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The bridge to possible

Cisco IT's Journey to SASE for Remote Work

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BRKCOC-2032

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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/#BRKCOC-2032>



Agenda

- Cisco IT as Customer Zero
- SASE, Cisco IT's Path
- SASE Use Cases
- SASE Recap

About Us

- Joe DeSanto
 - 16 Years @ Cisco
 - Storage Ops/Imp/Design
 - Data Center Architecture
 - CVE/Security
- Jon Heaton
 - 21 Years @ Cisco
 - Engineering, IT Architecture/Design
 - Collaboration, Networking, Security
 - CVE/Networking



Cisco IT as Customer Zero





About Customer Zero: Our Mission

Improve Quality

Engage Engineering teams early in lifecycle to create value in design phase and improve solution quality once deployed

Drive Value

Demonstrate value of products and solutions through ROI and business cases including defining solution architectures

Proof of Scale

Prove solutions scale across the Cisco environment and transition to IT teams

Integrate solutions across Lines of Business, share best practices & lessons learned, showcase outcomes

Customer Zero Outcomes



**Accelerate
Customer Adoption**



**Drive Value Through
Integrated Solutions**



**Increase Delivery
Velocity**

SASE, Cisco IT's Path



No, not this Sassy

Sassy [sas-ee]

An informal adjective

1. Impertinent; insolent, saucy
2. Pert; boldly smart; saucy



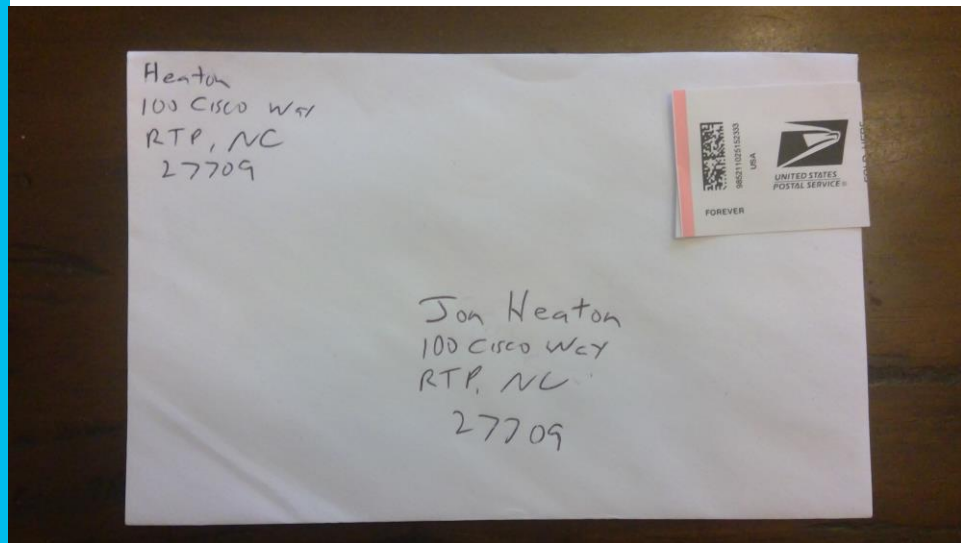
Nor this SASE

Self

Addressed

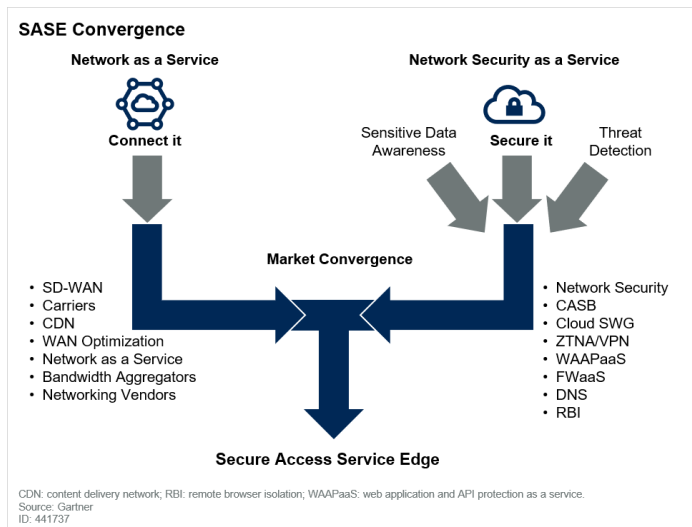
Stamped

Envelope

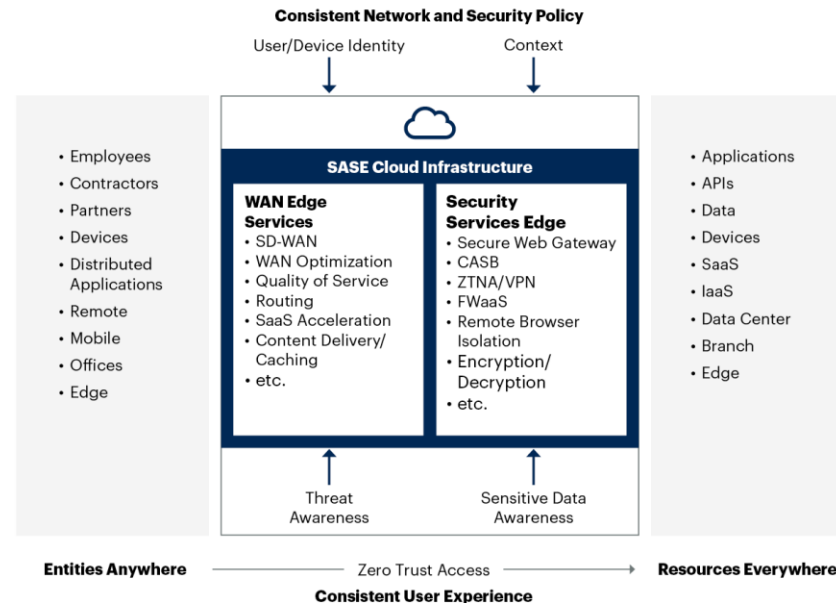


THIS SASE (coined by Gartner)

“The secure access service edge is an emerging offering combining comprehensive WAN capabilities with comprehensive network security functions (such as SWG, CASB, FWaaS and ZTNA) to support the dynamic secure access needs of digital enterprises.”



SASE Detailed View



Source: Gartner
741491_C

Gartner

Sources: 1) The Future of Network Security Is in the Cloud, 8/30/19 MacDonald, Orans and Skorupa, 2) 2021 Strategic Roadmap for SASE Convergence 3/25/21 MacDonald, Smith, Orans, Skorupa

Welcome to a Hybrid World

Hybrid Work

There is a continued decrease of employees wanting to work full-time back in the office.

Before mandatory WFH

25% work from home
+50% of their time

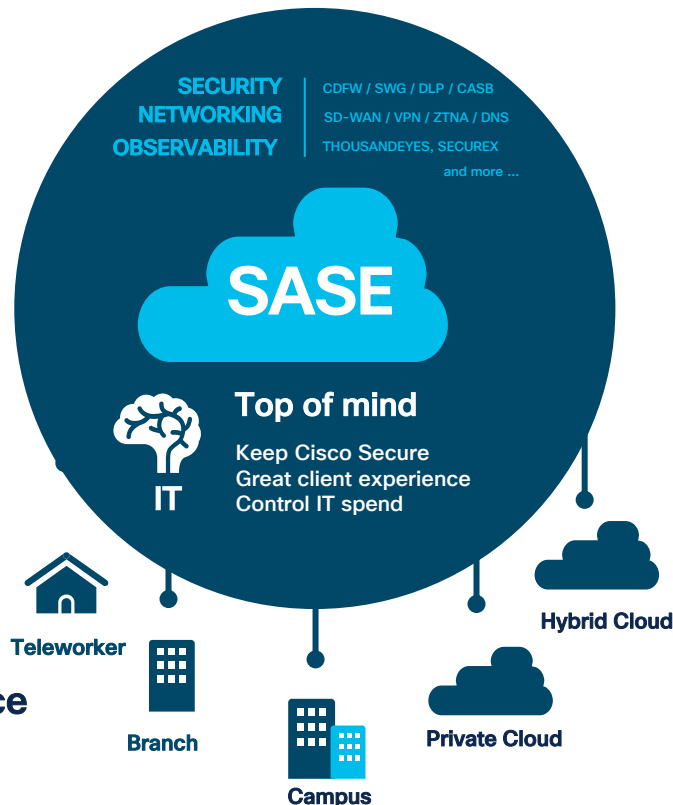
February 2021

75% work from home
+50% of their time

April 2022

20% want fully remote
23% prefer no fixed routine
20% three days or more in office
9% want full time in office

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Hybrid Cloud

Gradual migration of
Business Applications to
Public Cloud IaaS & SaaS

 Cisco Commerce

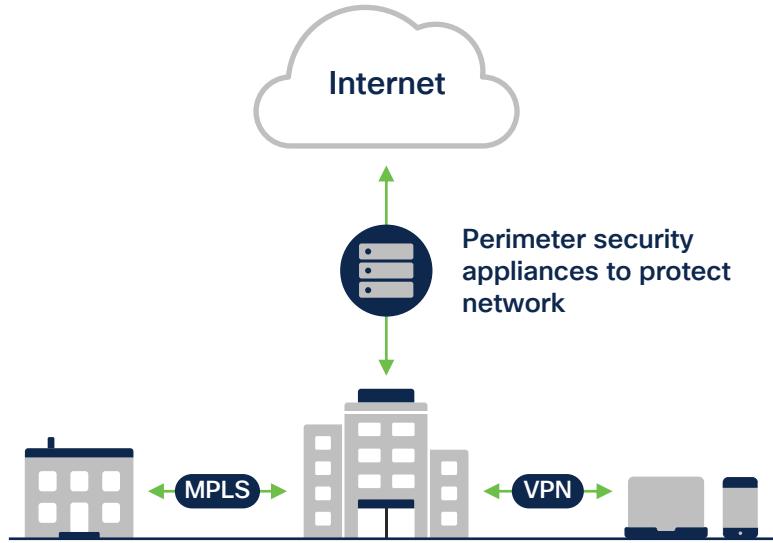

Cisco.com

 Office 365

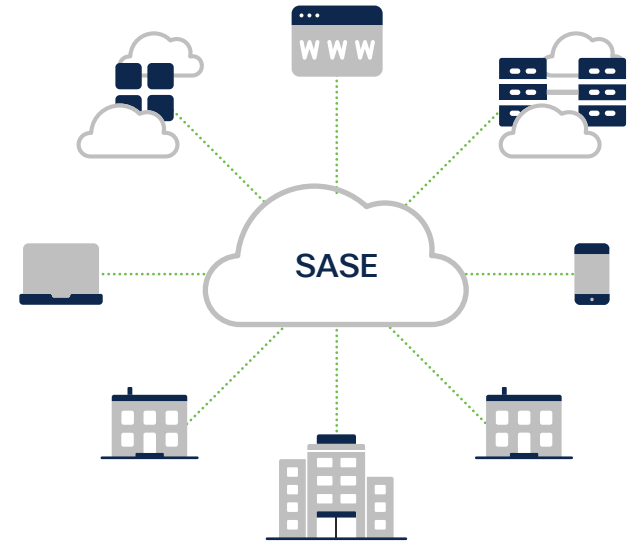
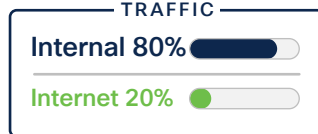
2000 business apps
+ 300 SaaS in use

The Network Evolution

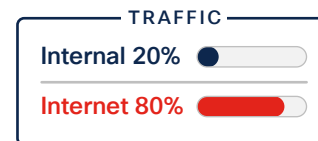
SASE/Cloud Edge becomes new “center of the universe”



DC-centric



Internet/Cloud-centric



Tenets of the Hybrid World



“Anywhere”
is the
New Office



Cloud
is the New
Datacenter



SaaS
is the New
Application



Internet
is the new
Network



SASE Adoption Hurdles

Exciting times... but not always easy to figure out the transition path to SASE !

Too many
options

Inflection
Point

Mixed-Mode
Environments

Cost
Modeling

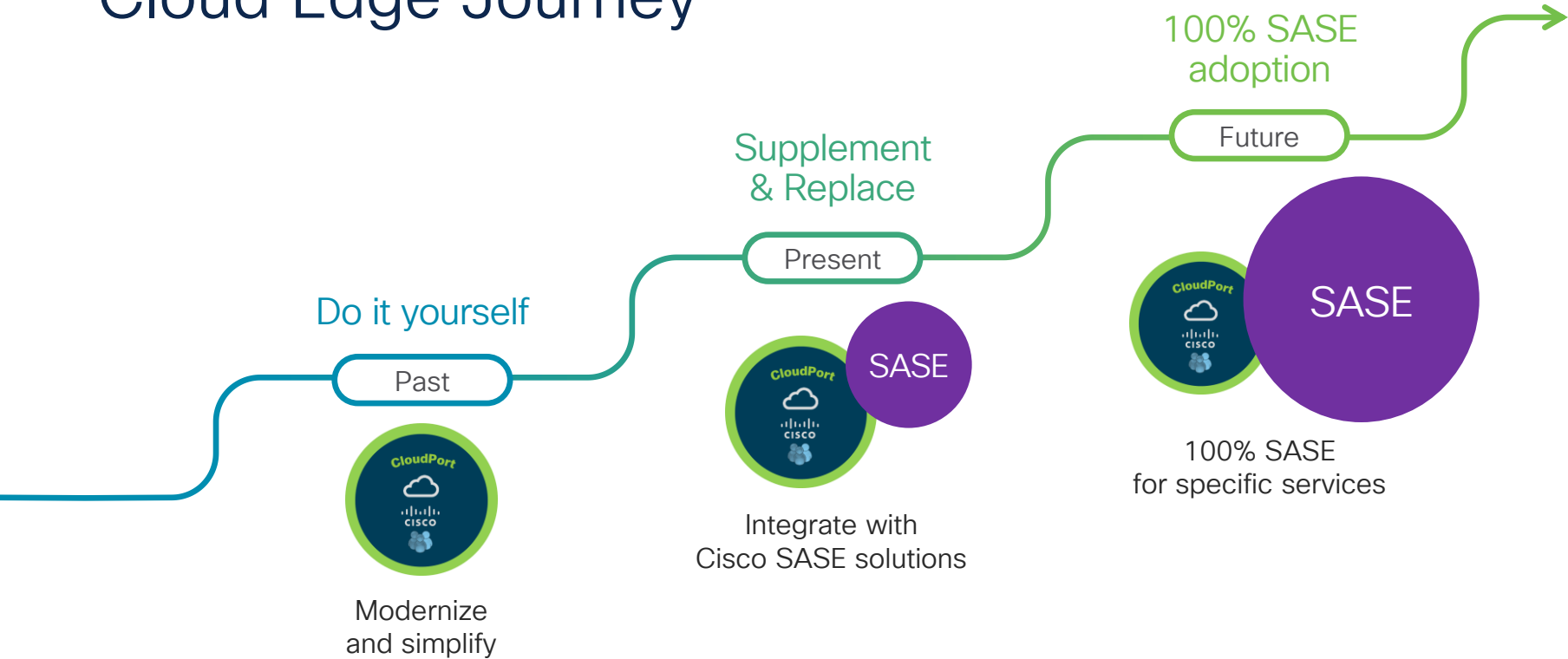
Enterprise
Scale

Operational
Readiness

Zero Trust
Confusion

Giving up
Ownership

Cloud Edge Journey



SASE Adoption Plan

Leading the way

From “Try” to “Scale”



We are here !

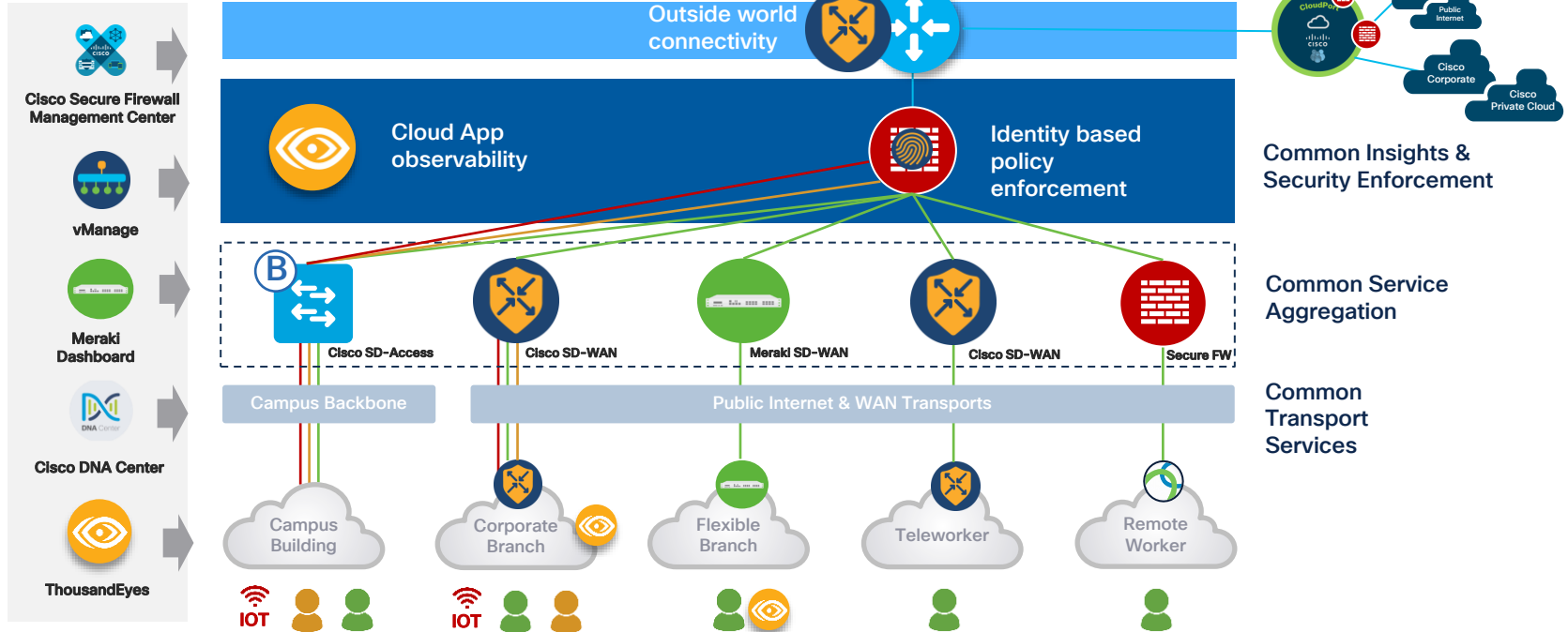
The pathway to SASE ...



We are here !

CZ "SASE" HUB

SJC, RTP, London and Sydney



SASE Use Cases

Cisco SASE Tracks

A-la-carte



Viptela & Meraki SD-WAN
Remote Access(AnyConnect)
Cisco Umbrella SIG
DUO/DNG



CZ SASE HUB

- DIY SASE motion – Separate Cisco Solutions, no unified management
- Mix of hardware and software solutions

Cisco+ Secure Connect Now



Single SASE Subscription Service
Cisco Umbrella SIG
Remote Access(AnyConnect)



Proof of Concept

- Small- and mid- enterprise gravitate to unified SASE
- Unified experience & simplified policy management

CZ Teleworker

Objectives

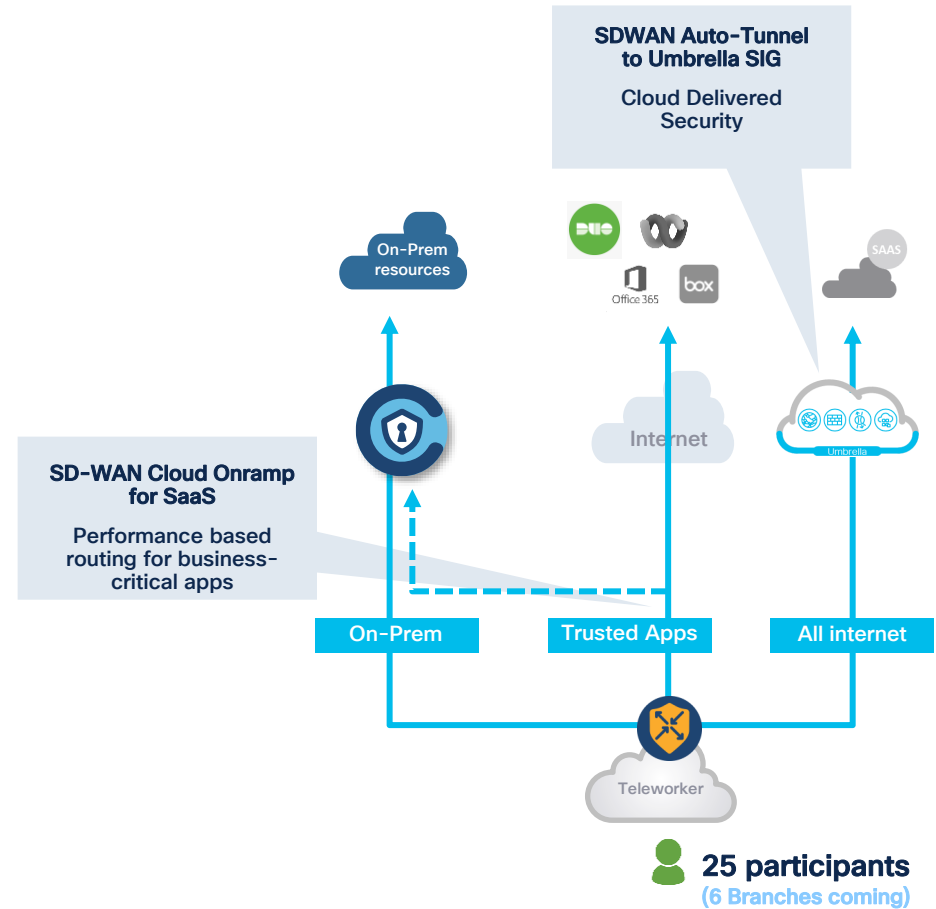
- Redefining the network edge – bring applications closer to the users for a better client experience
- Reduce dependency on high cost on-prem infrastructure & telco circuits

Solution

- Hardware based offering (ISR1K) for selective group of users that need it
- Intelligent & performance-based traffic routing via Cisco SD-WAN
- Umbrella Cloud delivered security for all-internet based traffic

Success stories

- Easy to enable – works as expected
- Successfully mitigated internet issues
- Offloaded a significant amount of traffic



CZ Remote Worker

Objectives

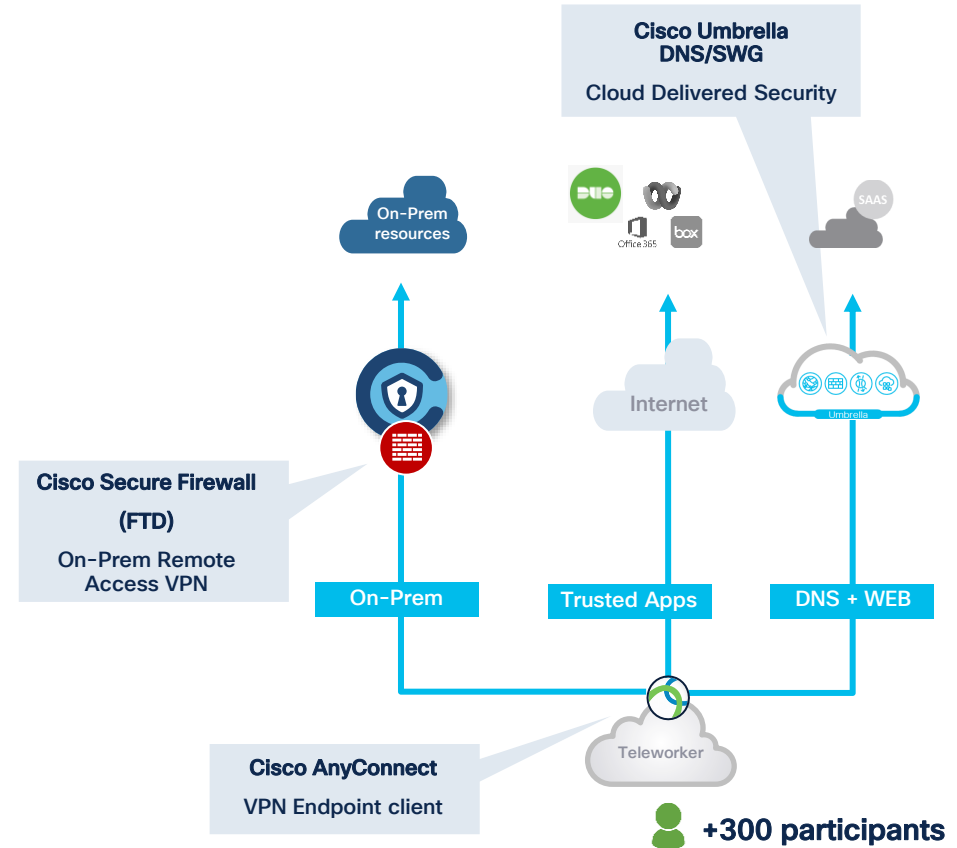
- Redefining the network edge - bring applications closer to the users for a better client experience
- Reduce dependency on high cost on-prem infrastructure & telco circuits

Solution

- Software based offering (AnyConnect) for selective 300+ remote workers
- AnyConnect IP/Domain based split-tunneling for trusted & zero trust enabled applications
- Redirection of all other Web traffic to Umbrella Secure Web Gateway (SWG) & DNS Security

Success stories

- Improved visibility into Web traffic
- Better security (malware, app visibility controls ,...)
- Ease of policy creation
- DNS Security protection



Secure Firewall Cloud Native (SFCN)

Objectives

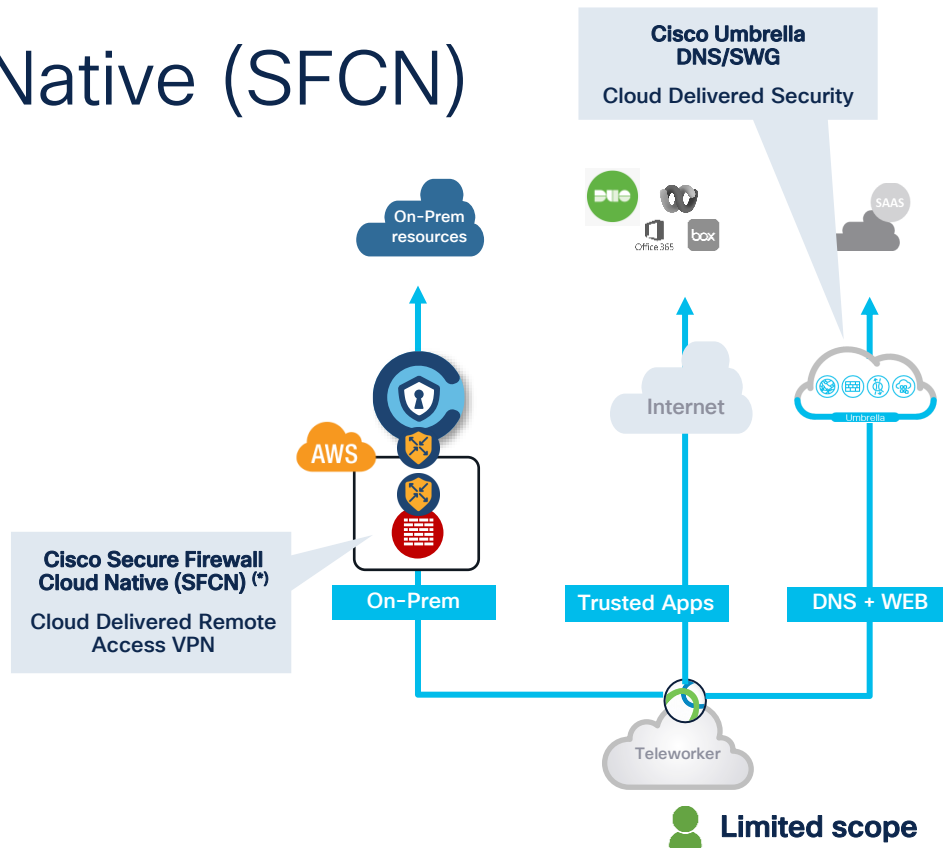
- Redefining the network edge - bring applications closer to the users for a better client experience
- Reduce dependency on high cost on-prem infrastructure & telco circuits. Address supply chain challenges.

Solution

- Cloud delivered Remote Access solutions via Secure Firewall Cloud Native (SFCN)
- Highly scalable & feature rich solution
- Readily available and easy to scale without needing hardware

Success stories

- Early stages of evaluation
- Looking forward to next phases (SDWAN, ZTNA, Threat, ...)



(*) Currently in proof of concept

Cisco+ Secure Connect Now

Objectives

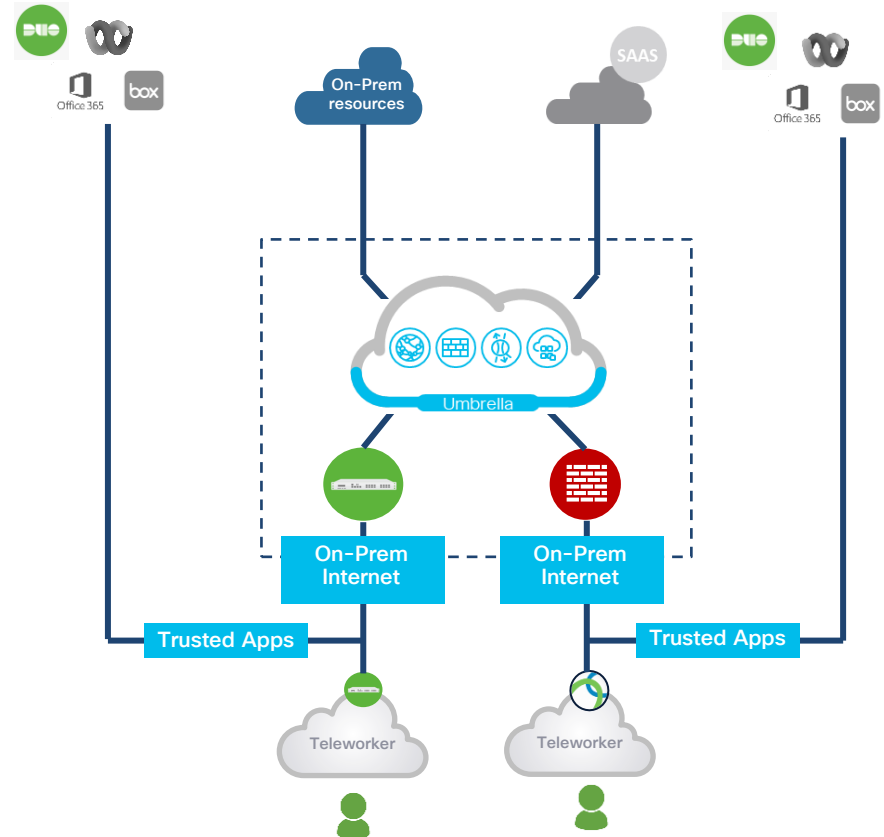
- Redefining the network edge - bring applications closer to the users for a better client experience
- Reduce dependency on high cost on-prem infrastructure & telco circuits. Address supply chain challenges.

Solution

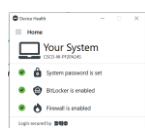
- Terminate Software (AC) and hardware (Cisco SD-WAN) Tunnels onto Umbrella directly
- Cloud-delivered security for both internet/SaaS and On-prem traffic

Success stories

- Ease of setup & policy management
- Significant reduction in on-prem investments



Endpoint DUO Device Health + Cisco AnyConnect



User cred, Device Health, UDID

VPN Head-end Cisco+ Secure Connect Now Secure Firewall Cloud Native (SFCN)



SAML

User cred
Device Health
UDID

AD Lookup

Group: CORP_VPN

User
management

Group Admin

Groups.cisco.com

Active
Directory



Emma's
Password

GroupID	Members
CORP_VPN	Jack, Emma
DEV_VPN	Jimmy, Carla



Duo Cloud
Identity Provider (IdP)

Cache & Live query

UDID	Compliance
AAAA	✓
BBBB	✗

Device
Management
Platforms

Jamf
Jamf Cloud
SCCM (*)
Intune

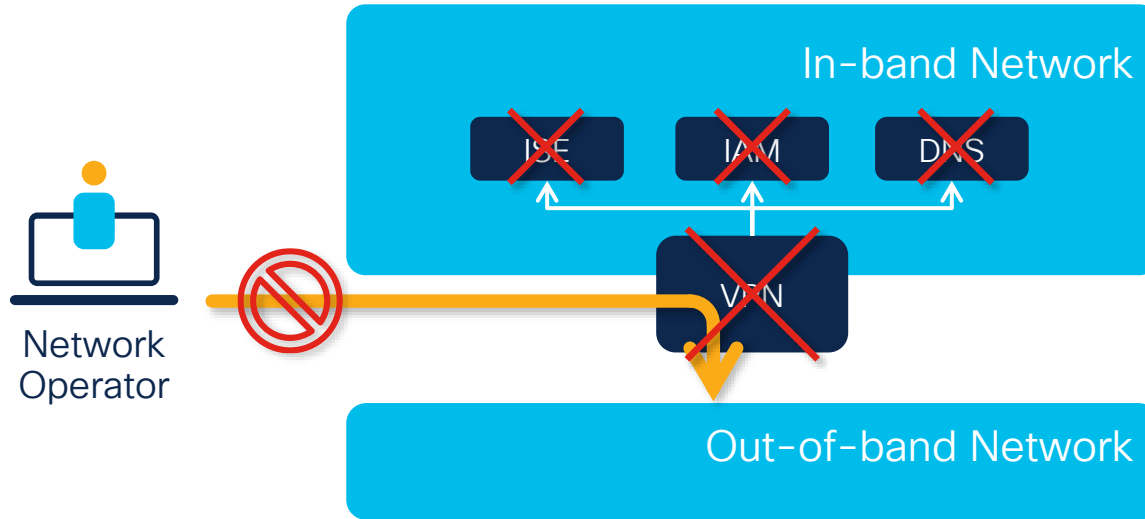
Endpoint protection, patch management and software distribution

Secure Remote Worker with DUO

DUO managed authentication / authorization of users & devices onto VPN as-a-service solutions
Only allow **approved** & **MFA authenticated** users from **healthy** & **trusted** devices

(*) SCCM only supported in combination with Intune – standalone CSSM falls back to cert-based authorization

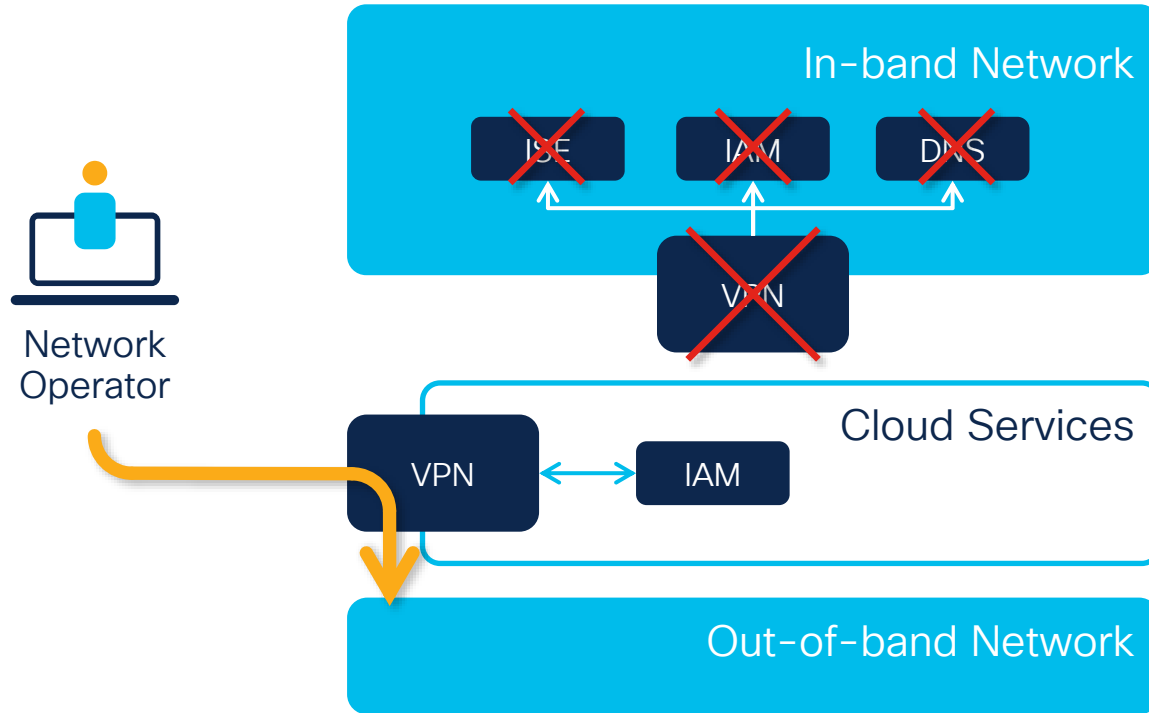
Supplementing with SASE Solution – VPNaaS



Problem

Getting to your out-of-band network if your in-band network has issues?

Supplementing with SASE Solution - VPNaaS



Solution

Cloud-based VPNaaS
(Cisco+ Secure Connect Now)
and Azure AD

Cloud Onramp For MultiCloud

Objectives

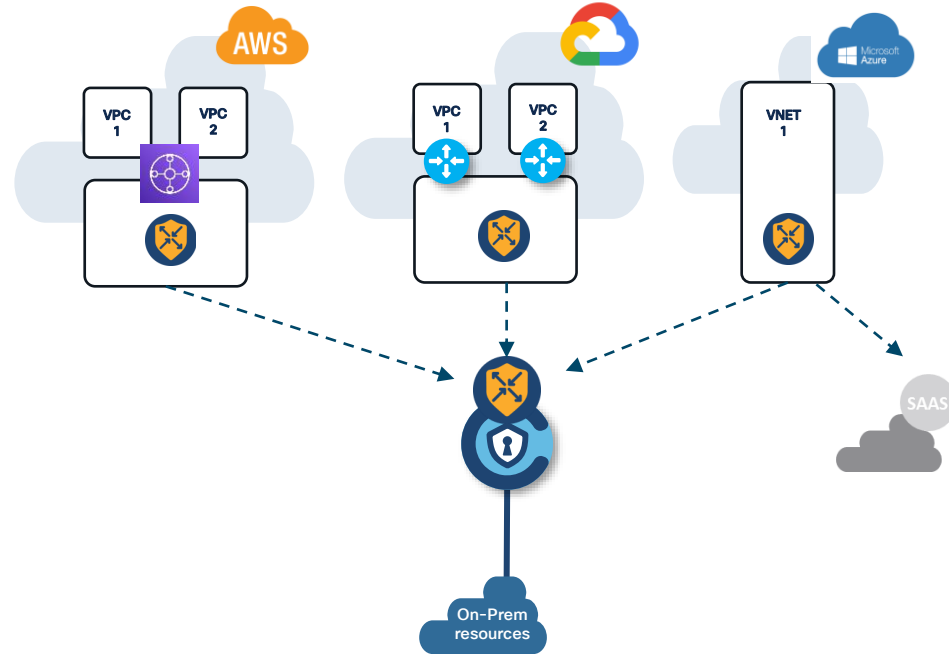
- Simplify and automate the process of connecting on-premises environments to cloud
- Deliver a consistent solution across multiple Cloud providers

Solution

- Cisco SD-WAN Cloud OnRamp for MultiCloud to extend on-prem SD-WAN fabric into the Public Cloud
- Enhanced telemetry and routing capabilities from within the Cloud
- Ability to interconnect different Clouds seamlessly

Success stories

- Spin up enterprise extension quickly
- Can manage individual virtual private networks in the cloud easily
- Benefits from SD-WAN telemetry
- Split-tunnel from the Cloud



Branch Middle-Mile

Objectives

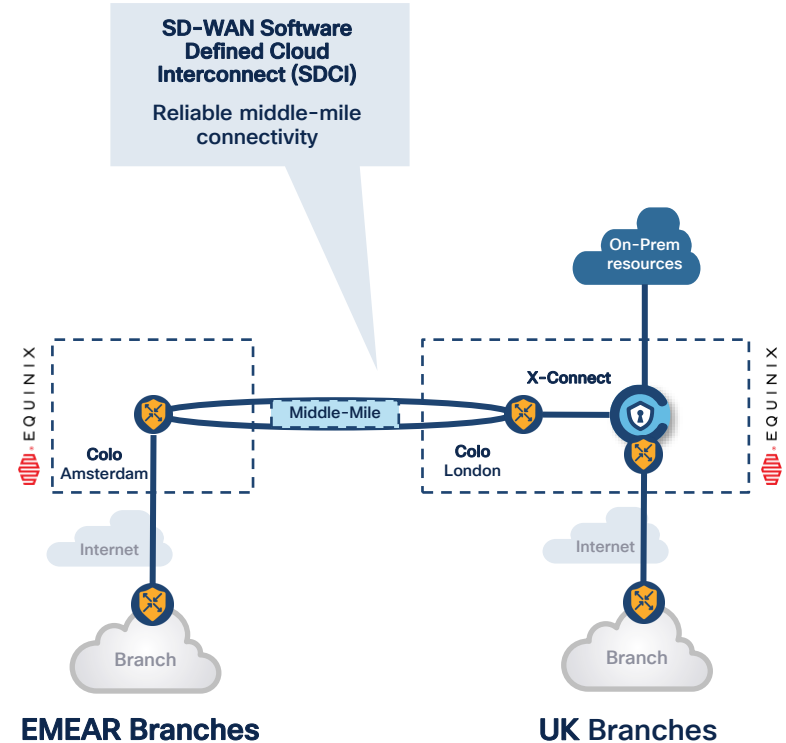
- Reduce dependency on high cost on-prem infrastructure & telco services
- Address supply chain challenges
- More agile deliver of backbone / middle-mile connectivity

Solution

- Connect inter-region sites (branch/campus, DC) utilizing Equinix Colocation facilities and its middle-mile/NaaS capabilities
- Cisco SD-WAN orchestrated Middle-Mile connectivity

Success stories

- Great & simple automation to spin up SD-WAN fabrics and connect sites quickly.
- Prescriptive templates are useful for agile provisioning.



SASE, What's Next



Remember...SASE is a Journey

- Find the track that best fits your company needs
- Start the transition from on-prem solutions to Cisco SASE or “Colo as a service” solutions
- Increase your focus on cloud delivered security aligned with Zero Trust initiatives
- Continue to explore opportunities for 100 % adoption across your network



Find out more on SASE!

Exciting times, lots of things happening in this space...

Learning Opportunities:

Check out more SASE sessions at Cisco Live!

BRKXAR-1000	Creating an Application-Optimized Secure Access Service Edge (SASE)-Enabled Architecture
BRKSEC-2128	SASE the SOC's New Best Friend
BRKSEC-2129	Deploy & Scale SASE for Secure Remote Worker in the Cloud with Cisco+ Secure Connect
BRKENT-2002	SASE - How to Transform the Network Topology for Success
BRKENT-2312	Cisco SD-WAN Security Evolution to SASE
BRKNWT-2210	The Predictive Internet - SD-WAN, SASE and Beyond
BRKOPS-2857	Deploy Visibility in Your SASE Architecture With ThousandEyes
BRKSEC-1840	Cisco Secure Managed Remote Access for Your SASE Journey
BRKSEC-2644	Secure Access Service Edge - From Home to the Office with Cisco SASE!
BRKSEC-2238	Getting SASE with Umbrella and Meraki - learn how simple and flexible the integrations between Meraki and Umbrella are and how to best deploy in your environment

Cisco on Cisco

Customer Zero and Cisco IT Blogs

<https://blogs.cisco.com/tag/customer-zero>

<https://blogs.cisco.com/ciscoit>

Cisco IT Use Cases

<https://www.cisco.com/c/en/us/solutions/cisco-on-cisco.html>

Cisco IT as Customer Zero Video:

<https://www.youtube.com/watch?v=AbUmc5os9vc>

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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Learn

Cisco U.

IT learning hub that guides teams and learners toward their goals

Cisco Digital Learning

Subscription-based product, technology, and certification training

Cisco Modeling Labs

Network simulation platform for design, testing, and troubleshooting

Cisco Learning Network

Resource community portal for certifications and learning



Train

Cisco Training Bootcamps

Intensive team & individual automation and technology training programs

Cisco Learning Partner Program

Authorized training partners supporting Cisco technology and career certifications

Cisco Instructor-led and Virtual Instructor-led training

Accelerated curriculum of product, technology, and certification courses



Certify

Cisco Certifications and Specialist Certifications

Award-winning certification program empowers students and IT Professionals to advance their technical careers

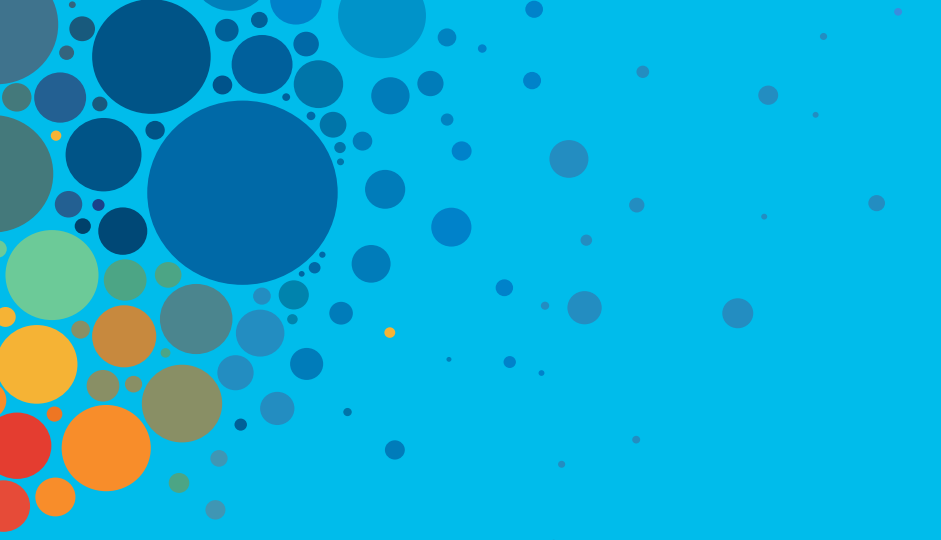
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Recertification training options for Cisco certified individuals

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Continue your education

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- Book your one-on-one Meet the Engineer meeting
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- Visit the On-Demand Library for more sessions at www.CiscoLive.com/on-demand



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Thank you

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