

Meraki TechClub

MX update

SASE / SIGRAKI

Cisco+ Secure Connect

Cloud Monitoring

System Manager

Andrej Jeleník

Cisco Systems Engineer



MX Security & SD-WAN



FEATURED HIGHLIGHTS

- Identity-based firewall
- High-availability and failover
- SD-WAN and Auto VPN
- Content filtering and geo-location rules
- Intrusion detection/prevention
- Advanced malware protection
- VPN segmentation / exclusion
- End-user experience monitoring (MI)

Enterprise

Advanced Security

SD-WAN Plus

NGFW, unified threat management and SD-WAN solution with advanced user experience analytics

Various models scaling from teleworker and small branch to campus and datacenter

Meraki Security & SD-WAN Portfolio

Secure SD-WAN

Small Branch



MX64

250Mbps



MX67/68

600Mbps



MX75

1Gbps

Medium Branch



MX85

1Gbps



MX95

2Gbps



MX105

3Gbps

Large Branch



MX250

4Gbps



MX450

6Gbps

Virtualized Headends



vMX-S

200Mbps



vMX-M

500Mbps



vMX-L

1Gbps

Wireless WAN



MG21/E

300Mbps



MG41/E

1.2Gbps

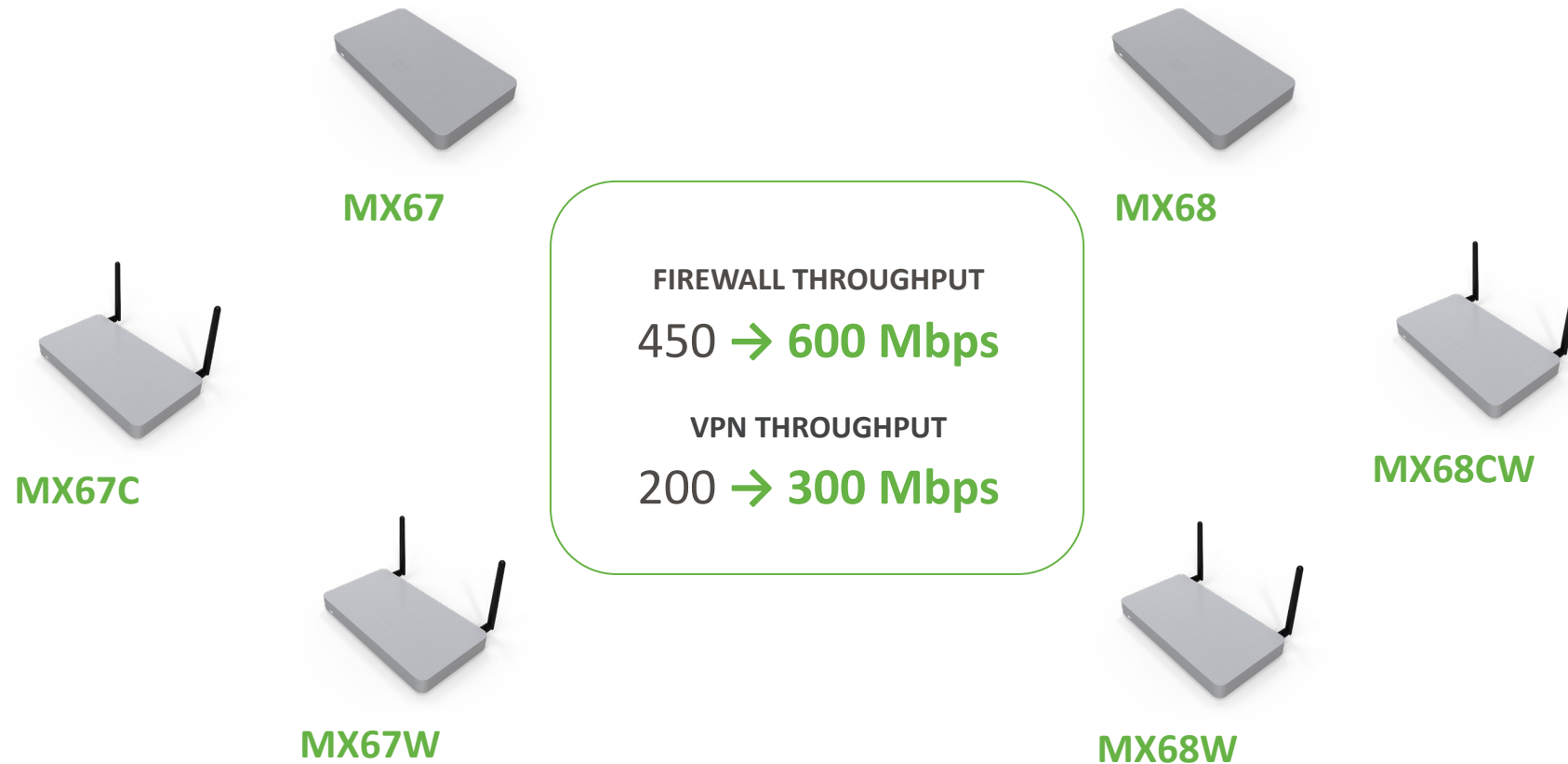
Teleworker



Z3/C

100Mbps

MX67 and MX68 Families w/ New Performance Improvements



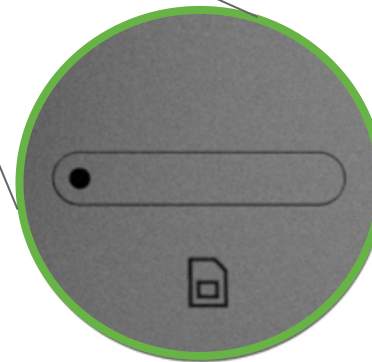
Benefits of Cellular, Now Integrated



Connect Remote Sites



Limit downtime



SIM & LTE MODEM
INTEGRATED

Meraki simple

multi-cloud connectivity

Three-click secure SD-WAN
connectivity to private and public
clouds



Licensing that fits the business' needs



Enterprise

Essential SD-WAN features

Secure connectivity & basic security

All I need is AutoVPN and a firewall

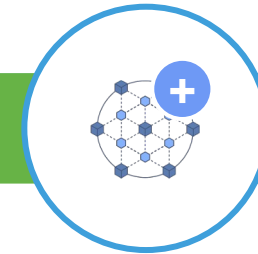


Advanced Security

All enterprise features plus:

Fully featured
unified threat management

I connect to the internet,
so I need UTM security as well



Secure SD-WAN Plus

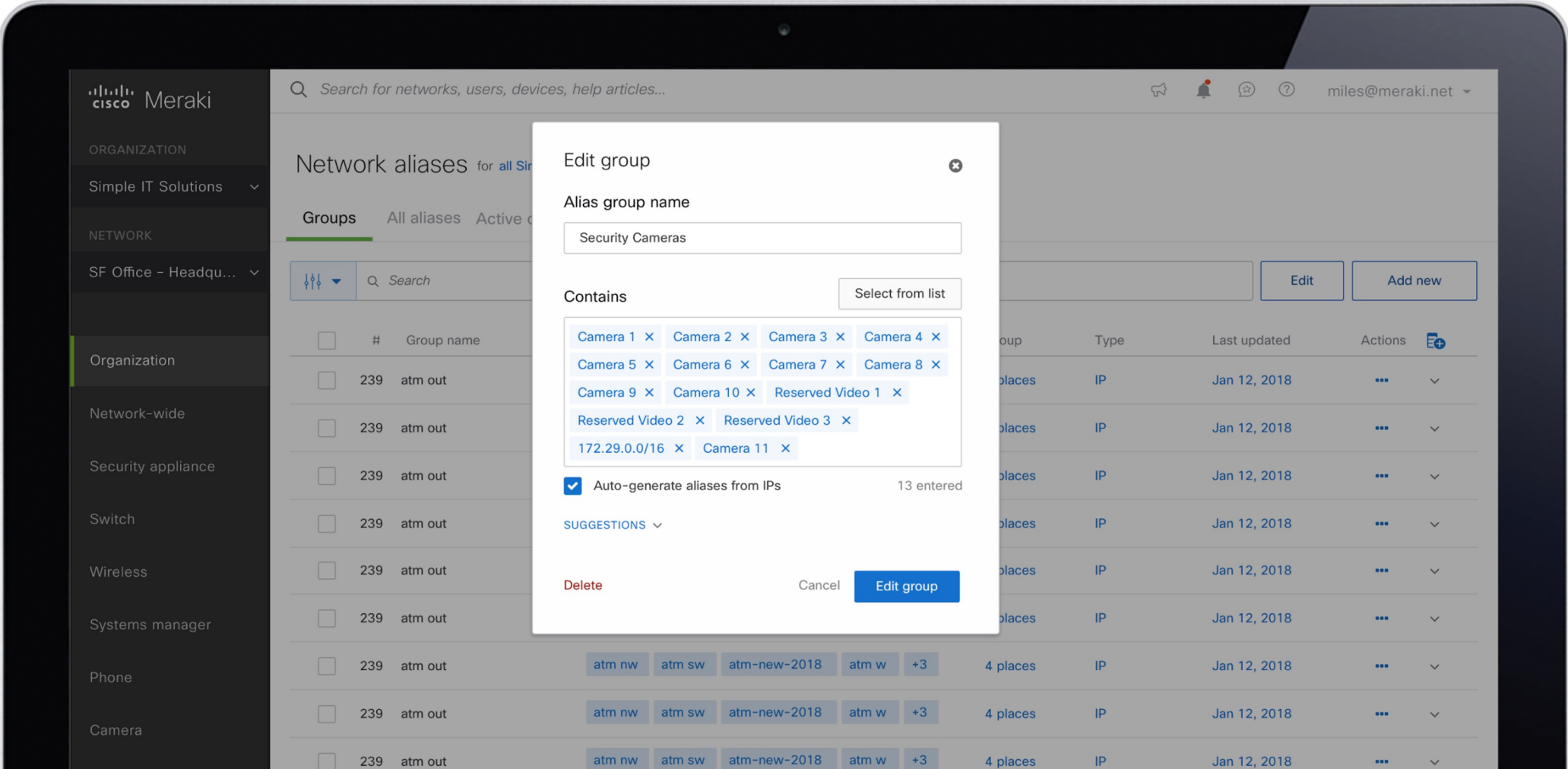
All advanced security features plus:

Advanced analytics with ML
Smart SaaS optimization
Segmentation

My business relies on apps served
from SaaS/IaaS/DC

Enhanced Firewall Rules on MX

Consolidate firewall rules using org-wide logical groups and objects * GA FY21Q1



MX Network Objects

Compatibility

- **Network Object/Group Compatibility**

- Network Objects can contain:
 - IP Address, IP Subnet (CIDR), FQDN or Wildcard FQDN.
- Network Groups can contain:
 - one or more Network Objects.

- **Firewall Compatibility**

- Network Objects/Groups can be applied to:
 - Individual & Template Networks: Layer 3 Inbound, Layer 3 Outbound and Failover Cellular Firewall Rules
 - Organization-wide Site to Site VPN Outbound Firewall Rules

MX Firmware 16

Latest stable release

NBAR2

AnyConnect

SD-WAN Over LTE

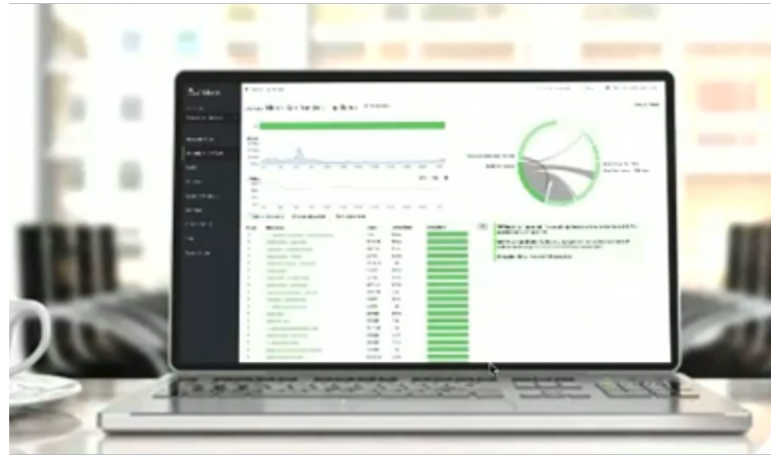
Smart Path Steering for DIA

IDS Snort 3.0

vMX on GCP

MX 17

Stable release candidate



CORE

- IPv6 MVP on MX

ANALYTICS

- NBAR2 Expansion

WAN INTELLIGENCE

- SD-Internet Top 10

SECURITY

- Inline Snort
- Brighter Skies
- Adaptive Policy

NBAR2 - Powerful App Recognition Engine !

From 200 up to 1500+ applications

Classifying all clients traffic by using NBAR engine

Part of MX-16

- Enhanced application visibility
- Aligned with full Meraki platform
- Replacing existing TA engine
- [KB Link](#)

License :

ENT SEC SDW

Platform Supported :

All MX, Teleworker

Without NBAR

Block applications and content categories

Layer 7 firewall rules

| # | Policy | Application |
|---|--------|-------------|
| 1 | Deny | Email |

[Add a layer 7 firewall rule](#)

Traffic shaping rules

Per-client bandwidth limit: unlimited

[details](#) Enable SpeedGuard

DNS layer protection (Cisco Umbrella)

Route DNS requests through Cisco Umbrella DNS and deny DNS requests by linking Umbrella policies.

With NBAR

Block applications and content categories

Layer 7 firewall rules

| # | Policy | Application |
|---|--------|----------------------------|
| 1 | Deny | HTTP hostname... |
| 2 | Deny | Gaming |
| 3 | Deny | Social web & photo sharing |
| 4 | Deny | Email |
| 5 | Deny | Email |
| 6 | Deny | Web payments |

[Add a layer 7 firewall rule](#)

Enable Umbrella protection

DNS layer protection (Cisco Umbrella)

Route DNS requests through Cisco Umbrella DNS and deny DNS requests by linking Umbrella policies.

Traffic shaping rules

Per-client bandwidth limit: unlimited

[details](#) Enable SpeedGuard

Actions

- All Email
- Smtp
- Exchange Set
- Gmail
- Outlook
- Host-based email (POP3/IMAP/SMTP)
- Hotmail
- IBM Lotus Notes
- Interactive Mail Support Protocol
- Internet Message Access Protocol over TLS/SSL
- List Processor
- Mail Service
- Mail Submission Agent
- MALQ
- Messaging Application Programming Interface
- Microsoft Exchange
- MS Exchange Routing
- Nets Message Posting Protocol
- NI MAIL
- On-Demand Mail Relay
- Post Office Protocol - Version 2
- Post Office Protocol 3 over TLS
- Quick Mail Queuing Protocol
- Quick Mail Transfer Protocol
- Rackspace Hosted Exchange
- Remote Mail Checking Protocol
- Secure Simple Mail Transfer Protocol
- SEND
- Web-based email
- Windows Live Hotmail and Outlook

AnyConnect - Client VPN



Remote access simplified with the Cisco AnyConnect Client

Benefits

- Mainstream VPN Client Support
- TLS VPN support
- Per user policy with RADIUS Filter-ID
- Certificate based authentication
- Split tunneling support
- Easy Client deployment and configuration with MDM
- Automatic public certificate enrollment and renewal with Meraki DDNS hostname

Client VPN

[IPsec Settings](#)

[AnyConnect Settings](#) **BETA**

[FAQs](#) **NEW**

Anyconnect Client VPN

Enabled

Disabled

Client Connection Details

Hostname ⓘ

anyconnect-g-gvpvrddm-devel.ikarem.io.dynamic-m.com



AnyConnect Client
Download Links

[Download the AnyConnect Client v4.801090 for Windows](#)

[Download the AnyConnect Client v4.801090 for MacOS](#)

[Download the AnyConnect Client v4.801090 for Linux](#)

These links will expire within 5 minutes of loading this page. Please refresh this page if the link expires.

Smart Path Steering for DIA

Enhance SaaS QoE with Direct Internet Access optimization

- Empowers customers to handle Internet brownouts
- Customers can now apply the SD-WAN performance classes to L3/L4 traffic that's Internet-bound
- Performance is evaluated based on the uplink's performance

License :

SDW

Platform Supported :

All MX

SD-WAN policies

Internet traffic

| Protocol | Source | Src port | Destination | Dst port | Uplink selection policy | Actions |
|----------|-----------------|----------|-------------|----------|---|---------|
| Any | 172.16.128.0/24 | Any | Any | Any | Prefer WAN 2. Fail over if uplink down. | ⊕ × |

[Add a preference](#)

VPN traffic

| Uplink selection policy | Traffic filters | Actions |
|---|--|---------|
| Load balance on uplinks that are suitable for "Productivity". | All Productivity | ⊕ × |
| Prefer WAN 1. Fail over if poor performance for "Video". | Dropcam Skype WebEx | ⊕ × |
| Use the uplink that's best for VoIP traffic. | SCCP (Skinny Call Control Protocol) SIP (Voice) Vocera | ⊕ × |

[Add a preference](#)

Custom performance classes

| Name | Maximum latency (ms) | Maximum jitter (ms) | Maximum loss (%) | Actions |
|---------|----------------------|---------------------|------------------|---------|
| Latency | 500 | (none) | (none) | × |
| Jitter | (none) | 50 | (none) | × |
| Loss | (none) | (none) | 10 | × |

[Create a new custom performance class...](#)

IPv6 on MX17

- MX 17.5+ firmware is required for IPv6 functionality on MX Security & SD-WAN Platforms.
- This is part of Meraki's ongoing, cross-product initiative to support IPv6.
- Supported models: Z3, Z3C, MX64, MX64W, MX65, MX65W, MX67, MX67W, MX67C, MX68, MX68W, MX68CW, MX75, MX84, MX85, MX95, MX100, MX105, MX250, MX450.
- See [this link](#) for a list of updated Meraki products that support IPv6 and to what degree.



Secure Access Service Edge (SASE)



Meraki SD-WAN



Cisco Secure SD-WAN



Automation



Application SLA



Behavior analytics



Integrated multi-cloud access

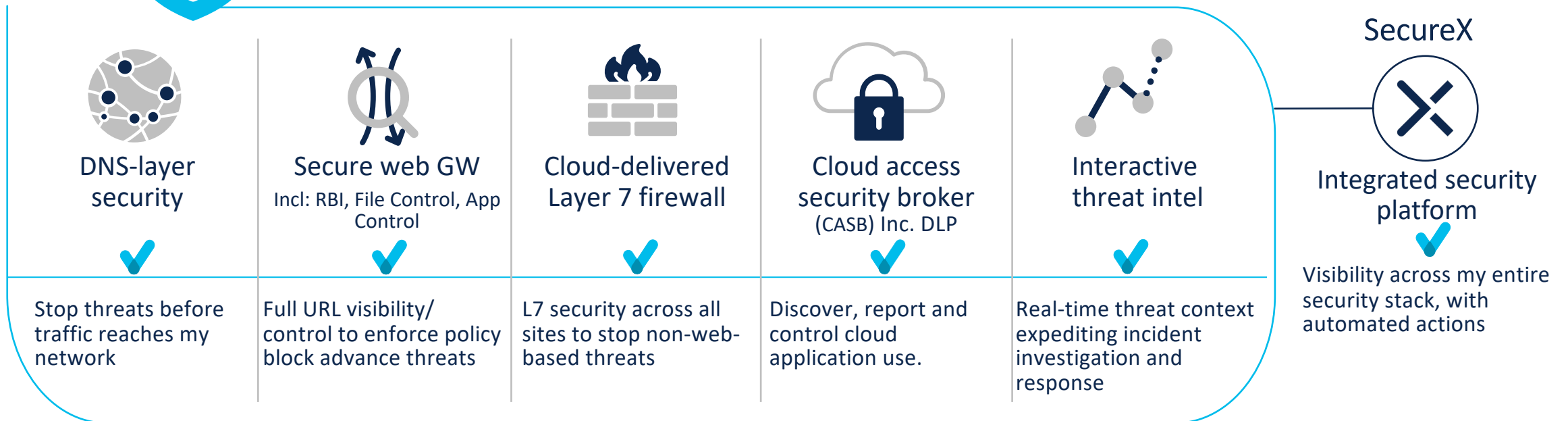


Middle Mile Optimization

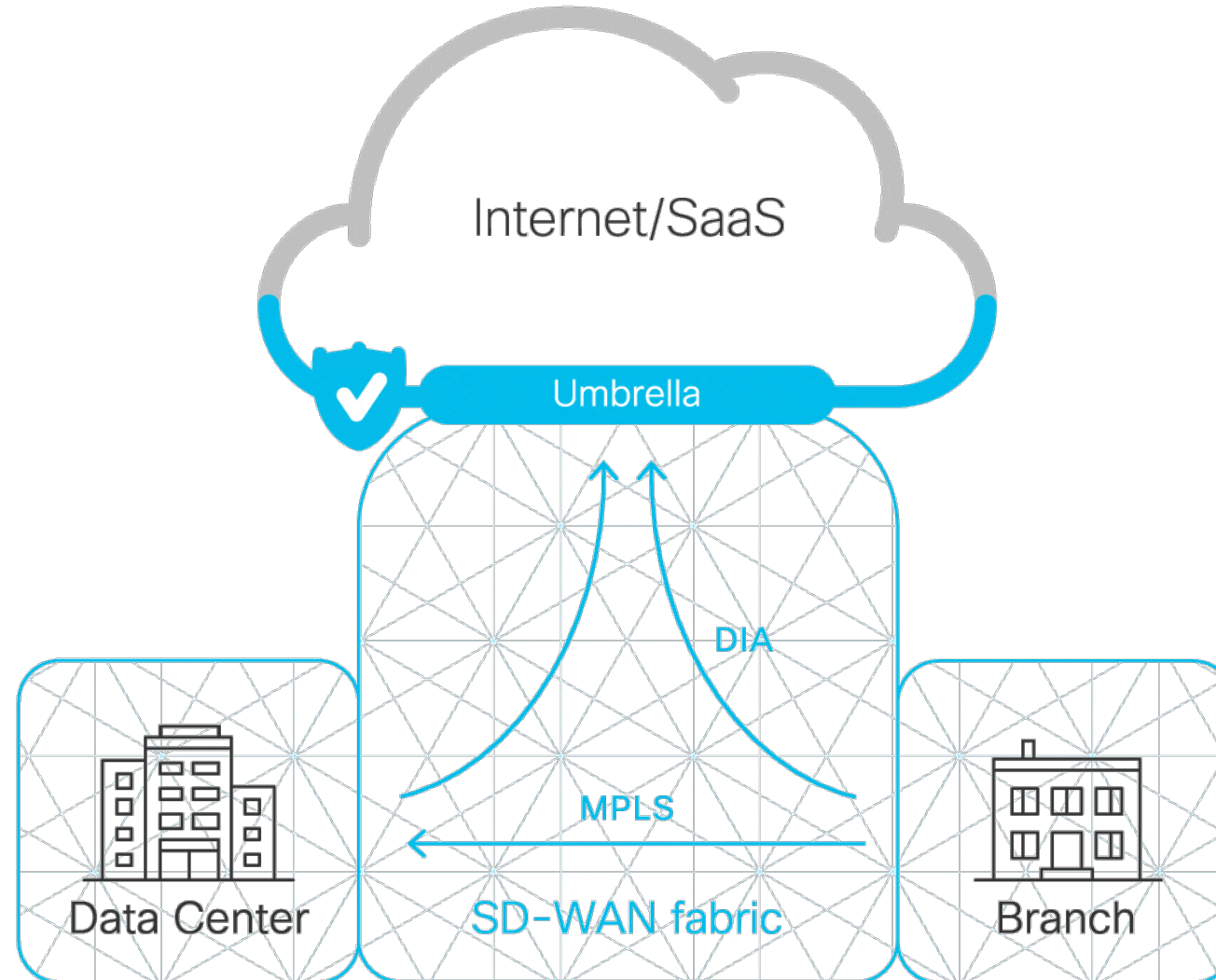


Telemetry

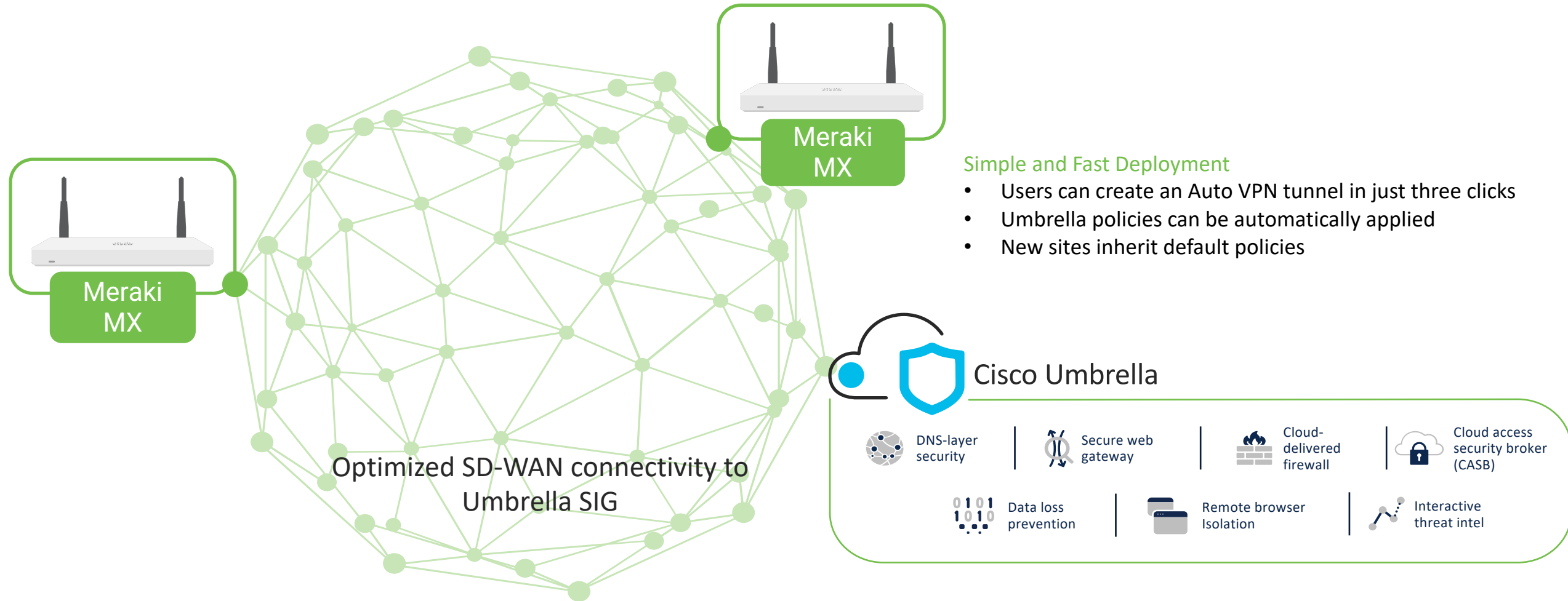
SASE cloud security capabilities / SIG



Meraki / Umbrella SIG Integration



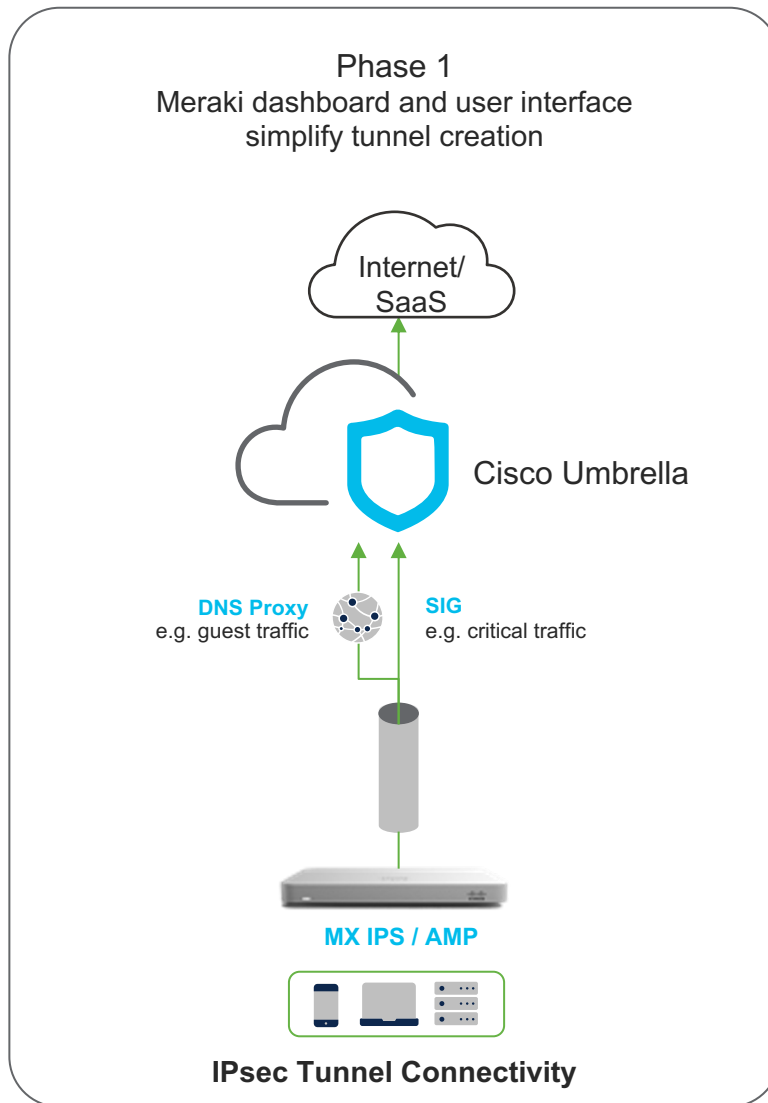
Best-in-Class & Seamless SASE Security / SIGRAKI



Simple and Fast Deployment

- Users can create an Auto VPN tunnel in just three clicks
- Umbrella policies can be automatically applied
- New sites inherit default policies

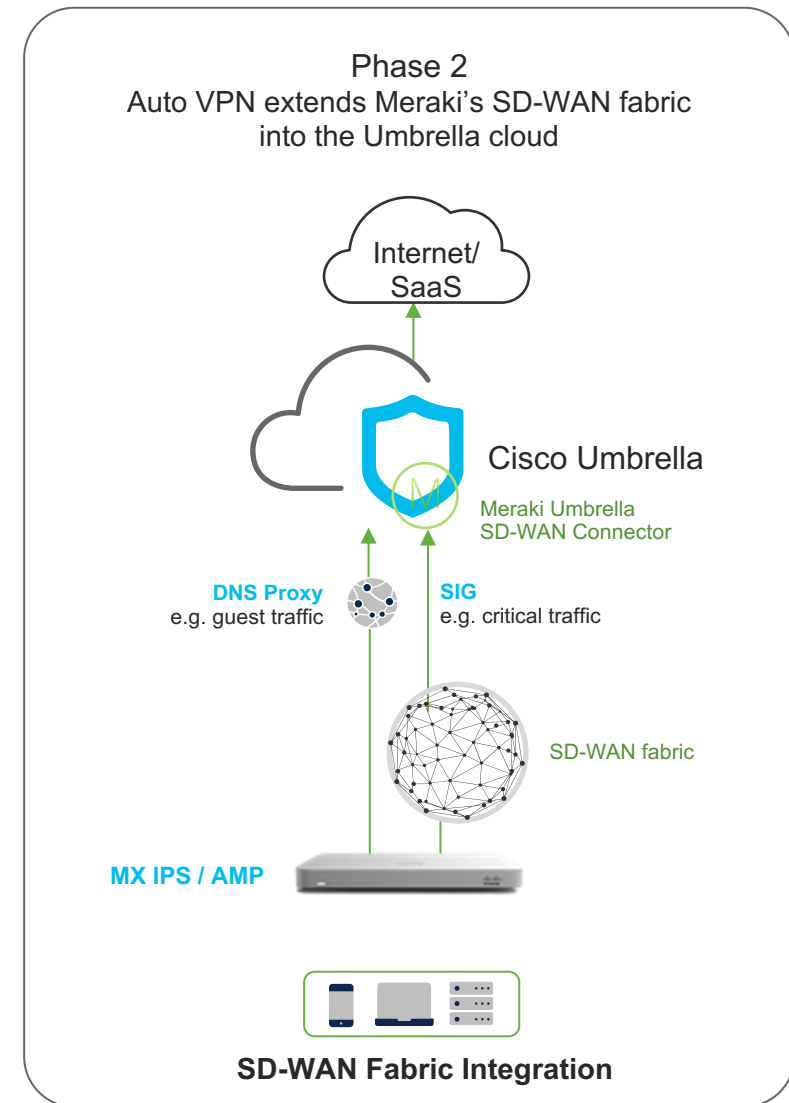
Meraki MX and Umbrella **Integration Options**



Choose per site

SASE your way

Competitive
Differentiator



Cisco+ Secure Connect Now

Radically simple, unified SASE turnkey solution

Simple

Increase business agility through an easy to consume and use as-a-service subscription that is cost-effective

Secure

Protect across every point of service - user, device, application - enforcing security closest to threats

Intelligent

Deliver actionable insights end-to-end, to predict, understand, and remediate the application experience



Built for Speed and Simplicity

Major SASE use cases

Secure internet access

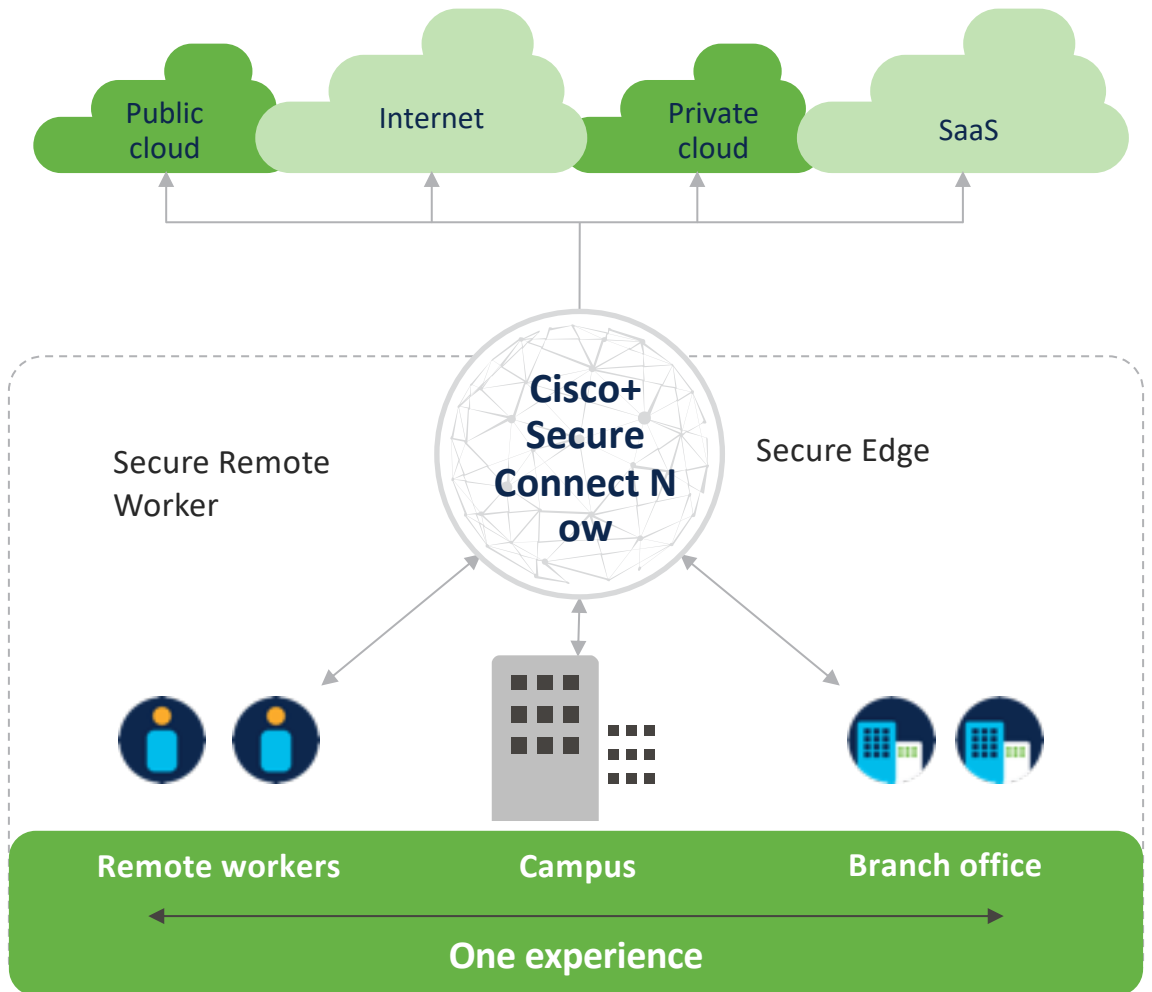
Provide users with safe access to the internet and cloud applications from any location and block malicious activity and threats

Secure private access

Deliver secure connections to company assets in private data centers or in the private cloud.

Interconnect

Dramatically simplify architecture and configuration by inherently interconnecting anything you connect to the SASE Fabric



Cisco+ Secure Connect

Subscription Tier Capabilities



Secure Connect Essentials

Securely connect users to apps

Remote Access/ZTNA*

Client Based Access, Clientless Browser Based Access (up to 10 apps), Granular user and app-based access policy, SAML authentication, Built-in IdP, posture and contextual access control, Reporting

Security

Secure Web Gateway (Proxy and inspect web traffic, URL filtering, Secure Malware Analytics -500 samples/day), Cloud Access Security Broker (Cloud app discovery, risk scoring, blocking, Cloud Malware Detection for 2 apps), L3-L4 Cloud Firewall, DNS-Layer Security

Secure Connect Advantage

Data protection, advanced policy

Secure Connect Essentials

Remote Access/ZTNA*

Clientless Browser Based Access (up to 300 apps)

Security

L7 Cloud Delivered Firewall + IPS, Inline Data Loss Prevention, Cloud Malware detection (all supported apps), Secure Malware Analytics (Unlimited Sandbox submissions)

Connectivity – Private Access, Cisco Meraki® Secure SD-WAN native integration, interconnect of sites, users and applications, Direct SaaS and IaaS Peering,

Management Dashboard - Simplified management and unified visibility of connectivity and security powered by Cisco Meraki.

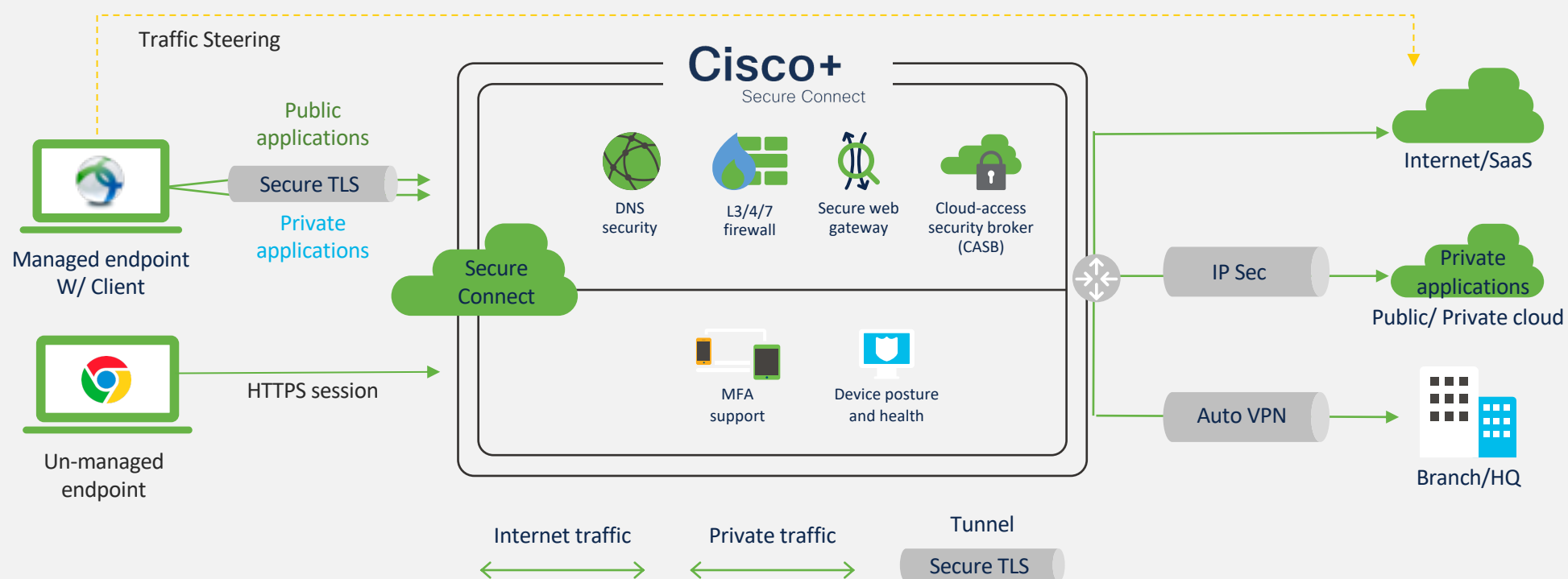
Support - 24x5* support access via Email & Phone, Access to documentation portal for self-help, onboarding services

Cisco+ Secure Connect Now

Secure Remote Worker

Core elements

- Internet/SaaS
 - Cloud security (SIG)
- Meraki® IdP (identity provider)
- Private access
 - Client and clientless access
 - Device posture
 - SAML MFA
 - Access control

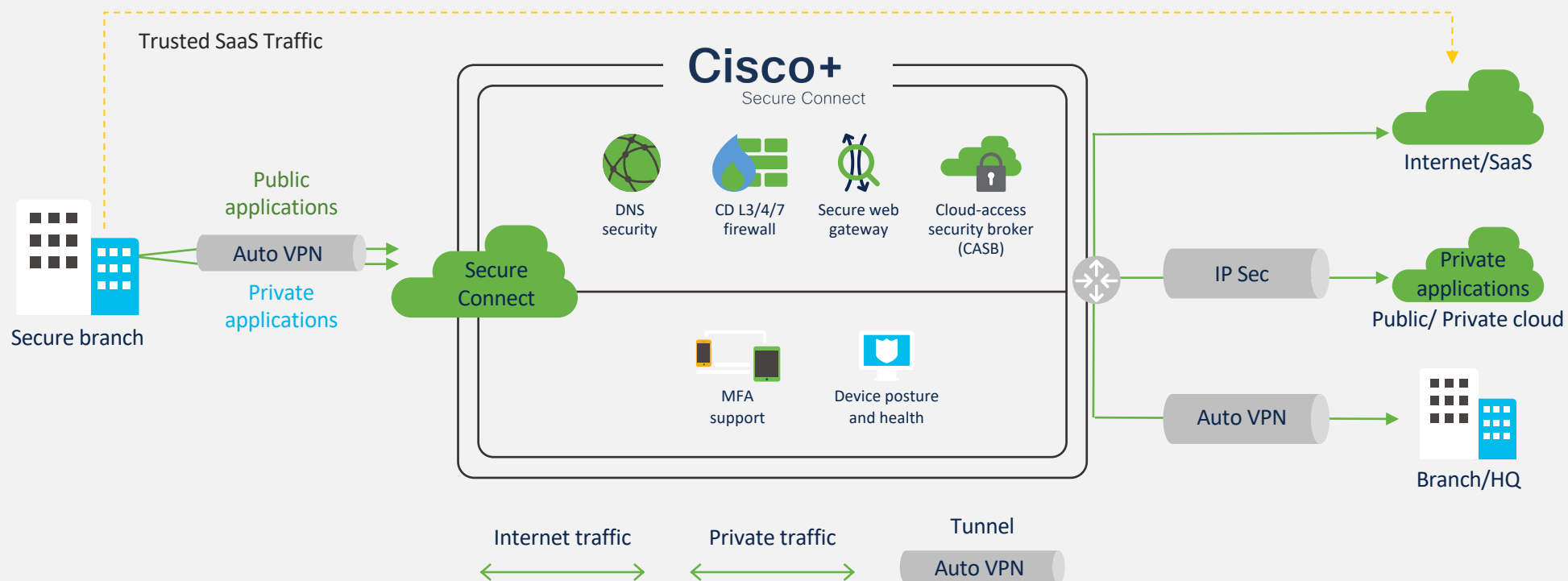


Cisco+ Secure Connect Now

Secure Branch Connectivity

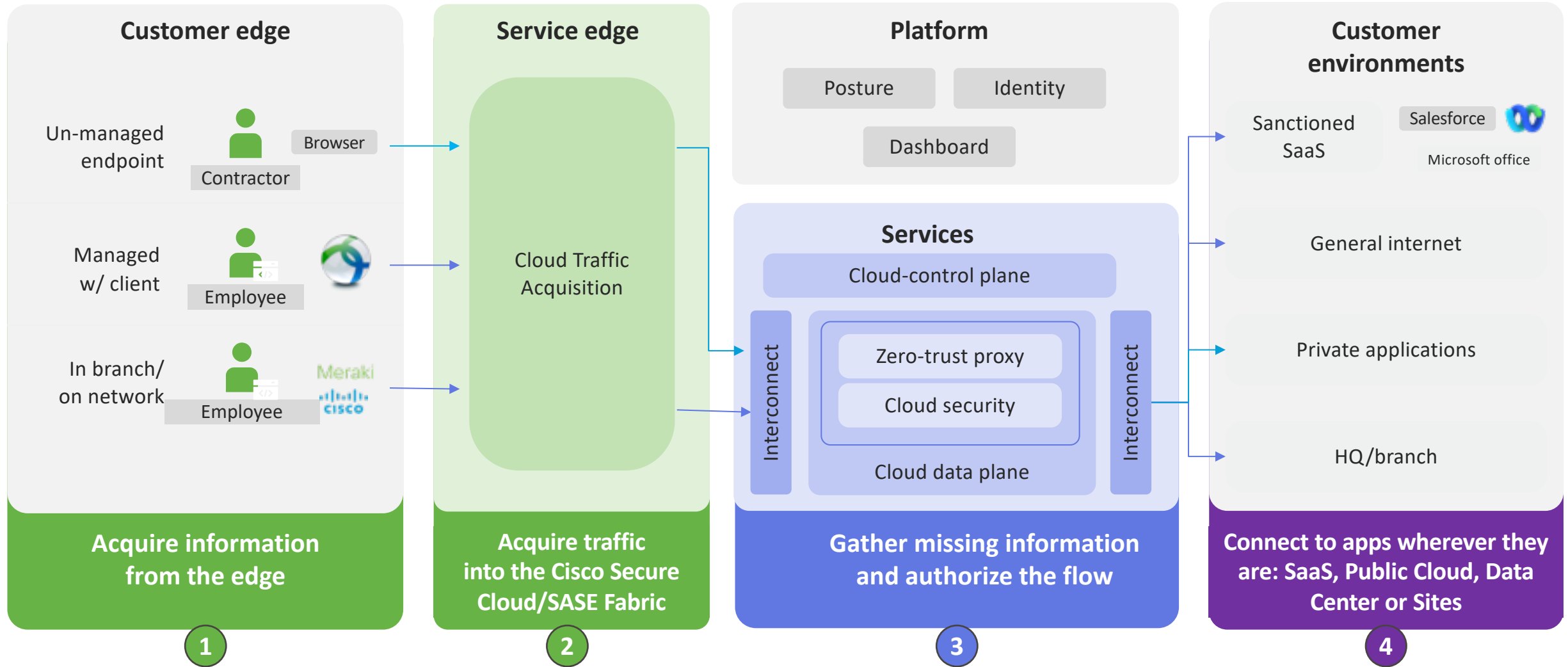
Core elements

- Internet/SaaS
 - Cloud security (SIG)
- Private application access
- Branch to Branch through Secure Connect fabric



Cisco+ Secure Connect Now

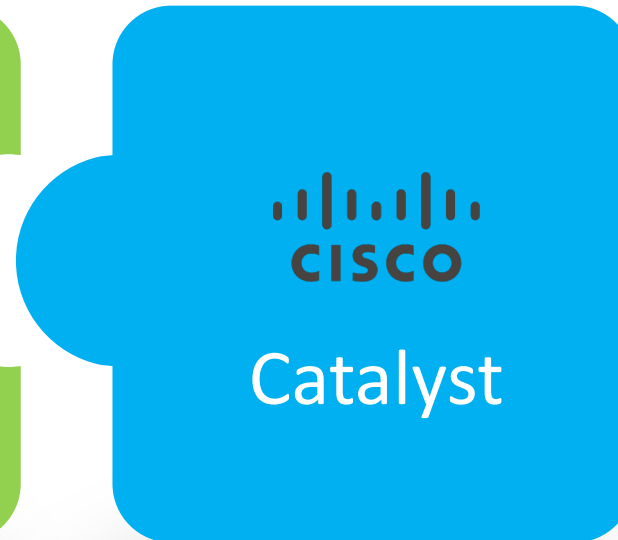
High-level architecture



Cloud Monitoring for Catalyst Access

#1

in cloud
managed
networks



#1

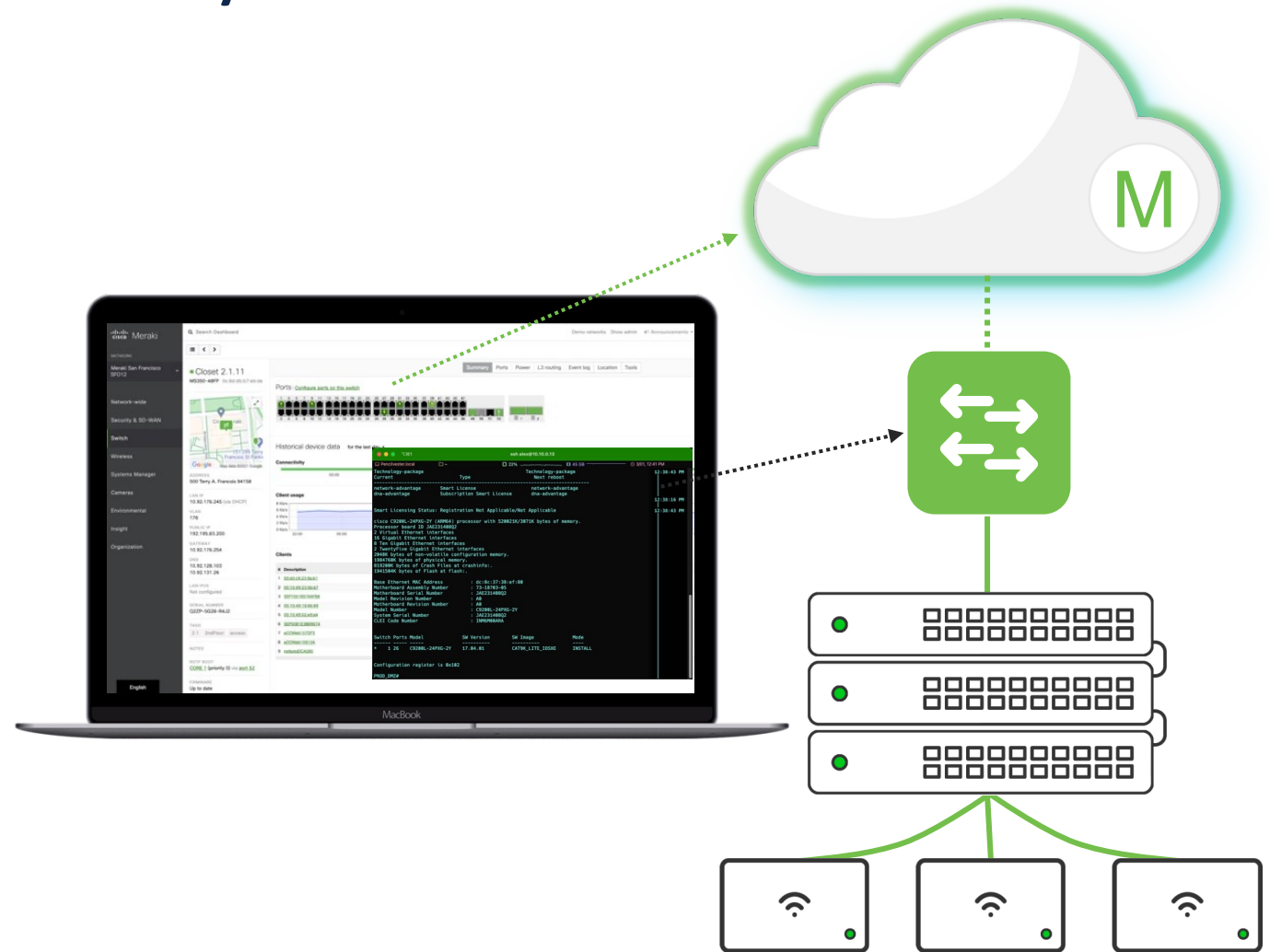
in networking

Cloud Monitoring for Catalyst

Unified view of Cisco network infrastructure

Device health and troubleshooting

Network client and traffic information

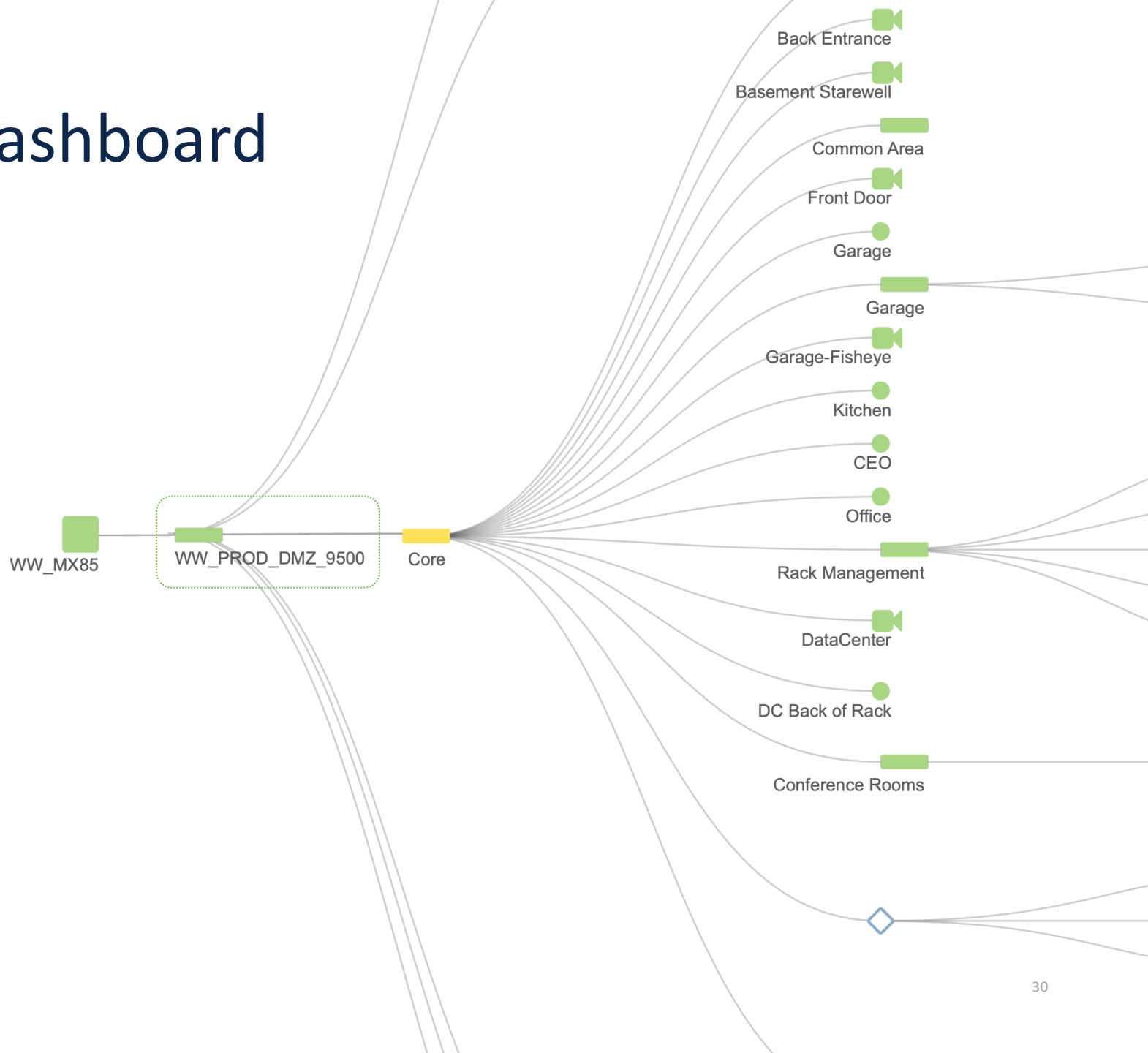


One Network, One Dashboard

Consolidated
Device Inventory

Centralized monitoring of
IOS and Meraki devices

Unified topology view



Keep Your Network Healthy

In-Dashboard alerts for switch or port issues

Port-level packet and error counters

Remote troubleshooting and diagnostics tools

The screenshot displays the Meraki dashboard for a switch named 'C9500SV-CORE-RIO [2]'. The left sidebar shows navigation options: Network BOOTCAMP, Network-wide, Security & SD-WAN, Switch (selected), Wireless, Systems Manager, Cameras, Insight, and Organization. The main content area shows the switch's location on a map, its address (170 W Tasman Dr, San Jose, CA 95134), and various IP addresses (LAN, PUBLIC, GATEWAY, LAN IPV6). It also lists the serial number (CAT2345L1R7) and tags (C9500, Monitor_Only, Stack, recently-added). The right-hand panel is titled 'Port 24: Twe2/0/24' and includes a 'Summary' tab, a port status grid (showing 'No module connected'), a 'Historical data' graph for the last day, and a 'Configuration' table.

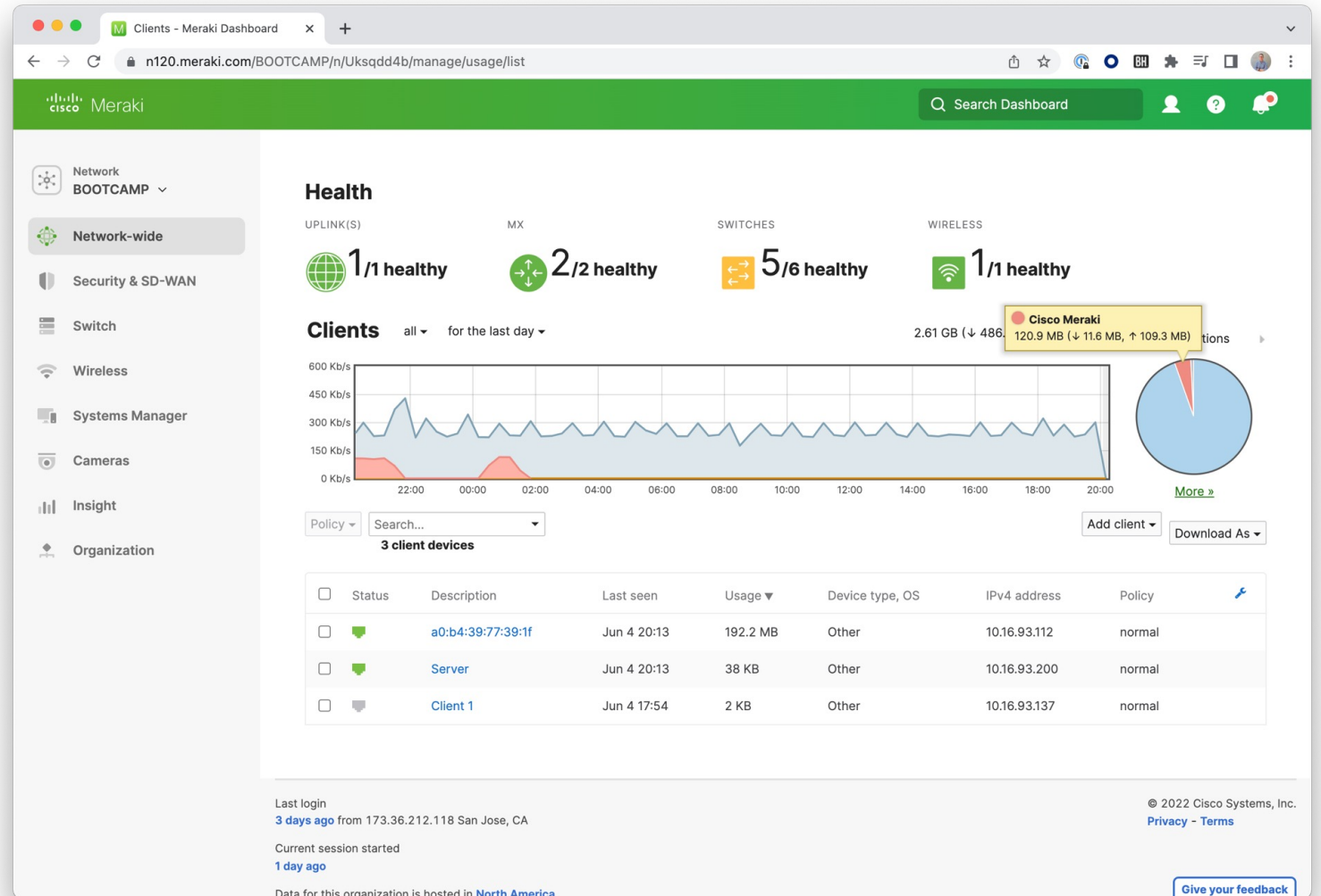
| Configuration | Value |
|------------------|-------------------------|
| Port status | Enabled |
| Type | Trunk |
| Native VLAN | 11 |
| Allowed VLANs | all |
| Link negotiation | Auto negotiate (1 Gbps) |
| RSTP | Enabled |
| Port schedule | Unscheduled |
| Port isolation | Disabled |
| Trusted DAI | Disabled |

Know What's Happening With Your Users

See connected devices
across your network

Detailed network usage
and traffic statistics

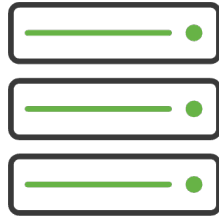
Application visibility
into network traffic



Cloud Monitoring Capabilities



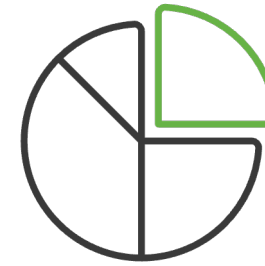
Centralized view of the entire network
Visibility of Cisco devices whether Meraki or Catalyst switches from one Dashboard



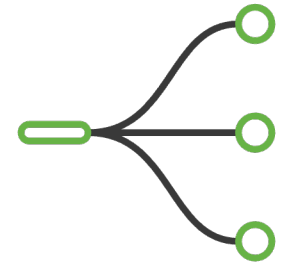
Real time switch and port health
Monitor Catalyst connectivity and health from the Dashboard



Remote monitoring
Powerful live troubleshooting tools for identifying and correcting issues, even from thousands of miles away



App visibility
Make it easy to understand how valuable network resources are being used. (*DNA Advantage License required for full feature set*)



Network topology
Monitor devices and their connections in a unified dynamically generated topology diagram

Supported Platforms and Software



Models

Catalyst
9200/L
9300/L/X
9500

Firmware

IOS-XE 17.3+

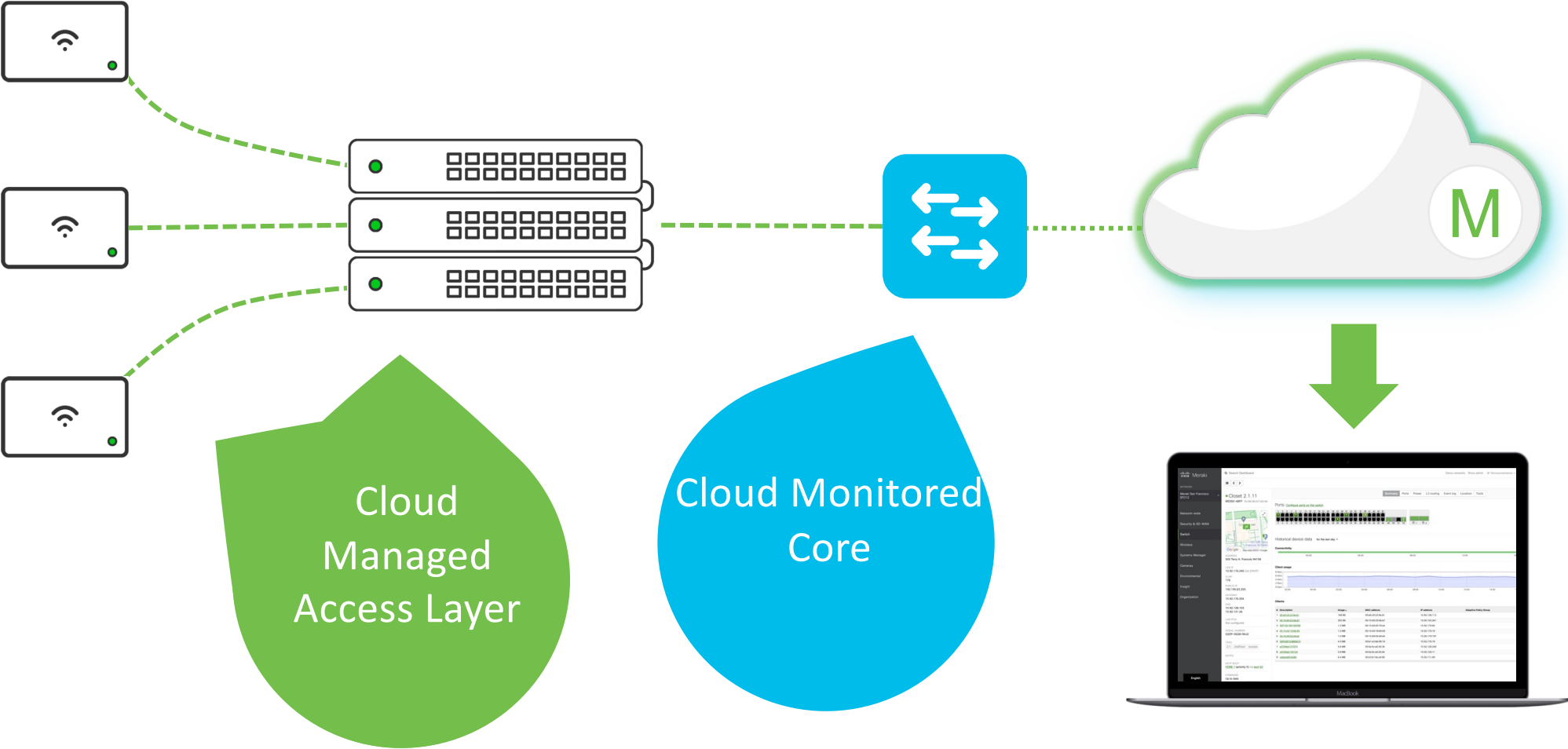
Licensing

DNA Advantage
DNA Essentials*

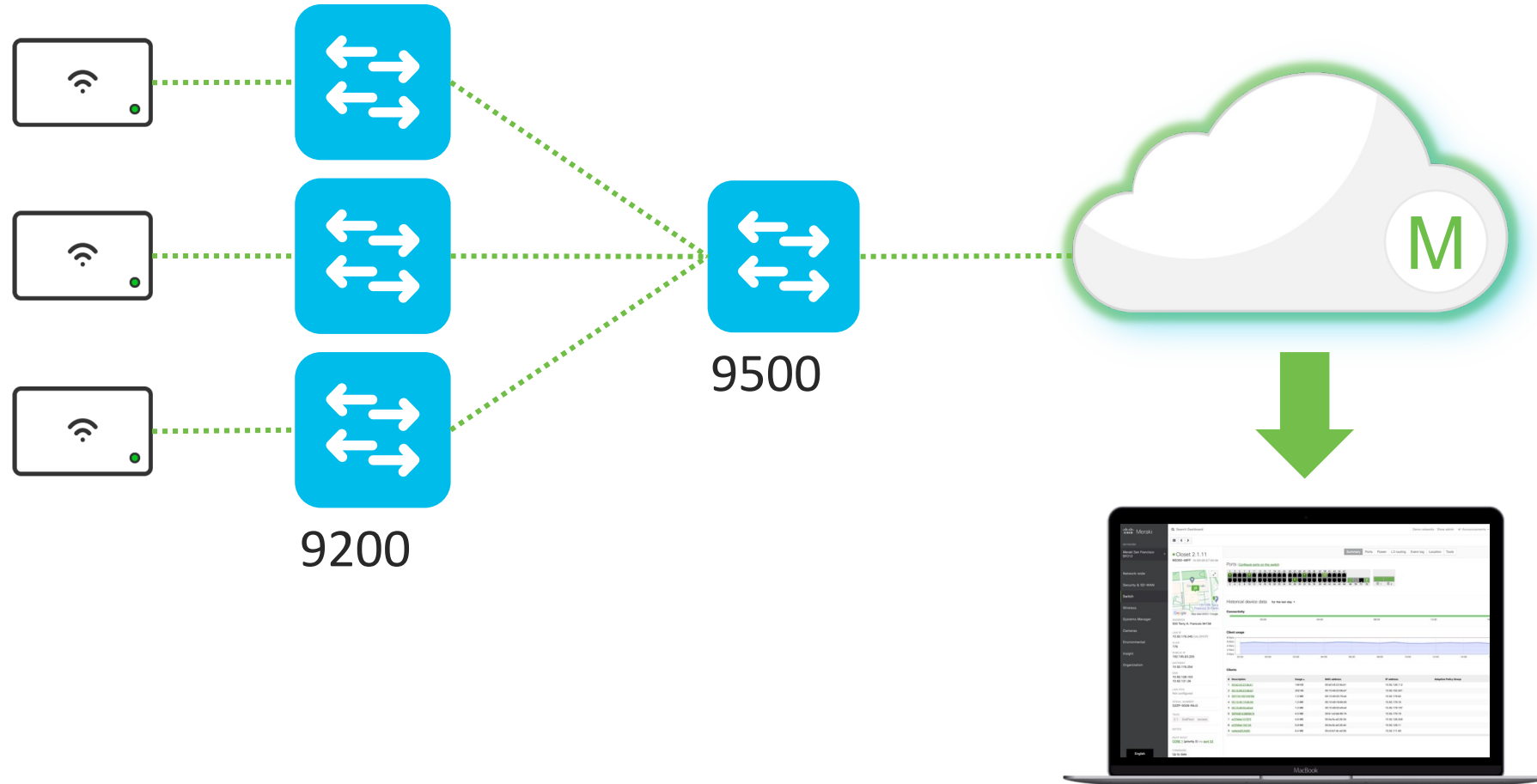
* DNA Essentials will not provide application or usage data

Architecture Use Cases

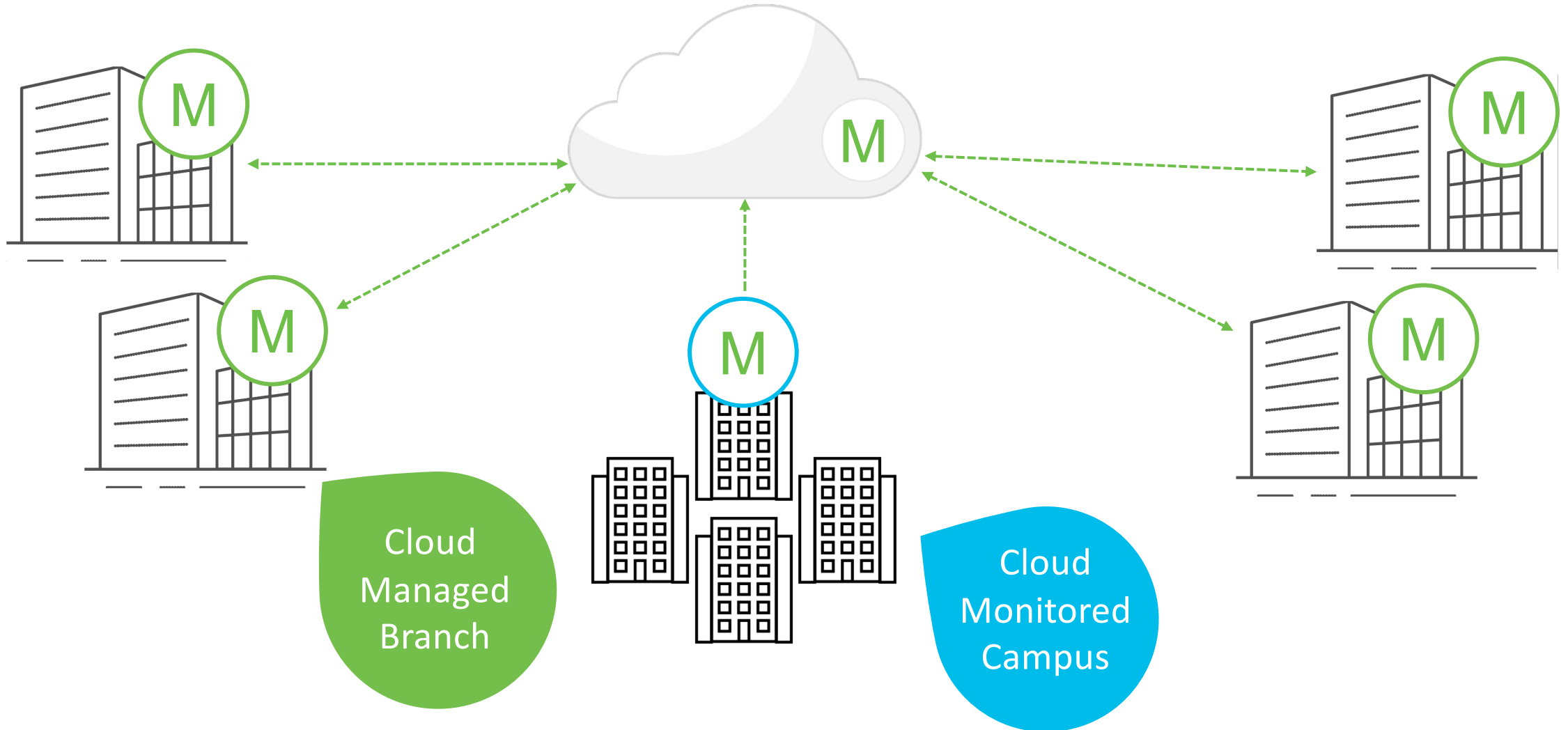
Tiered Architecture



Centralized Monitoring of Catalyst Networks



Catalyst Campus with Meraki Branches



Onboarding Your Devices

Network
San Francisco

Network-wide

Security & SD-WAN

Add devices

Add devices from your organization's inventory. When you click on a device, the order will be added to your inventory. Once in your inventory, you can add the device to your dashboard.

To add Cisco Catalyst switches to Dashboard, click on the **Add devices** link in the left-hand navigation pane.

Search inventory

Add devices from your organization's inventory. When you click on a device, the order will be added to your inventory. Once in your inventory, you can add the device to your dashboard.

To add Cisco Catalyst switches to Dashboard, click on the **Add devices** link in the left-hand navigation pane.

Search inventory

| <input type="checkbox"/> MAC address | Serial number |
|--|---------------|
| <input type="checkbox"/> e0:cb:bc:90:fe:f0 | Q2KD-XD3B-JC |
| <input type="checkbox"/> e0:cb:bc:42:95:c0 | Q2PN-XS4A-SE |
| <input type="checkbox"/> e0:cb:bc:32:12:f7 | Q2PD-84MW-R |
| <input type="checkbox"/> e0:cb:bc:19:8e:7b | Q2QN-KX65-VL |
| <input type="checkbox"/> e0:55:3d:83:05:a2 | Q2BV-DMQP-H |
| <input type="checkbox"/> e0:55:3d:83:05:a1 | Q2BV-Y7FY-TY |
| <input type="checkbox"/> e0:55:3d:83:05:a0 | Q2BV-YZLE-29 |
| <input type="checkbox"/> e0:55:3d:83:05:9f | Q2BV-DSVJ-VF |
| <input type="checkbox"/> e0:55:3d:83:05:9e | Q2BV-U9XN-7K |
| <input type="checkbox"/> e0:55:3d:83:05:83 | Q2BV-5ZXS-R2 |
| <input type="checkbox"/> e0:55:3d:83:05:82 | Q2BV-B8VH-V2 |
| <input type="checkbox"/> e0:55:3d:83:05:81 | Q2BV-4J52-ZH |
| <input type="checkbox"/> e0:55:3d:83:05:80 | Q2BV-C4BU-7C |
| <input type="checkbox"/> e0:55:3d:83:03:63 | Q2BV-2Q7J-RW |
| <input type="checkbox"/> e0:55:3d:83:03:62 | Q2BV-FCC6-AV |
| <input type="checkbox"/> e0:55:3d:83:03:61 | Q2BV-7WNX-US |
| <input type="checkbox"/> e0:55:3d:83:03:5f | Q2BV-38NE-9J |
| <input type="checkbox"/> e0:55:3d:83:03:3c | Q2BV-7EXR-RT |

Cisco Catalyst on Dashboard



To add **Cisco Catalyst** switches to Meraki dashboard, please review the **Onboarding Guide** for requirements and instructions, then download the Onboarding application, which will be used locally to configure your Catalyst devices to connect to the Cisco cloud.

Please note, these devices will be available on dashboard as **Monitor Only**. You can still make configuration changes outside of dashboard. If needed, you can re-onboard devices at anytime using the Onboarding application.

Onboarding app download links

[Download For Mac](#)

[Download For Windows](#)

[Download For Linux](#)

Close

Onboarding Step 0 – Terms and Conditions

Cloud Monitoring for Catalyst | Onboarding (v1.6.4)

MERAKI CLOUD MONITORING FOR CISCO CATALYST 9000 SERIES EARLY ACCESS TERMS OF USE

Please read and accept our terms and conditions to continue.

These Early Access Terms of Use (the "Agreement") are between You and Cisco and govern Your installation and use of the Cloud Monitoring for Cisco Catalyst 9000 application within Meraki Dashboard ("Cloud Monitoring"). This Agreement incorporates specific product terms that apply to Related Cisco Products that Cloud Monitoring works with, including Meraki Dashboard and Cisco Catalyst 9000 series switches. You agree to be bound by the terms of this Agreement through (a) Your download, installation, and/or use of Cloud Monitoring; or (b) Your express consent to this Agreement, such as by click-accept. If You do not have authority to enter into this Agreement or You do not agree with its terms, do not use Cloud Monitoring. Definitions of capitalized terms used here and throughout this Agreement are contained in Section 10 "Definitions."

- 1. License Grant.** Your installation and use of Cloud Monitoring is governed by the terms of the Meraki Cloud Networking Offer Description (the "Meraki OD") found here https://www.cisco.com/c/dam/en_us/about/doing_business/legal/OfferDescriptions/meraki.pdf, subject to the terms and conditions of this Agreement and the Supporting Documentation. For the purposes of this Agreement, Cloud Monitoring shall be considered a "Meraki Cloud Service" under the Meraki OD and subject to all of the same terms therein. In the event of a conflict between this Agreement and the Meraki OD, this Agreement takes precedence with respect to Cloud Monitoring only.
- 2. Related Cisco Products & Terms.** Neither this Agreement, nor the installation or use of Cloud Monitoring, shall impact or change the existing terms and conditions applicable to the Related Cisco Products that Cloud Monitoring works with ("Related Product Terms"). Your use of Meraki Dashboard remains governed by the Meraki OD, and your use of all Cisco Catalyst 9000 series hardware and software remains governed by the Cisco End User License Agreement (the "Cisco EULA") found here www.cisco.com/go/eula. In the event of a conflict between this Agreement and any Related Product Terms, the Existing Products Terms shall control regarding the respective Cisco Products they apply to.
- 3. Support.** Regarding support for Cloud Monitoring, Section 2.7 "Service Level Agreement" of the Meraki OD shall be the sole and exclusive support provided. These support terms, also found here <https://meraki.cisco.com/trust/#sla>, apply only to the downloadable software and cloud service portions of Cloud Monitoring. Section 2.8 "Hardware Warranties" of the Meraki OD shall have no application to the installation or use of Cloud Monitoring, or to the use of Cisco Catalyst 9000 series switches with Meraki Dashboard. All support for Cisco Catalyst 9000 products, including all hardware and operating software, is governed by Your existing hardware and software support and/or warranty terms with Cisco, some of which may require additional purchase. You also acknowledge that Cisco will have remote access to Cloud Monitoring, including for troubleshooting, support and maintenance.
- 4. Feedback.** If You provide Cisco any feedback related to your installation and use of Cloud Monitoring ("Feedback"), Cisco may utilize all such Feedback without restriction for any reasonable purpose. You also agree that You will not release or otherwise make available to any third party any such Feedback, performance data, benchmarking statistics, or any results derived from Cloud Monitoring.
- 5. Your Data.** You understand and agree that by using Cloud Monitoring, it may be collecting data regarding the devices that connect to Your network and how that network is being used. You understand and agree that all such data shall be considered "Customer Data" under the terms of the Meraki OD, and its collection, storage, and processing shall be governed by Section 3 "Data Protection" of the Meraki OD.
- 6. Confidential Information.** You shall retain all Confidential Information in confidence and use Confidential Information solely for the purpose of, and in accordance with, this Agreement, including as part of discussions regarding Cloud Monitoring within groups within the Meraki Community (at <https://community.meraki.com>), as provided by Cisco. You shall disclose Confidential Information only to those employees or contractors with a need to know such Confidential Information and solely for the purposes permitted by this Agreement. You shall use the same degree of care that You use to protect Your own confidential information of like character, but in no case less than a reasonable degree of care, to prevent the unauthorized use, disclosure, or publication of the Confidential Information. If You become legally compelled to disclose any Confidential Information, You will provide Cisco prompt written notice, if legally permissible, and will use Your best efforts to assist Cisco in making a protective order or another appropriate remedy.

[Agree and Continue](#)

Beta Feedback

Onboarding Step 1 – API Key & Org Selection

Cloud Monitoring for Catalyst | Onboarding (v1.6.4)

Meraki Dashboard API key

Meraki Dashboard API key

Cloud Monitoring for Catalyst

Make sure you have checked out our onboarding checklist.

Meraki Dashboard API key

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

Select the Dashboard organization for onboarding

| Organization name | Dashboard link |
|--|----------------------|
| <input type="radio"/> Cloud Monitoring Demo | Link |
| <input checked="" type="radio"/> Cloud Monitoring Lab SF | Link |
| <input type="radio"/> Meraki MS TME Lab | Link |

Next

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Onboarding Step 2&3 – Device IP and Credentials

Cloud Monitoring for Catalyst | Onboarding (v1.6.4)

Meraki | Cloud Monitoring for Catalyst

Adding devices to Meraki Dashboard

Bring your Cisco Catalyst switches into the Meraki cloud.

- 1 Select organization
Select the organization for onboarding
- 2 Device information**
Enter device information to onboard
- 3 Device credentials
Enter credentials for your devices
- 4 Configuration pre-check
Perform pre-checks on selected devices
- 5 Network assignment
Add devices to your network
- 6 Confirmation
Review configuration changes
- 7 Apply configuration
Start onboarding devices
- 8 Finish

Device information

Enter the IPv4 address and port that can be used to SSH into the devices you want to onboard into the Meraki Dashboard. For example: 192.168.1.1:2222. If no port is specified, it will default to port 22.

| | |
|---|--------------|
| 1 | 172.30.0.102 |
| 2 | 172.30.0.104 |
| 3 | 172.30.0.105 |
| 4 | 172.30.0.107 |

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Cloud Monitoring for Catalyst | Onboarding (v1.6.4)

Meraki | Cloud Monitoring for Catalyst

Adding devices to Meraki Dashboard

Bring your Cisco Catalyst switches into the Meraki cloud.

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Review configuration changes
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Start onboarding devices
- 8 Finish

Enter device credentials

Please provide the SSH credentials to be used for device onboarding (privilege level 15 required)

User name

Password

Cisco enable password (if required)

[Back](#) [Next](#)

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Beta Feedback

Onboarding Step 4 – Device Pre-Checks

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

Configuration pre-check
We're reviewing your configurations and running a multipoint checklist.

Please review the [Onboarding Checklist](#) for eligibility and connectivity requirements. When ready, click 'Start Pre-Check'.

4 device(s) ready for pre-check

| IP Address | Model | Progress | Status |
|----------------|-------|--------------------------------|-------------|
| > 172.30.0.102 | | <div style="width: 0%;"></div> | Not started |
| > 172.30.0.104 | | <div style="width: 0%;"></div> | Not started |
| > 172.30.0.105 | | <div style="width: 0%;"></div> | Not started |
| > 172.30.0.107 | | <div style="width: 0%;"></div> | Not started |

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

4 device(s) ready for pre-check

| IP Address | Model | Progress | Status |
|---|-----------------|----------------------------------|----------------------|
| 172.30.0.102 | C9300L-48PF-4G | <div style="width: 100%;"></div> | Ready for onboarding |
| 6/10/2022, 6:41:29 AM Authenticating... 6/10/2022, 6:41:37 AM Device authenticated 6/10/2022, 6:41:37 AM Checking device eligibility... 6/10/2022, 6:41:53 AM Device is eligible 6/10/2022, 6:41:53 AM Checking device configuration... | | | |
| 172.30.0.104 | C9300L-48UXG-4X | <div style="width: 100%;"></div> | Ready for onboarding |
| 6/10/2022, 6:41:29 AM Authenticating... 6/10/2022, 6:41:37 AM Device authenticated 6/10/2022, 6:41:37 AM Checking device eligibility... 6/10/2022, 6:41:52 AM Device is eligible 6/10/2022, 6:41:52 AM Checking device configuration... | | | |
| 172.30.0.105 | C9300L-48UXG-4X | <div style="width: 100%;"></div> | Ready for onboarding |
| 6/10/2022, 6:41:29 AM Authenticating... 6/10/2022, 6:41:37 AM Device authenticated 6/10/2022, 6:41:37 AM Checking device eligibility... 6/10/2022, 6:41:52 AM Device is eligible 6/10/2022, 6:41:52 AM Checking device configuration... | | | |
| 172.30.0.107 | C9300-48P | <div style="width: 100%;"></div> | Ready for onboarding |
| 6/10/2022, 6:41:29 AM Authenticating... 6/10/2022, 6:41:37 AM Device authenticated 6/10/2022, 6:41:37 AM Checking device eligibility... 6/10/2022, 6:41:52 AM Device is eligible 6/10/2022, 6:41:52 AM Checking device configuration... | | | |

Onboarding Step 5 – Network Selection

Cloud Monitoring for Catalyst | Onboarding (v1.6.4)

Meraki | Cloud Monitoring for Catalyst

Adding devices to Meraki Dashboard

Bring your Cisco Catalyst switches into the Meraki cloud.

- Select organization
Select the organization for onboarding
- Device information
Enter device information to onboard
- Device credentials
Enter credentials for your devices
- Configuration pre-check
Perform pre-checks on selected devices
- 5 Network assignment**
Add devices to your network
- 6 Confirmation
Review configuration changes
- 7 Apply configuration
Start onboarding devices
- 8 Finish

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 |
|--------------|-------------------|-----------------|---------------|------------------|
| 172.30.0.102 | 4c:5d:3c:e2:9f:80 | C9300L-48PF-4G | FOC2523LB2S | Mars Lab |
| 172.30.0.104 | a0:b4:39:d6:f9:00 | C9300L-48UXG-4X | FOC2348L4RN | Mars Lab |
| 172.30.0.105 | 3c:51:0e:f2:bb:80 | C9300L-48UXG-4X | FOC2347L4B2 | Mars Lab |
| 172.30.0.107 | a4:78:06:21:6b:80 | C9300-48P | FJC2531204Z | Mars Lab |

Back Next

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Beta Feedback

Onboarding Step 6 – Preview Config

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** (Current Step)
- Apply configuration
- Finish

Confirm configuration changes

Review the configuration changes below and select the devices to apply changes

| <input type="checkbox"/> | IP address | MAC address | Model | Serial number | Actions |
|--------------------------|--------------|-------------------|-----------------|---------------|------------------------------|
| <input type="checkbox"/> | 172.30.0.102 | 4c:5d:3c:e2:9f:80 | C9300L-48PF-4G | FOC2523LB2S | Show details |
| <input type="checkbox"/> | 172.30.0.104 | a0:b4:39:d6:f9:00 | C9300L-48UXG-4X | FOC2348L4RN | |
| <input type="checkbox"/> | 172.30.0.105 | 3c:51:0e:f2:bb:80 | C9300L-48UXG-4X | FOC2347L4B2 | |
| <input type="checkbox"/> | 172.30.0.107 | a4:78:06:21:6b:80 | C9300-48P | FJC2531204Z | |

Configuration changes for 172.30.0.102

- Cleanup previous Cloud Monitoring configuration.
- Configure required system services.
- Ensure device access from the cloud is secure.**
- Create a local user for device access from the cloud.
- Setup TLS Tunnel for cloud connectivity.

```
1 ! Prevent traffic that should be in the tunnel from falling back to default route when the tunnel is down.
2 ip route 18.232.244.158 255.255.255.255 Null 0
3
4 ! Create local authentication group for SSH through the TLS tunnel.
5 aaa authentication login MERAKI local
6 aaa authorization exec MERAKI local
7
8 ! Create ACL for cloud SSH ingress.
9 ! Allow only port 2222 for SSH.
10 ip access-list extended MERAKI_VTY_IN
11 10 permit tcp host 18.232.244.158 any eq 2222
12 20 deny tcp any any
13
14 ! Create ACL for cloud telemetry egress.
15 ! Allow only port 2022 for SFTP to the cloud.
16 ip access-list extended MERAKI_VTY_OUT
17 10 permit tcp any host 18.232.244.158 eq 2022
18 20 deny tcp any any
19
20 ! Configure a SSH rotary to use port 2222.
21 ip ssh port 2222 rotary 50
22
23 ! Enable SSH to VTY lines to be dedicated for cloud.
```

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Onboarding Step 7 – Apply Configuration

The screenshot displays the 'Cloud Monitoring for Catalyst | Onboarding (v1.6.4)' interface. The main heading is 'Adding devices to Meraki Dashboard' with the subtext 'Bring your Cisco Catalyst switches into the Meraki cloud.' The left sidebar contains a progress indicator with 8 steps: 1. Select organization, 2. Device information, 3. Device credentials, 4. Configuration pre-check, 5. Network assignment, 6. Confirmation, 7. Apply configuration (current step), and 8. Finish. A 'Back' button is located at the bottom of the sidebar.

A modal dialog is open in the center, titled 'Apply configuration changes to selected devices?'. The message inside reads: 'The outlined configuration changes will be applied.' There are 'Cancel' and 'Save' buttons at the bottom of the dialog.

The background interface shows a 'Confirm configuration changes' section with a table of devices. The table has columns for IP address, MAC address, Model, and Status. The devices listed are:

| IP address | MAC address | Model | Status |
|--------------|-------------------|-----------------|----------------------------|
| 172.30.0.102 | 4c:5d:3c:e2:9f:0a | C9300L-48UXG-4X | Applying configurations... |
| 172.30.0.104 | a0:b4:39:d6:f9:00 | C9300L-48UXG-4X | Applying configurations... |
| 172.30.0.105 | 3c:51:0e:f2:bb:80 | C9300L-48UXG-4X | Applying configurations... |
| 172.30.0.107 | a4:78:06:21:6b:80 | C9300-48P | Applying configurations... |

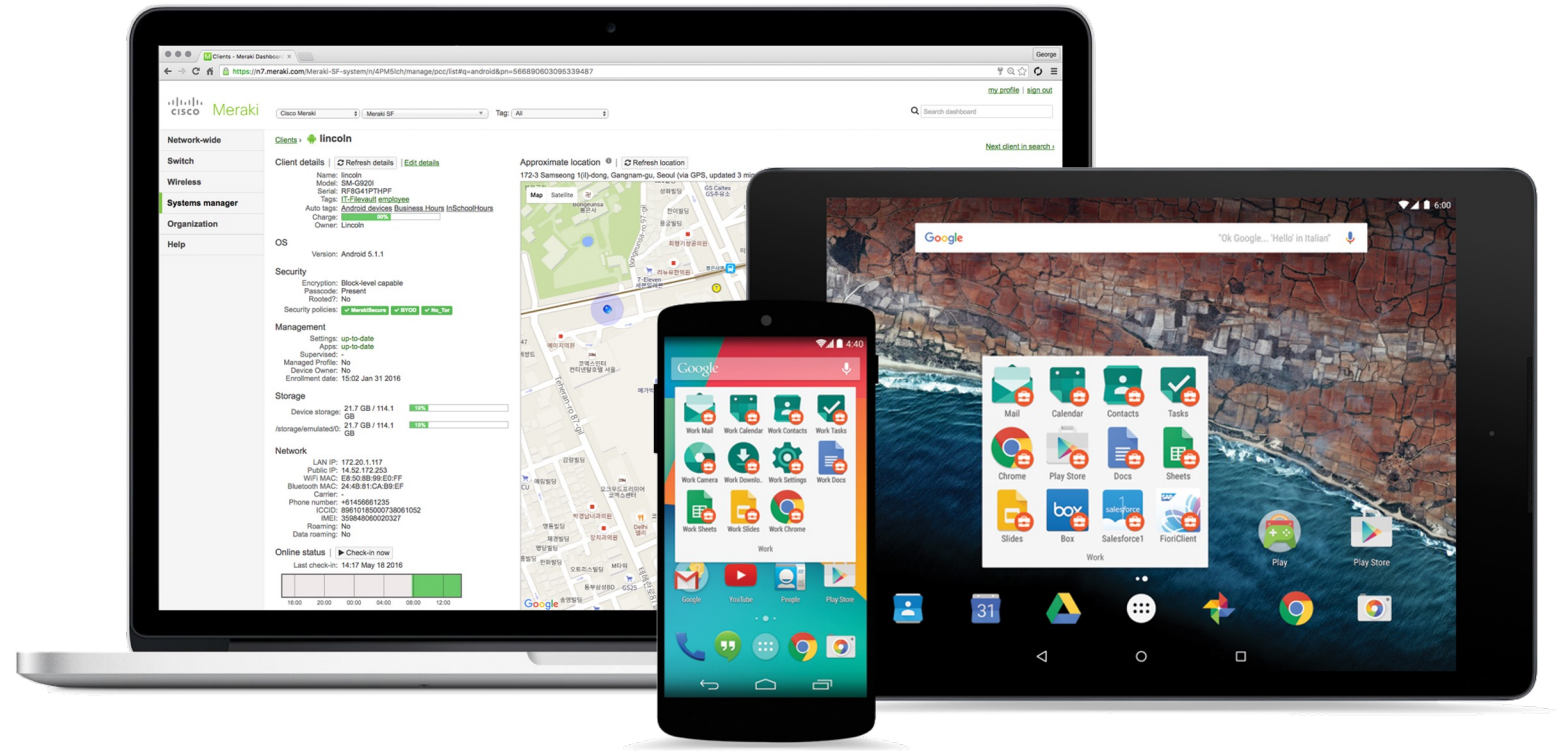
The detailed view of Step 7 shows a table with columns for IP address, Model, Progress, and Status. The progress bars are partially filled, indicating that configuration is being applied. The status for each device is 'Applying configurations...'. The table lists the following configuration changes for each device:

| IP address | Model | Progress | Status |
|--------------|-----------------|--------------|----------------------------|
| 172.30.0.102 | C9300L-48PF-4G | Progress bar | Applying configurations... |
| 172.30.0.104 | C9300L-48UXG-4X | Progress bar | Applying configurations... |
| 172.30.0.105 | C9300L-48UXG-4X | Progress bar | Applying configurations... |
| 172.30.0.107 | C9300-48P | Progress bar | Applying configurations... |

The configuration changes listed for each device include: 'Ensure old tunnel config is removed.', 'Ensure old CA certificates are removed.', 'Enable netconf (requires ip routing).', 'Enable LLDP for topology.', 'Prevent traffic that should be in the tunnel from falling back to default route when the tunnel is down.', and 'Creating local authentication group for SSH through the TLS tunnel.' A 'Next' button is located at the bottom right of the detailed view.

Cisco Meraki systems manager

Product overview



Systems Manager Endpoint Management



FEATURE HIGHLIGHTS

Device security and location

Network settings deployment

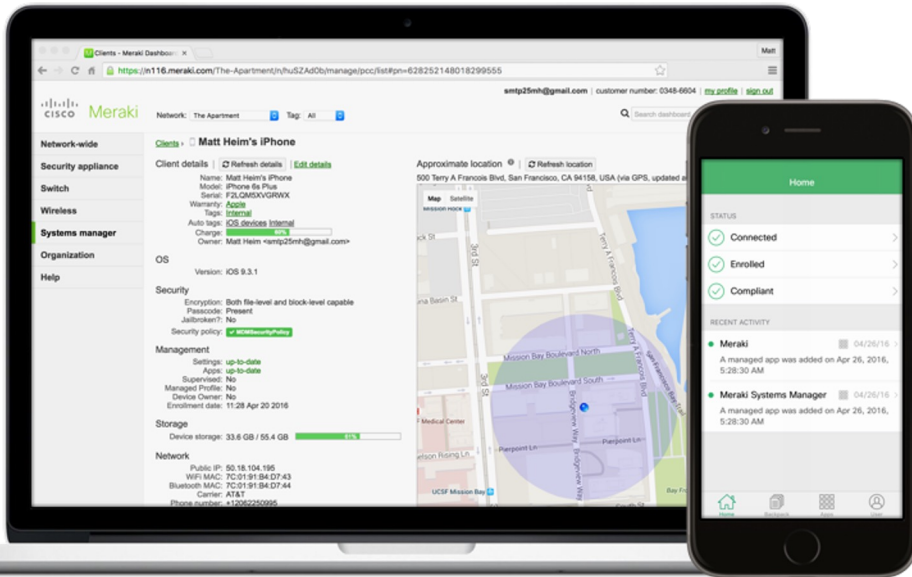
Mobile and desktop troubleshooting

Easy and rapid provisioning

Backpack file sharing

Software inventory and app deployment

MDM-less onboarding with Trusted Access



Multi platform MDM support - macOS, iOS, AppleTV, Windows, Android, & Chrome OS

Cloud-based - no on-site appliances or software, works with any vendor's network

Deployment Programs



Apple

Device Enrollment Program (DEP)
and Apple School Manager (ASM)

“Supervision” for advanced control
and automatic enrollment



Android

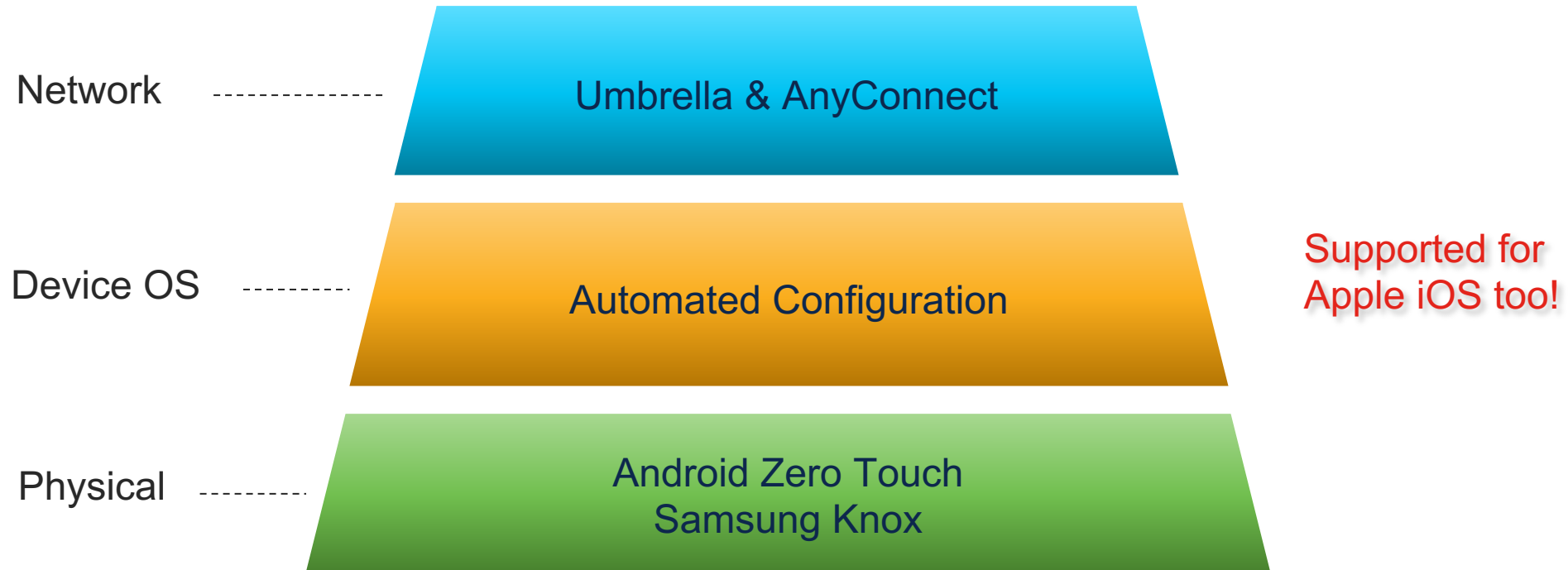
Android Enterprise (Android for Work)

** Android zero-touch enrollment **

Device Owner Mode for advanced control

SM Android Security

Secure in the office or remote



Deployment Programs



Volume Purchase Program

Free and paid app management

Silently push apps

Migrate from Apple ID management

Recover/uninstall managed apps

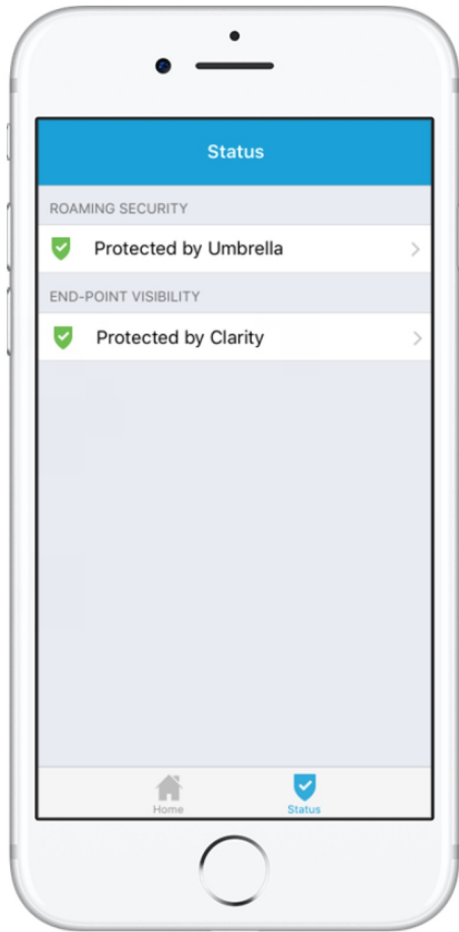


Playstore Apps for Android Enterprise

Integration with Google for Work Play Store

Push and manage apps in Device Owner mode and BYOD

Cisco Security Connector



Deployed and managed by Systems Manager



Cisco Umbrella

Your first line of defense against Internet threats protects against phishing attacks.

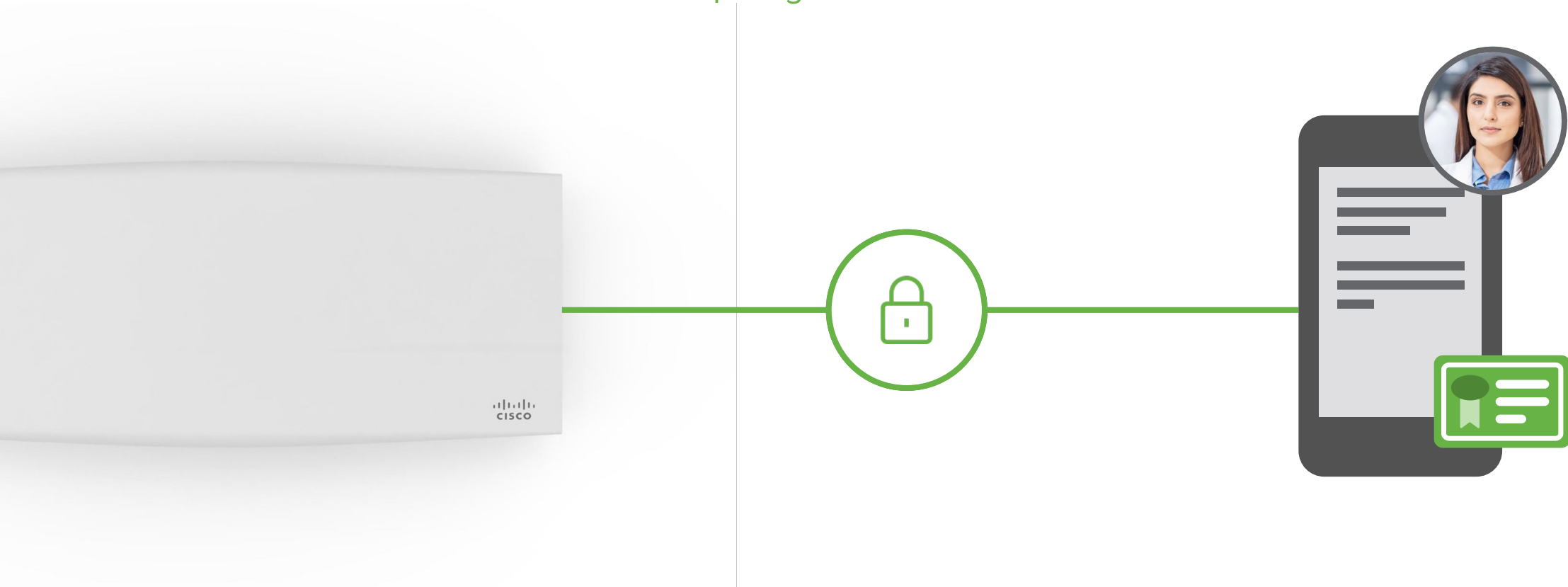


Cisco Clarity

Your last line of defense gives you visibility into network and device traffic.

Meraki Trusted Access

Enables personal devices to access critical resources **without requiring installation** of an MDM



Systems Manager licensing

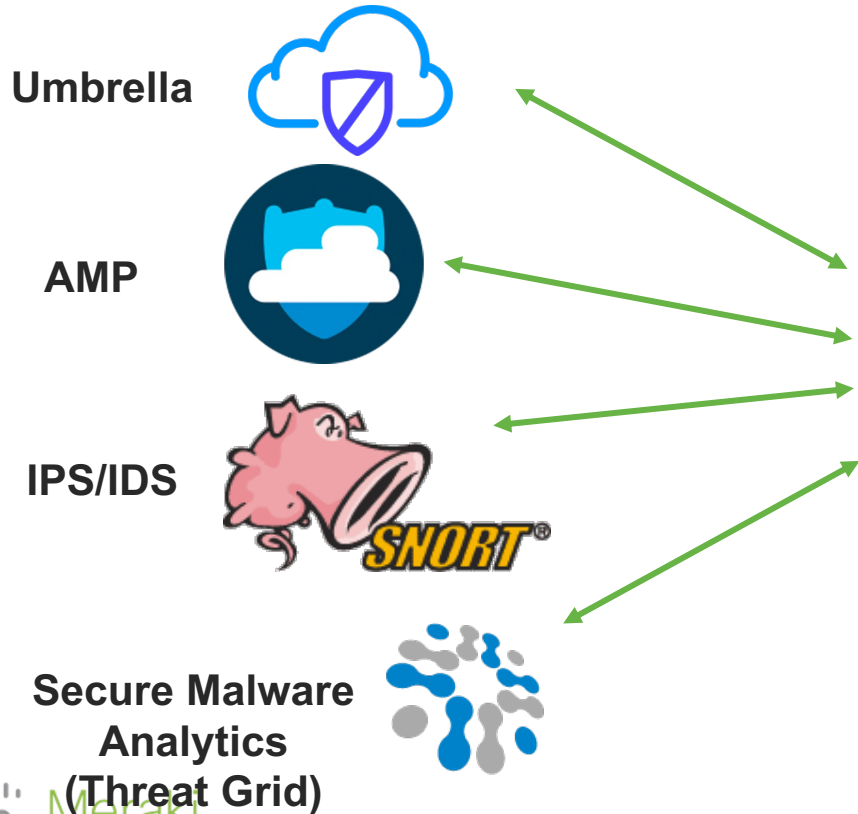
A complete enterprise feature set in a single product: SM

| | SM Free Trial | Enterprise License |
|---|------------------|--------------------|
| Annual cost | Free for 30 days | \$40 / device |
| Complete feature set with ongoing updates | ✓ | ✓ |
| 24/7 phone and email support | ✓ | ✓ |

Cisco Integrations

Meraki MX integrations and interoperability

Meraki Integrations



TALOS



Meraki MX

Meraki Interoperability



Threat Grid Cloud – Malware Analysis

Prioritize Threats



Easy to read threat report with threat scores to help speed up incident response

Security Center the last month - [Print] [Download] [Schedule]

Search events [Filter] 218 matching events

Summary **Events**

| Time | Type | Source | Destination | Disposition | Action | Details |
|-----------------|--------------------------|-------------------------------|-------------------|-------------|---------|---|
| Apr 20 0:23:39 | File Disposition Changed | | | Malicious | | Disposition was Unknown and has been seen 1 time: 8d9a8bafe7d10c4022380a912c25842266ef965d01368bde04dea105e8c2a43f |
| Apr 19 22:53:01 | File Analyzed | no-dns.as5587.net 198.19.7.11 | 00:50:56:bc:c2:b7 | Malicious | Allowed | 95 Threat score, 2 Behavioral indicators. Analyzed URL: http://198.19.7.11/malware /8d9a8bafe7d10c4022380a912c25842266ef965d01368bde04dea105e8c2a43f |
| Apr 19 23:18:42 | File Disposition Changed | | | Malicious | | Disposition was Unknown and has been seen 1 time: 665dca00cc0b525e05610e40e5041fcc1d61833a8f5cb3a220f8728c4293c2 |
| Apr 19 22:52:01 | File Analyzed | no-dns.as5587.net 198.19.7.11 | 00:50:56:bc:c2:b7 | Malicious | Allowed | 95 Threat score, 10 Behavioral indicators. Analyzed URL: http://198.19.7.11/malware /8d9a8bafe7d10c4022380a912c25842266ef965d01368bde04dea105e8c2a43f |
| Apr 19 21:14:54 | File Disposition Changed | | | Malicious | | Disposition was Unknown and has been seen 1 time: 1c9574b99304afe9c229f44c4b42734858a374c6b5de7aa02d956b242186404e |
| Apr 19 19:53:01 | File Analyzed | no-dns.as5587.net 198.19.7.11 | 00:50:56:bc:c2:b7 | Malicious | Allowed | 24 Threat score, 11 Behavioral indicators. Analyzed URL: http://198.19.7.11/malware |

Malicious **Allowed**

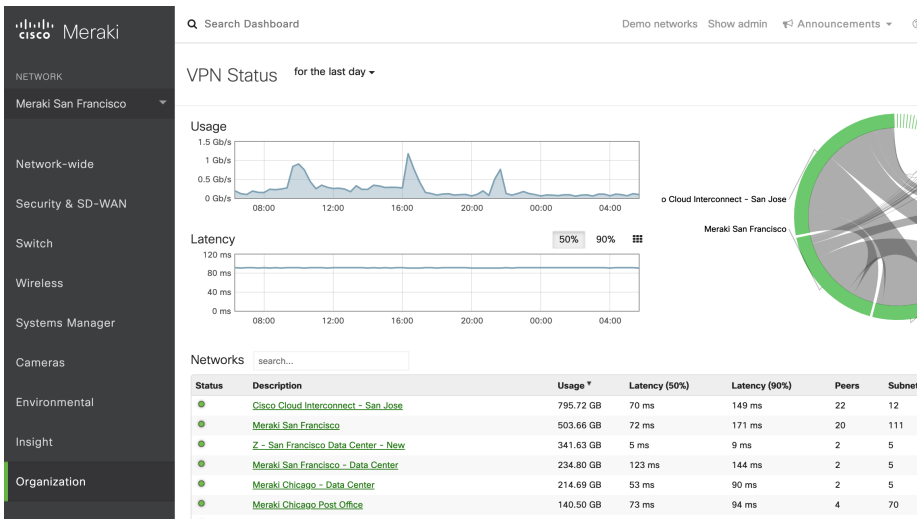
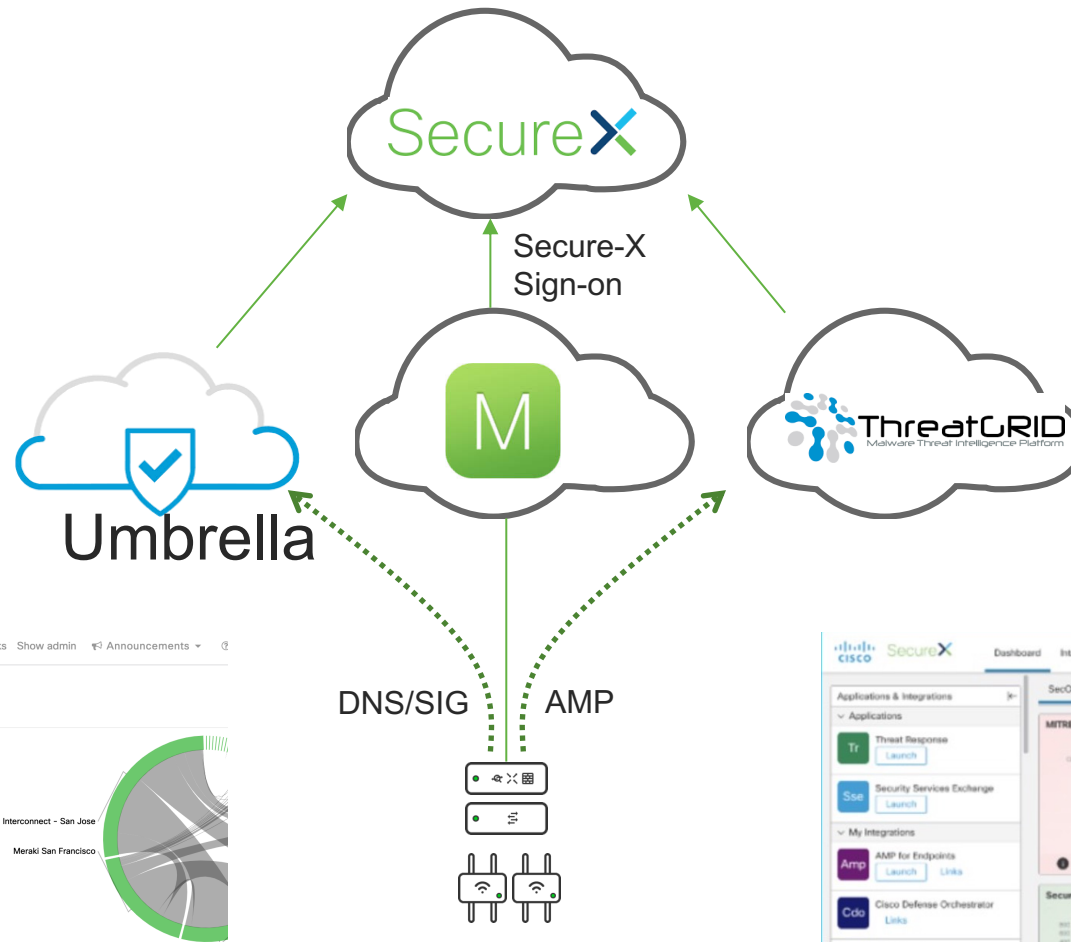
95 Threat score **10** Behavioral indicators

8d9a8bafe7d10c4022380a912c25842266ef965d01368bde04dea105e8c2a43f
analyzed
URL: http://198.19.7.11/malware
/8d9a8bafe7d10c4022380a912c25842266ef965d01368bde04dea105e8c2a43f

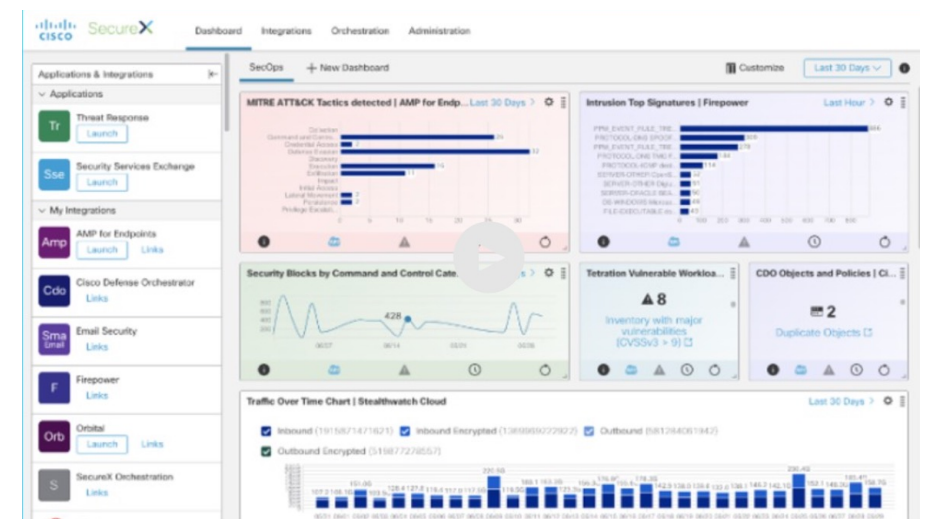
Apr 19 17:53:01 File Analyzed no-dns.as5587.net 198.19.7.11 00:50:56:bc:c2:b7 Malicious Allowed 95 Threat score 2 Behavioral indicators Analyzed URL: http://198.19.7.11/malware /aa12c54e79980a6a3c79d8aa3d5f0bae8b0de948af1c0b87cc261c8bc0762bf

42 pages 10 results per page

Secure-X



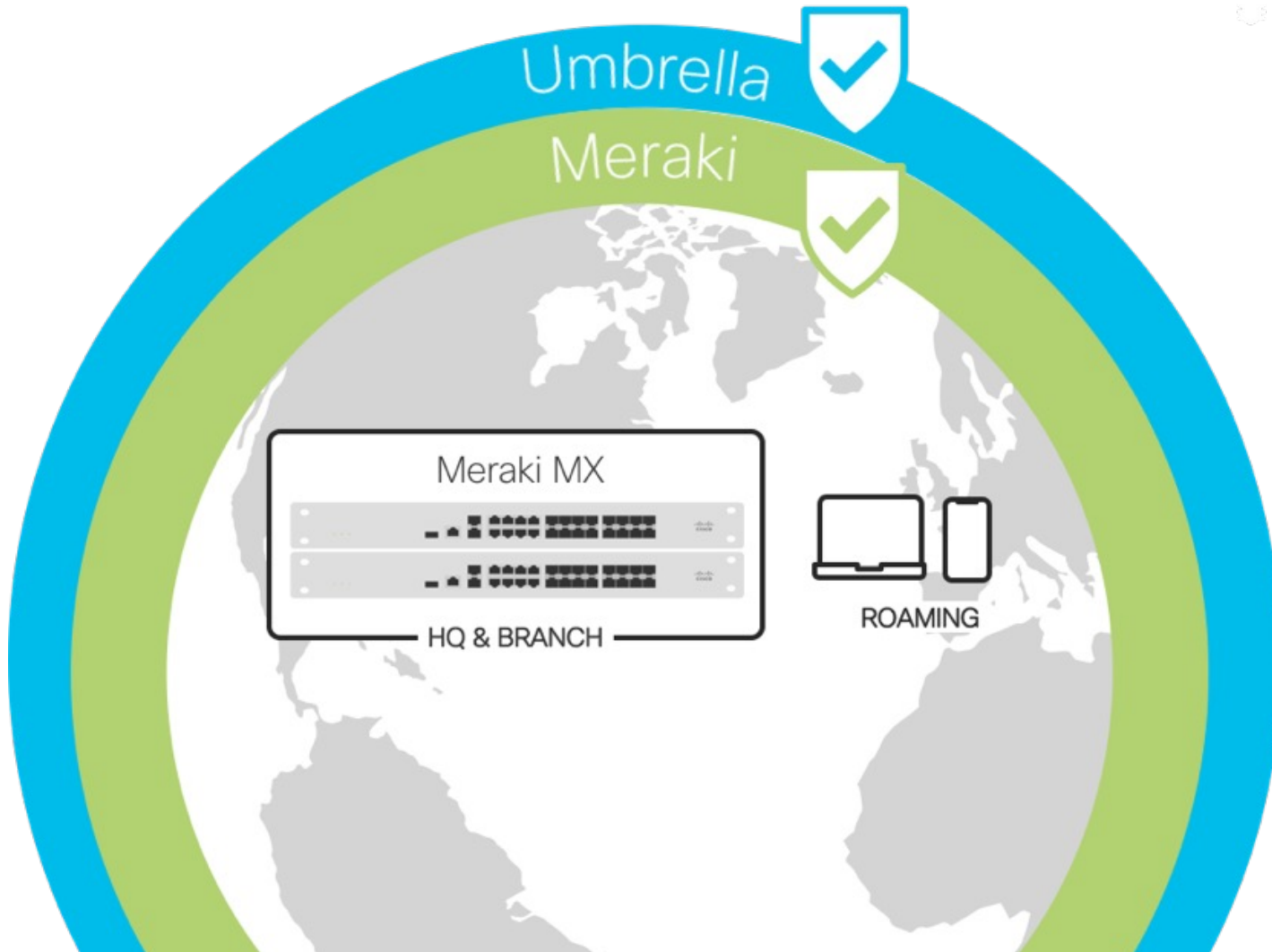
Dashboard for Network Team



Dashboard for Security Team

Umbrella – DNS layer security*

Meraki + Umbrella Security



Umbrella policies applied per client/per VLAN from Meraki Dashboard

Umbrella protection

DNS layer protection (Cisco Umbrella)

Route DNS requests through Cisco Umbrella DNS and deny DNS requests by linking Umbrella policies. **Beta**

Select an Umbrella policy to apply.

Specify one or more domain names below (one per row) to be excluded from being routed to Cisco Umbrella.

ex:
meraki.com
meraki.net
...



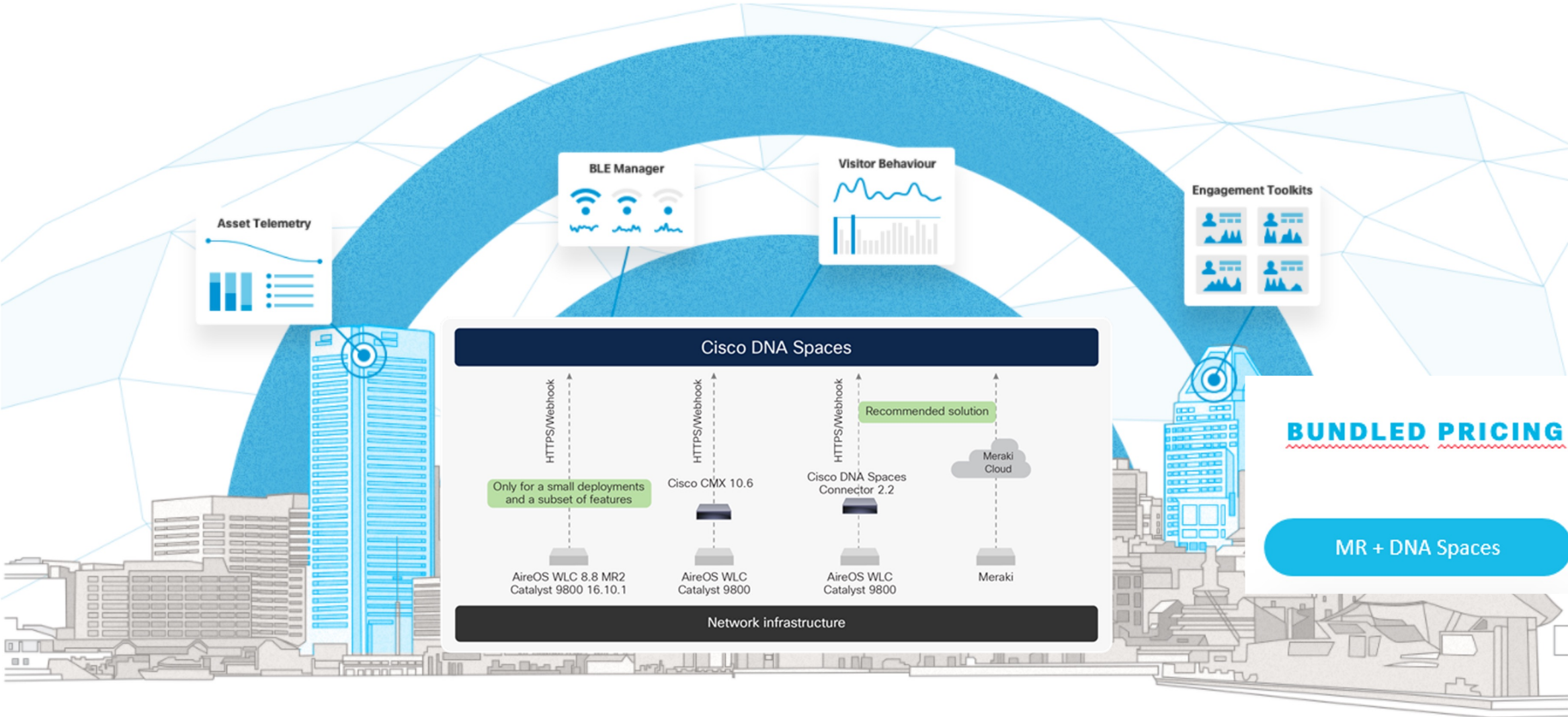
*MX15 firmware required

Meraki ISE Integration *Wired Network Access Control*

Compatibility Matrix:
<https://community.cisco.com/t5/security-documents/how-to-integrate-meraki-networks-with-ise/ta-p/3618650>

- Wired (MS)
 - Host Modes
 - Policy Types
 - Automated Segmentation
- Differentiators
 - Ease of Creating Access Policies
 - Ease of Deployment
 - Powerful workflows using API calls

Safe “Return to Work” with DNA Spaces + MR



Thank you!