

CISCO *Live!*



#CiscoLive



The bridge to possible

AI Insights and Beyond

Full Network Intelligence and Recommendations in the Cloud

Sunmeel Bhumkar
Leader, Product Management
@sunmeelbhumkar
BRKMER-2004



#CiscoLive

Cisco Webex App

Questions?

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

How

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

Webex spaces will be moderated by the speaker until June 17, 2022.



<https://ciscolive.ciscoevents.com/ciscolivebot/#BRKMER-2004>



Agenda

- Scaling you network for the needs of tomorrow
- The journey from Day 0 to Day N
- The challenges at each stage
- Day 2 vs Day N

Our Mission

Deliver exceptional experiences at scale



Intelligent and
automated



Cloud-first
platform



Instant, inclusive
connectivity



Powered by the
network

Hybrid work

Smart spaces

Hybrid Work Trends

64%

Job loyalty for remote work status

2.4x

Increase in malicious access attempts

77%

More connected and productive

Smarter Hybrid Work Spaces

Productive

Engaged

Connected

Secure

The new hybrid work experience

Smarter spaces powered by
location intelligence

Always-on digital collaboration
spaces

Dynamic workspaces and
mobile workforces

Novel guest experiences and
common spaces



The new hybrid work experience



Who led the digital transformation of your company?

A) CEO

B) CTO

C) COVID-19

\$500+ Wi-Fi systems at home have become the norm during COVID

Now users expect this experience anywhere

Day 0

Zero-touch Onboarding

Day 1

Configuration

Policy Enforcement

Security & Automation

.... at scale

Day 2

Network Experience
Dashboard

RCAs that you can trust

Intelligent firmware rollout

Day N

Flexibility to choose cloud
managed or on-prem

From closing tickets to
designing your network with
predictive analytics

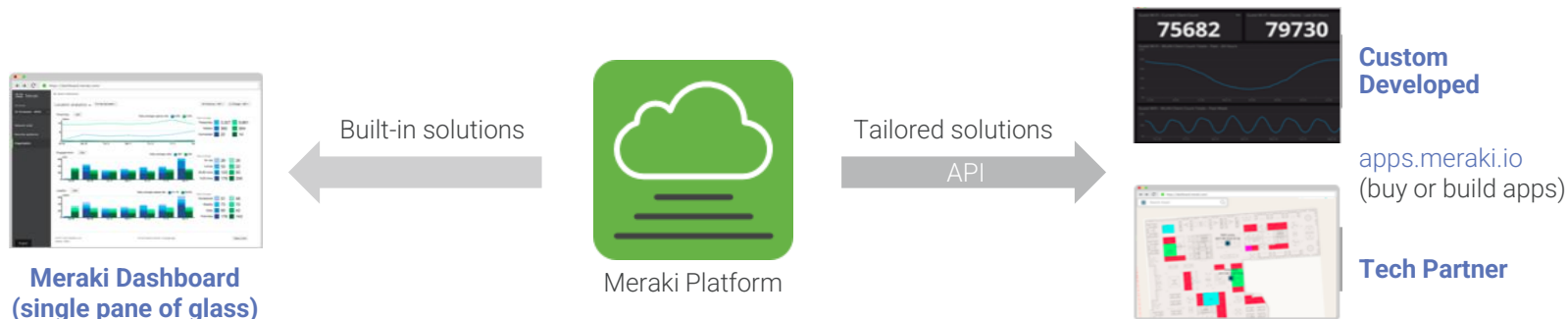
Intelligent firmware rollout

....AI that is always keeping an eye out for problems

Day 0



A full stack portfolio to power IT and OT



Wireless



Switching



SD-WAN and Security



Gateway



Mobile Device Management



Environmental Sensors



Cameras

Access

SD-WAN, SASE

IOT

A Launchpad for New Products

The foundation that accelerates all our new products



Dashboard



Mobile



APIs



Alerts



Push Notifications



Webhooks

The Cloud Platform is our Foundation

Data-Powered Products

Connectivity, Security, IOT

Platform that is simple,
secure and intelligent

Open APIs + Ecosystem

Cloud-First Ops

Meraki Cloud

650,000+

Customers

190+

Countries

10M +

Active Meraki Devices

120M+

Connected Devices
on our Network

Meraki Platform Growth & Adoption

API & ECOSYSTEM HIGHLIGHTS

3B+

dashboard API requests processed per month

100K+

monthly **active** API accounts

214+

official ecosystem partner solutions

Microservices architecture for scalability



We want to be able to move quickly

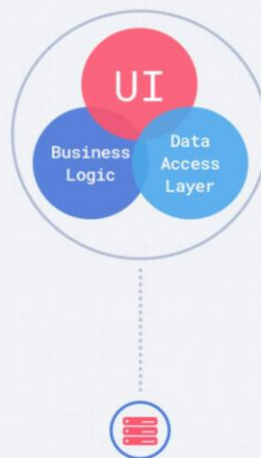


Control over individual services

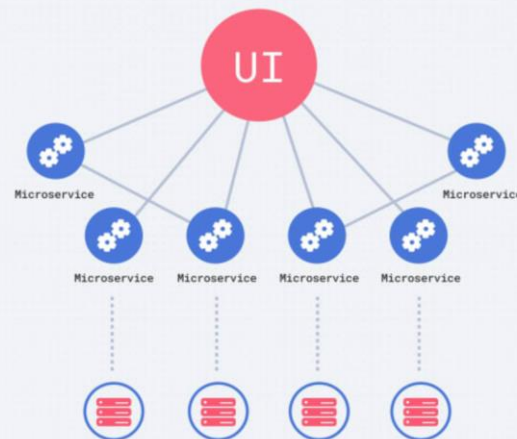


Stability and Scalability made easier

Monolithic Architecture

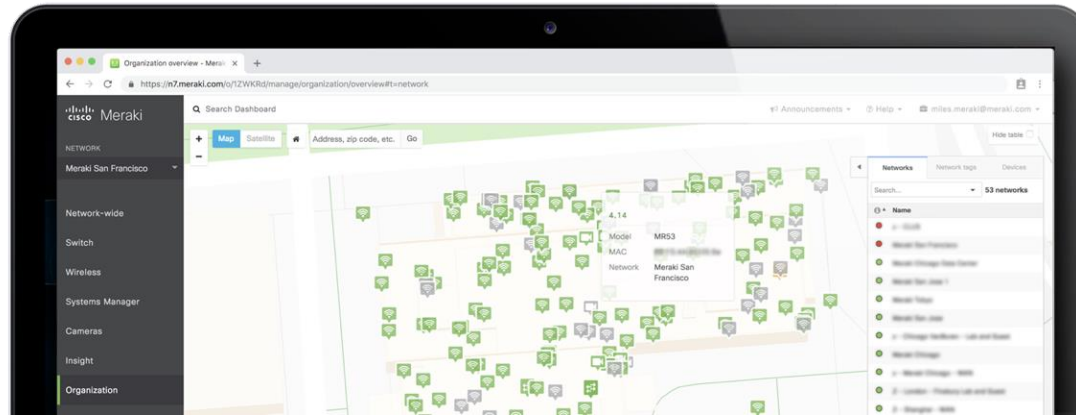
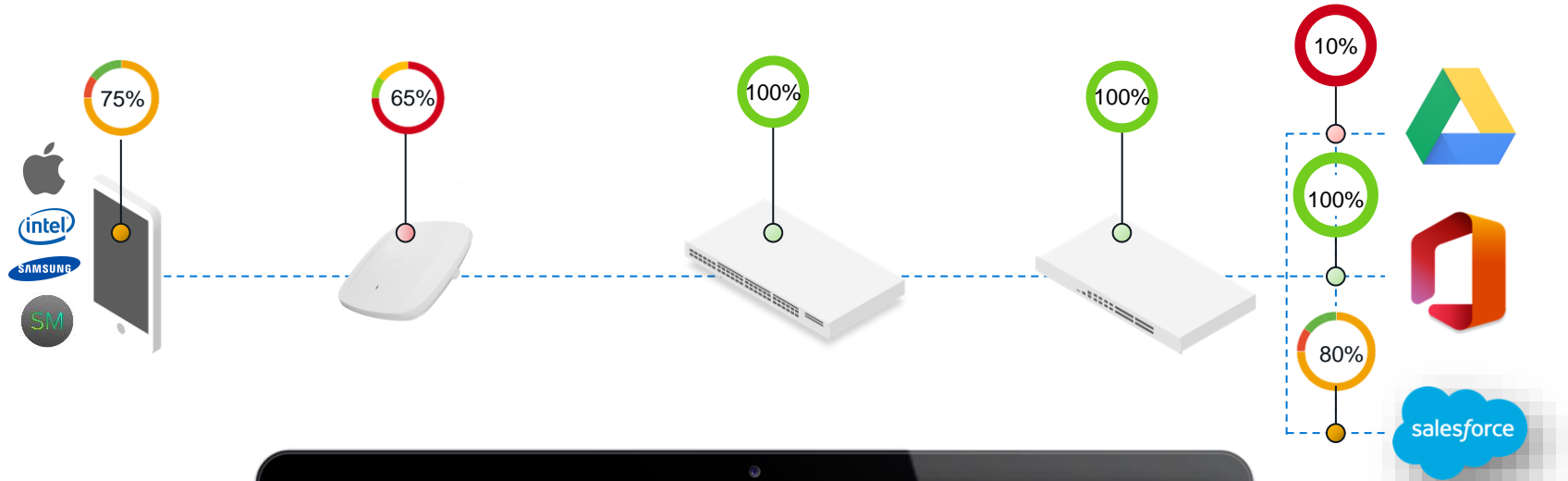


Microservices Architecture



Day 2

Automating Assurance with Meraki Health



Insights with exclusive partnerships

Industry leading partnerships with device vendors for additional details

Apple: Insights into disassociation and OS

Intel: Roaming insights and driver information

Samsung: Coming Soon



Root Cause Analysis Powered by Meraki AI

with context at a client, device and network level



Simple: Easy to understand and contextual



Trust: Evidence and impact to guide customers



Recommendation: Dynamic based on issue

Apr 8 20:24:24

• Client **10-208-32-78** had a failed connection to SSID **ASURAMS-OTHER** on AP **RHE W327** during authentication.

CHANNEL	BAND	SNR	VLAN ID	RADIUS SERVER	MERAKI REASON (CODE 103)
6	2.4 GHz	40 dB	207	10.10.80.34	EAPoL invalid MIC

RADIUS server taking long to respond

The configured RADIUS server 10.10.80.34 was taking a long time to respond to client authentication requests. This may cause issues with some client devices that may timeout and reattempt authentication.

Impact
1785

/1785

🔧 Clients

Evidence

RADIUS Response Time of 8.4s shows the server was taking longer than expected to respond to client authentication requests, but a RADIUS Response Rate of 66% means the server was responding to clients.

RADIUS RESPONSE TIME



• 8.4 s

RADIUS RESPONSE RATE



• 66 %

Recommendations

- Check CPU utilization on the RADIUS server 10.10.80.34.
- Check load on the RADIUS server 10.10.80.34 to ensure the number of requests received is over the server processing capacity.
- Check the network path from **RHE W327** to the RADIUS server 10.10.80.34 to verify connectivity.
- Try **pinging** the RADIUS server 10.10.80.34 from the AP to verify connectivity.
- Follow troubleshooting steps in the RADIUS server logs.

Was this helpful?

Alert Hub to highlight issues

All issues at a central location for the network



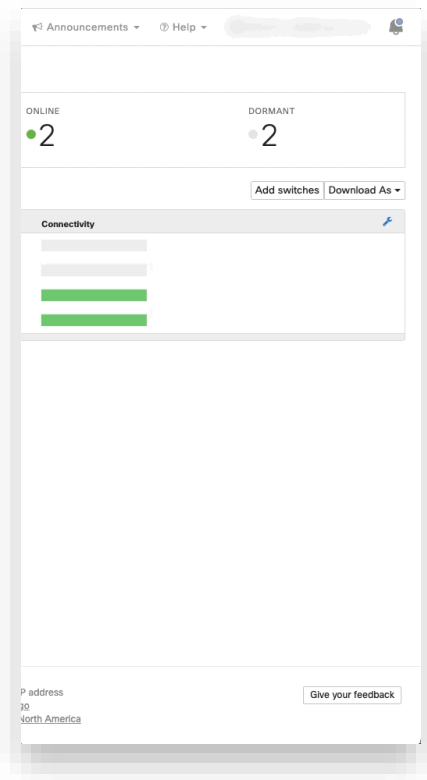
Simple: Single location for all alerts



Full stack support to focus on network issues



In-line action for quick resolution



Actions to help resolve issues quickly

With guidance and validation



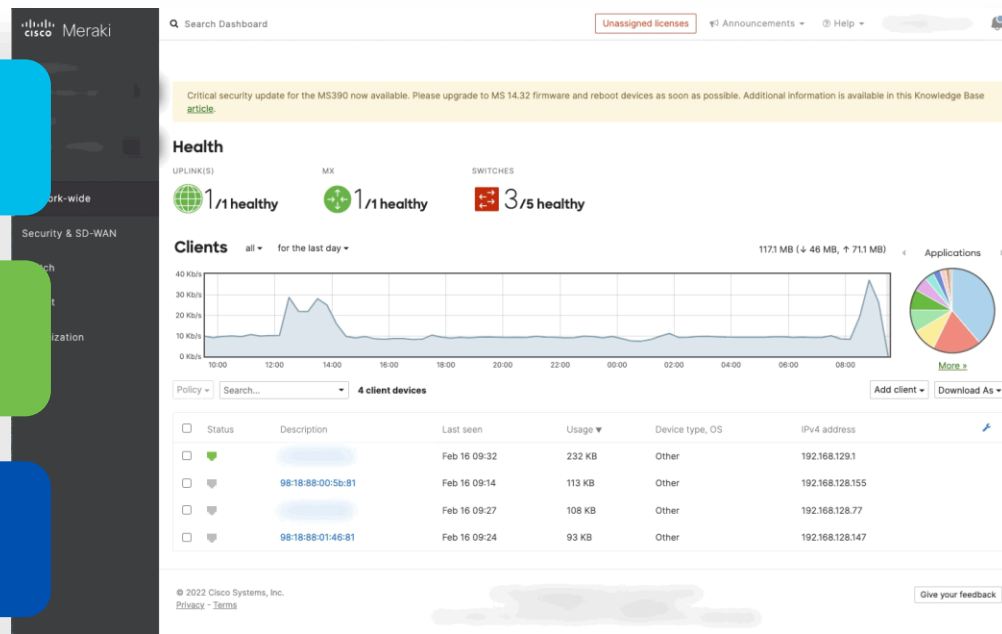
Simple: Easy to find and act upon



Trust: Evidence and suggestions for guidance



Validation: Instantly confirm if fixes are working



Making the cloud work for YOU!!!

Intelligent firmware rollout that constantly monitors firmware globally



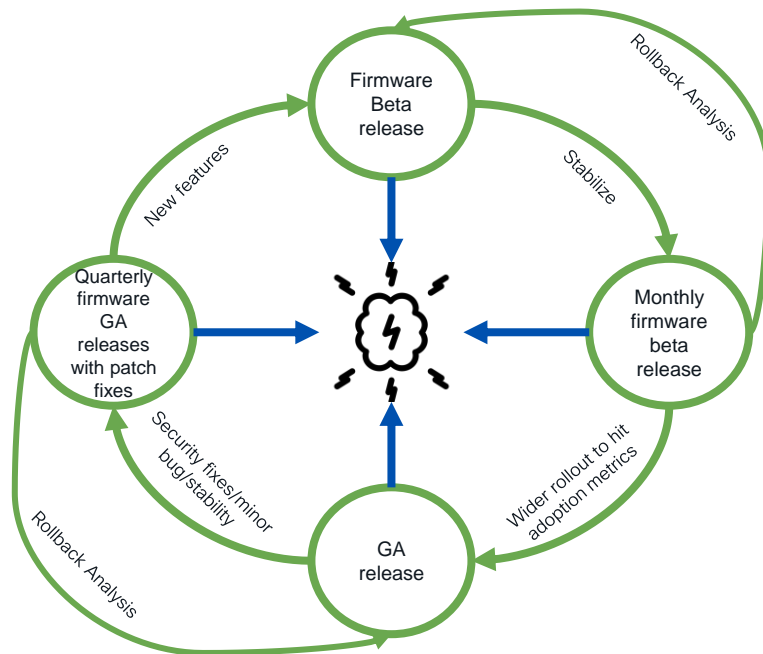
Global monitoring for all deployed firmware



Proactive monitoring for product stability



Proactive outreach to resolve issues



Continuous monitoring to ensure quality for customer deployments

Proactive Issues Caught

3 issues

resolved due to rollback
analysis (NLP) on
MR27.x

12 customers

impacted by issue
detected during rollout;
proactively resolved

~7 years

of monitoring to evolve
the process

Firmware upgrades without user impact

Intelligent firmware upgrades that considers user connectivity impact



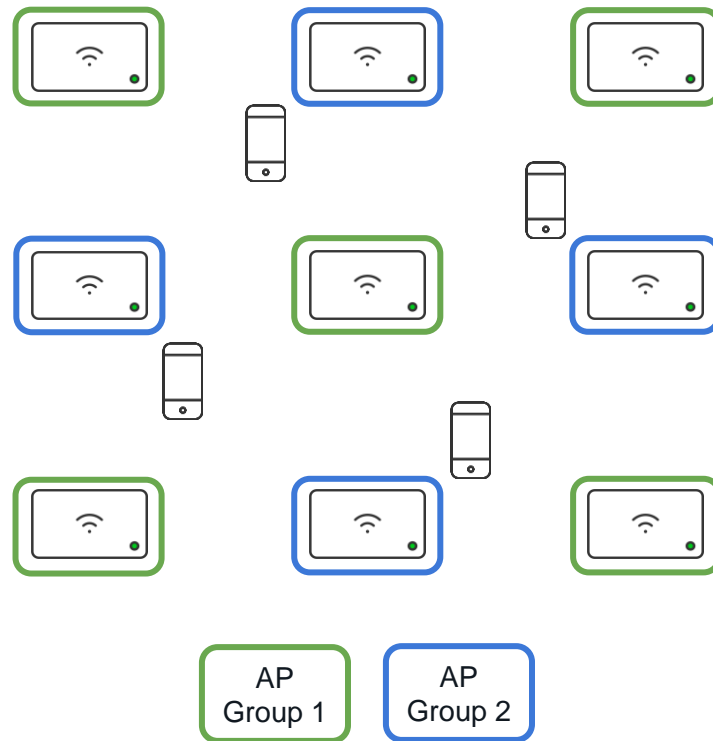
Track connectivity impact for all live clients



Automated grouping of APs based on live data



Minimal user impact for seamless experience



Day N



Planning for the future

with insights from global data lake



Track connectivity impact for all live clients



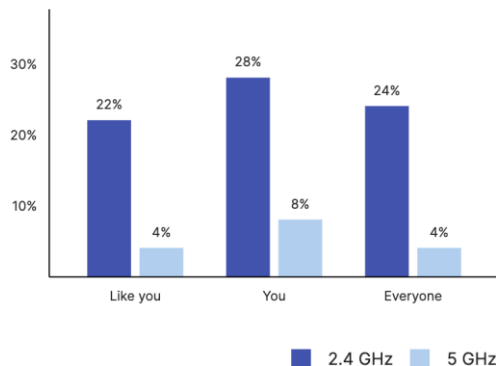
Automated grouping of APs based on live data



Minimal user impact for seamless experience

Channel utilization by band

Your 2.4 GHz channel utilization is **above the industry average**.



Channel utilization by band



Tip: Moving clients to the 5 GHz band reduces latency by up to 100% and can also significantly improve data rates.

Your individual ranking

Your 2.4 GHz channel utilization is **28%**. There are **258** dual band clients with **10 MB of usage or more**, which is not ideal. Migrate these clients to 5 GHz for better network performance.

28%
2.4 GHz CHANNEL
UTILIZATION

258
DUAL BAND CLIENTS
> 10 MB 2.4 GHz USAGE

Clients with > 10 MB usage on the 2.4 GHz band

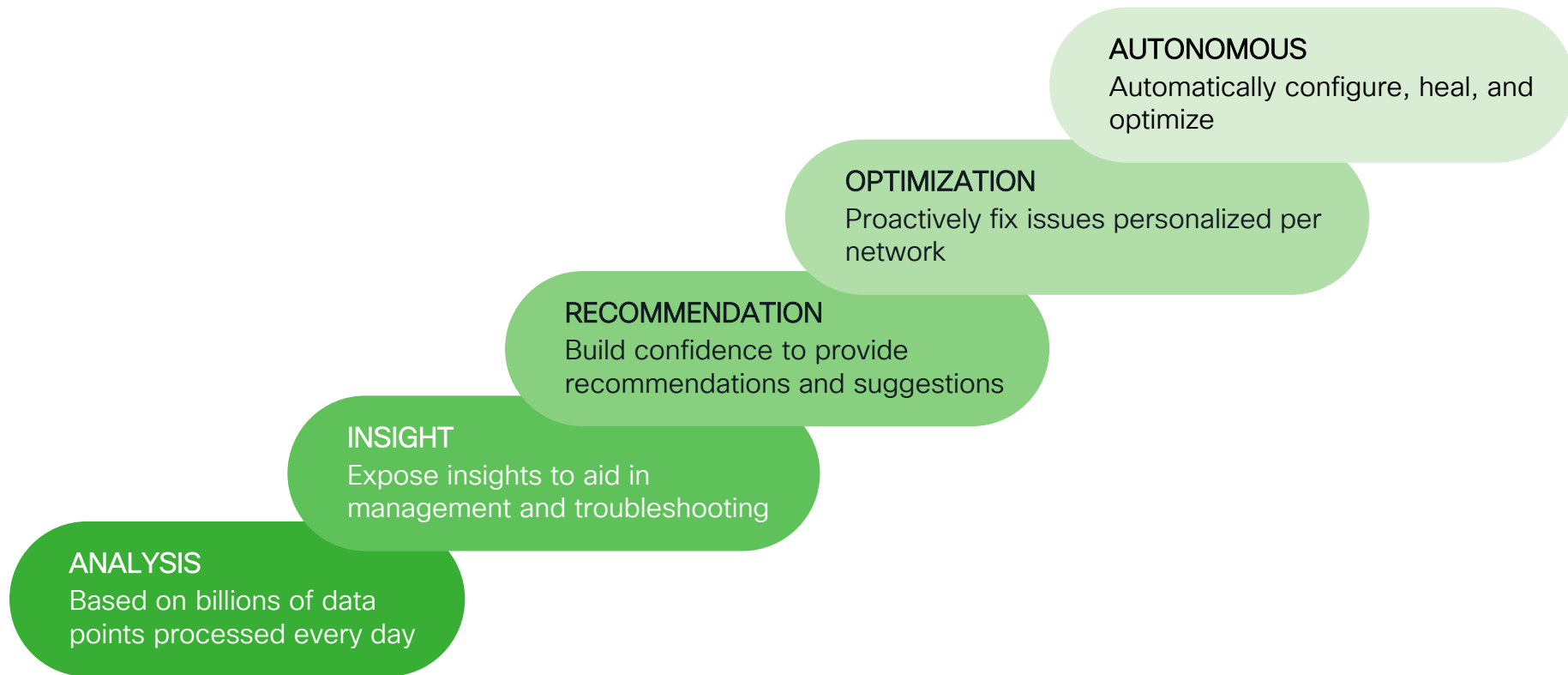
Client name	2.4 GHz SSID name	2.4 GHz usage
X00400XATLRS	SBC Public WiFi	68.11 GB
reid-facing-lower-quad-courtyard-683a1e008aed	Camera Wireless	42.81 GB
YG009P474273	SBC Public WiFi	38.80 GB
upchurch-fieldhouse-lower-level-facing-rear-ac17c8624098	Camera Wireless	18.70 GB
prothro-dining-room-2c3f0bff5e44	Camera Wireless	18.48 GB

5 results per page

Recommendations

- Change SSID operation bands.
- Enable **band steering** on SSIDs.
- Upgrade legacy client devices to support the 5 GHz band.

Meraki Health: Build a data defined network



Technical Session Surveys

- Attendees who fill out a minimum of four session surveys and the overall event survey will get Cisco Live branded socks!
- Attendees will also earn 100 points in the Cisco Live Game for every survey completed.
- These points help you get on the leaderboard and increase your chances of winning daily and grand prizes.



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Accelerated curriculum of product, technology, and certification courses



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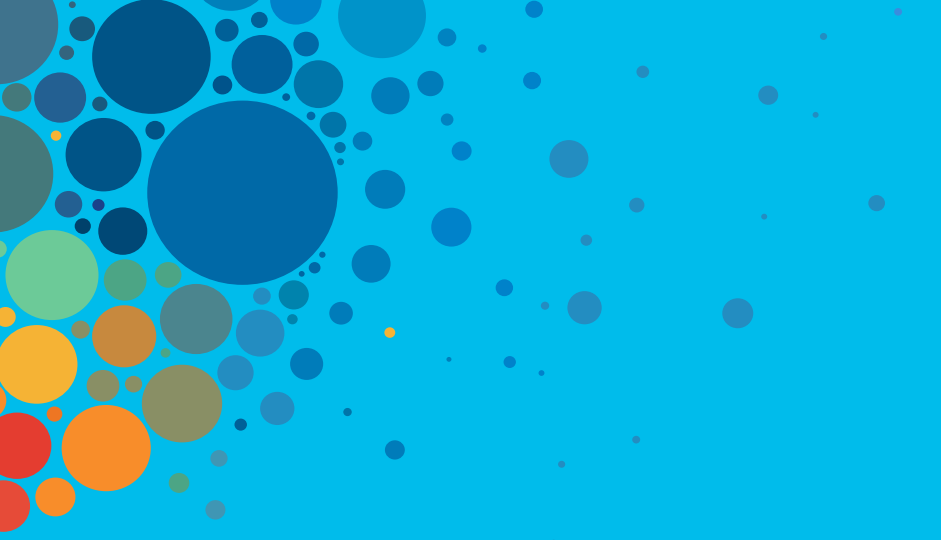
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The bridge to possible

Thank you

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