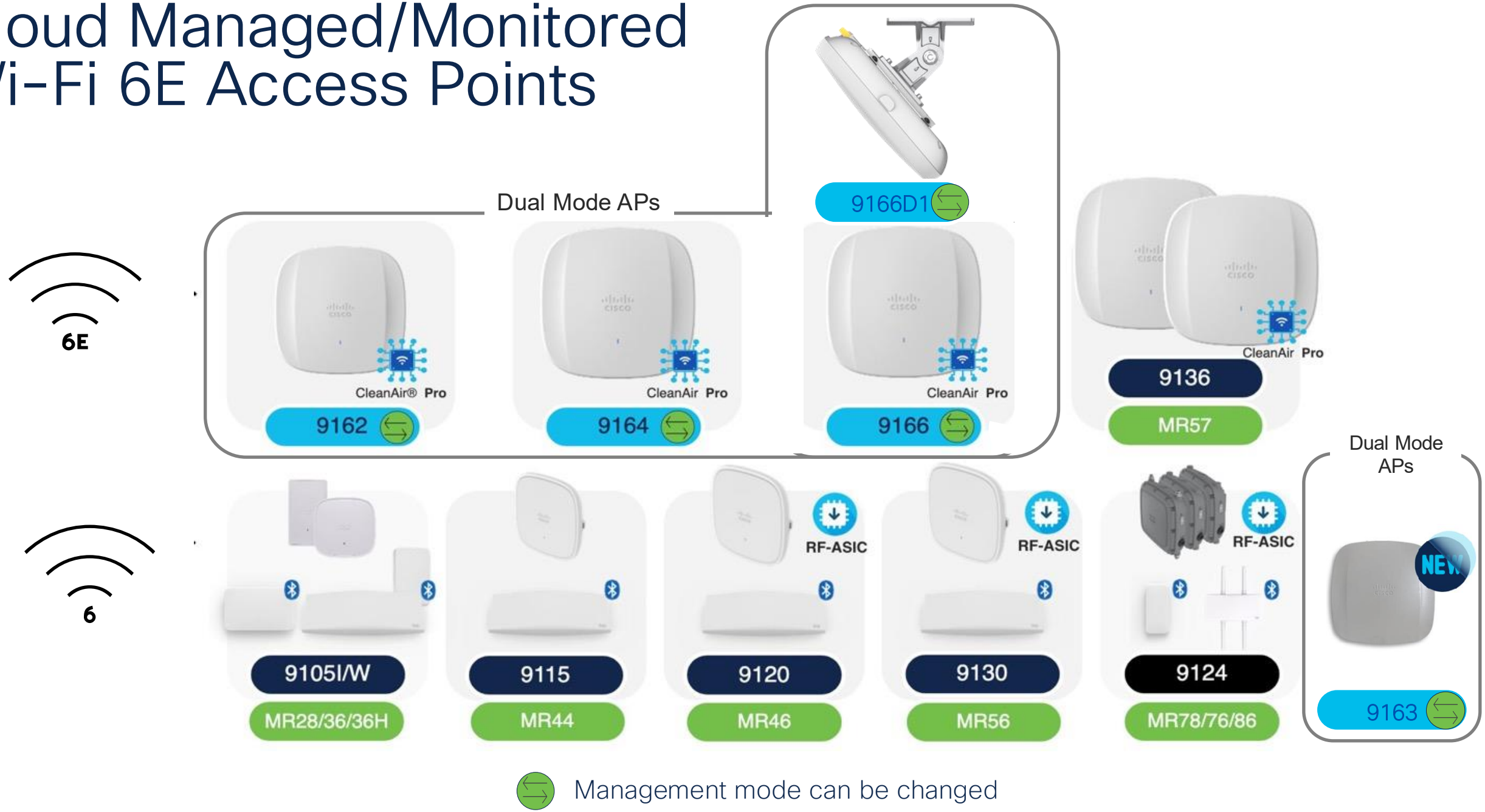
Figure 1. Global Use AP – Management Mode

The Global Use AP simplifies the Cisco Wireless AP portfolio, by

1. Decoupling the AP PID/SKU from which geography (regulatory domain) they can be used.
2. Decoupling AP PID/SKU from the boot mode; that is, WLC or Meraki based.

Examples of PID/SKU (in the past):

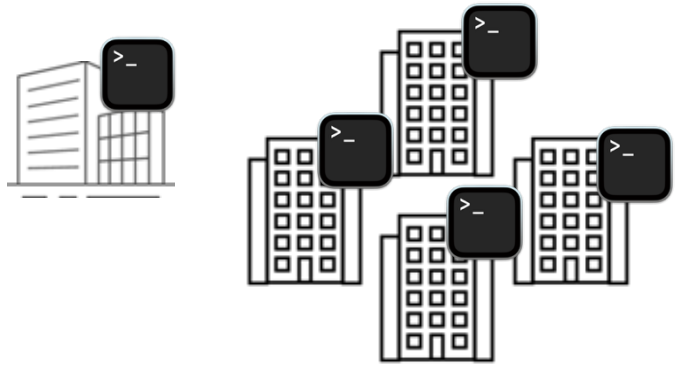
Cloud Managed/Monitored Wi-Fi 6E Access Points

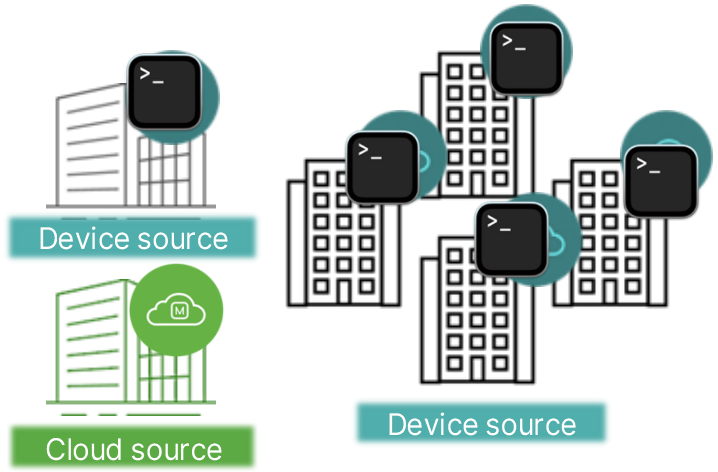


Switching

Cloud platform adoption option

Today → Tomorrow





No Platform CLI managed

Simplified Hybrid Network Operations

Cloud Managed

cisco Meraki

Cloud Management Evolution

Before XE 17.15 (CS Firmware)

Cloud Monitoring*

Cloud Management

Currently – After XE 17.15 (IOS XE)

Cloud Management with IOS XE

Device Configuration Mode

- *Evolution of cloud monitoring*
- *Retain **full access** to IOS XE feature set*
- ***Configure devices locally***

Cloud Configuration Mode

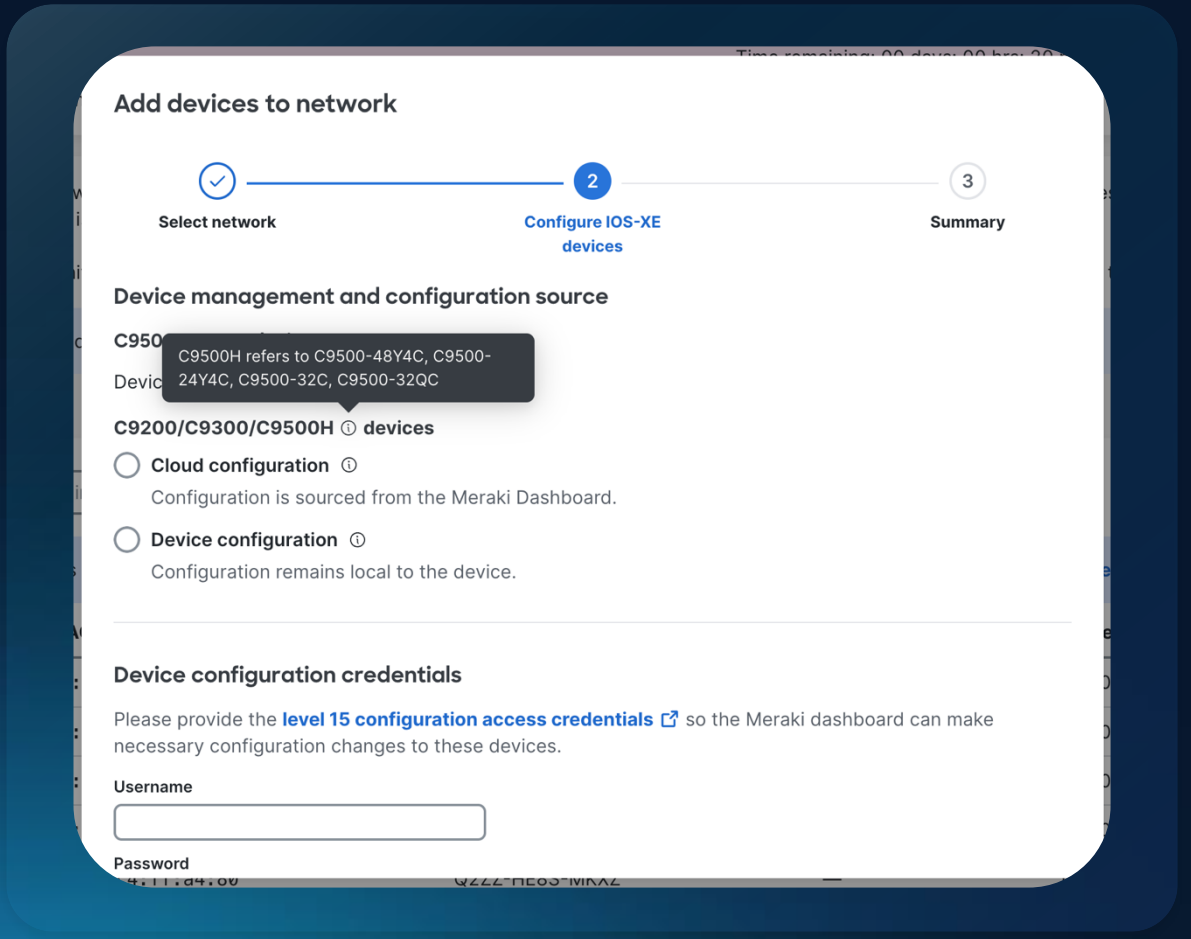
- *Evolution of cloud management*
- *Embrace **full-cloud simplicity** (MS-like)*
- ***Configuration** largely **driven by UI***

*** End-of-Life (March 2026) Announcement & migration**

Available Now

It starts with a streamlined onboarding process

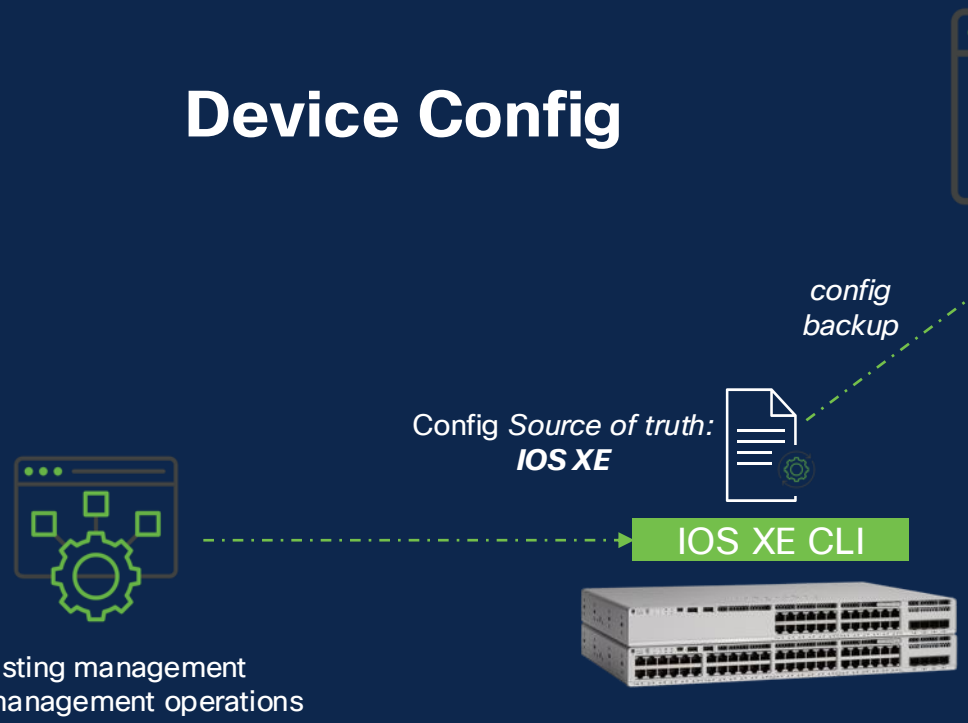
Users can quickly onboard new devices to the network, choose their configuration source, and get cloud managed without any additional applications.



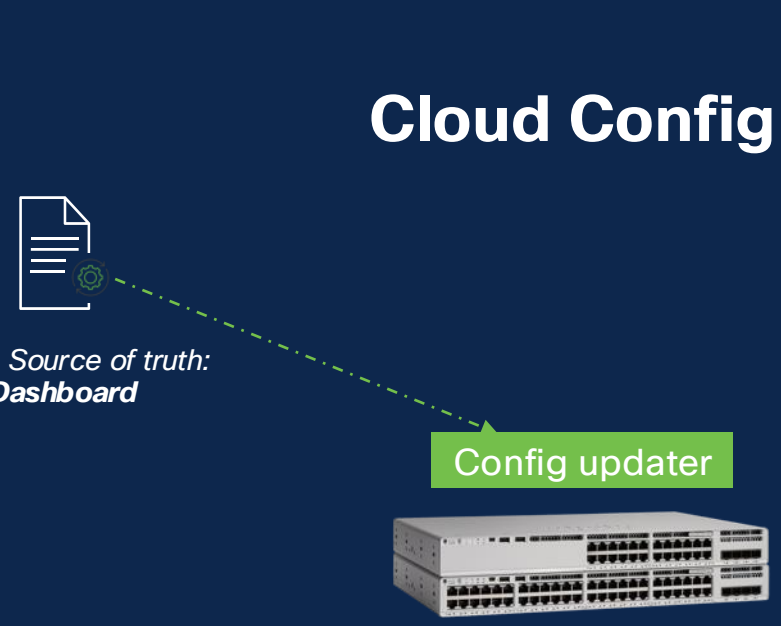
GA: IOS XE 17.15.4

Configuration Source

Device Config



Cloud Config



Adopt cloud-managed networking as you evolve your IT operations to cloud

Full cloud-managed for efficient and scalable cloud network operations

Cisco (cloud) switching access portfolio

Resilient campus

Critical branch

Simple branch

Catalyst 9350*

Catalyst 9300X-M

Catalyst 9300/-M

Catalyst 9300L/-M

Catalyst 9200L/-M

Catalyst® 9000 family

- Catalyst product experience with Cisco IOS® XE
- Cloud + CLI support
- Deep switching feature set

MS130

MS150

MS100 Series

- MS product experience with Meraki® OS
- Cloud only (no CLI)
- Basic switching features

*Single SKU – Unified Licensing model

MS130 and MS150

MS130(X)

Simple and secure
for **distributed sites**

2.5GbE

- 30W PoE+
- Up to 740W budget
- MS130X – Adaptive Policy

MS150

Cost-effective options
for Wi-Fi 7 and stacking

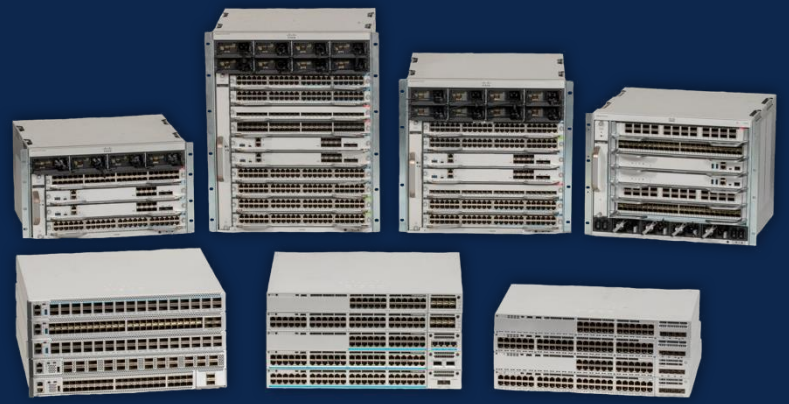
5GbE

- 60W PoE++
- Up to 740W budget
- Perp. PoE / Fast PoE
- Stacking 80 Gbps
- Static Routing
- Adaptive Policy

Cloud Only

Cloud-Managed Catalyst Switching

Intuitive and efficient
Scalable operations



Powerful and customizable
Advanced core networks

Same powerful hardware with flexible operations

IOS XE 17.15 | **IOS XE 17.18** | **Up next**


C9300L


C9300

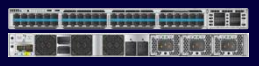

C9300X


C9200L


C9500

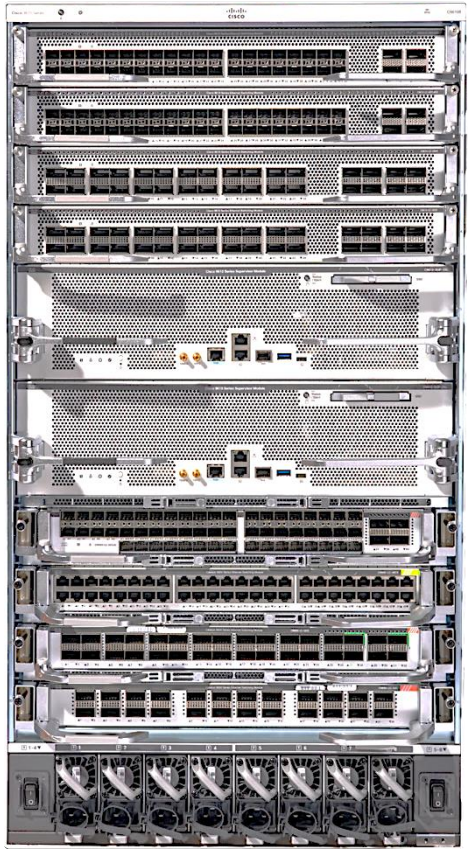

C9200/CX

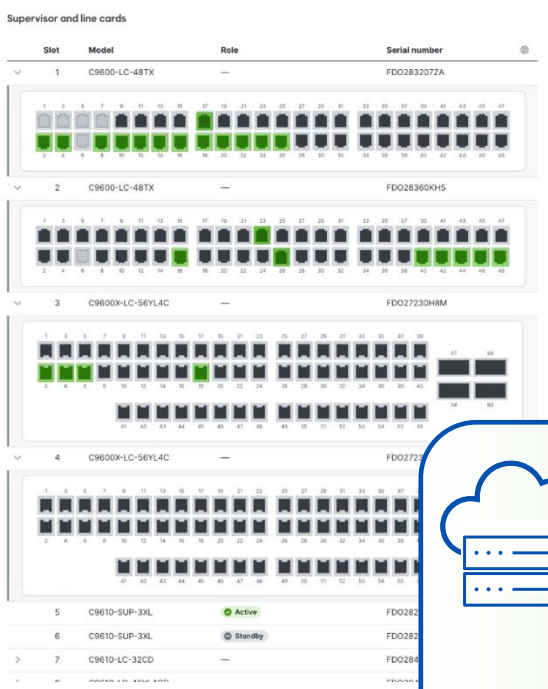

C9300LM

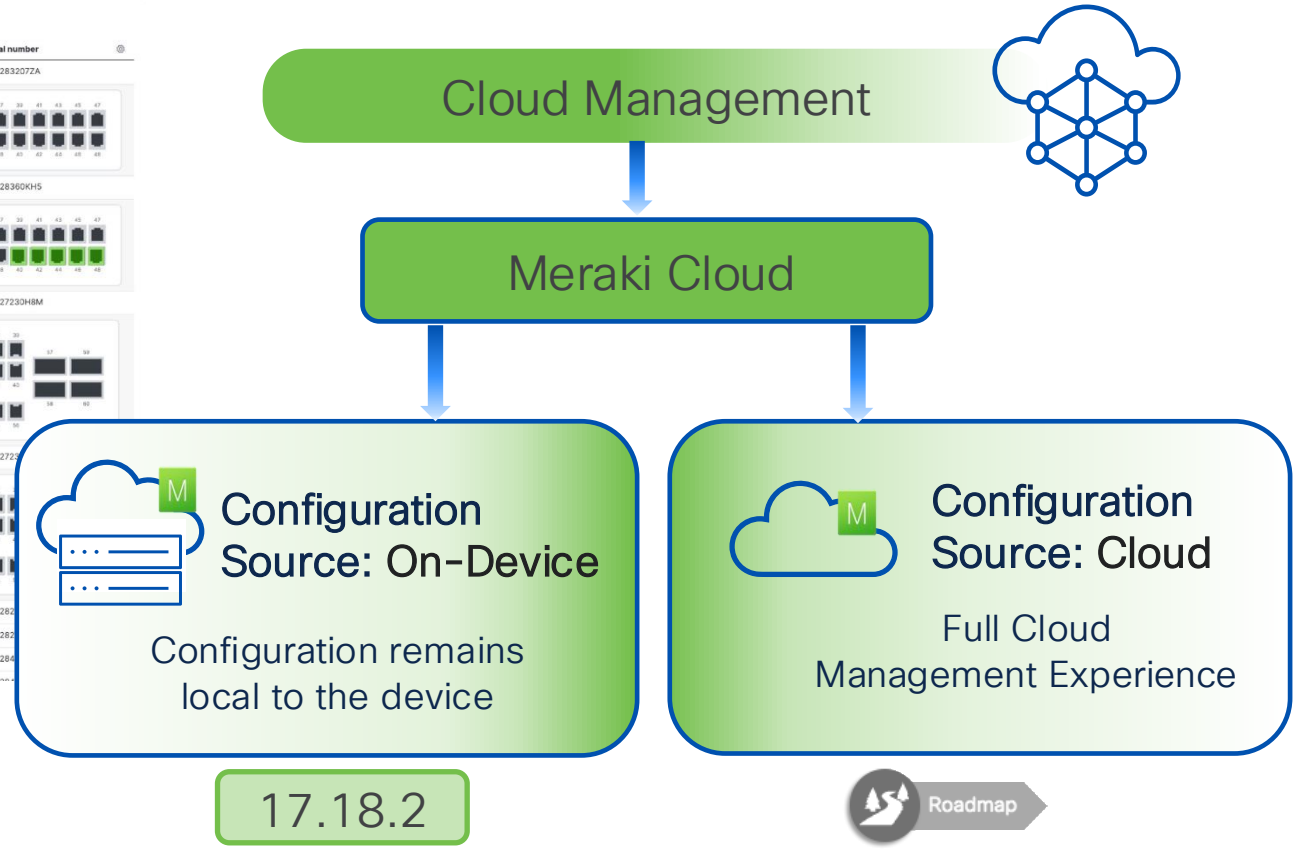

C9350


Modular*

Cisco's first cloud managed modular switch – C9610





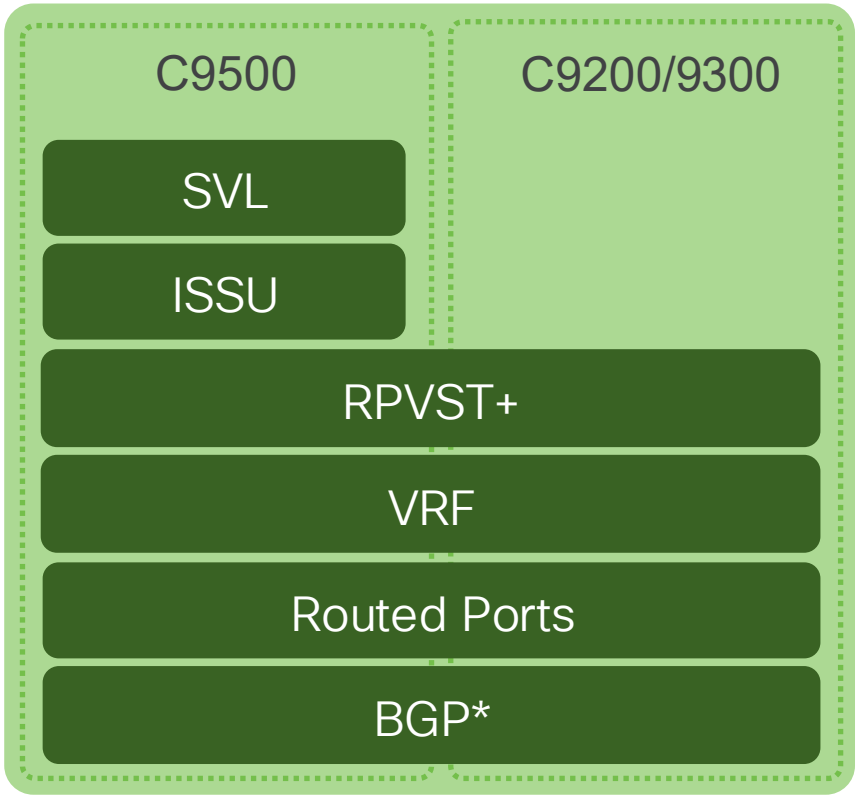


Cloud Managed Switch

New features enabled by IOS XE

Advanced Routing	
Routed Ports	Loop free Routed Access
VRF Lite	Scalable Macro Segmentation
BGP	Flexible open dynamic routing

High-Availability	
Rapid PVST+	Enhanced L2 loop Prevention
StackWise Virtual (SVL) ISSU	Sub-second downtime firmware upgrades



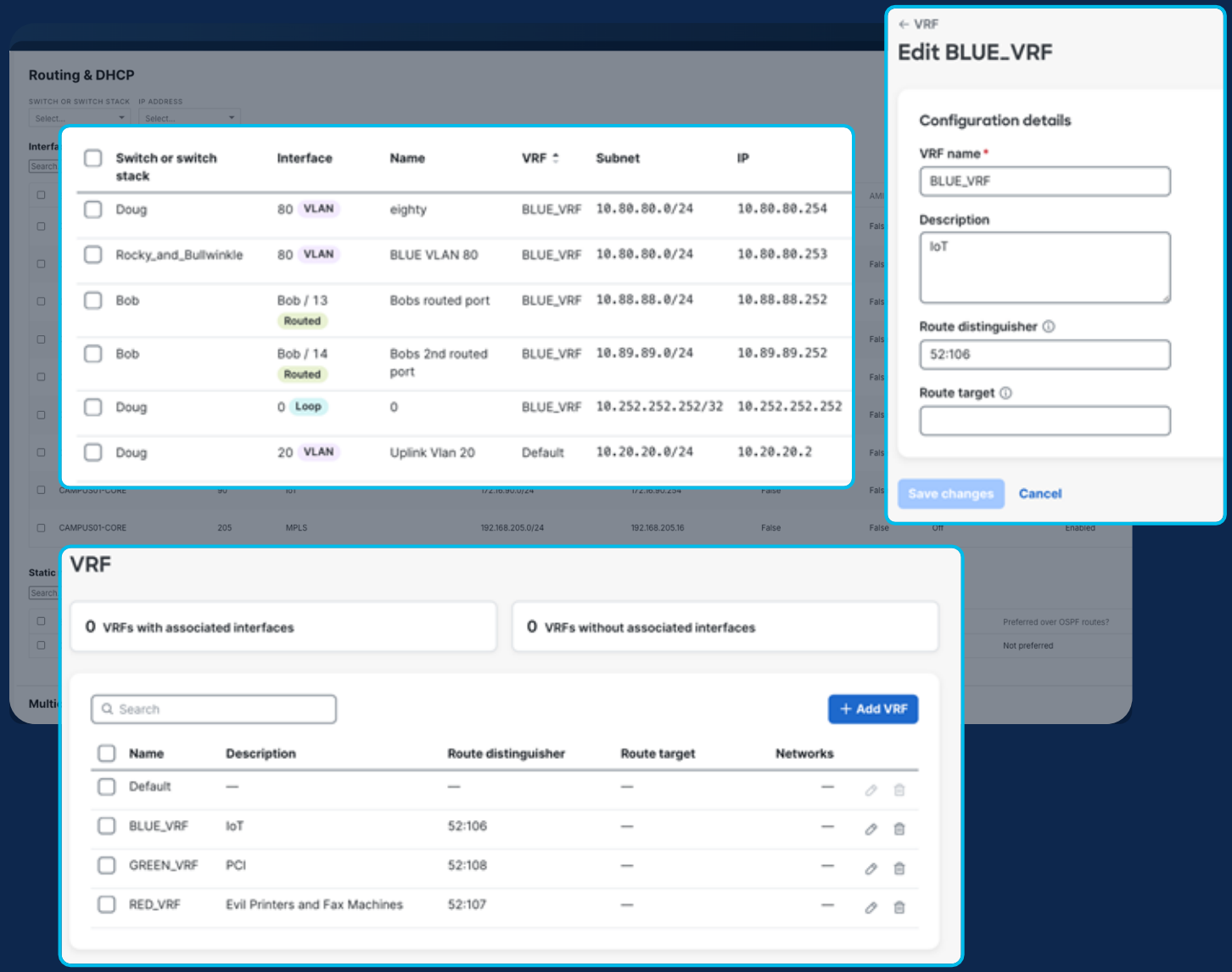
*BGP supports on C9200CX, MS390, C9300 and C9500

Introducing VRF deployment from the cloud

Easily create isolated routing domains without additional hardware

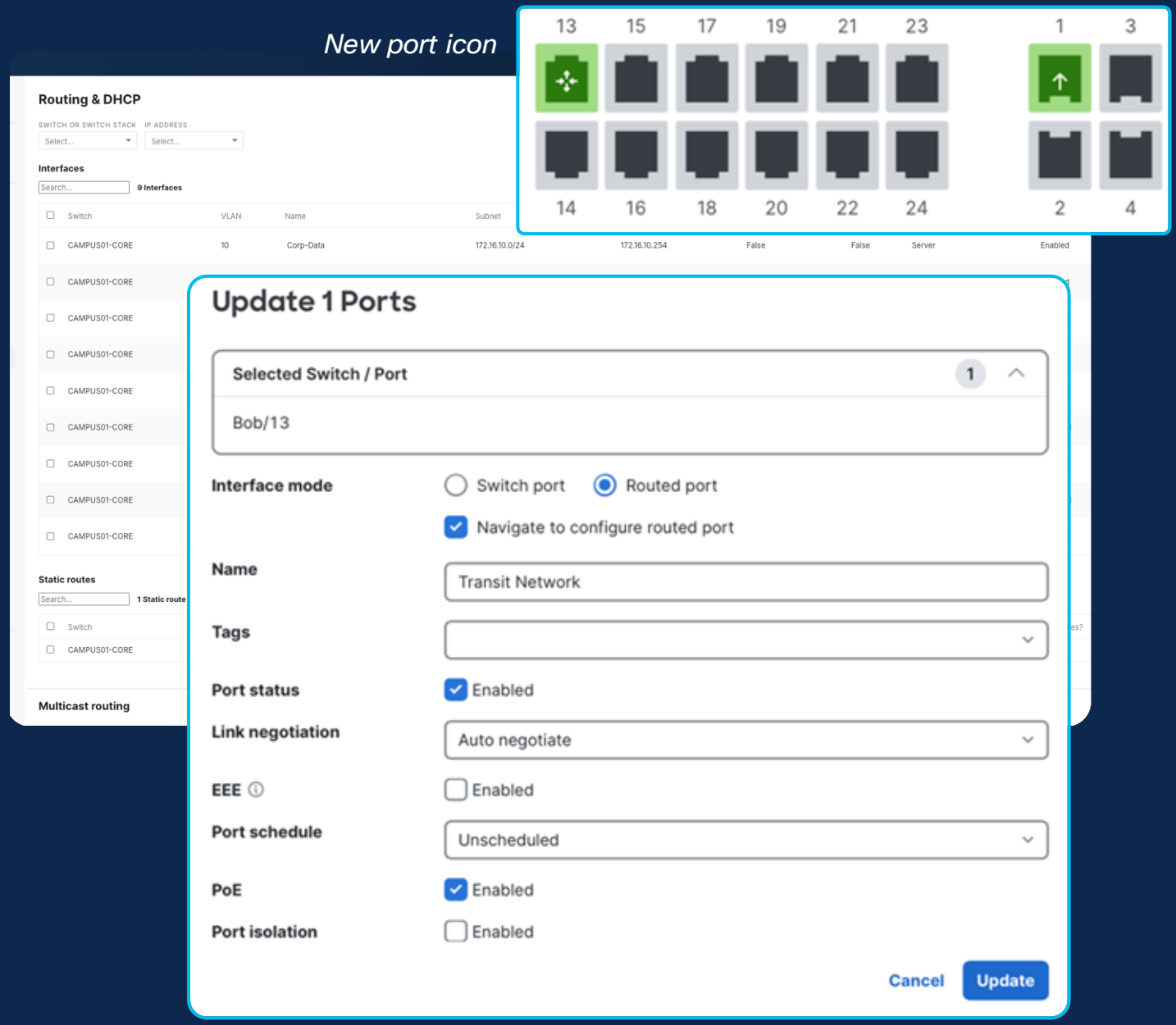
Strengthen security with scalable macro-segmentation, limiting lateral movement of threats

Simplify network management by eliminating the need for ACLs on every SVI



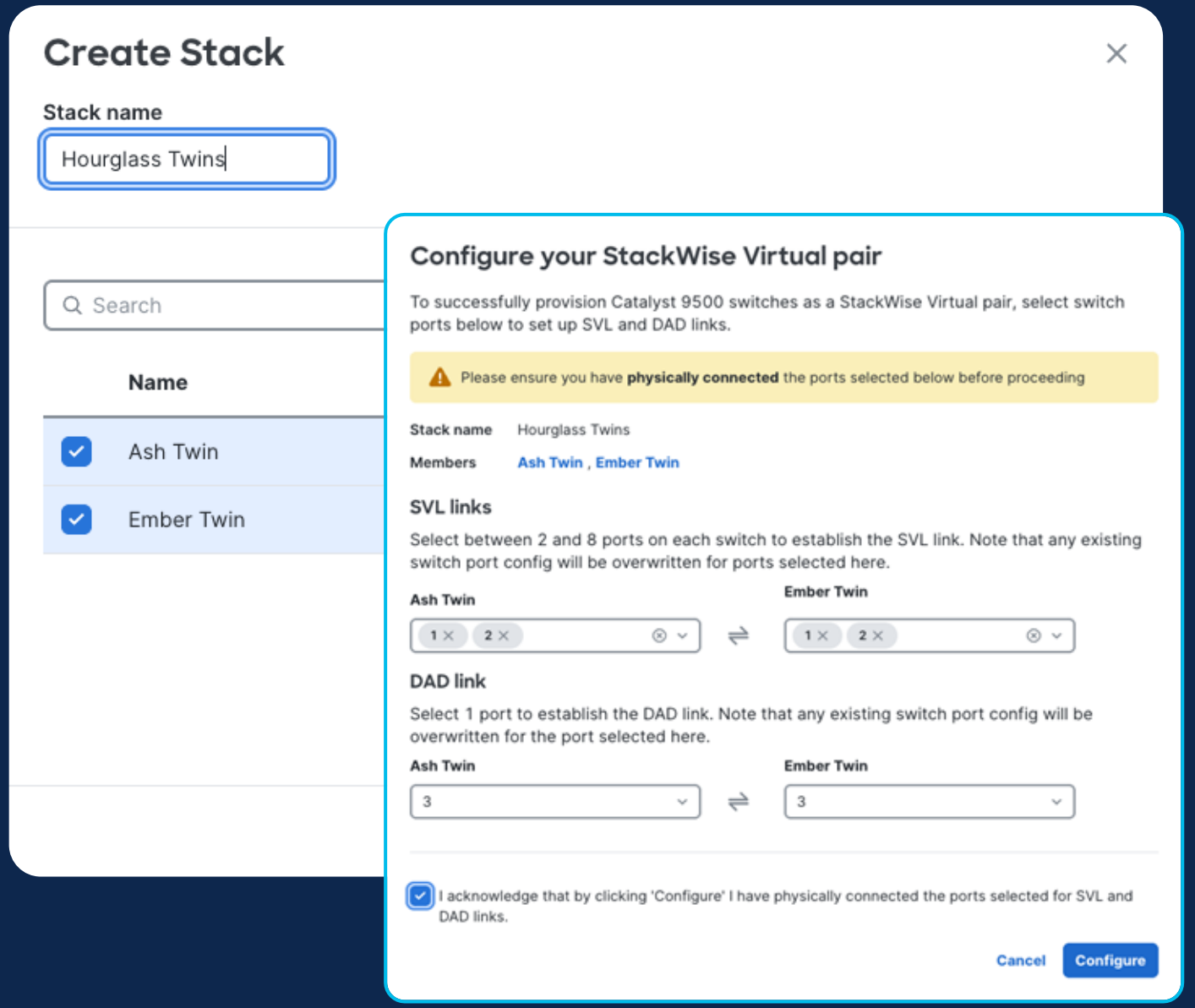
Introducing Routed Ports from the cloud

- Reduce convergence time while simplifying network management
- Routed peer to peer links including east/west and north/south traffic
- Minimize VLAN ID consumption while joining separate networks



Introducing support for StackWise Virtual from the cloud

- Simplify configuration management by presenting two physical switches as one logical entity
- Lower the risk associated with a looped topology while reducing operational failure points
- Maintain HA with support stateful switch failover (SSO) by ensuring minimal downtime during failures or maintenance

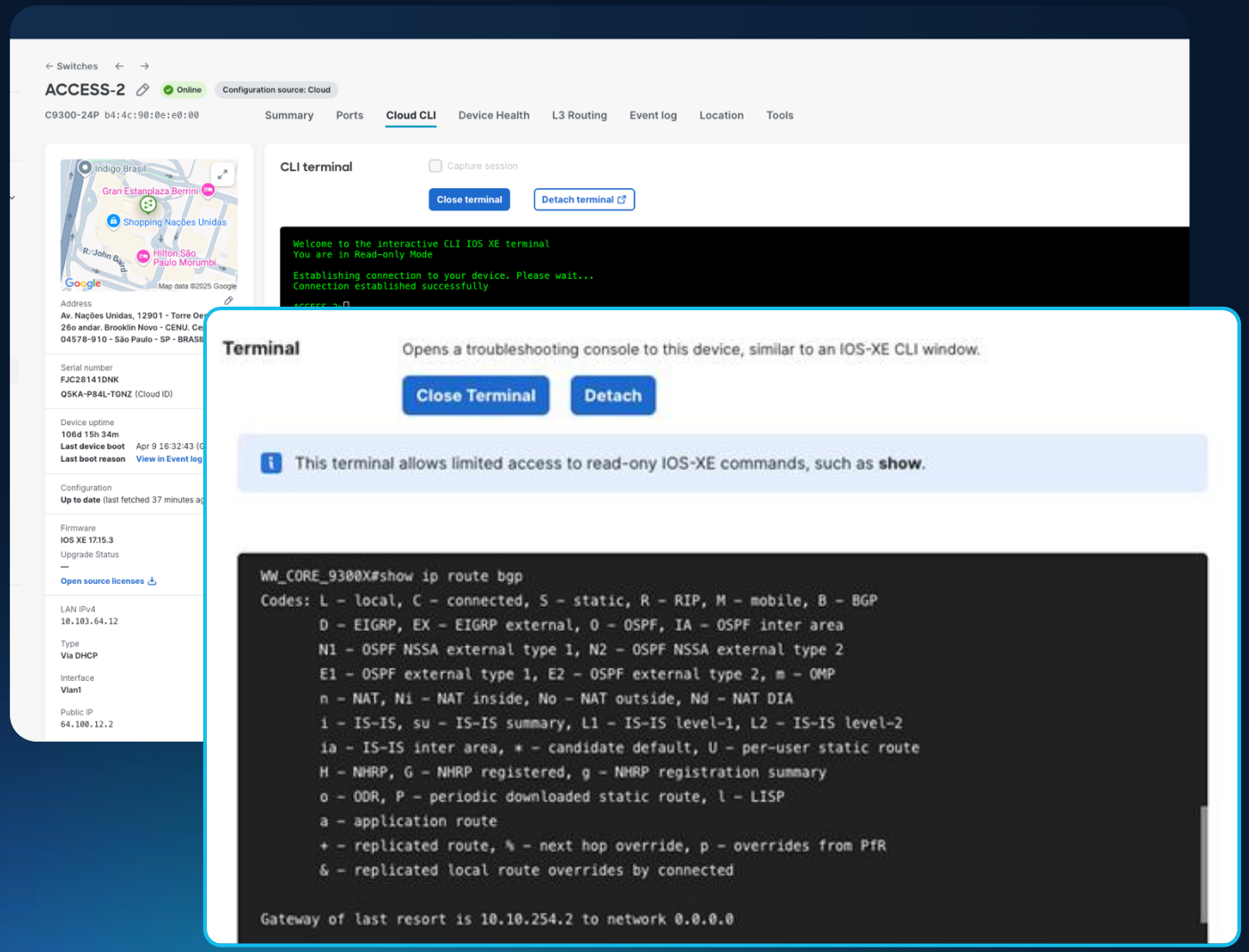


Introducing a secure Cloud CLI terminal, directly in dashboard

Access an embedded cloud-hosted CLI terminal within the Meraki dashboard without the need for VPN or jump host

Support for common CLI commands to uncover network issues effecting network devices

Leverage existing and familiar skillsets while ensuring your teams maintain access to detailed device data with CLI



Coming Soon: Cloud CLI Config

Expanding Cloud CLI capabilities to introduce select ‘config’ commands for cloud config mode devices.

Device Configuration

A fully functional CLI terminal in dashboard. Support for full IOS XE feature set.

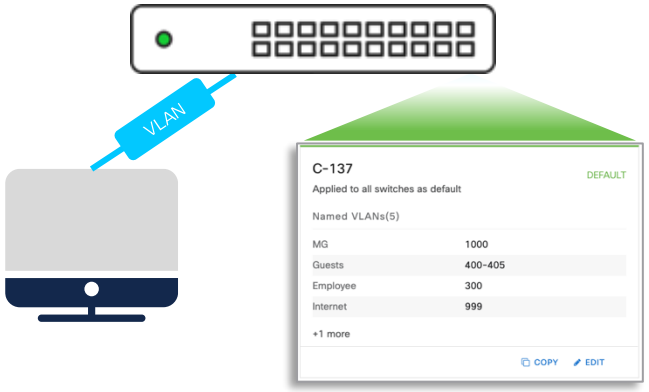
Cloud Configuration

A safe guarded CLI terminal with support for ‘show’ commands, plus an expanding set of ‘read/write’ commands for features not supported by the dashboard UI.

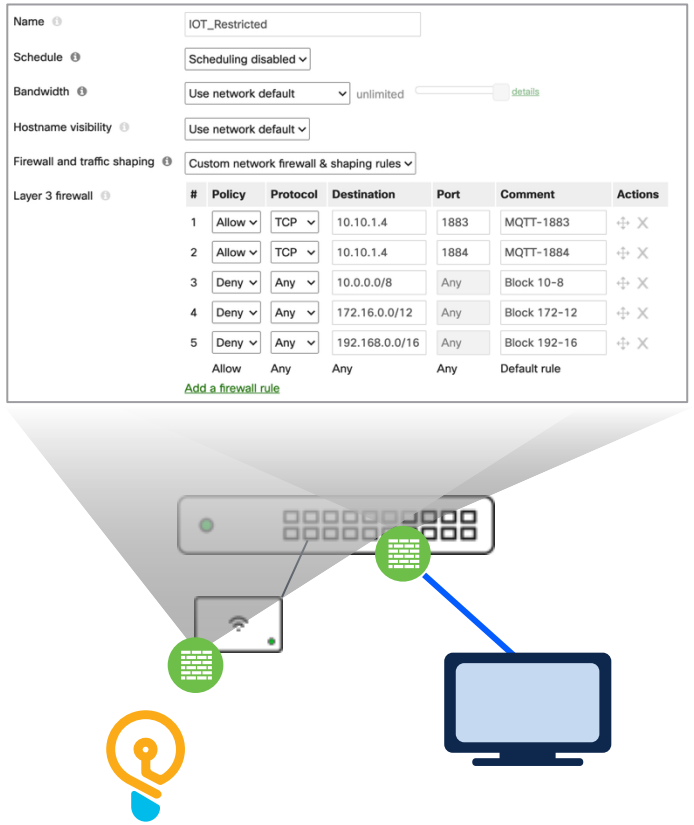
Access Manager

802.1X and RADIUS Support is not new to Meraki

Per-Session VLAN Assignment

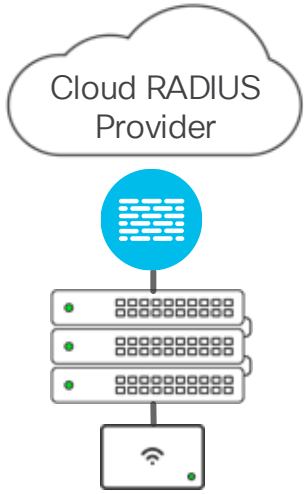


Per-Session Dynamic L3/L4 ACL

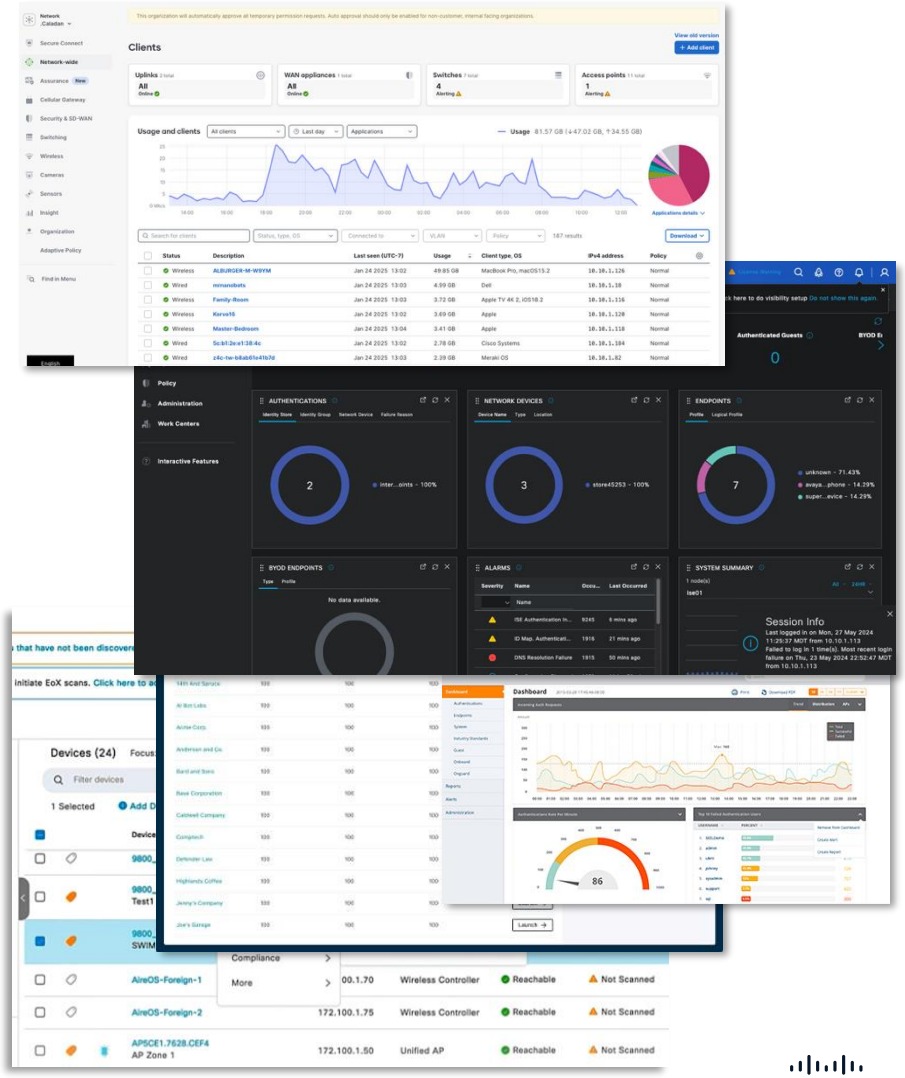


Zero-Trust micro-segmentation

In this case, not everything is simple

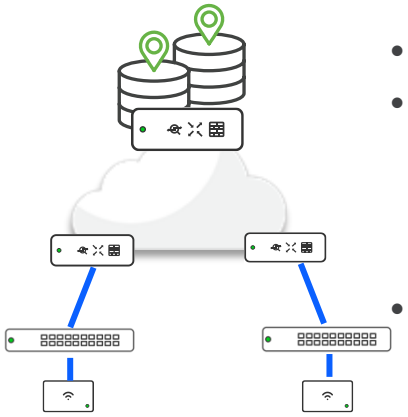


- Complex firewall rulesets
- Complex connectivity security requirements
- Potential in-transit security implications
- Manual input of network and security contexts



Higher OpEx from console pivots

On-premises AAA



- Complex deployment management and Operations
- Connectivity complexity in distributed deployments
  - VPN tunnel management
  - Load-balancers
  - Etc.
- Manual input of network and security contexts

Introducing Cisco Access Manager

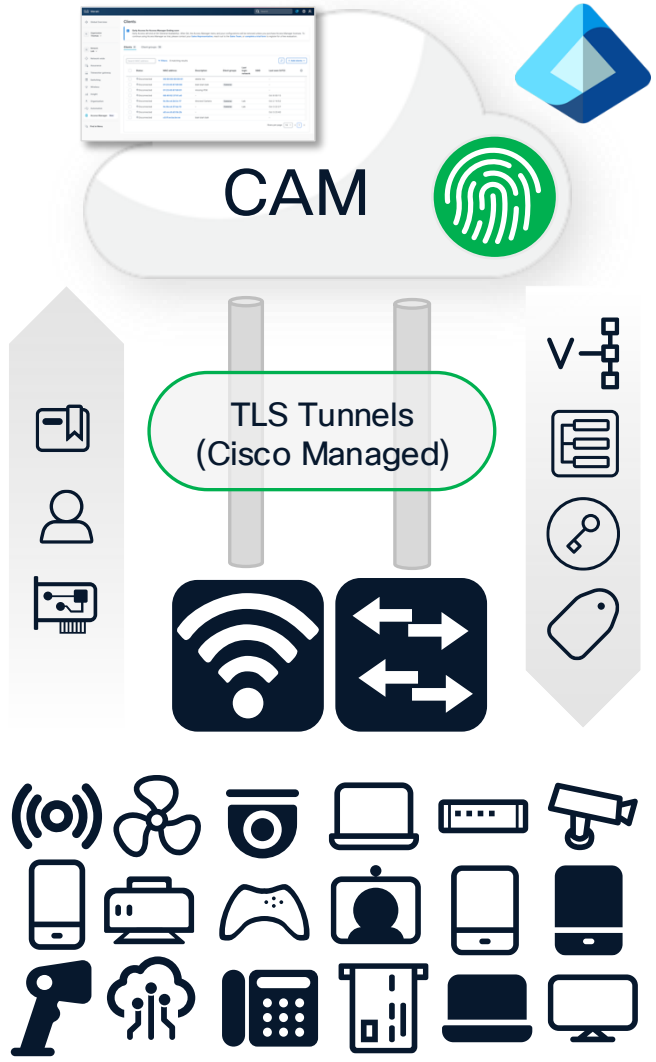
Cloud-delivered access control services to enforce identity and context-based access to the users and devices

Multi-tenant SaaS (Software as a Service) for High Availability and Scale globally

Secure RADIUS transport over encrypted TLS tunnels to the Meraki Dashboard

Simplified and rapid Zero-Trust adoption using identity-based micro-segmentation

Flexible Authentication Options for wired and wireless users, computers, and I/OT



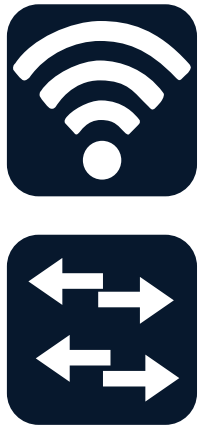
Cisco Access Manager Current Capabilities

Clients/Endpoints

Users, Computers, Things

- EAP-TLS
- EAP-TTLS+PAP
- iPSK (Identity PSK)
- MAB (MAC Auth)

Network Devices



Cloud Managed *ONLY*

MS: 17+

CW91xx: 30.7+

MR: 30.7+

MX / Z: *Unsupported*

Access Manager

Cisco Meraki Dashboard

Auto Scaling Service

HA Multi-Tenant Service

MAB Clients & Groups

Simple Access Rules

Identity Providers

Microsoft Entra ID *ONLY*

Certificate Identities

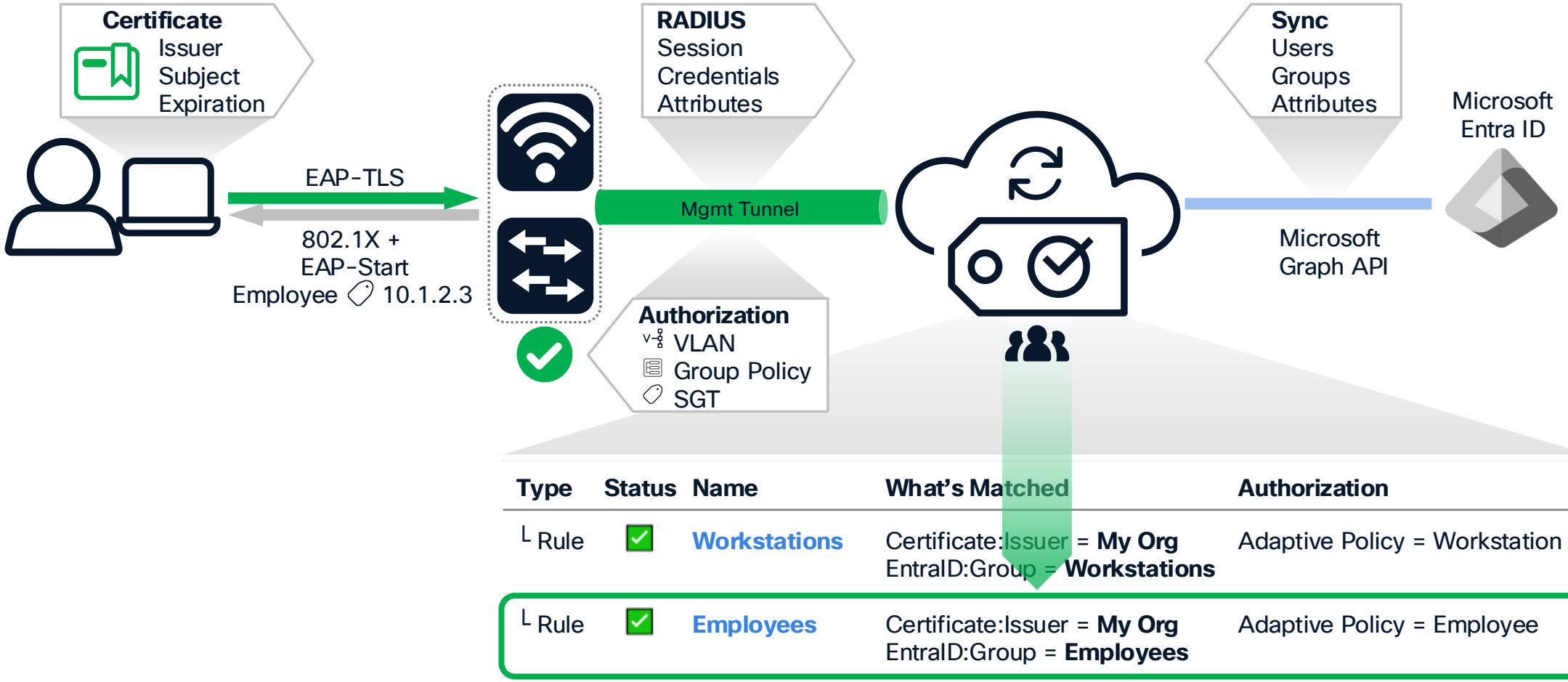
Username + Password

User Group Lookups

Securing managed endpoints with Entra ID Lookup

EAP-TLS Certificate Based Authentication with Entra ID Lookup

EAP-TLS Client Configuration



Type	Status	Name	What's Matched	Authorization
└ Rule	✅	**Workstations**	Certificate:Issuer = **My Org** EntraID:Group = **Workstations**	Adaptive Policy = Workstation
└ Rule	✅	**Employees**	Certificate:Issuer = **My Org** EntraID:Group = **Employees**	Adaptive Policy = Employee

Routing & SD-WAN

Secure Routers for the AI-powered unified branch

Cisco 8000 Secure Routers

More throughput to support increased traffic to data center

Advanced routing and firewall for secure SD-WAN and SASE

Post-quantum secure

Cisco Secure Router 8455-G2-MX

Network Concentrator

- Handoff of VPN Transport within Data Centre Infrastructure

Next-Gen Edge Router & Firewall

- Routing at scale
- Next Generation Firewall services at the edge

SD-WAN & VPN Transport

- Application awareness
- Routing at scale
- Next Generation Firewall services at the edge

AVAILABLE NOW

8455-G2-MX

Maximum NGFW Throughput	20 Gbps
Flow Table Capacity	2,000,000
Recommended Clients	15,000
Recommended AutoVPN Peers	5,000
Recommended Route Table Capacities	BGP – 50,000 Static / Dashboard – 10,000

Release Naming post MX 19.2

MX Release version change (also applicable to wireless, switching, IoT portfolio)

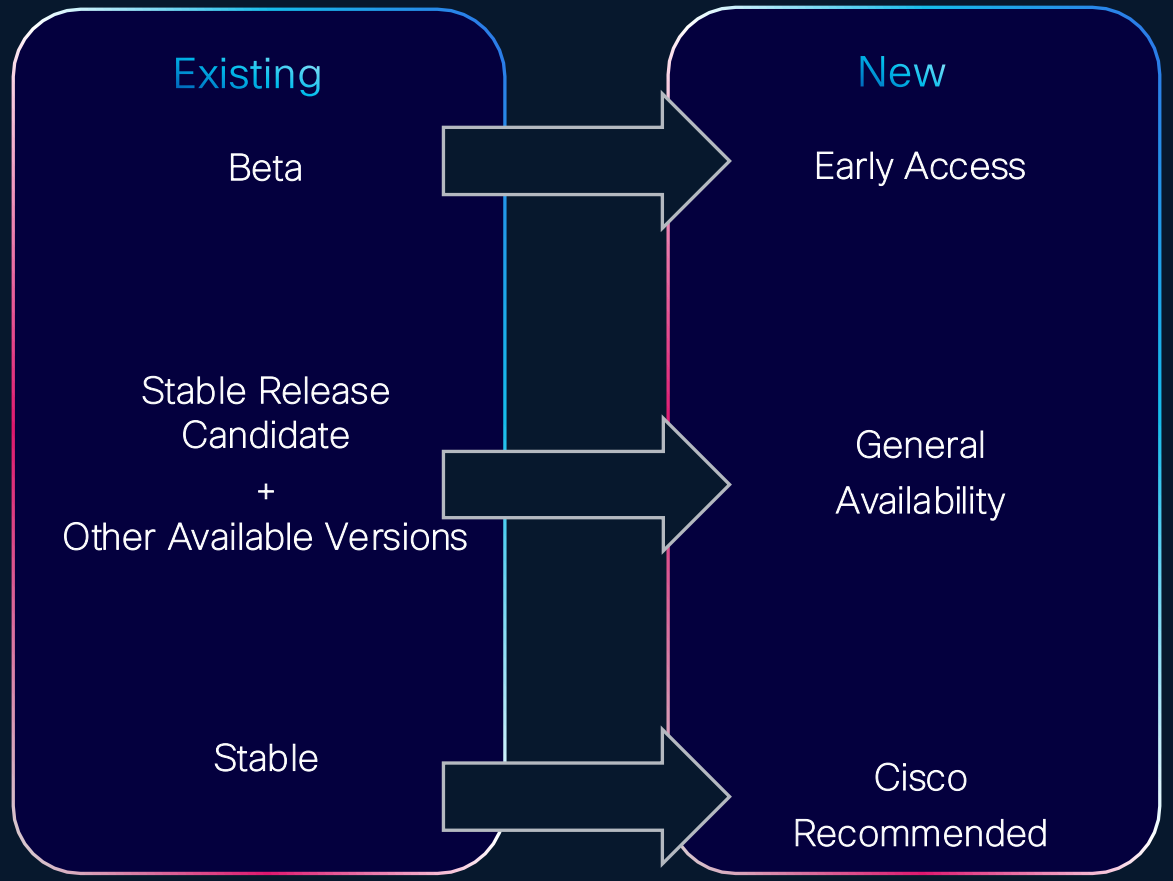
20.X → 26.X

[year].[feature release]

Industry Initiative to help simplify software versions

Not new in Cisco (Cisco IOS-XR taxonomy since 2024)

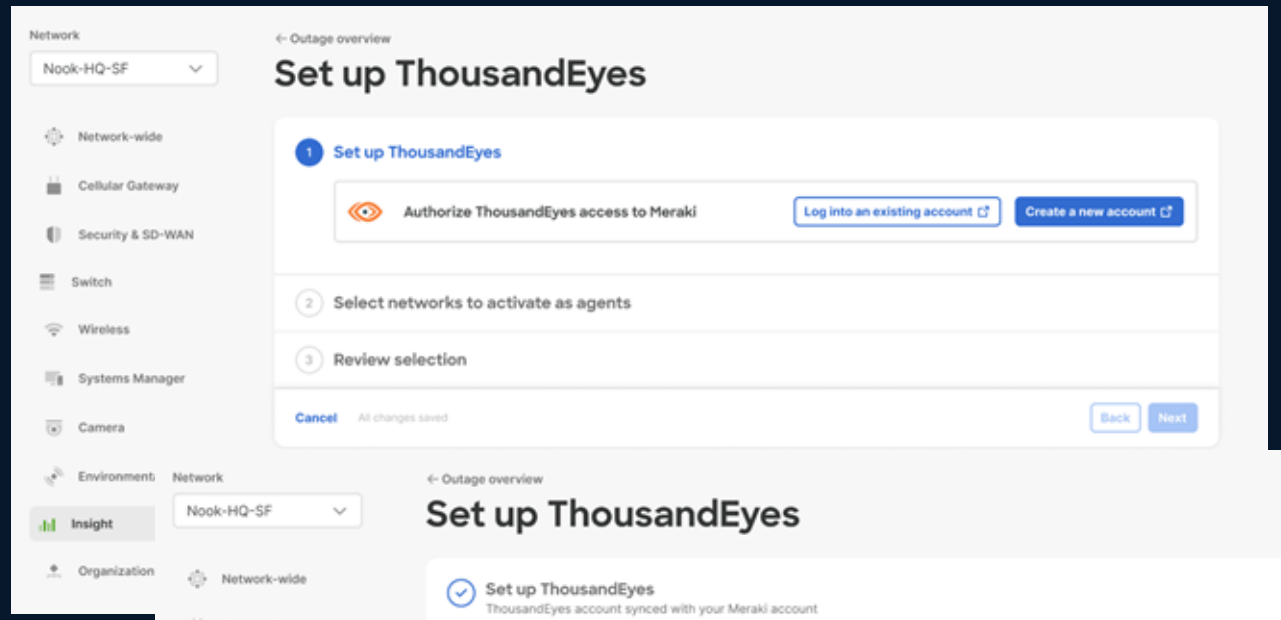
Release Phase rename - Dashboard

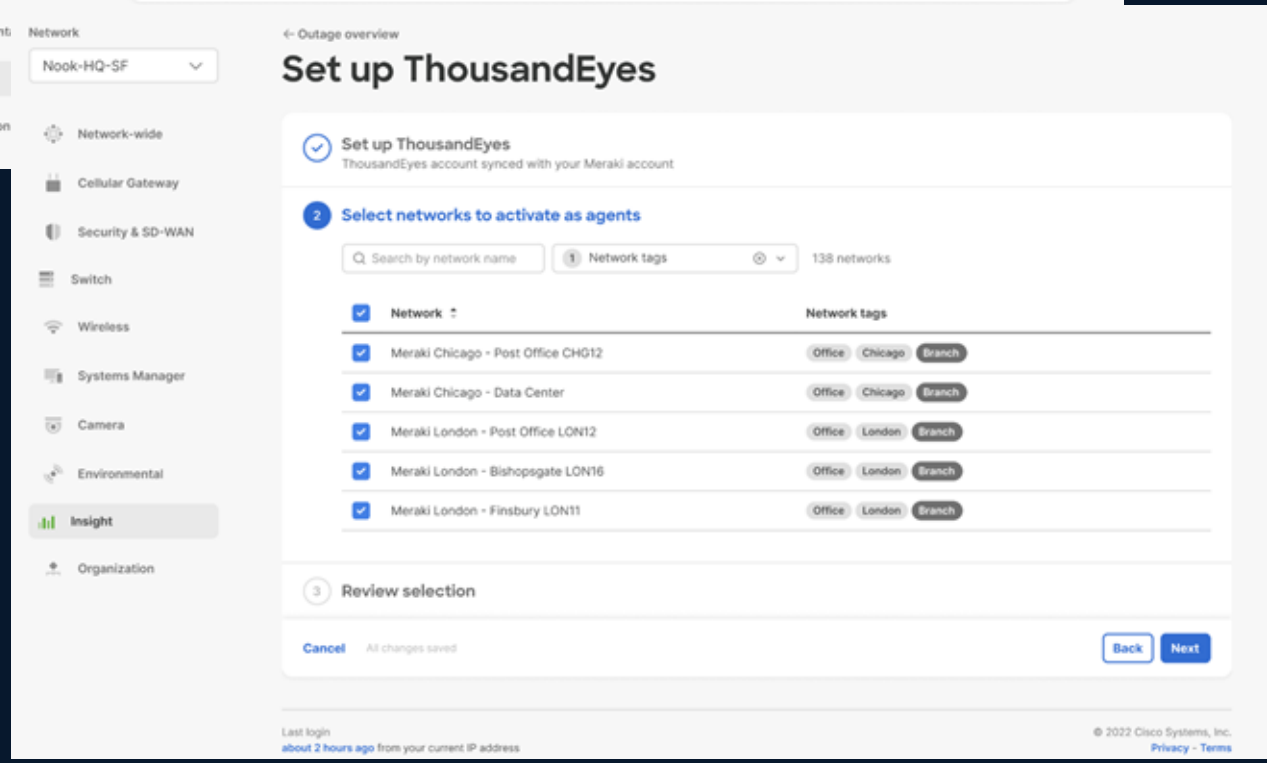


From November 1st 2025

ThousandEyes Agent

- **Onboard** the TE agent on Meraki Dashboard
- **Activate** on 100+ networks with few clicks
- **Overview** of results from the tests





Cisco Workflows

Cisco Workflows in the Meraki Dashboard

Cisco Workflows

Cloud-Hosted Automation in Meraki Cloud

Drag and Drop Creation / Editing

Custom and Pre-Built

Cisco, 3rd party, & AI Integrations

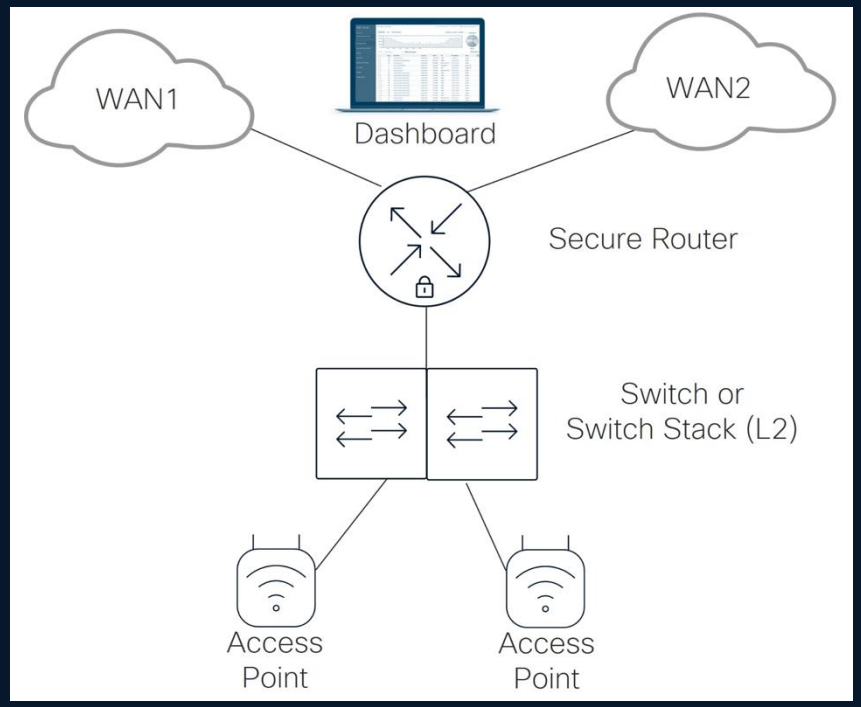
Mitigate risk, reduce manual tasks, and deploy sites faster

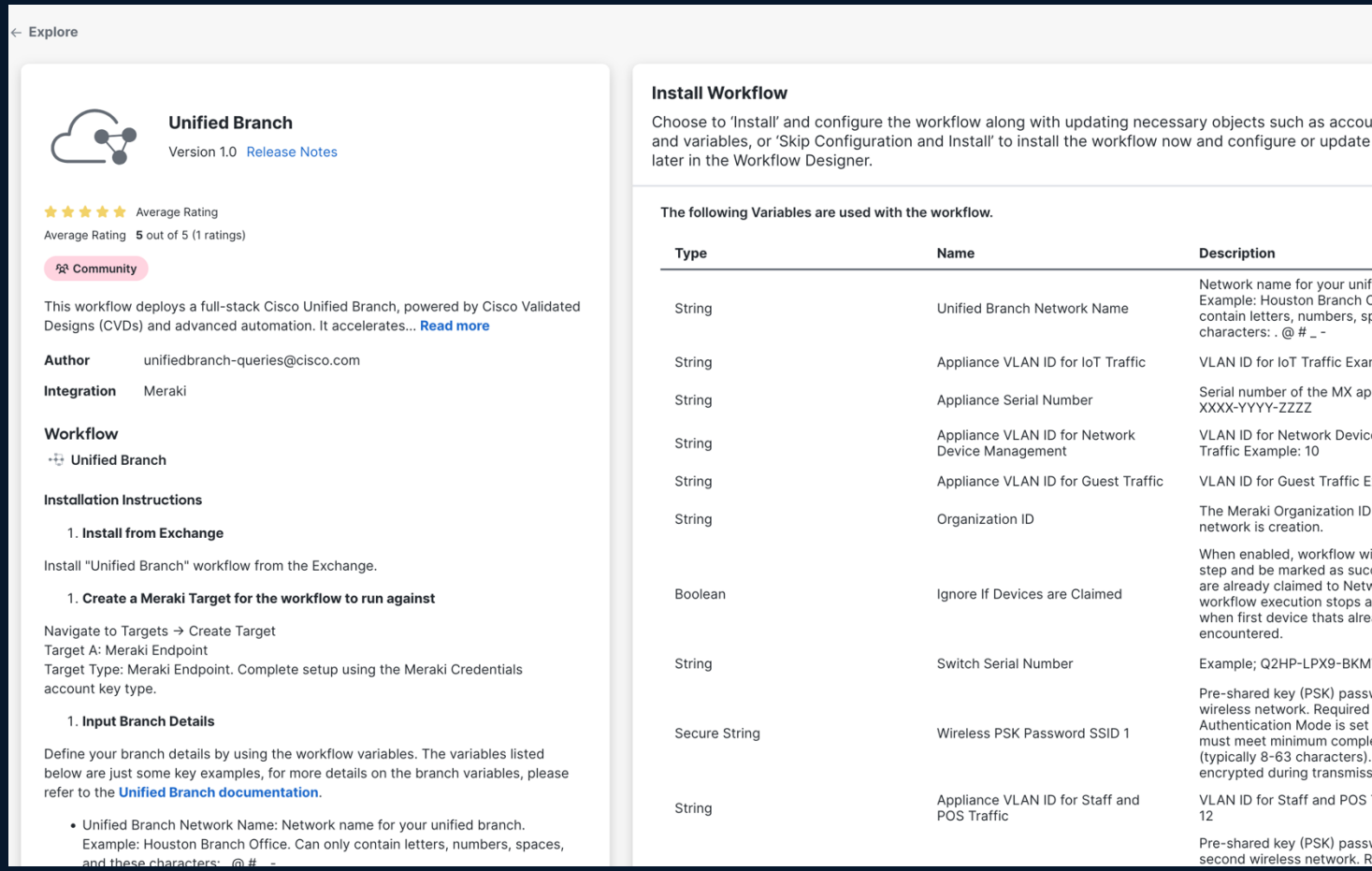
Accelerate automation with workflows based on validated designs

Deploy Branches in minutes using Cisco Workflows and AI Assistant

Key Points :

- Pre-built workflow that will help configure an entire branch with MX-MS-MR
- Openly customizable. Can be altered to get creative with customer use cases
- Used for large scale deployments in customer teams where automation skillset is limited





← Explore

Unified Branch

Version 1.0 Release Notes

Average Rating

Average Rating **5** out of 5 (1 ratings)

Community

This workflow deploys a full-stack Cisco Unified Branch, powered by Cisco Validated Designs (CVDs) and advanced automation. It accelerates... **Read more**

Author unifiedbranch-queries@cisco.com

Integration Meraki

Workflow

Unified Branch

Installation Instructions

1. **Install from Exchange**

Install "Unified Branch" workflow from the Exchange.

1. **Create a Meraki Target for the workflow to run against**

Navigate to Targets → Create Target
Target A: Meraki Endpoint
Target Type: Meraki Endpoint. Complete setup using the Meraki Credentials account key type.

1. **Input Branch Details**

Define your branch details by using the workflow variables. The variables listed below are just some key examples, for more details on the branch variables, please refer to the **Unified Branch documentation**.

- Unified Branch Network Name: Network name for your unified branch. Example: Houston Branch Office. Can only contain letters, numbers, spaces, and these characters: . @ # _ -

Install Workflow

Choose to 'Install' and configure the workflow along with updating necessary objects such as accou and variables, or 'Skip Configuration and Install' to install the workflow now and configure or update later in the Workflow Designer.

The following Variables are used with the workflow.

Type	Name	Description
String	Unified Branch Network Name	Network name for your unif Example: Houston Branch C contain letters, numbers, sp characters: . @ # _ -
String	Appliance VLAN ID for IoT Traffic	VLAN ID for IoT Traffic Exar
String	Appliance Serial Number	Serial number of the MX ap XXXX-YYYY-ZZZZ
String	Appliance VLAN ID for Network Device Management	VLAN ID for Network Devic Traffic Example: 10
String	Appliance VLAN ID for Guest Traffic	VLAN ID for Guest Traffic E
String	Organization ID	The Meraki Organization ID network is creation.
Boolean	Ignore If Devices are Claimed	When enabled, workflow wi step and be marked as suc are already claimed to Netv workflow execution stops a when first device thats alre encountered.
String	Switch Serial Number	Example; Q2HP-LPX9-BKM
Secure String	Wireless PSK Password SSID 1	Pre-shared key (PSK) passv wireless network. Required Authentication Mode is set must meet minimum compl (typically 8-63 characters). encrypted during transmiss
String	Appliance VLAN ID for Staff and POS Traffic	VLAN ID for Staff and POS 12
		Pre-shared key (PSK) passv second wireless network. R

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