

Secure and Transform Your AI Networks with Cisco N9300 Smart Switches



Cisco Live Amsterdam 2026

Javed Asghar

Senior Director, Product Management, Data Center Networking

Chris Barrett

Data Center Networking Specialist, LinkedIn: @ciscochris

Webex App

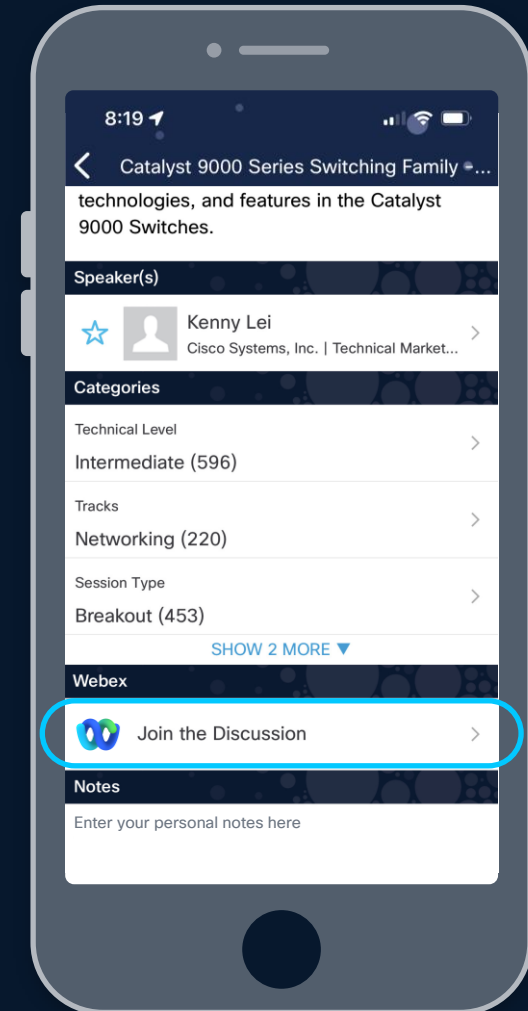
Questions?

Use Webex app to chat with the speaker after the session

How

- 1 Find this session in the Cisco Events 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 February 27, 2026.



Agenda

- 01 Data Center Security Strategy
- 02 Smart Switch Overview
- 03 Use Cases
- 04 Live Protect

Attacker's Advantage: A Growing Threat

130+ disclosed vulnerabilities / day

+16% increase YoY

30% weaponized within 24h

Faster than patching can be done

70% attacks use lateral movement

\$5M global average breach cost

The Defense Mismatch

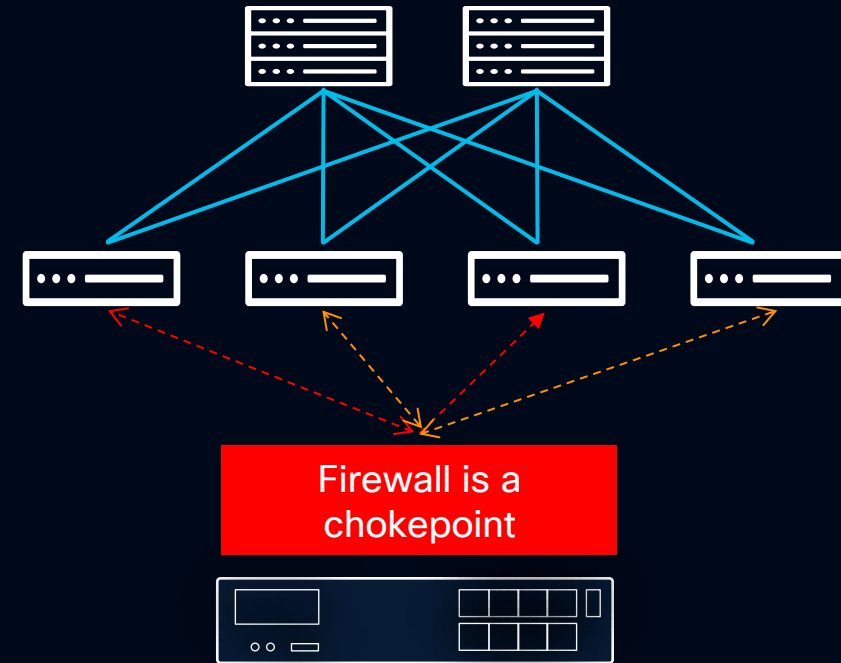
Centralized firewall architecture creates blind spots
60-day patch cycle leave persistent exposure

Fuse Security Into Networking

1 Traditional Data Center Security Limitations

2 Turn every switch port into an enforcement point

3 Continuous Runtime Defense



↑ Latency

↑ Cost

↑ Complexity

Fuse Security Into Networking

1 Build an AI-Ready Enterprise Fabric

2 Turn every switch port into an enforcement point

3 Continuous Runtime Defense

Cisco Nexus Smart Switches with **Hypershield** security

Networking

Security

NPU



DPU

Eliminate External Firewall chokepoints

Security &
Switching in
One

800G Security
Services with
DPU

Unified network
& security
visibility

Fuse Security Into Networking

1 Build an AI-Ready Enterprise Fabric

2 Turn every switch port into an enforcement point

3 Continuous Runtime Defense

Vulnerability shielding for Cisco Nexus



No PSIRT patching
or OS upgrade

No downtime or
switch reboot

Continuous
re-validation

Strengthening Security & Reducing Complexity

Real-world outcomes for Enterprise and Service Provider environments

Business Process Outsourcing (BPO)

55k Employees: North America

CHALLENGES

Multiple publicized security breaches
Client, government, and medical data theft

Infrastructure:

Arista, VMWare, and Palo Alto Networks

Service Provider: Large Telco DC

24k Employees: Asia Pacific

Massive cyberattack exposing 10M+ client personal data
(publicly reported)

Infrastructure:

Point security solutions with agents, various firewalls, and NSX

CUSTOMER REQUIREMENTS

- Replace firewall and point product silos
- Reduce Security Architecture Complexity
- Scalable, cost-effective segmentation
- micro-segmentation for all workloads

SOLUTION & RESULTS

- Smart Switch (N9348Y2C6D-SE1U)
- Multisite VXLAN-EVPN fabrics
- Segmentation Enforcement in Smart Switch with Hypershield*
- Reduced Complexity
- Freed up Resources
- Simplified network design
- All workloads segmented and Firewalled
- Lateral exploits eliminated
- Significant capex and Opex cost savings

* Pre-GA

Cisco Nexus 9300 Series Smart Switches



N9348Y2C6D-SE1U

48-port 25G, 6-port 400G, 2-port
100G, 800G services

Shipping



N9324C-SE1U

24-port 100G, and 800G
services

Shipping

Security Use Cases



Top of Rack
segmentation
& enforcement



Zone-based
segmentation



Cloud Edge

Separate Workflows for NetOps and NetSecOps

Nexus Dashboard, NX-API, NX-CLI

Nexus Dashboard

DPU Fabric

Overview Inventory Connectivity Segmentation and security Configuration policies Anomalies Advisories Integrations History

Switches vPC pairs Smart switches

Filter Actions Add switches

Switch	Model	Smart switch	Hypershield tenant	Hypershield connectivity status	Anomaly level	Advisory level	IP address	Config-sync status	Serial
smart-switch-101	N9324C-SE1U	Yes	Nexusdashboard-user2	Connected	Healthy	Healthy	10.30.12.15	Out-of-sync	FCH180f
smart-switch-102	N9324C-SE1U	Yes	Nexusdashboard-user2	Connected	Healthy	Healthy	10.30.12.16	Out-of-sync	FCH180f
smart-switch-103	N9324C-SE1U	Yes	Nexusdashboard-user2	Connected	Healthy	Healthy	10.30.12.17	Out-of-sync	FCH180f
smart-switch-104	N9324C-SE1U	Yes	Nexusdashboard-user2	Connected	Healthy	Healthy	10.30.12.18	In sync	FCH180f
smart-switch-105	N9324C-SE1U	Yes	Nexusdashboard-user2	Connected	Healthy	Healthy	10.30.12.19	In sync	FCH180f
smart-switch-106	N9324C-SE1U	Yes	Nexusdashboard-user2	Connected	Healthy	Healthy	10.30.12.20	In sync	FCH180f
leaf-106	N9K-C9336C-FX2	No	Nexusdashboard-user2	NA	Healthy	Healthy	174.29.21.123	In sync	FDO202f DVJ
leaf-107	N9K-C9336C-FX2	No	Nexusdashboard-user2	NA	Healthy	Healthy	10.30.12.21	In sync	FDO202f DVJ
leaf-108	N9K-C9336C-FX2	No	Nexusdashboard-user2	NA	Healthy	Healthy	10.30.12.22	In sync	FDO202f DVJ
leaf-109	N9K-C9336C-FX2	No	Nexusdashboard-user2	NA	Healthy	Healthy	10.30.12.23	In sync	FDO202f DVJ

Context sharing for troubleshooting

Hypershield On-Prem Controller

SCC

Overview Summary Vulnerabilities Anomalies

Get started with Hypershield

Vulnerabilities 2 Total exploitable workloads View

Mitigations 1 Shield available View

Total Assets

Tesseract Security Agents 2

Network-based Enforcers 1

Policies 2

Policy groups 4

Network objects 12

User-defined groups 0

Hosts 2

Pods 13

Containers 19

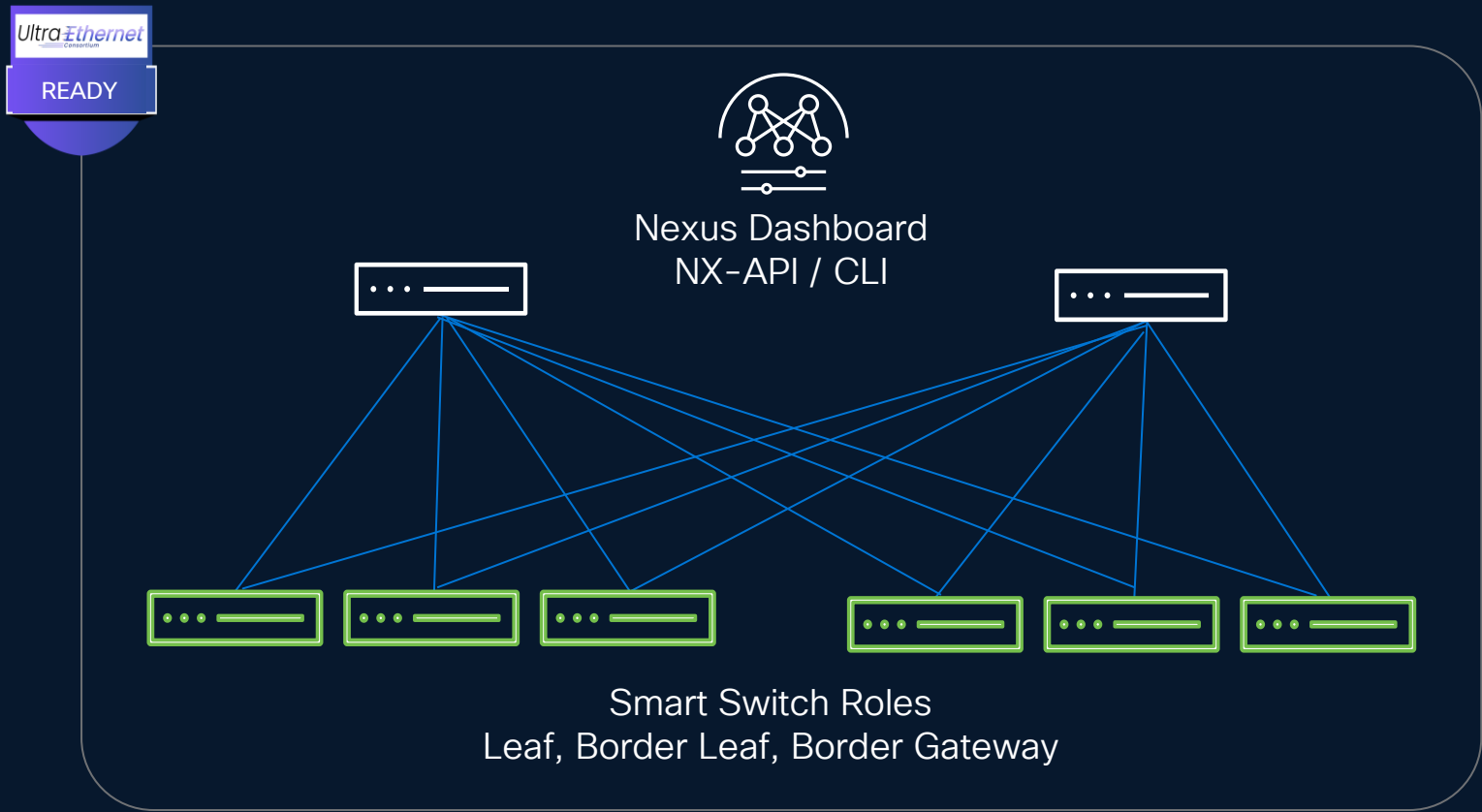


NEXUS SMART SWITCH

Top of Rack: Network Mode Use Case

Available
Now

Ideal for New Fabrics and EOL Refresh



Network Use Cases

- ✓ VXLAN-EVPN Fabric
- ✓ Multi-Site VXLAN-EVPN Fabric
- ✓ BGP routed Fabric
- ✓ Classic LAN

Note: In Network Mode, DPUs are powered down in Smart Switch.



EOL Refresh



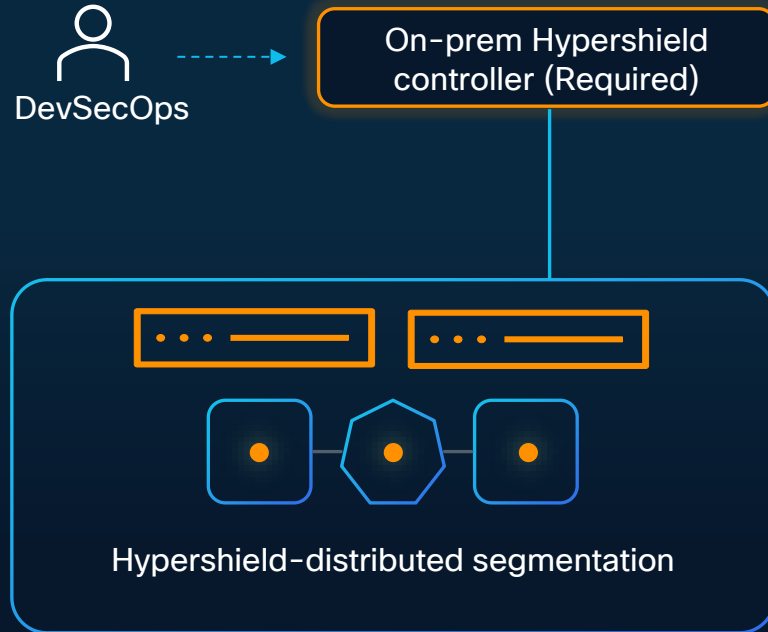
Brownfield
Insertion



Future Ready with
Security

Hypershield Management

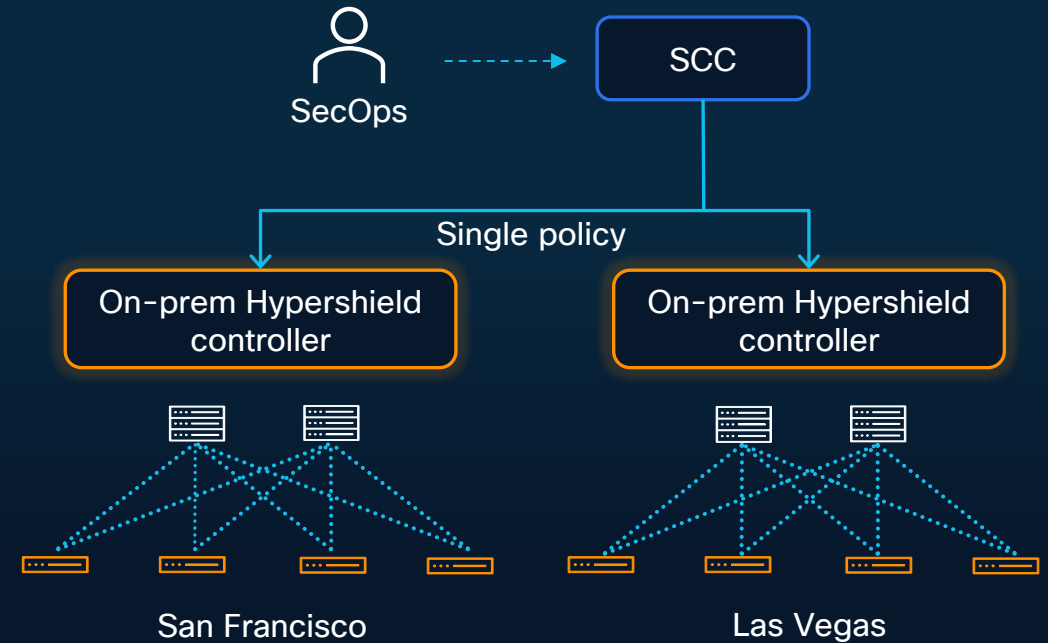
On-Prem



Local control

Unified visibility and policy for Smart Switch

Security Cloud Control (SaaS)



Global control

Single policy across on-prem and cloud in smart switch and workload agents

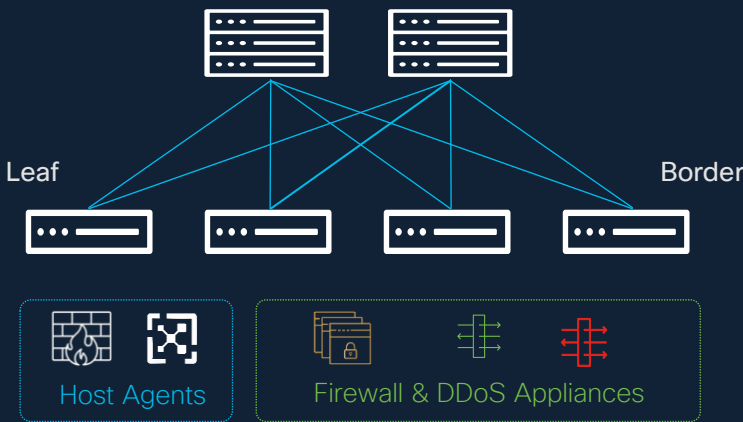
Top of Rack: Stateful L4 Segmentation

Currently under
Controlled
Availability

NXOS Fabric Use Cases

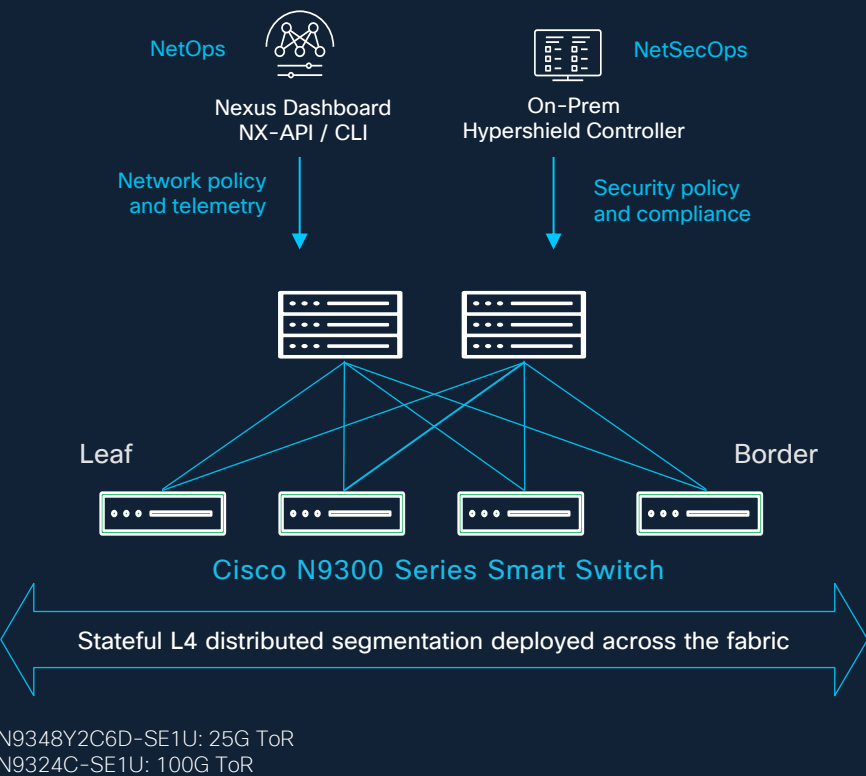
Traditional “Attached” Security

- Many security tools and dashboards
- Fragmented security policy domains
- Higher renewal cost
- Complexity -> Higher Risk



Smart Switch Stateful L4 Segmentation

- Lower cost and higher ROI
- 800G services throughput
- High policy scale



ACI Fabric Use Case

Zone Segmentation

Currently under
Controlled
Availability

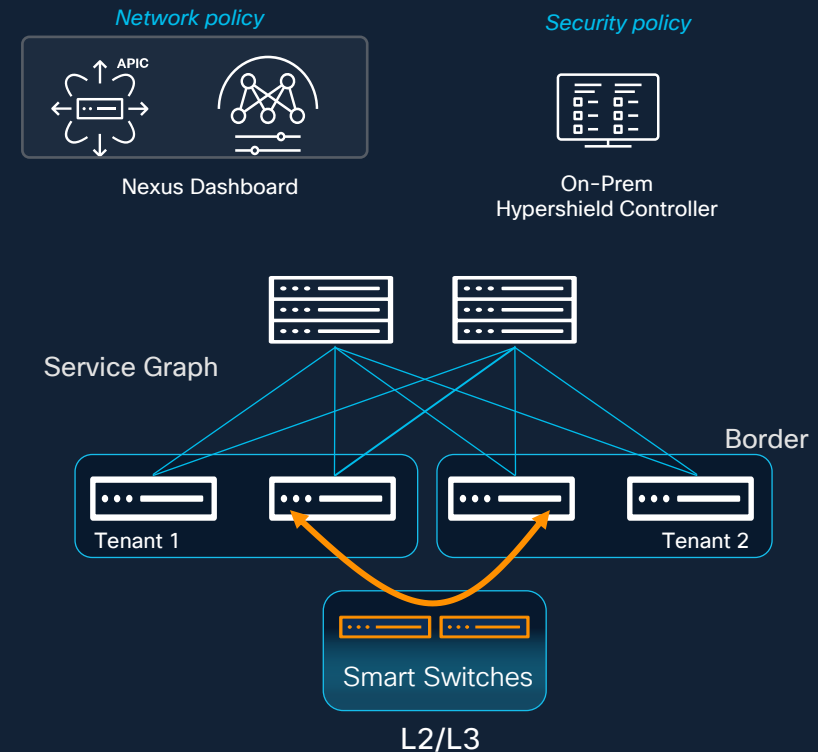
ACI Stateless Network Segmentation

- ESG or EPG network segmentation
- Inter-tenant stateless contracts
- Limited ACL (TCAM) Resources
- Cost prohibitive firewalls at scale

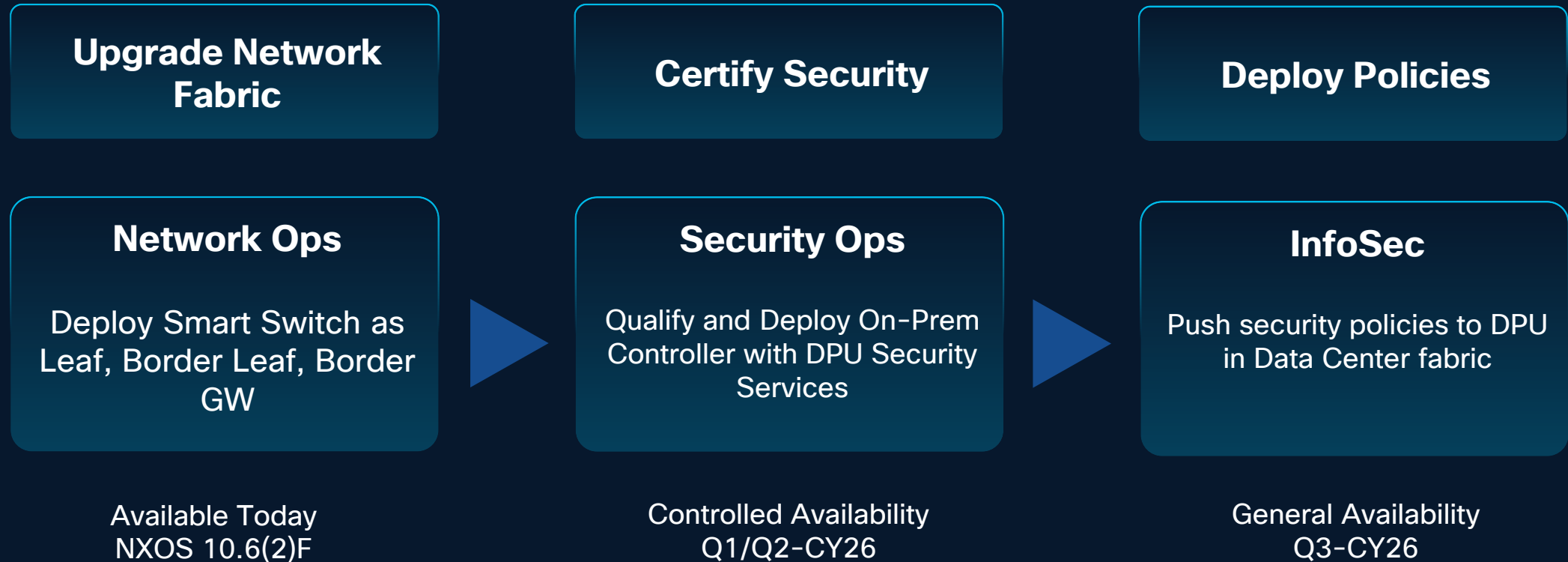


Stateful Zone Firewalling for ACI fabrics

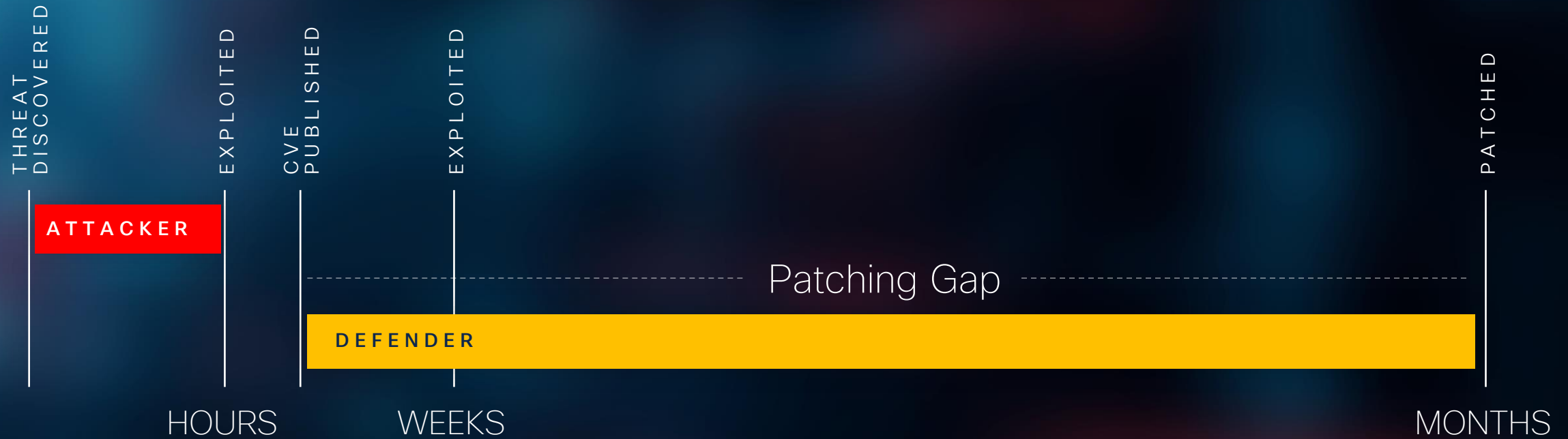
- Smart Switch as external L3/L4 firewall
- Cost effective, 800G firewalling, high scale
- Supported with ACI service graphs



Customer Rollout Journey



Patching Vulnerabilities is Challenging



Vulnerability Mitigation with No Downtime

Available
Now

Live Protect for Nexus OS switches



Innovation

- Enterprise-grade Tetragon agent built into NXOS 10.6(1)F
- eBPF-powered security observability and enforcement
- First to market (no equivalent from Arista, Juniper, Aruba, etc.)



Customer workflow

- Policy file (shields) delivered as a signed RPM available on cisco.com
- Download and apply SMU to the switch (Enforce or Monitor mode)
- Collect metrics, events, logs, and traces
- Export Tetragon events to Splunk or other SIEMs
- SMU automatically removed with PSIRT-bundle upgrade



Ease of use

- Available with essentials or higher license
- Integrated Nexus Dashboard workflow
- API and CI/CD support for automation
- PSIRT upgrades during standard maintenance windows

Complete your session surveys



Complete your surveys in the Cisco Events App.



Complete a minimum of 4 session surveys and the overall event survey to receive a unique Cisco Live t-shirt.

(from 11:30 on Thursday, while supplies last)

Continue your education



Visit the Cisco Showcase for related demos



Book your one-on-one Meet the Engineer meeting

Visit the Technical Solutions Clinics to discuss your technical questions



Attend the interactive education with DevNet, Capture the Flag, and Walk-in Labs



Visit the On-Demand Library for more sessions at CiscoLive.com/On-Demand

Contact me at: Insert preferred comms method

Thank you



