Let's go

The bridge to possible

You, Me, and Meraki IoT

Driving value from MV Smart Cameras and MT Sensors

James McKee – Regional Sales Leader, Meraki IoT, APJC

BRKMER-2677

Cisco Webex App

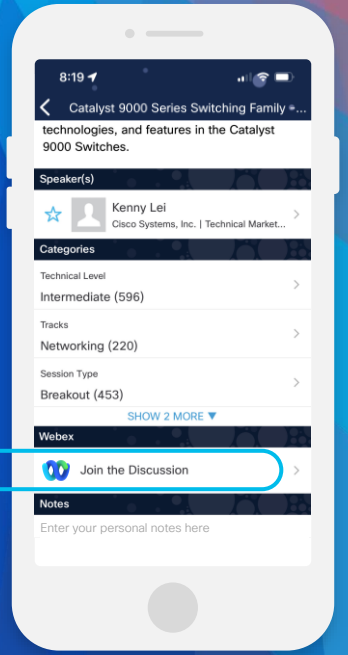
Questions?

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-2677

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Agenda

- Introduction
- Meraki MV Smart Cameras
- Dashboard Demos
- Meraki MT Sensors
- Dashboard Demos
- Conclusion

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Introduction

MISSION

To solve physical security problems by unlocking the power of the Meraki Platform at scale

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Meraki IoT snapshot

2006 FOUNDED CLOUD NETWORKING

2012 ACQUIRED BY CISCO

2016 IT PORTFOLIO EXPANSION TO PHYSICAL SECURITY (MV)

2020 INTRODUCTION OF ENVIRONMENTAL SENSORS (MT)

TODAY 16+ YEARS DESIGNING SCALABLE & SECURE CLOUD ARCHITECTURE

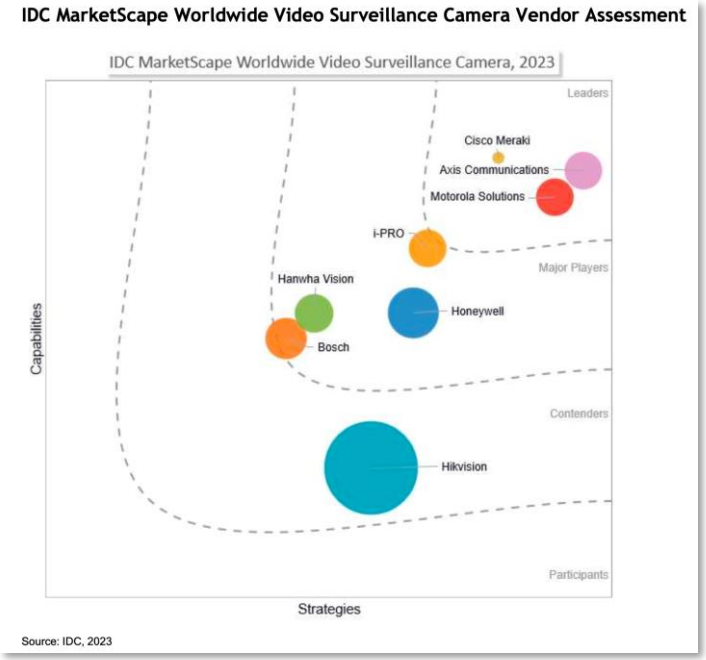
Connecting passionate people to their mission by **simplifying** their workplace.

cisco Live!

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Meraki MV is a video surveillance leader

"Cisco Meraki MV smart cameras enable organisations to transform their security with a scalable, enterprise-grade cloud-managed platform. With models to suit a variety of deployments and tools to make video access and incident response simple, it is easy for organisations to adopt and implement large camera and sensor deployments."



© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Powered by the Meraki platform

The largest cloud platform in networking built for scale and intelligence

737,000+ customers

12+ million active Meraki devices

4+ million active networks

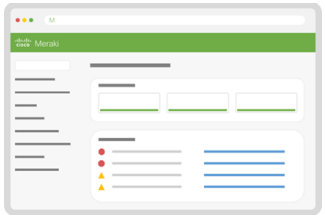
190+ active countries

99.99% Cloud SLA

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

A foundation for the digital and physical

Built-in solutions



Meraki Dashboard

Tailored solutions (APIs)

Custom Built Apps
meraki.io

Tech Partner Apps
apps.meraki.io

MR
Wireless access points

MS
Ethernet switches

MX
Security & SD-WAN appliances

MG
Cellular gateways

MI
Insight [application & WAN]

SM
Endpoint management

MV
Smart cameras

MT
Meraki sensors

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Meraki MV
Smart Cameras

Challenges everywhere

- **Legacy systems** are hard to scale and secure
- **Urgent needs** and low tolerance for delays
- **Money and labour** gaps

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Security camera risks/concerns

Protecting against network security vulnerabilities

Securing access to video to ensure privacy

Managing different levels of access for video users

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Typical security camera deployment

On-premise hardware

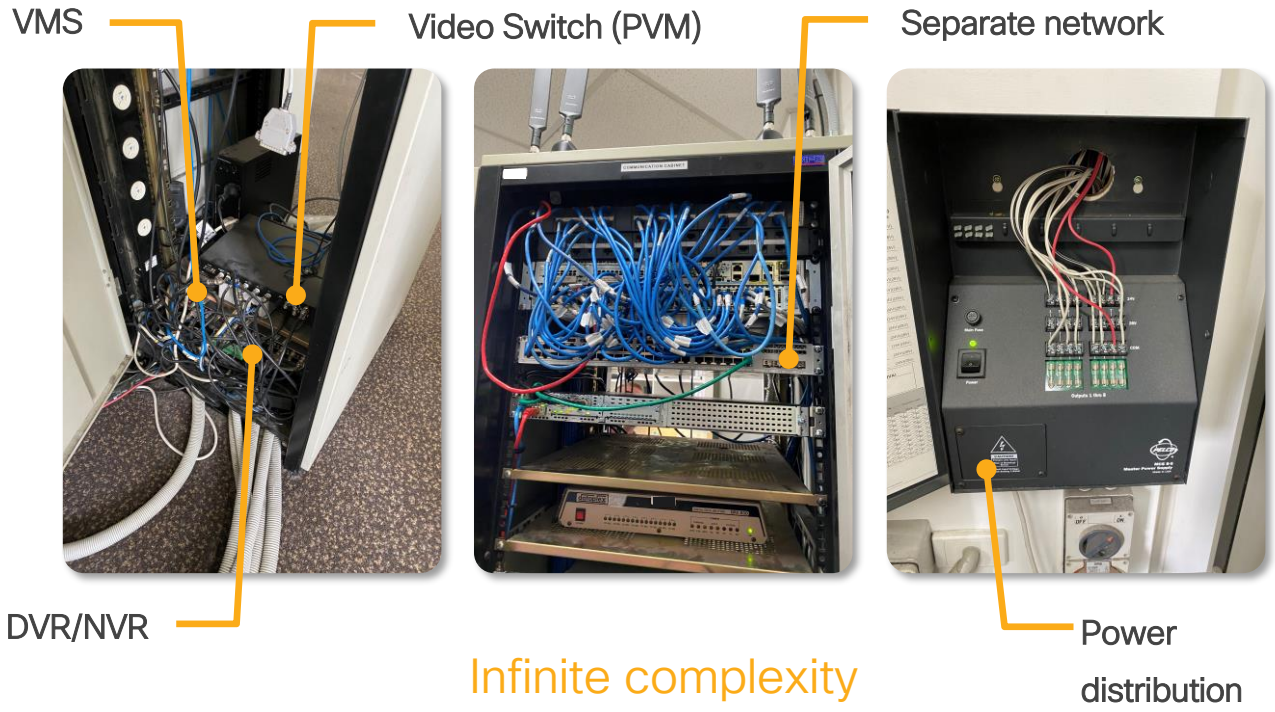
Analogue or IP CCTV cameras
Network video recorders (NVR)
Digital video recorders (DVR)
Video management systems (VMS)
Power Distribution

On-premise software

Multiple software packages
Multiple operating systems

Operational challenges

Manual configuration
Firmware management
Operating system patching
License management
Feature management



Infinite complexity
Network vulnerability

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Meraki MV smart cameras

Smart, secure, scalable, easy to access

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Meraki MV
Smart camera designed for simplicity

FEATURE HIGHLIGHTS

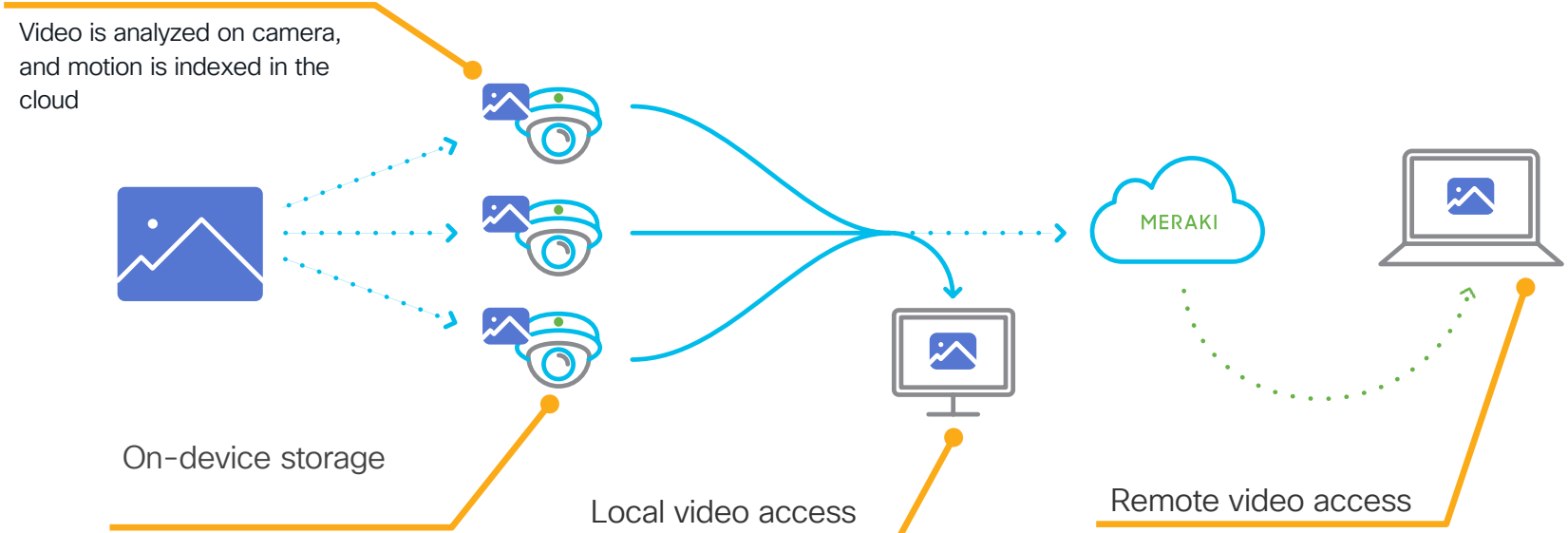
- Smart search and sharing tools simplifies investigations
- Motion and schedule-based recording, and cloud archive to optimise storage
- Restrict video access with granular access controls and use video audit logs to protect privacy
- Built-in analytics, using machine learning and artificial intelligence provide valuable insight

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Meraki edge architecture

Hybrid video processing

Video is analyzed on camera, and motion is indexed in the cloud



On-device storage

Enterprise-grade solid state storage

Local video access

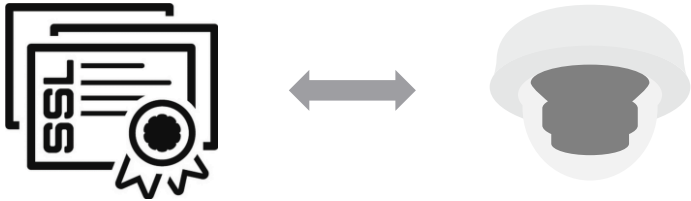
Video streams directly to devices on the same network, saving precious internet bandwidth

Remote video access

When accessing footage remotely, video streams automatically via cloud proxy

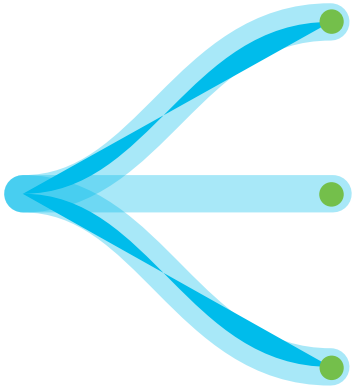
© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Simplifying security



Encryption by Default:

- Video at Rest
- Video During Transport
- Management Data



MV cameras are only accessible through Dashboard or Meraki Vision Portal, both via HTTPS

Cameras automatically obtain, provision and renew a publicly-signed SSL certificate

Certificate encrypts footage in transit from camera to the user

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Cisco Trustworthy Solutions

Security features that ensure the Meraki platform is tamper-proof

TRUST ANCHOR

A tamper-resistant chip in Cisco products that provides secure storage and crypto services.

SECURE BOOT

Ensures code in hardware is authentic while protecting Cisco devices from non-compliant software.

IMAGE SIGNING

Creates a unique digital signature and encryption for code using a Cisco private key.

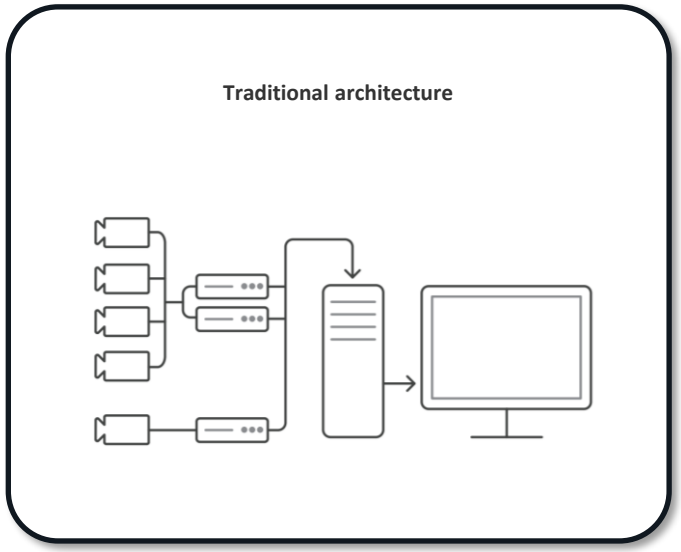
RUNTIME DEFENSES

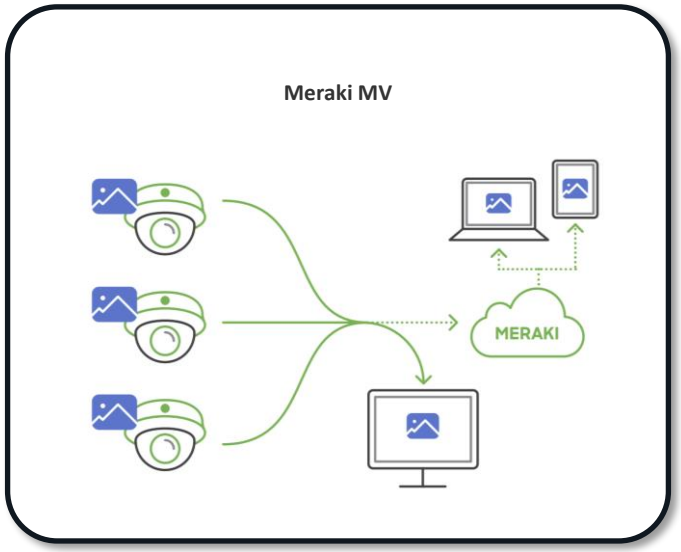
Makes it impossible for attackers to exploit running software by targeting malicious code running in software.

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Transitioning to a Meraki architecture

Option 1: Use both systems simultaneously

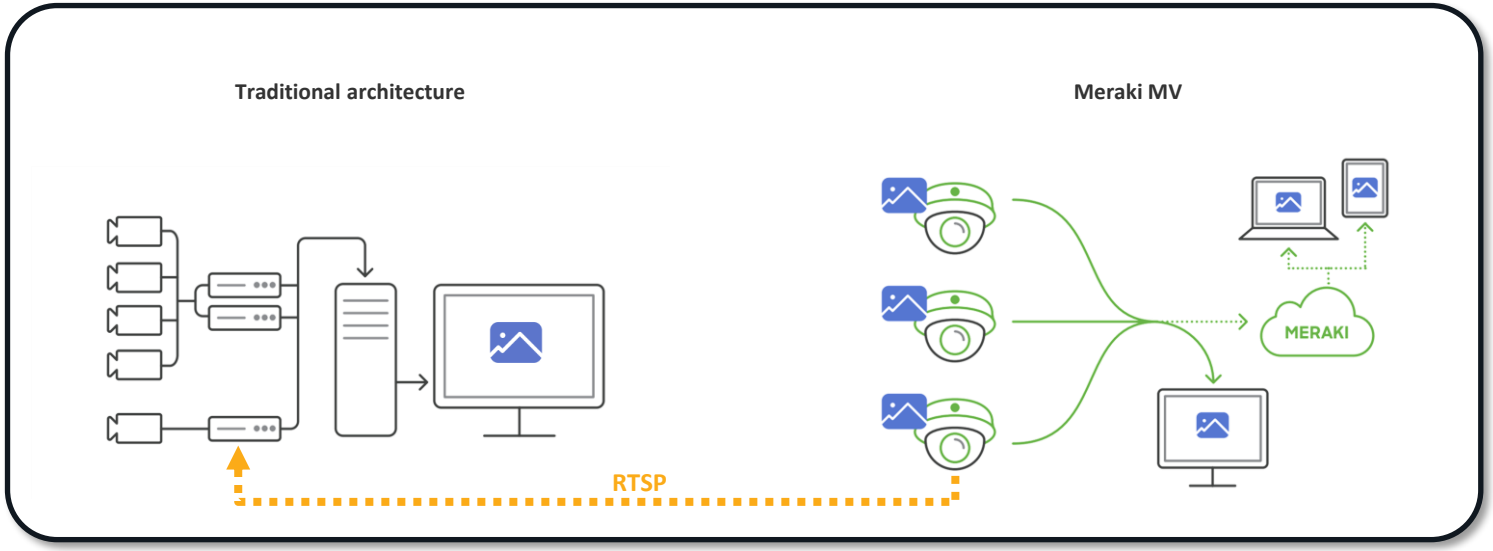




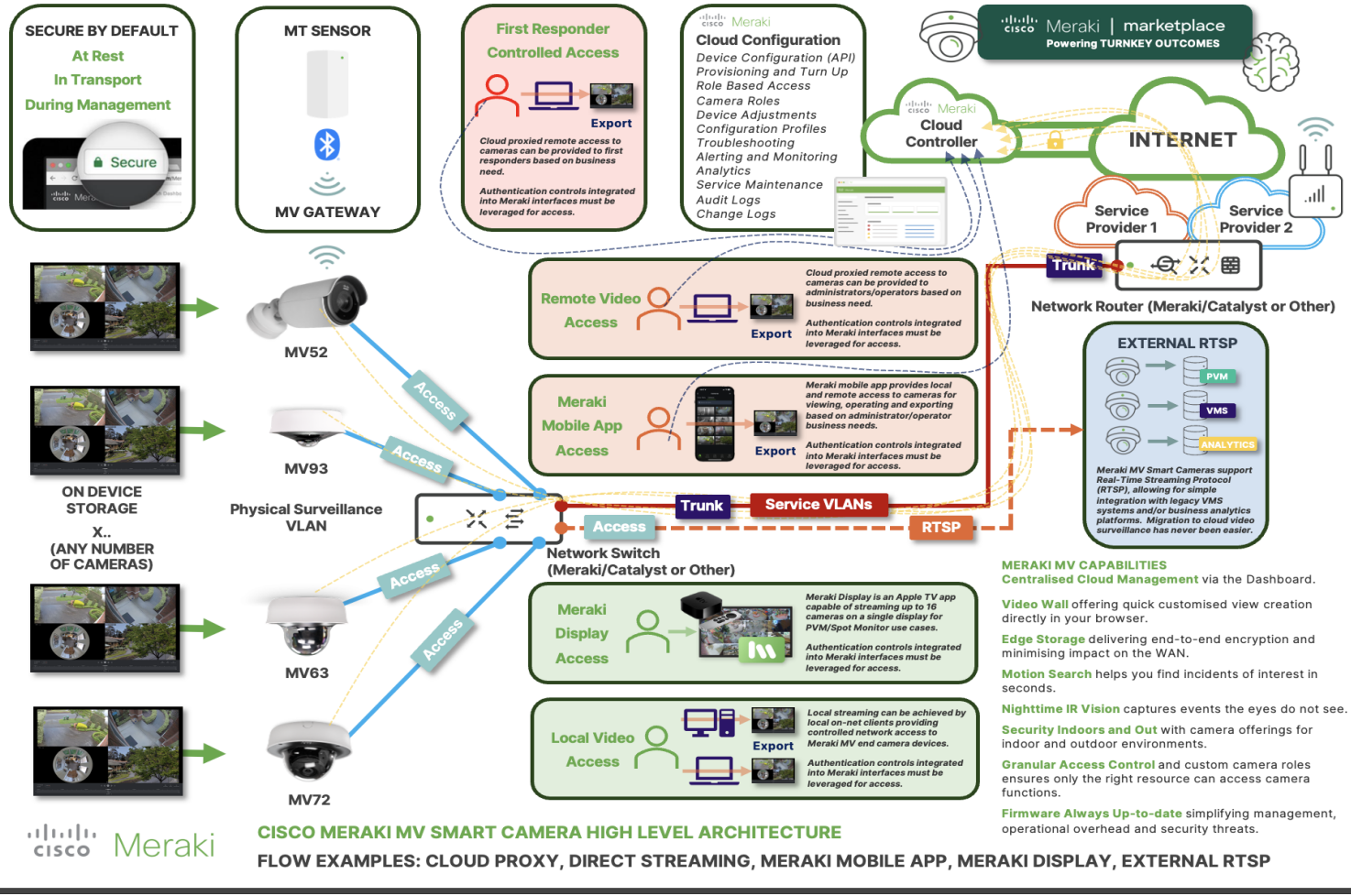
© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Transitioning to a Meraki architecture

Option 2: Stream video from MV to existing system using RTSP



© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public



© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Meraki MV smart camera portfolio

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Meraki MV smart cameras

Fixed lens mini-dome | Flex | Fisheye 360° | Varifocal dome | Telephoto bullet

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Meraki MV smart cameras

Fixed lens mini-dome | **Flex** | Fisheye 360° | Varifocal dome | Telephoto bullet

MV2

103° FoV

Up to 1080p video

No on-camera storage

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Meraki MV smart cameras

Fixed lens mini-dome | Flex | **Fisheye 360°** | Varifocal dome | Telephoto bullet

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Meraki MV smart cameras

Fixed lens mini-dome | Flex | Fisheye 360° | **Varifocal dome** | Telephoto bullet

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Meraki MV smart cameras

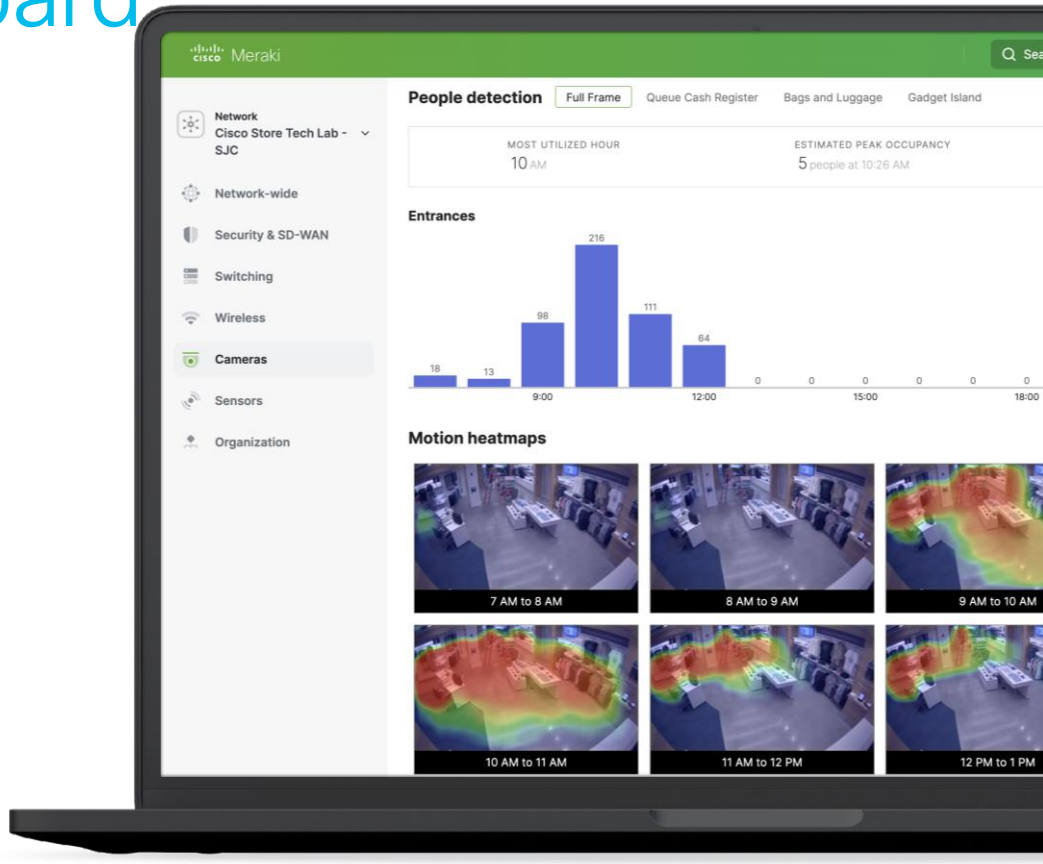
Fixed lens mini-dome | Flex | Fisheye 360° | Varifocal dome | **Telephoto bullet**

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

The Meraki Dashboard

Use it for:

- ➔ Deploying and configuring new cameras
- ➔ Managing and monitoring cameras
- ➔ Troubleshooting cameras
- ➔ Reviewing camera analytics

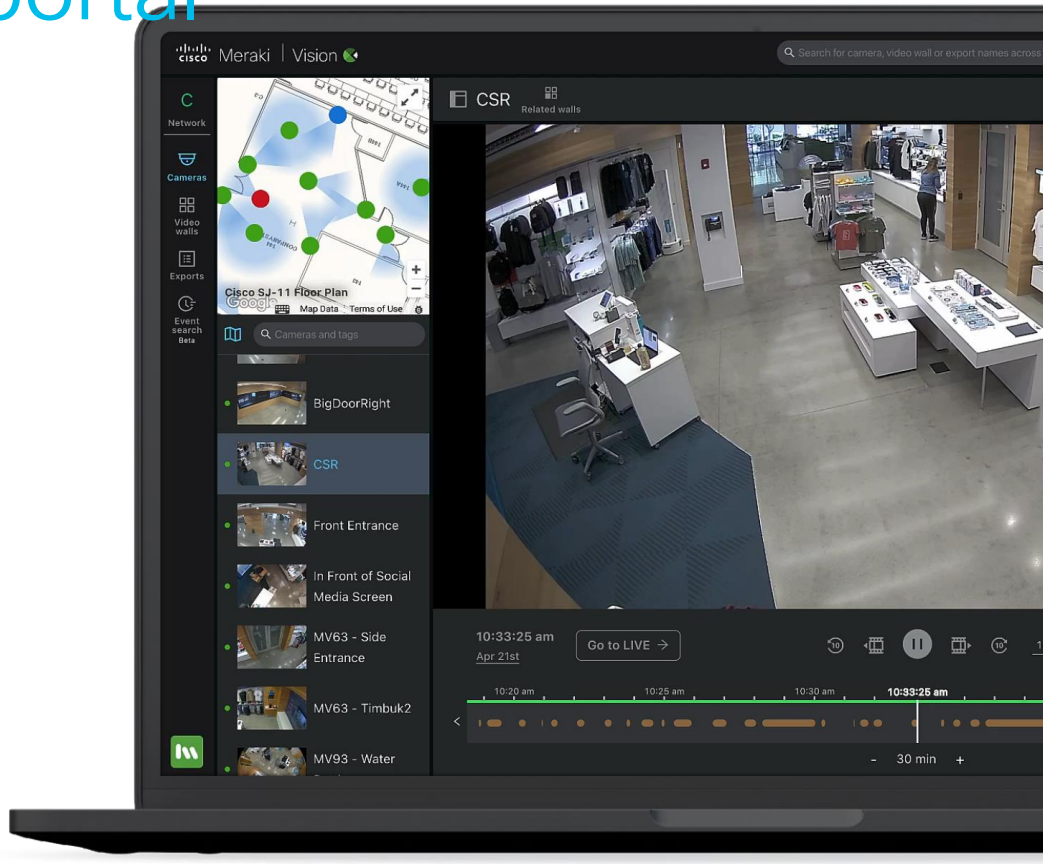


© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

The Meraki Vision portal

Use it for:

- ➔ Monitoring camera feeds
- ➔ Investigating incidents
- ➔ Exporting video



© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

The Meraki mobile app

Use it for:

- ➔ Deploying new cameras
- ➔ Monitoring camera feeds
- ➔ Investigating incidents
- ➔ Exporting video

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Meraki Display

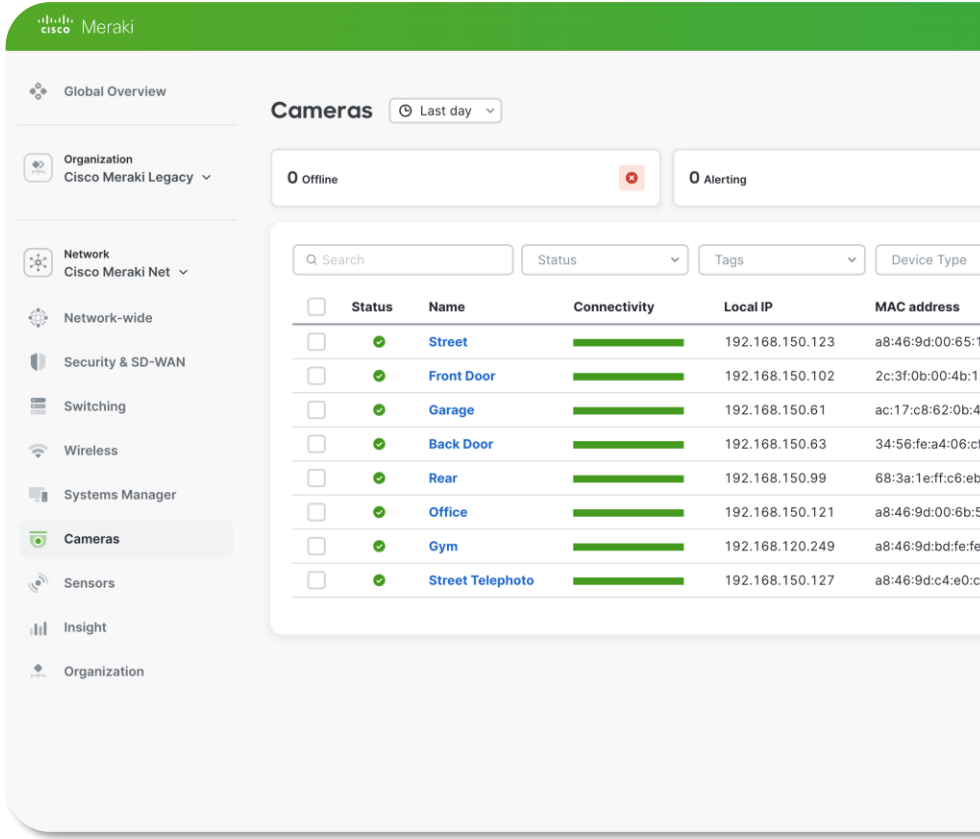
Use it for:

- ➔ Dedicated 24/7 live monitoring
- ➔ A public video viewing monitor

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Demo

- Cable Test (Dashboard)
- Event Search (Vision Portal)



© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

But wait there is more

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Built-in analytics

Use people and vehicle detection, office occupancy, and audio analytics for a variety of use cases.

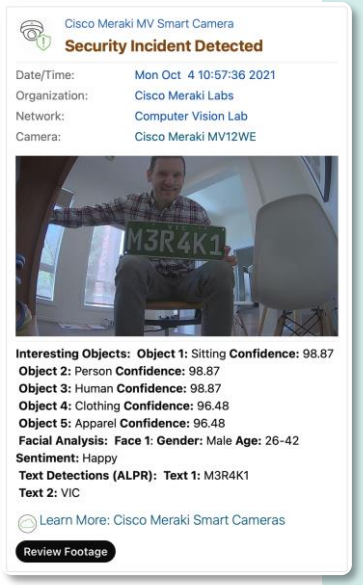
- Customer behaviour patterns
- Staffing needs or queue wait times
- Conference and meeting room occupancy
- Long-term facilities planning
- Alarm system or access control integration

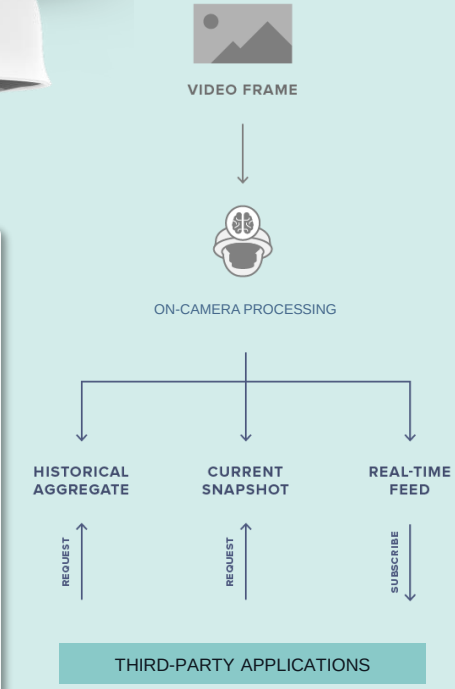
© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

MV Sense video analytics

Access rich data collected by MV smart cameras to help deliver bespoke outcomes to support almost any use case.

- Access video analytics insights from the cameras using open APIs
- Use MV machine-learning computer vision outputs without additional software or infrastructure
- Enable ecosystem technology partners to offer amazing solutions for any business





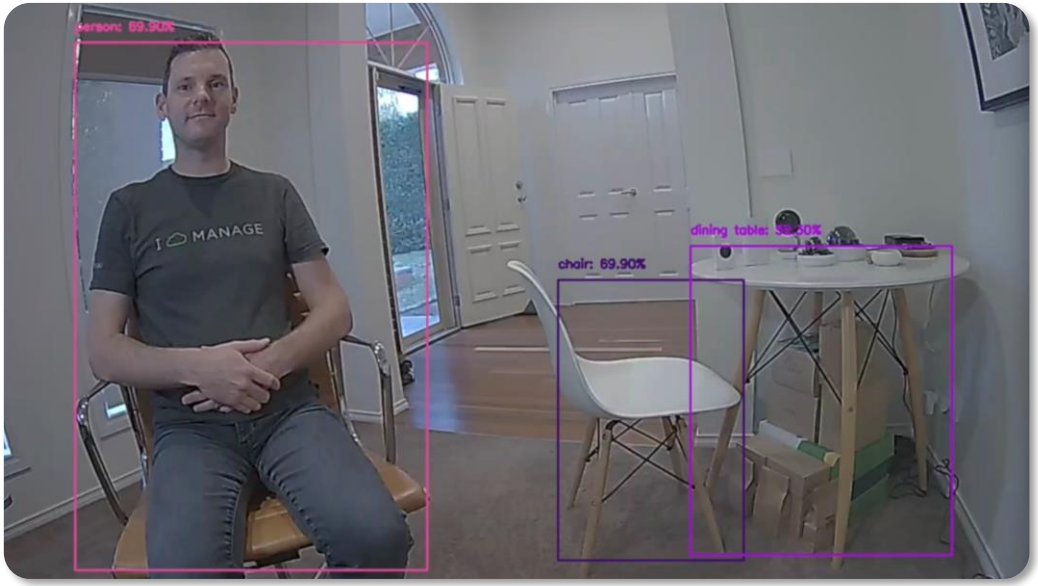
© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

MV Sense
Custom CV

Simplifying and securing access to customised computer vision use cases.

Enables organisations to use video analytics to address a wide variety of outcomes, including:

- Automating quality control to reduce waste
- Improving warehouse efficiency
- Increasing safety and compliance



© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Smart cameras designed for creativity

Real-time edge intelligence, driven via Custom CV, detects people in 'Field of View'

Homebridge ingests MV Sense analytics. Runs custom built MQTT bridge to translate people detections into doorbell events

HomeKit processes events and translates them into policy driven events and notifications

Cisco Meraki MV Smart Camera feat. MV Sense Custom CV

Sends lightweight MQTT detection events to Homebridge based MQTT broker

Homebridge sends translated HomeKit events to Apple TV Home Hub

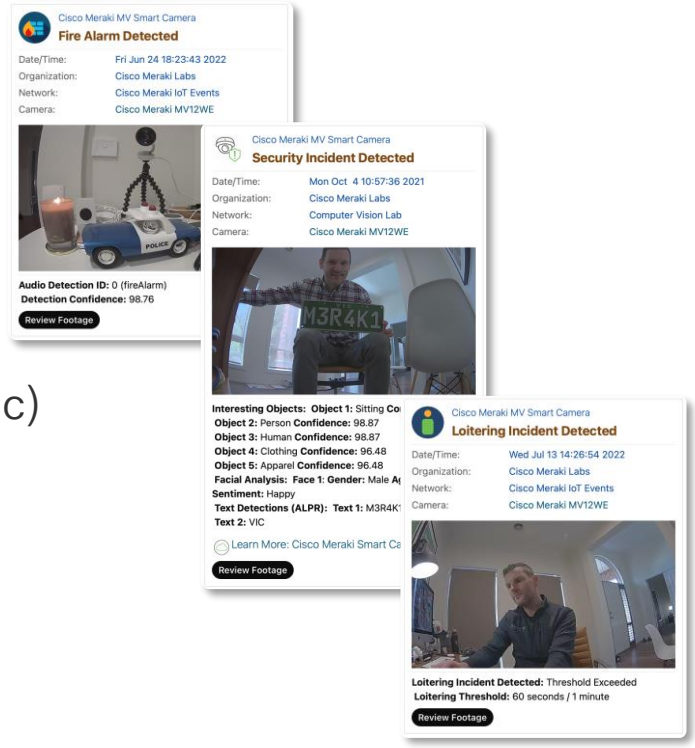
PELOTON APP

Apple TV Peloton App users are informed of HomeKit events when people are detected via MV Sense

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Demo

- MV Provisioning (Dashboard API)
- Process Automation (Dashboard API)
- Custom Computer Vision (Dashboard/Cogniac)



© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Transformative results with cloud

43%	ROI within 3 years, with a payback period of just 10 months
75%	Savings on maintenance costs. Reduced time spent configuring, maintaining, & updating cameras
60%	Reduction of video storage costs
98%	Time savings to access and share footage
30%	Reduced energy costs with less hardware needed compared to legacy solutions

Source: The Total Economic Impact of Meraki MV Smart Cameras

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

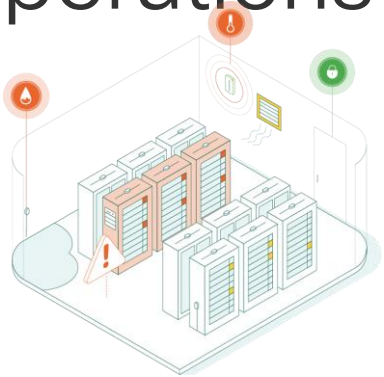
Meraki MT Sensors

Meraki MT Sensors

Build a more resilient sustainable future with Cisco Meraki MT Sensors

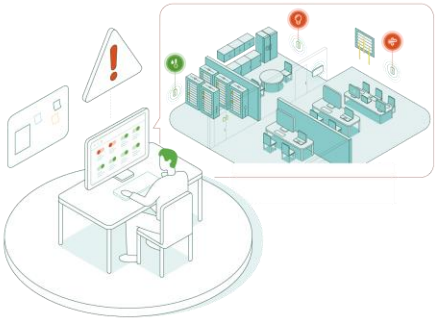
© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Three paths to smarter, more efficient operations



INFRASTRUCTURE MONITORING

Reduce unplanned downtime and extend equipment lifespan by monitoring temperature, moisture, and access to network closets and data centers.



ENERGY AND SUSTAINABILITY

Monitor power usage and energy waste to accelerate sustainability initiatives. Integrate and automate HVAC systems according to ASHRAE standards to reduce energy usage.

INDOOR AIR QUALITY

Protect employees, students, and guests with comprehensive air quality and environmental monitoring solutions securely connected to the network.

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Sensors for every space

INFRASTRUCTURE MONITORING

MT10
Temperature and humidity

MT12
Water leaks

MT20
Door open/close

POWER

MT40
Smart power controller

INDOOR AIR QUALITY

MT14
Indoor air quality

MT15
Indoor air quality + CO2

COLD STORAGE

MT11
Temperature probe

AUTOMATION

MT30
Automation button

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Promote healthy, focused indoor spaces

A focus on health:

- Overall indoor air quality
- Carbon dioxide levels (CO2)
- Total volatile organic compounds (TVOCs)
- Particulate matter, 2.5µm diameter
- Vape fumes indication

Proactively manage comfort:

- Temperature and humidity
- Ambient noise levels

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Introducing the MT15

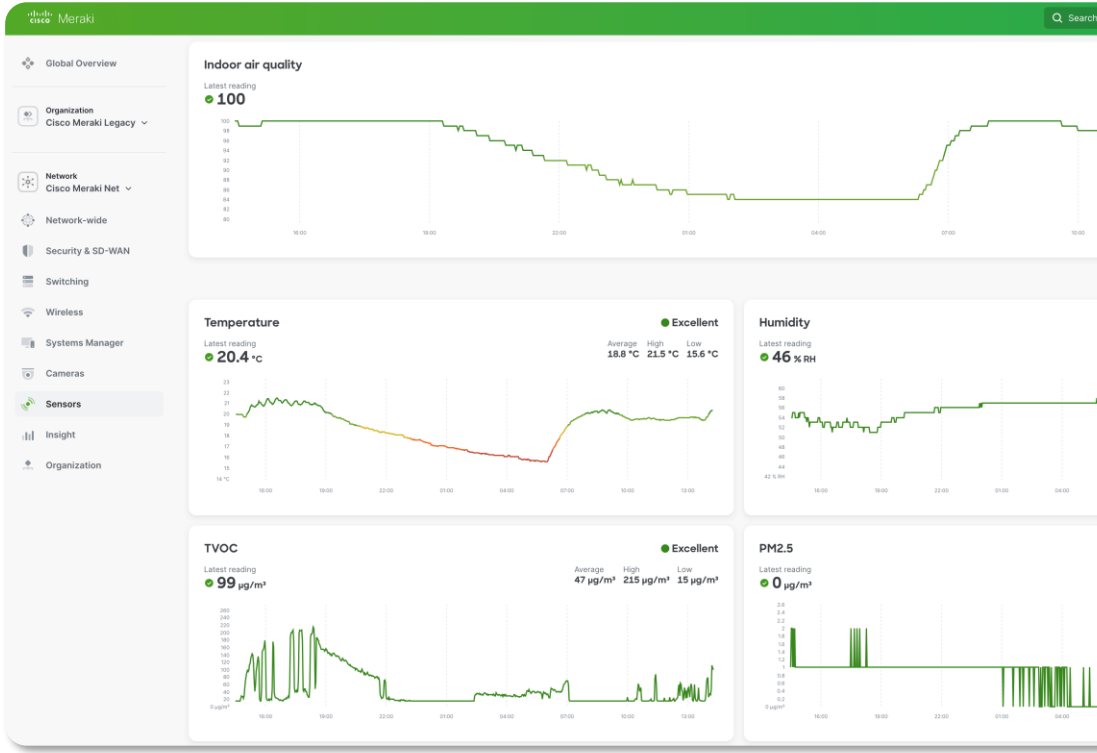
Indoor air quality and carbon dioxide sensor

- Proactively measure indoor air quality (IAQ), including CO2, temperature, organic compounds, and particulate matter.
- Promote visibly healthy spaces with a highly visible LED indicator
- Quick, easy, tamper-resistant installation in any indoor space

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Demo

- MT15 Insights (Dashboard)



© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

cisco Live!

Did you know?

You can have a
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!

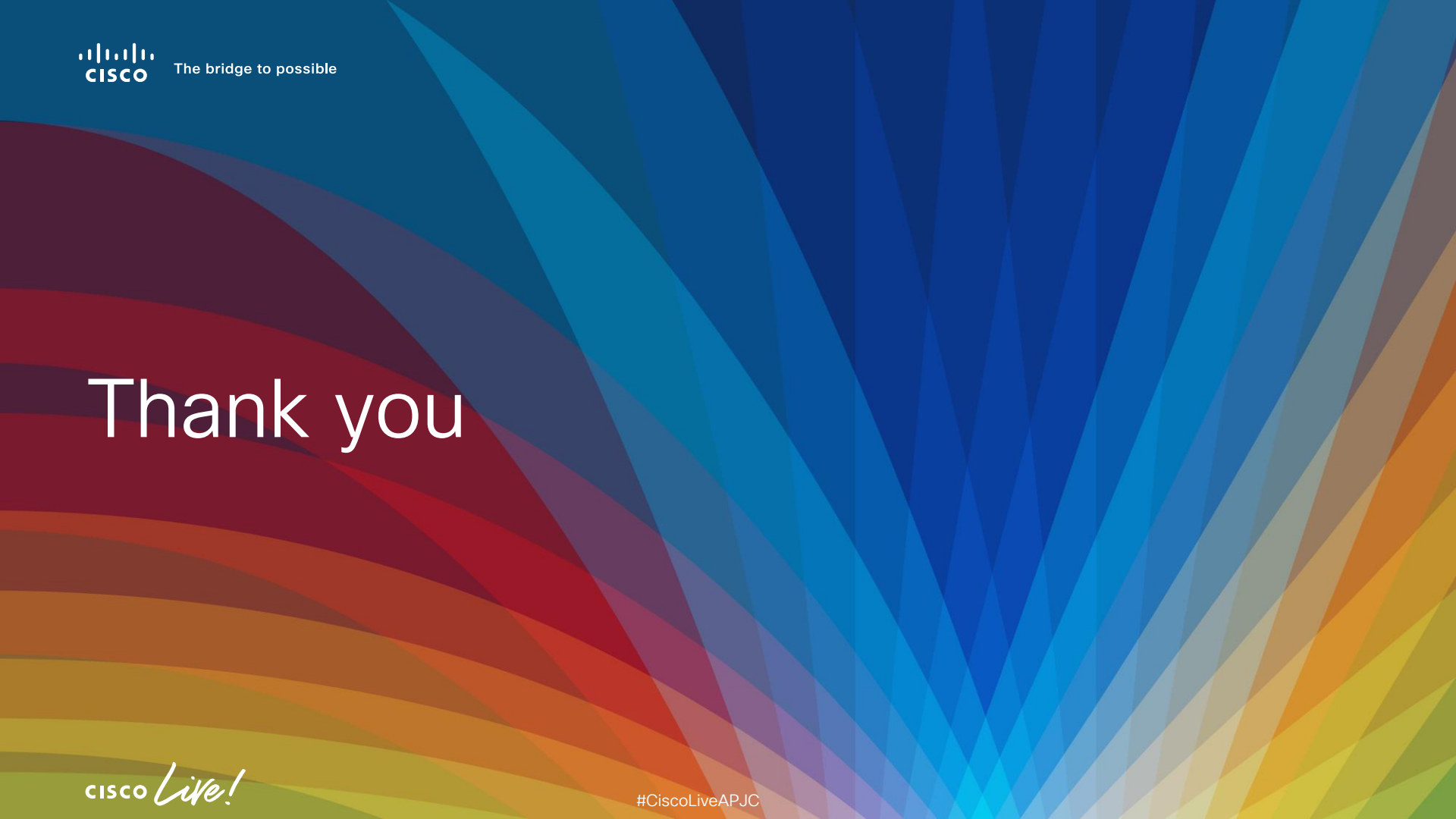
- Complete a minimum of four session surveys and the overall event surveys to claim a Cisco Live T-Shirt

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public

Continue your education

- Visit the Cisco Showcase for related demos
- Book your one-on-one Meet the Expert meeting
- Attend the interactive education with DevNet, Capture the Flag, and Walk-in Labs
- Visit the On-Demand Library for more sessions at www.CiscoLive.com/on-demand

© 2023 Cisco and/or its affiliates. All rights reserved. Cisco Public


cisco
The bridge to possible
Thank you
cisco Live!
#CiscoLiveAPJC

cisco Live!
Let's go
#CiscoLiveAPJC