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Cisco's Vision to Hybrid Cloud

Use Cases, Strategy, Design Best Practices

SVijendi, SD-WAN Solutions Architect BRKCLD-2017



Cisco Webex App

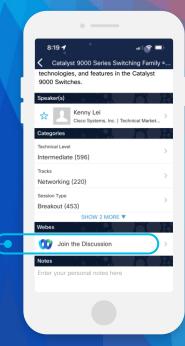
Questions?

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

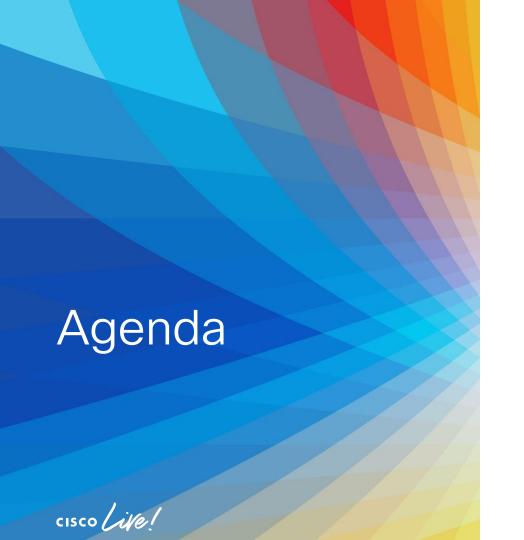
How

- 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 9, 2023.



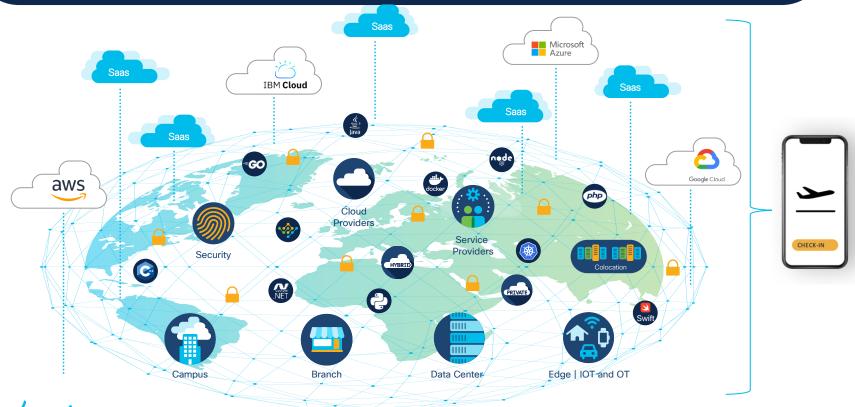
https://ciscolive.ciscoevents.com/ciscolivebot/#BRKCLD-2017



- Cisco Cloud Vision and Strategy
- Cloud Connect
- Cloud Protect
- Cloud Consume
- It is a Hybrid Cloud World

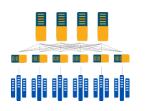


The new normal is a hyper-distributed, extremely diverse IT landscape



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Hybrid Cloud - A Note on Terminology







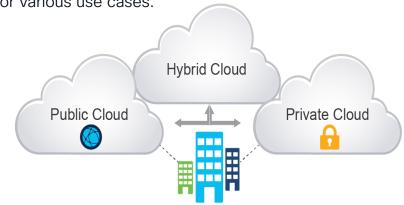




Google Cloud

Hybrid clouds are infrastructure combinations of two or more clouds, such as on-premises private, hosted private, or public, that can be centrally managed to enable interoperability for various use cases.

- Private Cloud On- prem Data Center
- Public Cloud AWS, Azure, GCP
- Hybrid Cloud Private Cloud + Public Cloud
- Hybrid Multi Cloud Private Cloud + 2 or more Public Clouds
- Multi Cloud Public Cloud + Public Cloud





Cisco Cloud Vision and Strategy for Hybrid Cloud



Cisco Vision is to normalize the cloud operational model Anywhere!





Cisco Hybrid Cloud Framework



Deliver the future of work

Seamless and secure collaboration, flexible, remote, and secure network access

Deliver app experience end users love

Visibility, insights, and action across hybrid environments

Simplify security and compliance

Unified, multi- layered, zero - trust, threat intelligence

Modernize and automate across domains

Simplify and securely connect to and consume cloud, improving SLAs

Accelerate with a cloud operating model

Deploy anywhere, manage heterogenous environments and services, optimize consumption



Key Hybrid Cloud Use Cases with Cisco Solutions

Cloud Connectivity

Cisco Connect Solutions

Secure Cloud Connect





Cisco Catalyst C8000v Edge Software



Cisco Catalyst SD-WAN/ Meraki SD-WAN

Cloud Security

Cisco Protect Solutions

Cloud Security

Secure Service Edge (SSE)



Secure Firewall



Umbrella

Extended Threat C
Detection & Response





Cisco Secure Cloud Analytics

Cloud Consume

Cisco Observability Solutions

Full Stack Observability



AppDynamics

Cloud Optimization

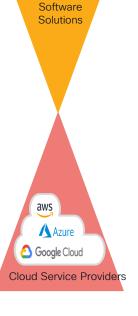


IWO

End User Monitoring & WAN Insights



ThousandEyes



11 111 11

CISCO

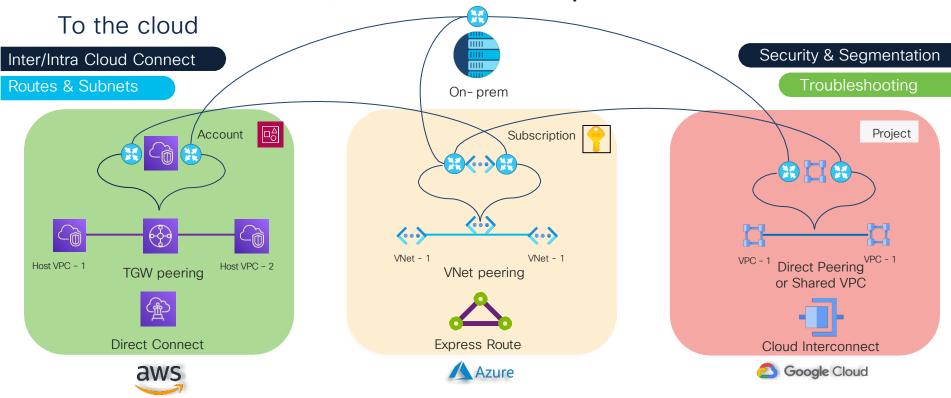


Cloud Connect

Seamless connection using Private and SD-WAN Transport

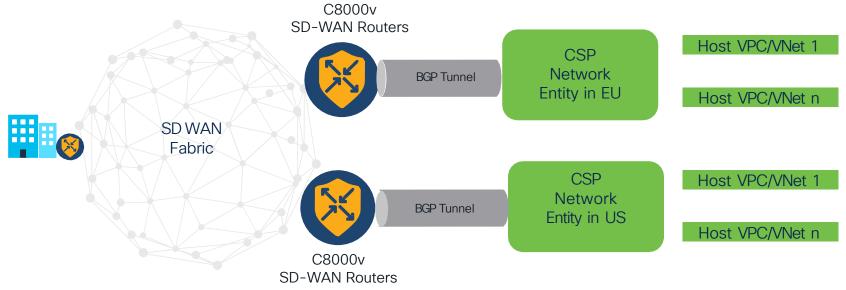


Different Clouds, Different Requirements



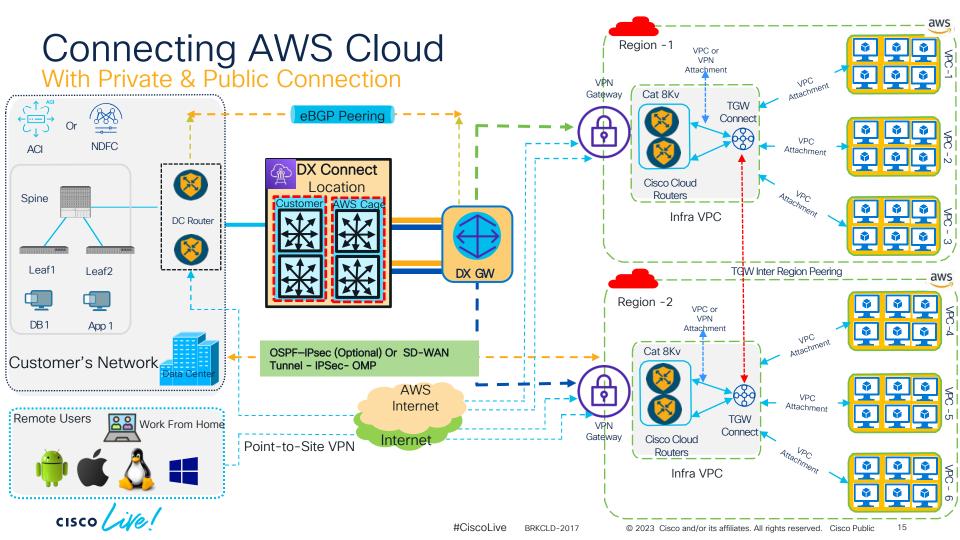


Generic Design for Connecting all CSPs



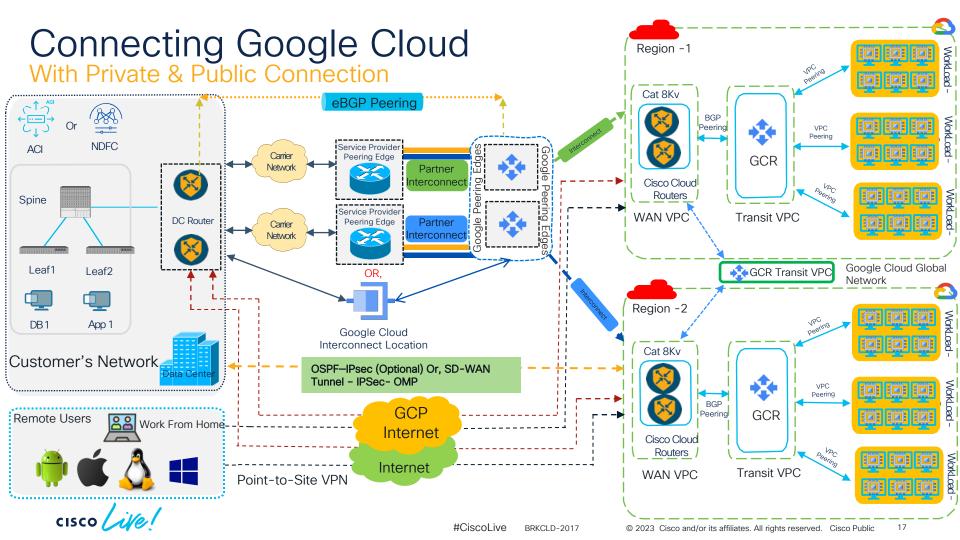
- Establish IPSec or GRE tunnel between c8kv and Cloud
- Learn cloud routes via BGP
- Mutually Redistribute OMP <- > BGP



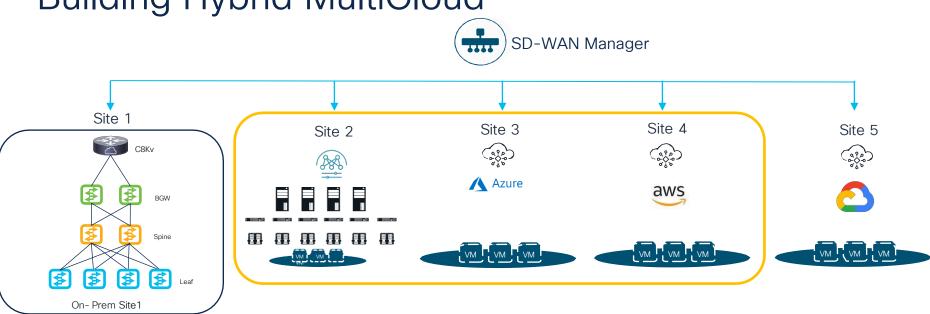


Connecting Azure Cloud With Private & Public Connection **Azure** Microsoft Peering for eBGP Peering Office 365, Dynamics **NDFC** 365, Azure Public ExpressRoute Circuit Services (Public IPs) Spine Primary Connection Microsoft Enterprise DC Router Edge Router Secondary (MSEE) Gateway Connection Subnet Leaf1 Leaf2 peering Cat 8Kv (...) DB 1 App 1 ER OSPF-IPsec (Optional) Or, SD-WAN Gateway Customer's Network **VNet** Tunnel - IPSec- OMP Peering NI B Cisco Cloud Routers Remote Users Internet **22** Work From Home Infra VNet Point-to-Site VPN Gateway

cisco life!



Building Hybrid MultiCloud















Cloud Protect

Security across all aspects of Hybrid Cloud, including data transfer to and from the cloud.



Cloud Security Concerns

"Threat detection in the cloud is more relevant than ever."



Is my data Safe?



What are my Security Gaps?



Is My application vulnerable?



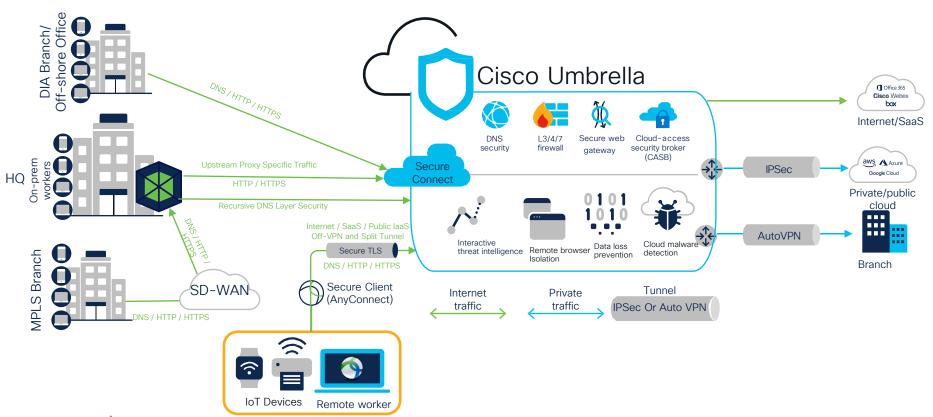
Am I compliant?



What are users doing in the accounts?



Cisco Umbrella



Cloud-delivered Firewall Management Center

Now the new cloud-delivered Firewall Management Center boosts your productivity even further.



Eliminate change management and update overhead



Support at least 25% more firewalls per tenant



No rack space and utility bill, lowering operational cost



Cisco ensures uptime, increasing resiliency



Same look and feel, no learning curve for existing users

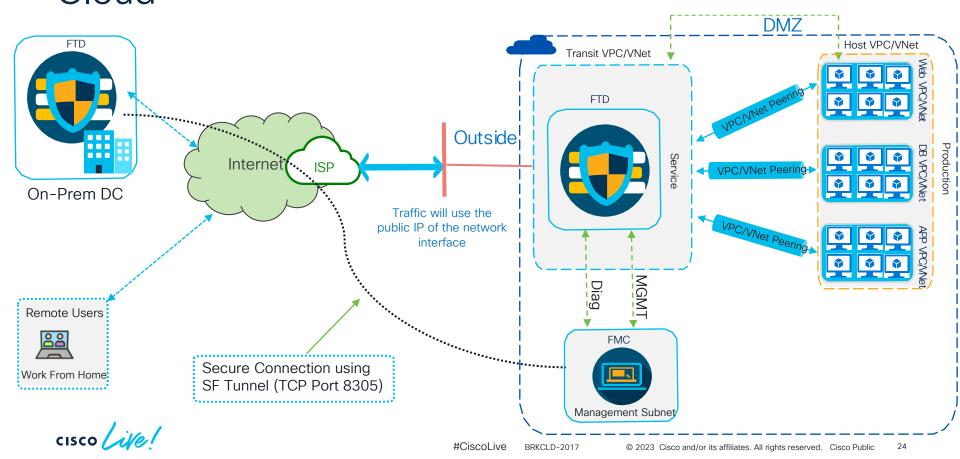


Cisco Firewall Offerings in Public Clouds

| aws | Azure | Google Cloud | CRACLE |
|----------------------------|-----------------------------|--------------|--------|
| NGFWv | NGFWv | NGFWv | NGFWV |
| FMCv | FMCv | FMCv | FMCv |
| ASAv | ASAv | ASAv | ASAv |
| * AWS Gov, AWS China | * Azure Gov, Azure China | | |



Cisco Virtual NGFW - FTD and FMC in the Public Cloud



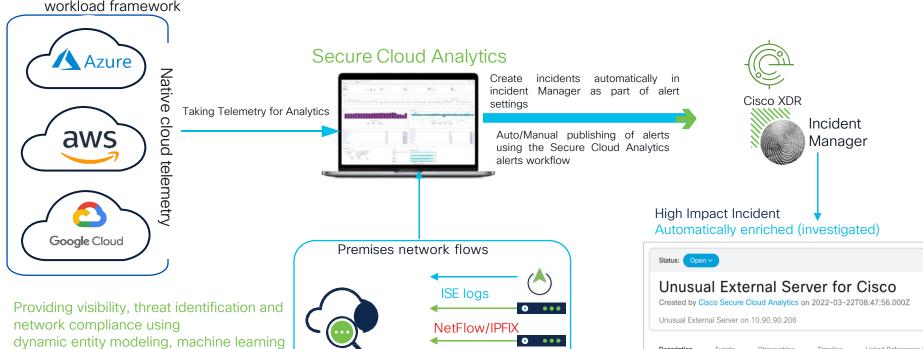
Simplify with Cisco XDR





Cisco Secure Cloud Analytics - Hybrid Cloud Visibility

Natively integrate with multiple infrastructures in the public and private cloud as well as on-premises to get a unified view of the entire workload framework



Firewall Events (SAL)

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Mirror/SPAN #CiscoLive

Secure Cloud

Analytics sensor

based detections

Events

Observables

Unusual External Server - #421

Linked References (3)

Description

Alert

Cloud Consume Visibility & Observability



When Issues Arise, So Do Questions



Is this a
NETWORK
Issue?



Is this an

APPLICATION/
CODE
Issue?





Is this a RESOURCE/ HARDWARE Issue?

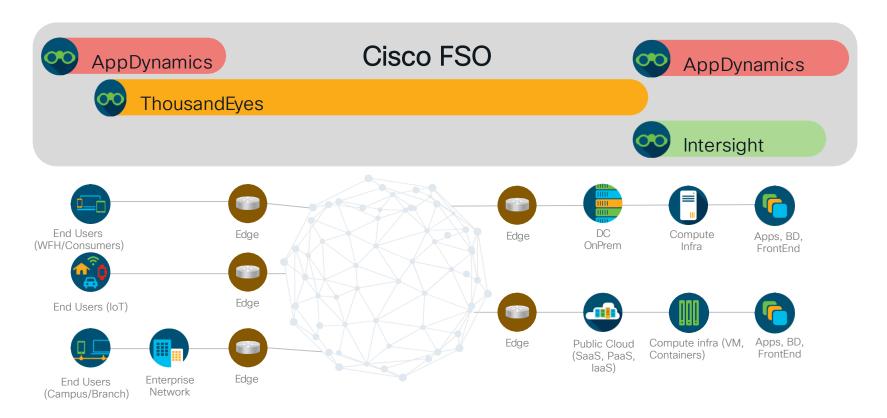




Is this a USER Issue?

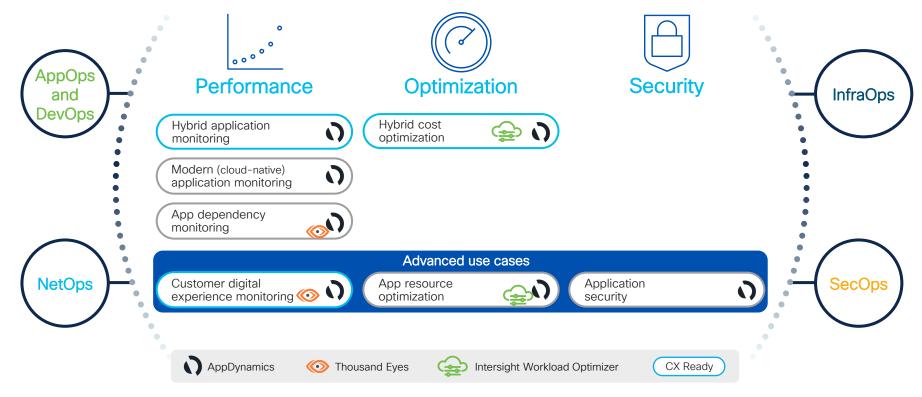


Cisco Full Stack Observability



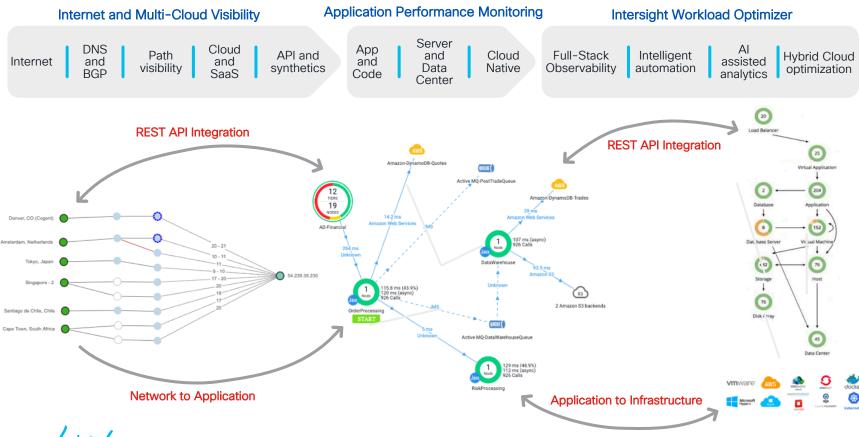


Full-Stack Observability use cases & control points





Better together FSO Solution

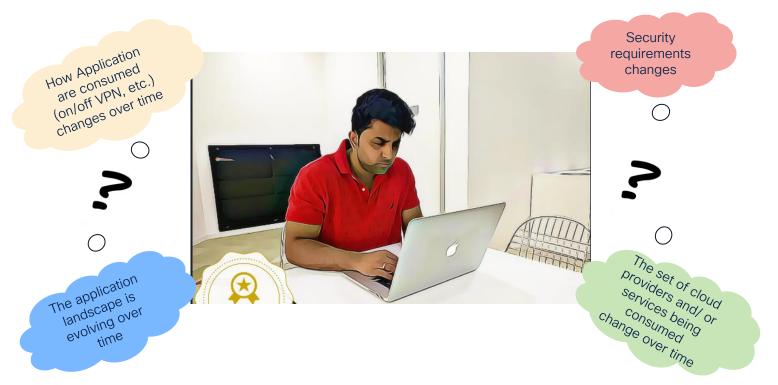


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Conclusion

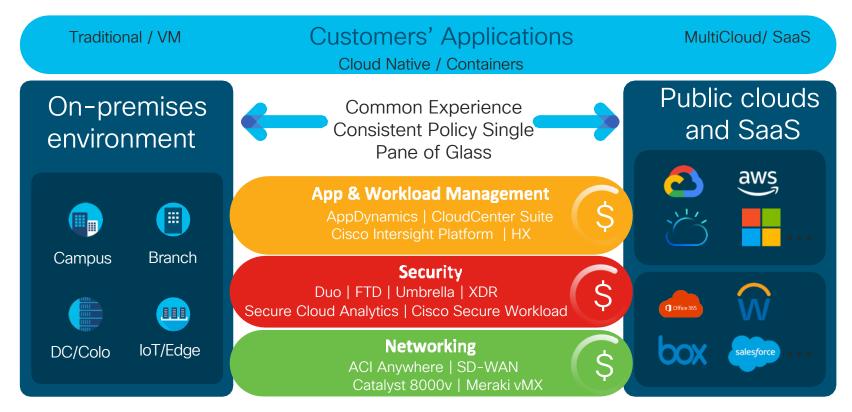


HybridCloud is a journey, not a one-time thing





It is a Hybrid Cloud World





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



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- 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

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Thank you



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How:

- 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:





