

The background features a vibrant, multi-colored abstract design. On the left, there are overlapping, wavy bands of color in shades of orange, red, and yellow. On the right, a bright white light source emits a series of colorful rays in shades of blue, green, and yellow, creating a sunburst effect. The overall composition is dynamic and energetic.

cisco *Live!*

Let's go

#CiscoLive



The bridge to possible

Make Your Switches the Control Hub for Energy Savings

Meraki Switching

Christian Zachriat
Nida Imtiaz
BRKMER-1008

CISCO *Live!*

#CiscoLive

Cisco Webex App

Questions?

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

How

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Webex spaces will be moderated by the speakers until June 9, 2023.



<https://ciscolive.ciscoevents.com/ciscolivebot/#BRKMER-1008>

Agenda

- Introduction
- Digital and Sustainable Transformation
- Demos – Cisco Meraki Switching Sustainability Capabilities
- Summary

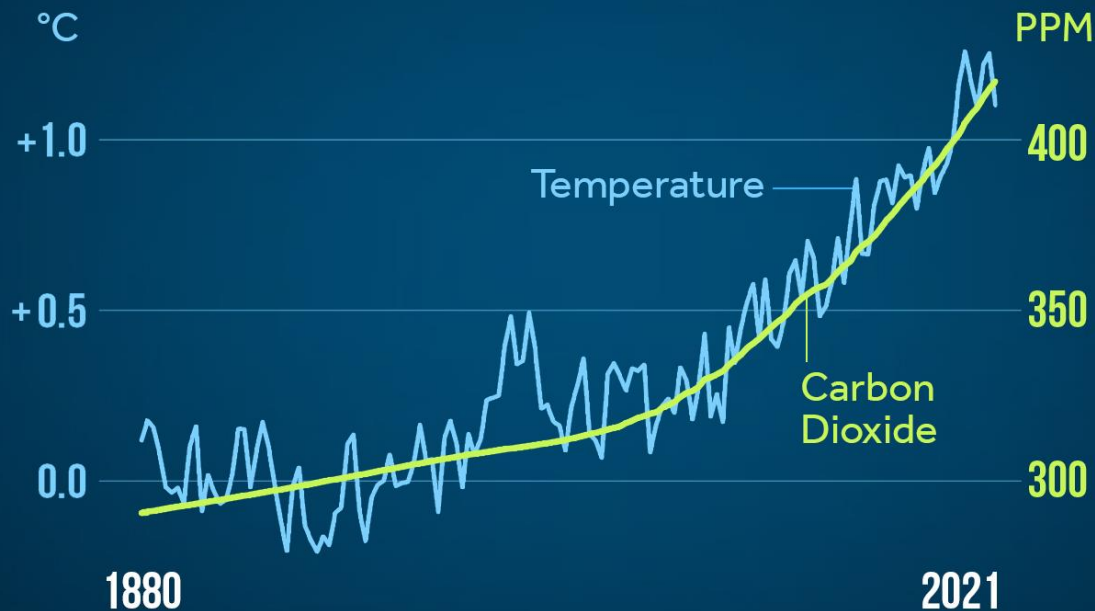
About the speaker – Christian Zachriat



- Global Sustainability Lead at Cisco Meraki
- 15 years in the tech industry
- Cambridge Institute of Sustainability Leadership Alumni
- Based in London, UK



TEMPERATURE & CARBON DIOXIDE



Global temperature anomalies averaged and adjusted to early industrial baseline (1881-1910)
Source: NASA GISS, NOAA NCEI, ESRL

CLIMATE  CENTRAL

Digital and Sustainable Transformation

The dual role of the technology sector

¹ [Environmental impact of electronic communications, WIK-Consult and Ramboll, Final Study Report, Study for BEREC, 2022](#)

² <https://www.weforum.org/agenda/2019/01/why-digitalization-is-the-key-to-exponential-climate-action/>



Sustainability **in** IT

ICT industry **contributes** approx. 2-4% to global emissions today¹

Sustainability **by** IT

ICT potential to **reduce** global emissions by approx. 15%²

*“At Cisco, we believe operating
sustainably and equitably is the only
way to do business.”*

Chuck Robbins, CEO

Cisco Purpose Report 2022

Cisco's purpose is to power an inclusive future for all



SCIENCE
BASED
TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION



Cisco has set a
goal to reach
net zero by 2040

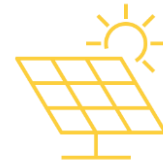


Investing \$100M
in climate
solutions over
10 years



Responsible Business Alliance
Advancing Sustainability Globally

Cisco is a founder
and active
member of the
Responsible
Business Alliance.



100% renewable
energy for Cisco
operations in US,
Canada and
several European
countries.

www.cisco.com/go/csr

Environmental, Social & Governance (ESG) at Cisco

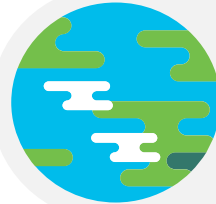
Our focus areas and priorities



Integrity &
Trust



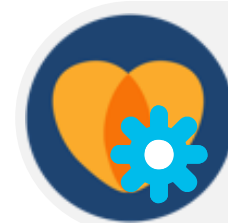
Our People



Environmental
Sustainability



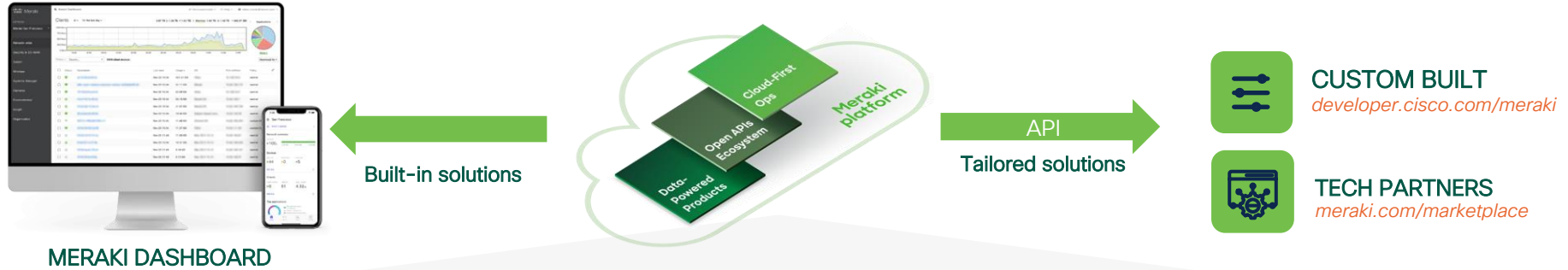
Supply Chain
Sustainability



Our Global
Communities

www.cisco.com/go/csr

The Meraki platform



ACCESS



Wi-Fi



Switching



Mobile device
management

WAN



Security and
SD-WAN



Cellular
gateways

IoT



Smart
cameras



Sensors

Sustainability outcomes driven by Cisco Meraki



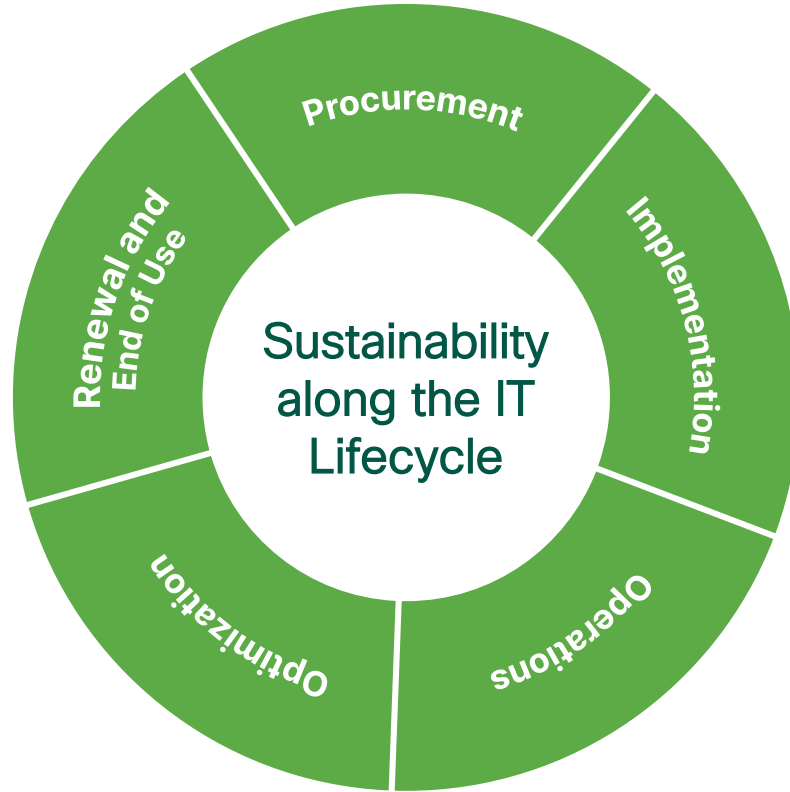
Save Energy



Avoid Waste



Reduce Travel



Sustainability at Cisco Meraki Switching

About the speaker – Nida Imtiaz



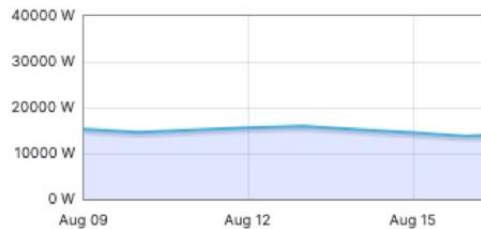
- Senior Product Manager at Cisco Meraki- Switches Team
- 5+ years in the data & analytics industry
- Degree in Telecommunications

Driving Sustainability Through Three Steps

Discover

Understand your current PoE energy consumption.

Power rate over time



Act

Use current capabilities to reduce PoE energy consumption.



Report

Check results after applying changes to your network.

Ethernet Power Details

Power rate over time



Port Schedules

Live Demo

Estimated results

We estimate that powering off 2,000 PoE devices (10W) for 12 hours a day, saves up to approx.*:

- 436,900 kWh energy
- \$69,888 cost
- 310 metric tonnes CO₂e emissions**

over 5 years.

*Based on internal analysis. Actual estimate that varies depending on the location where the devices are operated. Location in the example: US, assumed energy price: 16c/kWh

**<https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

Question

- Guess how many acres of U.S. forest are required to sequester 62 metric tonnes of CO₂e emission in one year?
- 1 acre ~ 1 football field (US)
- 1 acre ~ 1.67 football fields (EU/UK)

Question

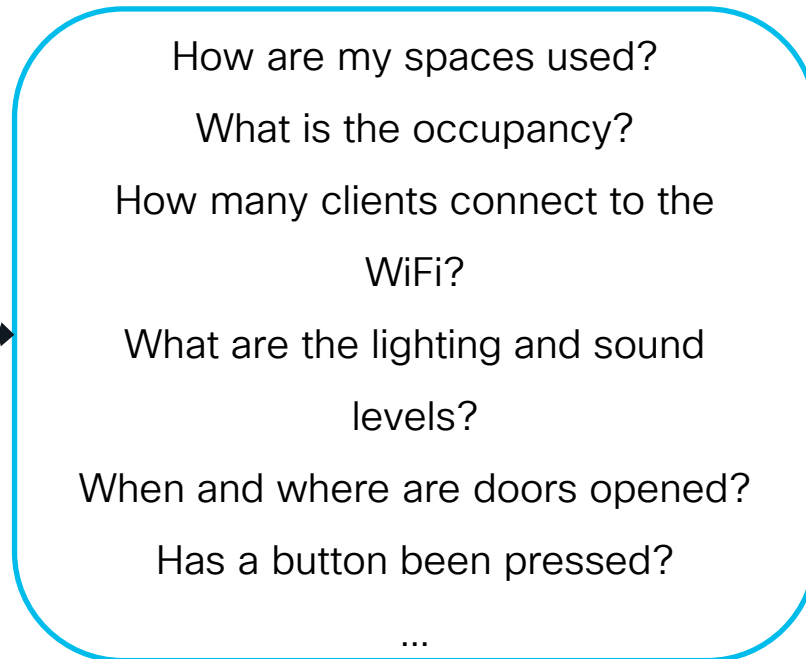
- Guess how many acres of U.S. forest are required to sequester 62 metric tonnes of CO₂e emission in one year?
- 1 acre ~ 1 football field (US)
- 1 acre ~ 1.67 football fields (EU/UK)

Answer

- 73.9 acres*

*<https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

Leverage physical and network-level data to get insights and build automations



Time-based



Time and event-based



API



Apps

Leverage APIs



Developer

SIGN UP FREE | LOG IN

Meraki | Developer Hub

Docs ▾ Explore What's new Resources ▾ Marketplace 🔍

Meraki > API > Dashboard API

Meraki API v1

Meraki Dashboard API

- Introduction
- Authentication
- Getting Started
- API Changelog

Guides

API Reference

- Overview
- API
 - Platform
 - configure
 - liveTools
 - monitor
 - Products
 - appliance
 - camera
 - cellularGateway
 - insight
 - licensing
 - sensor
 - sm
 - switch

Search Results for Keyword : port schedules

Found 5 item(s) matching the search query.

[Get Network Switch Port Schedules](#) API

`getNetworkSwitchPortSchedules` switch configure portSchedules

GET /networks/{networkId}/switch/portSchedules

List switch port schedules

[Create Network Switch Port Schedule](#) API

`createNetworkSwitchPortSchedule` switch configure portSchedules

POST /networks/{networkId}/switch/portSchedules

Add a switch port schedule

[Delete Network Switch Port Schedule](#) API

`deleteNetworkSwitchPortSchedule` switch configure portSchedules

DELETE /networks/{networkId}/switch/portSchedules/{portScheduleId}

Delete a switch port schedule

[Update Network Switch Port Schedule](#) API

`updateNetworkSwitchPortSchedule` switch configure portSchedules

PUT /networks/{networkId}/switch/portSchedules/{portScheduleId}

Update a switch port schedule

[Supported Resources](#) Doc

...Update video settings for the given camera /devices/{serial}/camera/video/settings update Camera wireless profile settings Assign wireless profiles to the given camera. Incremental updates are not supported, all profile assignment need to be supplied at once. /devices/{serial}/camera/wirelessProfiles update Cellular gateway connectivity monitoring destination Update the connectivity testing destina...

Mute Notifications for scheduled Meraki Wi-Fi downtime

Coming Soon

Network
Home ▾

Network-wide

Security & SD-WAN

Switching

Wireless

Cameras

Sensors

Insight

Organization



Welcome to the new Meraki dashboard experience!

To find out more about the next generation of the Meraki dashboard, visit our new [Early Access Program page](#) for more information.

Alerts

Alerts Settings

Default recipients

All network admins x

test@meraki.net x

+

Network-wide

☐ Configuration settings are changed

☐ A VPN connection comes up or goes down ⓘ

☐ A rogue AP is detected

☐ Network usage exceeds 100 GB in 20 minutes ▾

☒ Mute wireless alerts based on switch port schedules ⓘ

If toggled on, then wireless unreachable alerts will be muted when caused by a port schedule

Wireless

☐ A gateway goes offline for 60 minute

Best Practices and Considerations

Energy Savings with Port Schedules

1. Define devices in scope
2. Document current energy consumption
3. Review alerting strategy
4. Time-based schedules vs event-based (API)
5. Timing of the schedule
6. Implement in pilot sites
7. Document pilot energy savings
8. Rollout to remaining sites and document energy savings

Save Energy with Wake on LAN (802.1X Control Direction)

Live Demo

Save Energy While Securing Your Switch Port

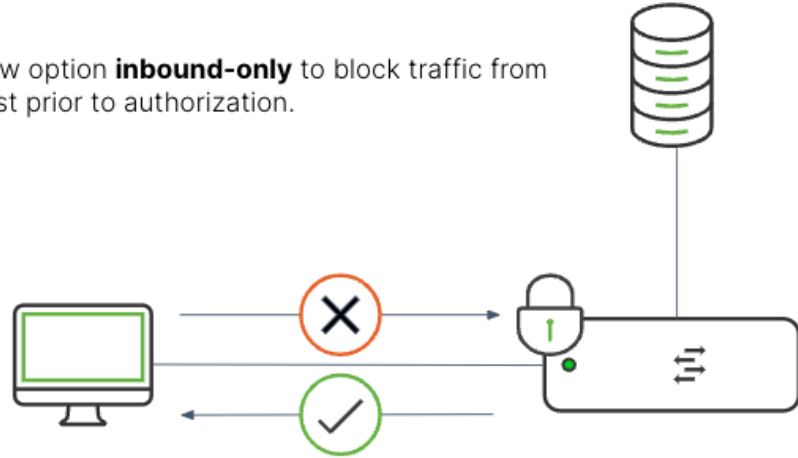
802.1X Control Direction

(Wake-on-LAN support)

Default blocks both directions.



New option **inbound-only** to block traffic from host prior to authorization.



Feedback

What would you like to see next on the roadmap?

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

Summary

WHITEPAPER

Make Your Switches the Control Hub for Energy Savings

Discover, act, and report progress
toward sustainability goals



1. **IT has an important role in the context of sustainability**
2. **Simple and pragmatic use cases available to reduce energy consumption and emissions – there's even more!**
3. **Attend other sustainability sessions and visit the sustainability zone in World of Solutions**

Support sustainability with Meraki

PoE and WiFi Energy savings

- Switch off WiFi and other PoE devices
- Turn off WiFi radios to save energy
- ★ New: monitor and control mains powered devices

Temperature/Humidity Sensors

- Prevent IT equipment failure
- Improve HVAC efficiency
- Prevent spoiled goods
- Cold storage monitoring

Door open/close sensor

- Improve HVAC efficiency
- Prevent spoiled goods

Electronic Shelf Label integration

- Reduce waste

Smart cameras

- Reduce travel
- Occupancy / usage-based lighting

Air Quality

- Promote Health and Safety
- Improve HVAC efficiency

Water leak sensor

- Prevent water damage

Sustainability Sessions



All Meraki sessions schedule

- Monday, June 5 | 8:30 a.m.
[CCP-1403](#)
Sustainability Strategy & Roadmap
- Monday, June 5 | 2:30 p.m.
[BRKGRN-1650](#)
Sustainability as a Business Driver
- Tuesday, June 6 | 10:30 a.m.
[INTGRN - 1008](#)
Accelerating Your Journey to Net Zero with Sustainable Solutions
- Tuesday, June 6 | 1:00 p.m.
[BRKCOM-1991](#)
Accelerating the Realization of Your Company Sustainability Goals with Cisco UCS, HyperFlex and Intersight
- Tuesday, June 6 | 1:30 p.m.
[PSOGRN-1010](#)
Developing a Sustainability IT Framework

- Tuesday, June 6 | 2:30 p.m.
[BRKNWT-2303](#)
Fast-track Sustainability and Improve Operations with Meraki IoT
- Tuesday, June 6 | 3:30 p.m.
[PSOGRN-1005](#)
Smart Buildings and Beyond
- Tuesday, June 6 | 10:30 a.m.
[BRKEWN-2043](#)
Save Energy & Money with Cisco Wireless Network
- Tuesday, June 7 | 10:30 a.m.
[IBOGEN-1453](#)
Design Thinking Working Session on our Sustainability Journey
- Tuesday, June 7 | 2:30 p.m.
[PSGRN-1015](#)
Cisco Smart Workspaces, Bees & Biomimicry

- Thursday, June 8 | 8:00 a.m.
[BRKGRN-1008](#)
The Road to Net Zero Emissions: Advanced Sustainable IT

Visit Sustainability Zone in World of Solutions

Mandalay Bay Convention Center

Level 1: World of Solutions

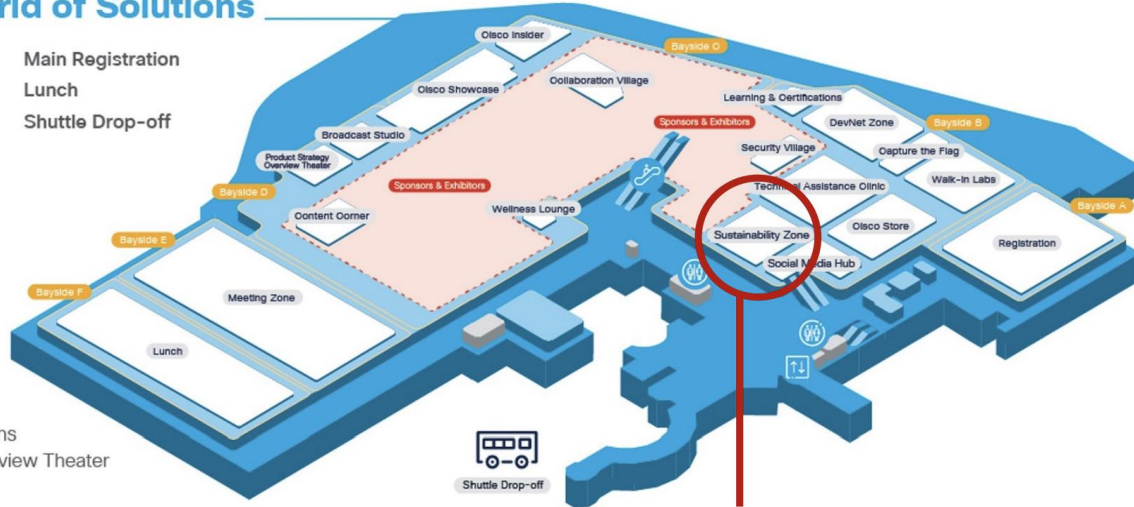
Meeting Zone

Meet the Engineer
Meet the Executive
Meeting Suites
Whisper Suites

World of Solutions

Broadcast Studio
Capture the Flag
Cisco Insider
Cisco Showcase
Cisco Store
Collaboration Village
Content Corner
DevNet Zone
Learning & Certifications
Product Strategy Overview Theater
Security Village
Sustainability Zone
Social Media Hub
Technical Assistance Clinic
Walk-in Labs
Wellness Lounge

Main Registration
Lunch
Shuttle Drop-off



Sustainability
Zone

Fill out your session surveys!



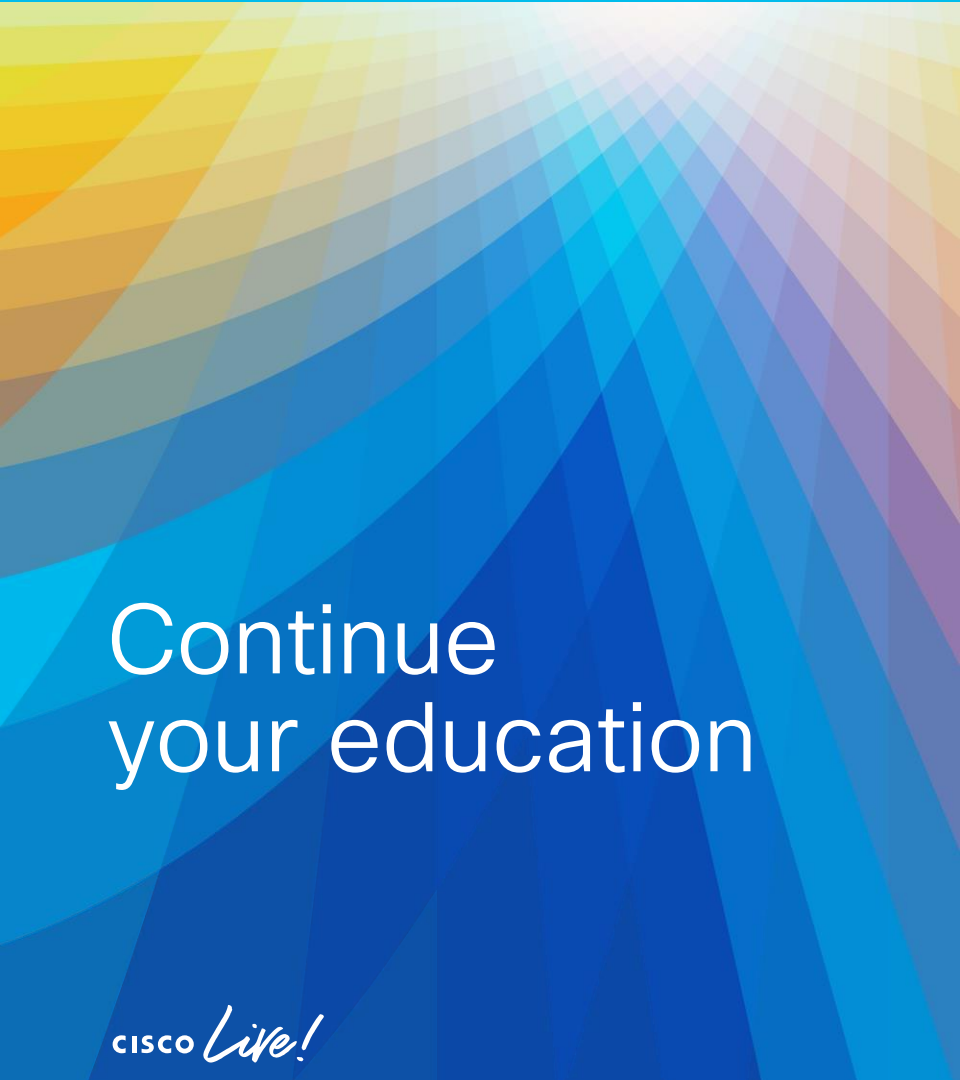
Attendees who fill out a minimum of four session surveys and the overall event survey will get **Cisco Live-branded socks** (while supplies last)!



Attendees will also earn 100 points in the **Cisco Live Challenge** for every survey completed.



These points help you get on the leaderboard and increase your chances of winning daily and grand prizes



Continue your education



- Visit the Cisco Showcase for related demos
- Book your one-on-one Meet the Engineer 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



The bridge to possible

Thank you



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BRKMER-1008

The background is a vibrant, abstract graphic. It features a central bright white light source from which numerous colorful rays emanate, creating a sunburst or starburst effect. The rays transition through a spectrum of colors including yellow, orange, red, and various shades of blue and green. Overlaid on this are large, soft-edged, overlapping shapes in similar colors, giving the overall image a sense of depth and movement.

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Let's go

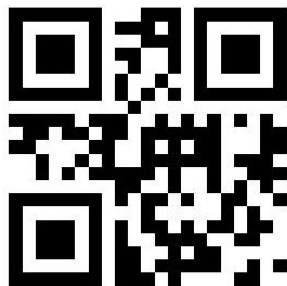
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Cisco Live Challenge

Gamify your Cisco Live experience!
Get points for attending this session!

How:

- 1 Open the Cisco Events App.
- 2 Click on 'Cisco Live Challenge' in the side menu.
- 3 Click on View Your Badges at the top.
- 4 Click the + at the bottom of the screen and scan the QR code:



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