

# Empowering Data Centers

Cisco's Path to Modernization and Operational Excellence

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# Agenda

## Hardware innovation

Cisco silicon, platforms, optics, Nvidia partnership

## Software innovation

NXOS feature roadmap summary

ACI feature roadmap summary

## Unified Operational Model

Nexus Dashboard

# Innovations and Feature Velocity



Silicon

Systems

Optics

Software (OS)

Operating Model



Cloud Scale/Silicon One ASICs - 100G/400G/800G/1.6T  
P4 Programmability



N9800/N9500/N9300 (including Smart Switches)  
N9100 Nvidia Spectrum X



Single Lambda/Breakout/Coherent Optics  
Linear Pluggable Optics



NXOS/ACI/SONiC  
Integrated Fabrics  
Intelligent Packet Flow, DCQCN, Live Protect



Unified Operational Experience  
Nexus One - Nexus Dashboard - Hyperfabric - Nexus as Code

# Cisco Nexus One Flexibility & Simplicity

FULLY INTEGRATED STACK

## Nexus Dashboard

On premises

## Nexus Hyperfabric

Cloud management

SILICON

Cisco Silicon One  
NVIDIA Spectrum-X Ethernet

SYSTEMS

Cisco N9000  
Systems

OPTICS

Cisco Optics

SOFTWARE

Cisco NX-OS  
Cisco ACI, SONiC

SECURITY AND OBSERVABILITY

# Switching Update

# DC Modernization Customer Journey

NXOS and ACI

Shipping

## 100G Spine



Nexus 9336 100G Switch



Nexus 9324 100G Smart Switch



1/10/25G Leaf with 100G uplinks



Nexus 9348 25G Switch



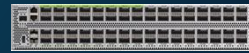
Nexus 9396 SFP/Base-T Switches



Nexus 9300 1G Switch

Shipping

## 400G Spine



Nexus 9300 400G Switches  
(64p OR 48p 2RU options)



Nexus 9300 400G Switches  
(32p OR 16p 1RU options)



25/50G/100G Leaf with 400G uplinks



Nexus 93600 28p 100G Switch



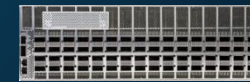
Nexus 93400 48p 50G Switch



Nexus 9348 25G Smart Switch

Future

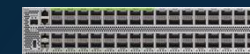
## 800G Spine



Nexus 9364E 800G Switch  
Silicon One P200



100G Leaf with 800G uplinks



Nexus 9300 high density 100G  
Switch (Cloud Scale CS100)

Alternative Leaf Option: Use any 400G Switch with  
2x400G breakout on the the spine side

# Cisco N9364E 51.2T Systems



High-performance 51.2T spine switches for scale across data center networks

**Powered by Cisco Silicon One P200**

Just Announced  
2H CY2026



**64p 800G OSFP ports**  
**3RU**

<p>Cisco N9364E-SP2R-O</p>	<p><b>Unrivalled performance and scale</b></p> <p>High performance MACsec and IPsec across L2/L3 networks</p> <p>Unified packet buffer and High Bandwidth Memory (HBM)</p>	<p><b>End-to-End security and Future ready programmability</b></p> <p>P4-based programmability enables flexible feature enhancements</p> <p>Support for both NXOS and ACI in DC Spine role</p>
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# Cisco Nexus 9300 Spine Switches

High bandwidth fabrics enabling scalable, non-blocking spine architectures

NXOS and ACI

## 100G Switches



**N9K-C9364C-H1**  
64p 100G



**N9K-C93600CD-GX**  
28p 100G + 8p 400G



**N9336C-SE1**  
36p 100G



**N9324C-SE1U (Smart switch)**  
24x 100G



**N9K-C9336C-FX2**  
36p 100G

## 400G Switches



**N9K-C9364D-GX2A**  
64p 400G



**N9K-C9348D-GX2A**  
48p 400G



**N9K-C9332D-GX2B**  
32p 400G



**N9K-C9332D-H2R**  
32p 400G

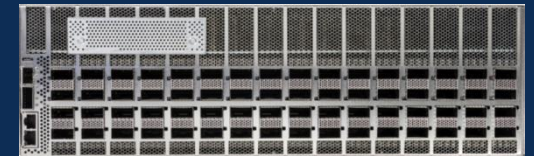


**N9K-C9316D-GX**  
16p 400G

## 800G Switches



**N9364E-SP2R-O**  
64p 800G 2H CY26



**N9364E-SP2R-Q**  
64p 800G 1H CY27

# Modernizing AI Data Centers

## 100G Cloud Scale

9336C-FX2



9336C-SE1

## 100G Silicon One (NXOS Only)



9324C-SE1U



## 10/25G Cloud Scale

93240YC-FX2



9348Y12C-SE1

## 10/25G Silicon One (NXOS Only)



93360YC-FX2



9396Y12C-SE1



93216TC-FX2



9396T12C-SE1



93180YC-FX3



9348Y2C6D-SE1U



NOW ORDERABLE

# Cisco Nexus Hyperfabric

High-performance Ethernet

Cloud-managed operations

Unified stack including NVAIE

AI-native operational model

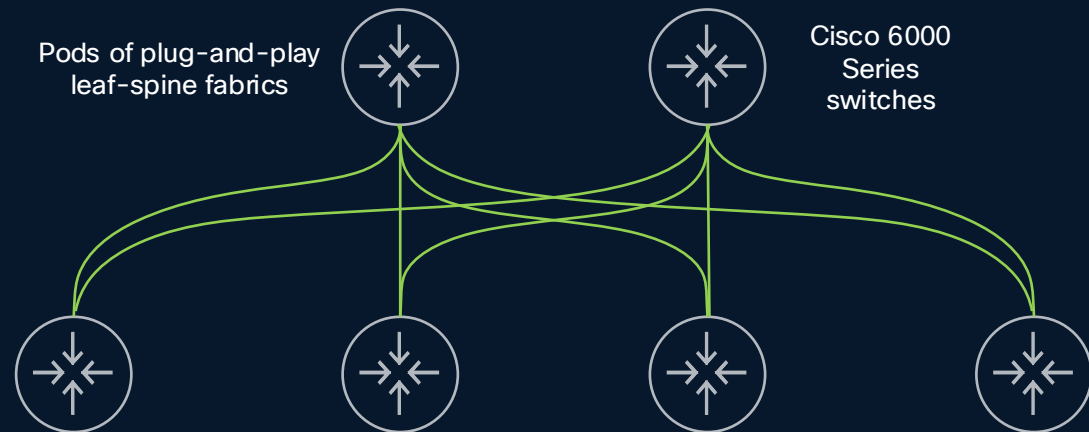
Democratize AI infrastructure

Visibility into full stack AI

## Cisco Nexus Hyperfabric



### On-prem AI infrastructure



Cisco UCS C885A M8

NVIDIA GPU

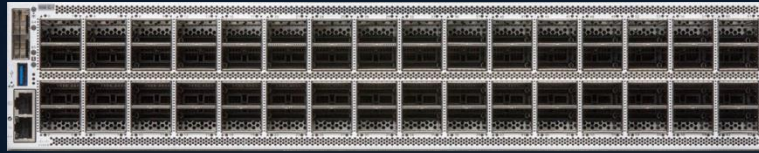
NVIDIA DPU / NIC BlueField-3



VAST Storage UCS C225

# Nexus Hyperfabric Switches

## Nexus 6100 Series



HF6100-64ED (800G Spine / AI)  
Silicon One G200 · 64x 800G OSFP



HF6100-32D (400G Spine)  
Silicon One Q200 · 32x 400G QDD



HF6100-60L4D (Leaf)  
Silicon One Q200 · 60x SFP56 + 4x 400G QDD

## H2CY26

## Nexus 9300 Series



N9164E-NS4 (800G AI/ML fabric Spine/Leaf)  
Nvidia Spectrum 4 64x 800G OSFP



N9336C-SE1 (100G Spine/Leaf)  
Silicon One E100 · 36x 100G QSFP28



N9K-93180YC-FX3 (SFP28 Leaf)  
Cloud Scale FX3 · 48x 25G SFP28 + 6x 100G QSFP28



N9K-93108TC-FX3 (Copper Leaf)  
Cloud Scale FX3 · 48x 10G BaseT + 6x 100G QSFP28

# 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

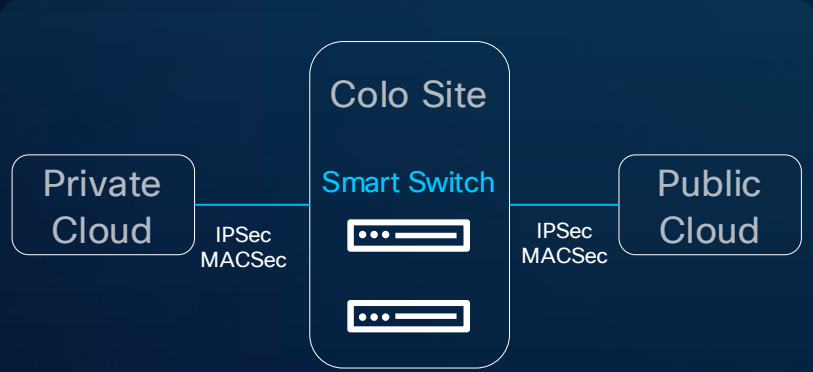


Zone-based  
segmentation



Cloud Edge

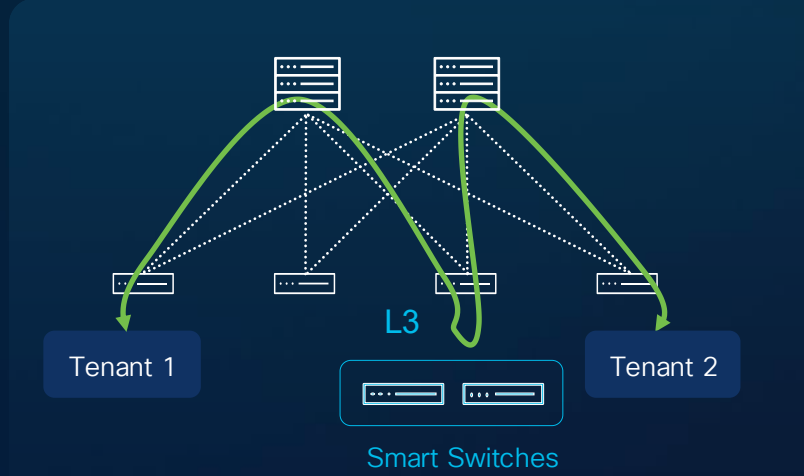
# Upcoming Use Cases



## Cloud Edge

Smart Switch provides stateful L3/L4 East-West segmentation and visibility between private and public clouds

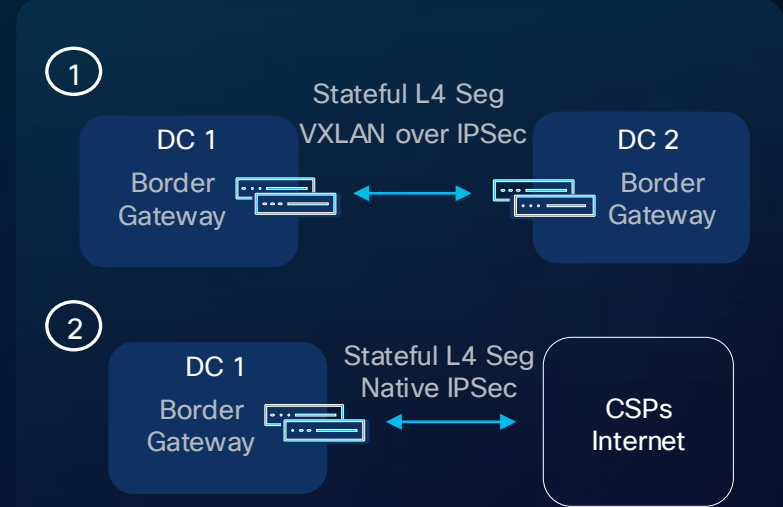
Positioned for ACI & Nexus fabrics



## Zone Segmentation

Smart Switches provide external East-West L4 stateful segmentation and visibility

Positioned for ACI fabrics



## Secure Peering for DCI

Encrypt VXLAN multi-site DCI traffic using IPsec or native IPsec for Internet/CSPs

Positioned for Nexus fabrics

# Scale for AI



Cisco NVIDIA  
Partnership

# Cisco and NVIDIA: Accelerating AI adoption in the Enterprise



Extend NVIDIA's Spectrum-X architecture to include Cisco Silicon and Cisco Optics

1

Cisco Silicon is currently the only non-NVIDIA silicon that will be approved by Nvidia for compliance with Enterprise and Cloud Partner Reference Architecture.

Shipping



Deliver the highest performance Ethernet solutions available for AI workloads with tighter integration

2

NVIDIA will collaborate with Cisco to enhance communication between NVIDIA NICs and Cisco Silicon. Support packet spraying and adaptive routing capabilities with Cisco Switches.

Shipping



Build Cisco Nexus Switches powered by Cisco Software and NVIDIA Spectrum

3

Empowering customers to standardize on Cisco networking and NVIDIA technology—delivering flexibility and choice in the data center.

Orderable. Shipping in Q2 CY2026

# Reference Architectures

## Cisco AI Secure Factory

**AI Software**  
NVIDIA AI Enterprise

**AI Compute**  
Cisco UCS

**AI Storage**  
Third-party offer

**AI Networking**  
NVIDIA + Cisco Silicon One

**Cisco**  
Enterprise  
Reference  
Architecture  
(**ERA**)

< 1024 GPUs

Cisco N9364E-SG2  
Cisco Silicon One



**Cisco**  
Enterprise  
Reference  
Architecture  
(**ERA**)

**NVIDIA**  
**ERA**  
Compliant

< 1024 GPUs

Cisco N9364E-SG2  
Cisco Silicon One  
Spectrum-X License



**Cisco**  
Cloud  
Reference  
Architecture  
(**CRA**)

1K~32K GPUs

Cisco N9364E-SG2  
Cisco Silicon One



**Cisco**  
Cloud  
Reference  
Architecture  
(**CRA**)

**NVIDIA**  
**NCP RA**  
Compliant

1K~32K GPUs

Cisco N9164E-NS4  
NVIDIA Spectrum-X  
Ethernet Silicon



# Cisco Nexus 800G Switches for the AI Era

Performance and scalability to meet the needs of AI fabric

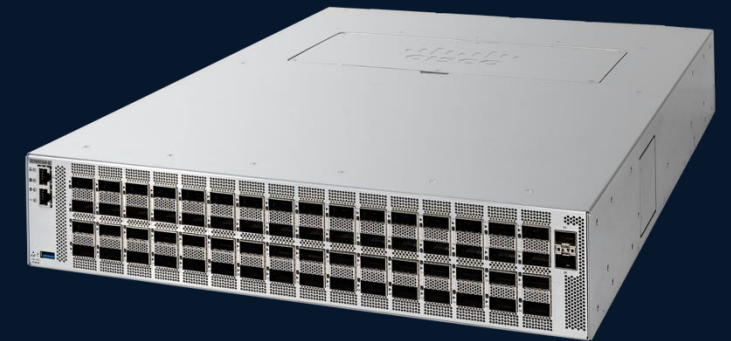
**Powered by Silicon One G200 series**

Shipping



N9364E-SG2-O

64p 800G OSFP  
2RU



N9364E-SG2-Q

64p 800G QSFP-DD  
2RU

## Cisco N9364E-SG2

### Designed for performance and scale

Prevent packet drops of bursty AI traffic through fully shared 256MB packet buffer

512-radix enables highly scalable and efficient network designs

### Advanced load balancing for maximum efficiency

Intelligent Packet Flow offers optimized congestion management and ultimate flexibility

NVIDIA Spectrum-X integration ensures unparalleled end-to-end integration



# Cisco 800G Linear Pluggable Optics (LPO) Solutions

Introducing AI Scale-out power efficiency and reliability for 800G Networks

Just Announced!!  
Q3 CY2026



Cisco L800G OSFP LPO  
50% less power per module

Powered by Cisco Silicon Photonics  
Integrated designs reduce system power consumption 30%

Shift power consuming optics DSP functionality to Cisco Silicon One platform

High signal integrity driven by Cisco Silicon Photonics and Cisco Silicon One

High reliability with lower thermal stress

Increase port density without PDU upgrades

# Cisco Nexus 800G: Efficient and Optimized



Power efficient with LPO optics support

**Powered by Silicon One  
G200 series**

Just Announced !!  
Q3 CY26



**N9364E-SG2X-O**  
64p 800G OSFP  
2RU



**N9364E-SG2X-Q**  
64p 800G QSFP-DD  
2RU

## Cisco N9364E-SG2X

### Enhanced efficiency and lowered OpEx

Supports Linear Pluggable Optics (LPO) which reduces the overall power consumption by up to 30%

Lowers total cost of ownership (TCO)

### Optimizes performance and scalability

Fully shared 256MB packet buffer and 512-radix to meet the needs of today's highly-scalable AI data centers

Improved latency for reduced job completion time

# Cisco N9100: NVIDIA Spectrum-X Integration



**N9164E-NS4-O**  
64p 800G OSFP  
2RU

Cisco secure AI stack that uniquely meets  
NVIDIA NCP RA compliance

Orderable Now  
Shipping in Q2 CY2026

## Cisco N9164E-NS4 OSFP

### Ultimate flexibility

Operating system flexibility between NX-OS, Cisco SONiC, or Hyperfabric

Provisioning and manageability with Nexus Dashboard integration

### NVIDIA technology and partnership

Innovative Spectrum-X Ethernet silicon

Addresses large scale AI infrastructures with NCP Reference Architecture (RA)-compliant network designs

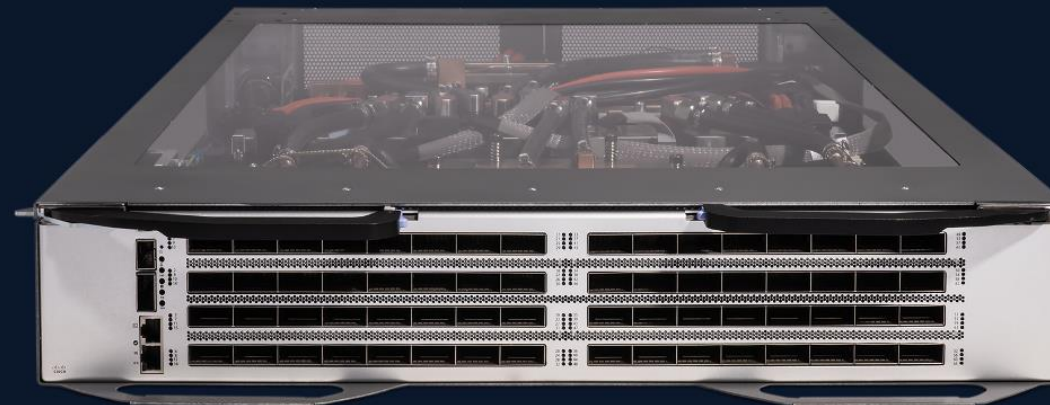
# Cisco N9K 102.4T Liquid Cooled System



Unleashing 102.4T to  
Accelerate AI at Massive  
Scale

Powered by Cisco Silicon One  
G300

Just Announced!!  
2H CY2026



64p 1.6T OSFP ports  
20U

<p>N9364F-SG3-L</p>	<p><b>Delivering lossless, low-latency switching for AI/ML fabric</b></p> <p>Scale-Out networking for AI/ML fabrics</p> <p>100% liquid cooled with direct to chip liquid cooling</p>	<p>Compact 20U switch with ORv3 rack support</p> <p>Choice of network operating systems (NX-OS &amp; SONiC)</p>
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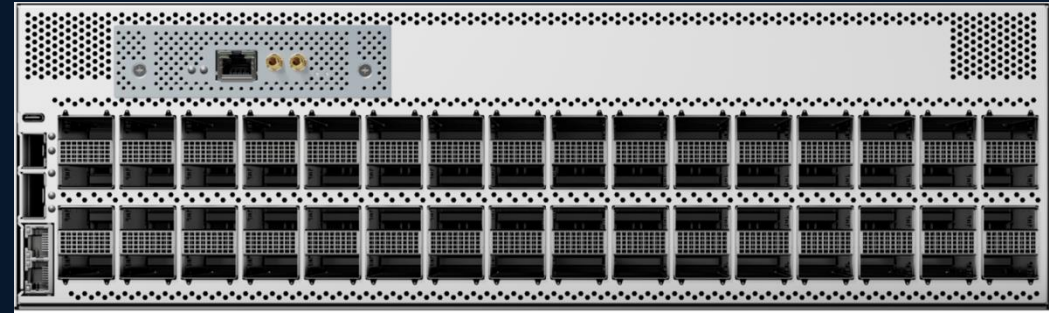
# Cisco N9K 102.4T Air Cooled System



Unleashing 102.4T to  
Accelerate AI at Massive  
Scale

Powered by Cisco Silicon One  
G300

Just Announced!!  
2H CY2026



64p 1.6T OSFP ports  
3RU

N9364F-SG3-A

Delivering lossless, low-latency switching for AI/ML fabric

Scale-Out networking for AI/ML fabrics

100% air cooled switch deployed in conventional environments

Supports standard EIA 19" rack and ORv3 and MGX with adapter

Choice of network operating systems (NX-OS and SONiC)

# Cisco N9100: Expand AI Fabric with NVIDIA 102.4T Spectrum-X

The next major leap in AI data center capacity  
with NCP RA-compliant Cisco Secure AI Factory

Future



**N9164F-NS6**

64p 1.6T OSFP  
20U

**Cisco N9164F-NS6**  
**OSFP**

## Ultimate performance

Extraordinary network scale for AI to meet the demands of next generation secure AI factory

100% liquid cooled system with direct to chip liquid cooling

## NVIDIA technology and partnership

NVIDIA Spectrum-X Ethernet technology enables scale-out AI fabric

Addresses large scale AI infrastructures with NCP Reference Architecture (RA)-compliant network designs



Reliable connectivity for AI data centers

# Cisco OSFP 1.6T Pluggable Optics

High-performance and reliability

Cisco Silicon Photonics technology

Advanced DSP-based diagnostics and monitoring



Just Announced!!

2H CY2026

## High bandwidth AI scale-out

1.6T switch-to-NIC connectivity and high-density fabrics for massive AI cluster builds (2x800G, 4x400G, and 8x200G links)

## Diversified supply chain

Seamless AI cluster scaling with diversified supply chain and interoperability across Cisco and 3<sup>rd</sup> party DSPs

## Efficiency and flexibility

Fully retimed and linear optics for power-efficiency and deployment flexibility in liquid cooled and air-cooled platforms

# Cisco Nexus 9000 Series - Modular Switch Portfolio

Compact



Nexus 9408

Optimized for  
100G/200G/400G

High density 100G/400G



Nexus 9500

Optimized for 1G through 400G  
4-slot, 8-slot, 16-slot chassis

800G Ready  
High Port Density



Nexus 9800

Very high density 400G & 100G ports  
800G ready  
4-slot and 8-slot chassis

# Software Updates

# NX-OS Roadmap Summary

## NX-OS 10.5(3)F

L2/L3 Leaf, L3VNI BGW on N9364E-SG2

Programmability – Multi-threaded NETCONF

N9Kv footprint reduction

Security – Mechanism to identify when/if AES master key is updated

AI: Path Based (WCMP) load balancing

AI: Policy based load balancing

AI: Intelligent Packet Flow

VXLAN GPO – Match Criteria: Interface

## NX-OS 10.6(1)F

VXLAN GPO – Match Criteria: Port + VLAN

128-way ECMP w/ VXLAN

Security: TLS1.3 + TACACS

ESI Multihoming

Multicast Traffic Pinning

NDB: Packet Truncation Optimization

IPFM: Critical Events Enhancements

AI: SmartNIC integration with Spectrum-X

## NX-OS 10.6(2)F

AI: ECMP Static Pinning

AI: Packet classification using reserve bit

AI: Telemetry drop flow notification, sampled netflow

Resilient Hashing (VXLAN overlay)

Cisco Live Protect: Enforce Mode

IPv6 Underlay Parity w IPv4 enhancements – MultiHop BFD, VNF Multipath

N9336C-SE1 – VxLAN EVPN multi-site w/BGW

SR-MPLS to VxLAN handoff with VXLAN GPO

## NX-OS 10.6(3)F

VXLAN GPO – Intra ESG isolation

Express boot support on N9364E-SG platforms

ESI Multi-homing support for micro segmentation

Support dot1x Voice VLAN Enhancements

FIPS MACsec certification

Config Staging

IPv6 Enhancement

AI: MXL for media and broadcasting

IPFM: PFM-SD Multisite

## NX-OS 10.7(1)F

Data Center and Campus Interoperability w/Policy

Security – PQC SSH/TLS

Multi-agent App hosting

N9336C-SE1 – RoCEv2 Enhancements

AI: PFC-WD on N9800 AI :Telemetry INT IFA 2.0

Soft VTEP support

MoFRR Support

Port+VLAN Match criteria (Physical vPC)

Q1CY25

Q3CY25

Q4CY25

Q1CY26

Q3CY26

# ACI Roadmap Summary



Shipping



Committed



Planning

## ACI 6.1(3)F

N9K-C93400LD-HXB

N9K-C9332D-H2R

N9k-9364C-H1

Remote leaf resiliency

vAPIC qualification as standby

Support for 32 ports in a single port-channel

Increase in VMM vNIC scale

## ACI 6.1(4)F

Support for APIC-G5 (based on UCS-M8 server)

vAPIC support on Nutanix AHV

Support for N9K-X9736C-FX3 as 9500 spine LC

DSCP-based PFC support

ACI BGW feature enhancements

Nexus Dashboard - Day2ops telemetry enhancements

## ACI 6.2(1)F

Support for co-existence of physical and virtual APIC

Support mixed ACI versions in the same fabric

APIC upgrade enhancements

ND features - ACI routing table & real-time monitoring

Scale: VSG L4L7 + ESG scale enhancements

BGP graceful restart & BGP graceful shutdown

AI feature enhancements - DLB

## ACI 6.2(2)F

ACI BGW feature enhancements

AI feature enhancements - ECN buffer tuning

New optics support

vCenter 9 VMM support

ESG migration assistant

APIC UI enhancements

## ACI 6.2(3)F

APIC upgrade enhancements

IPv6 for underlay phase 1 - Greenfield single pod, multi-pod, multi-site

ACI BGW feature enhancements

Nutanix VMM integration scalability limit increases

AES-256 and SHA2-256 cryptographic algorithm support

Virtual APIC support on OpenShift Virt/KVM

Nexus Dashboard - Day2ops telemetry enhancements

PBR 5-Tuple Service Node Balancing

Q1CY25

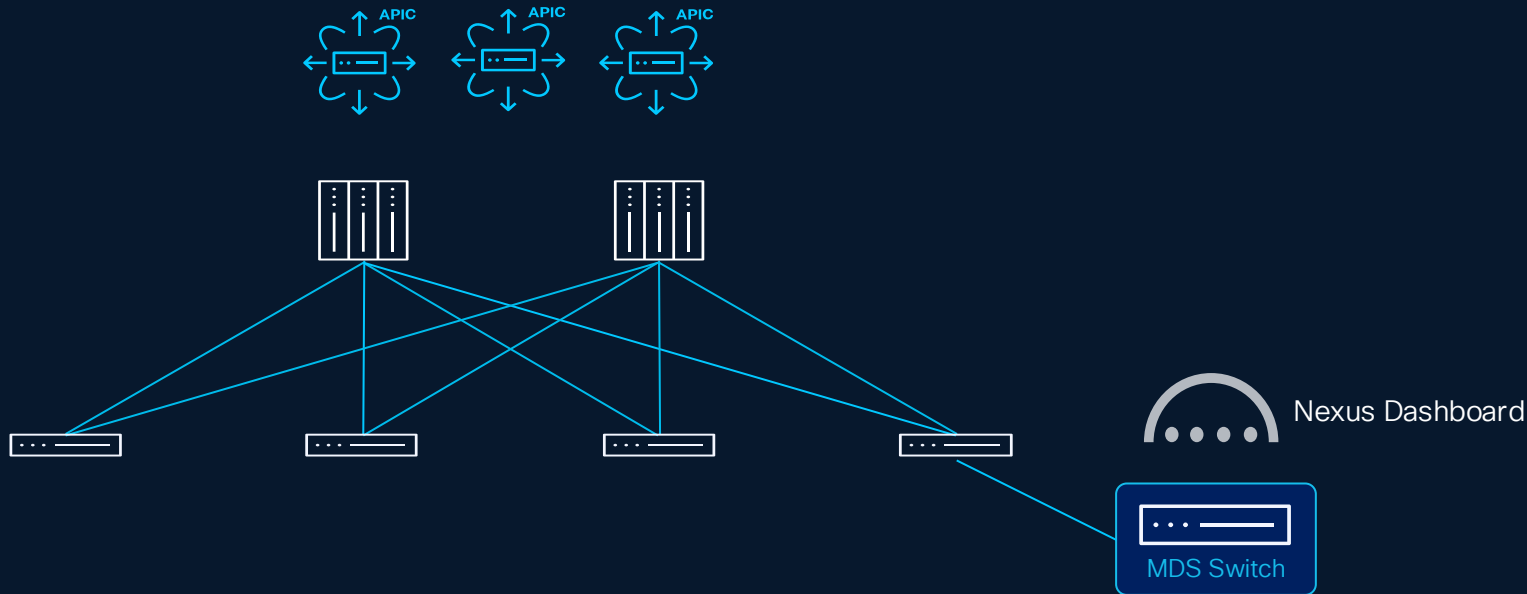
Q3CY25

Q1CY26

Q2CY26

Q3CY26

# Seamless storage integration with Cisco ACI



- Supports IP-based storage protocols
- Policy-driven automation
- High-performance RDMA support
- Micro segmentation for storage isolation
- End-to-end visibility



NVMe over fabrics (NVMeoF)

RoCEv2 support

Designed for high-performance  
AI, analytics



ONTAP with NFS/iSCSI

NetApp AFF & FAS systems

FlexPod solutions with Cisco  
UCS + ACI



FlashArray (iSCSI, NVMe/TCP)

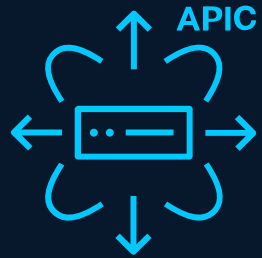
FlashBlade (NFS, S3)

Cisco validated designs available

# Cisco ACI VMM integration

ACI 6.0(3)F

Shipping



- Unified management
- End-to-end network automation
- End-to-end VM visibility
- Hypervisor agnostic
- Faster time-to-value for NetOps ticketing queue

Policy-driven integrated network (physical/virtual)

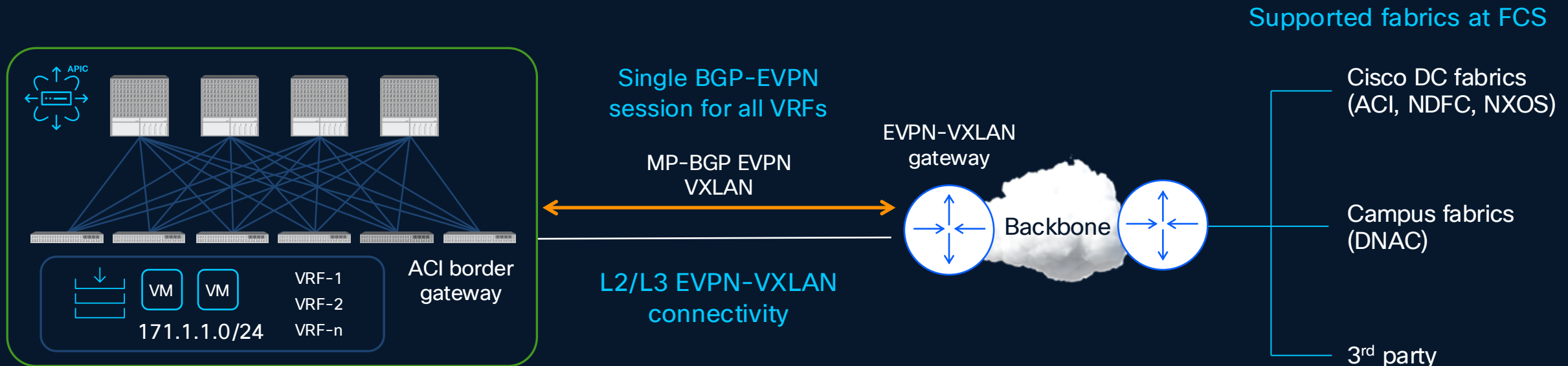
Hypervisor agnostic

Faster time-to-value for NetOps ticketing queue

Reduce human error with “provision once” operating model

# L2/L3 EVPN-VXLAN gateway connectivity

Nexus One



6.2(1)F

Any-to-any connectivity between ACI and VXLAN EVPN fabrics with policy extension

Also shipping with 6.1(5)M

6.2(2)F

Aggregated BUM storm-control on ACI BGW's

6.2(3)F

Migrate from "Multi-site with NDO" to "Multi-site with ACI BGWs"

Shipping

Committed

Planning

Multi-vendor supported

Inter-fabric VM mobility extension

Migrate workloads bi-directionally

Standards-based EVPN extension

# Nexus Dashboard

# Unified Domains, Architectures and User Experiences



Provision

Once, deploy anywhere



Secure

One source of truth



Manage

One logical network

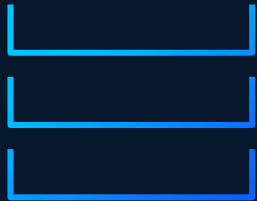


Analyze

Identify, troubleshoot, and fix faster

## Nexus Dashboard Physical or virtual cluster

### MDS



SAN

### Nexus



Classic Ethernet

VXLAN

ACI

IP Media Fabrics

AI Fabrics

Hypershield

### Extensible to other networks



Campus



WAN/Transport

Catalyst 8000

CSR 1000v

Virtual, Kubernetes & 3<sup>rd</sup> party Networks

Consistent and open operating experience across architectures

# Nexus Dashboard Release Highlights

## Nexus Dashboard 4.2

### Invest in AI/AI OPS

- AI/ML Fabrics Enhancements & DLB
- GPU Server Topology
- Nvidia Partnership
- SLURM Integration
- AI Job visibility

### Nexus One

- Inter-op between ACI & NX-OS with policy extension
- ACI to ACI Extension via BGW
- Telemetry support for Catalyst platforms

### Secure Data Center

- Hypershield Integration
- Smart Switch Integration
- Security Certifications
- Live Protect for NX-OS
- Multi-tenancy
- ESG & GPO enhancements

### Platform and Scale

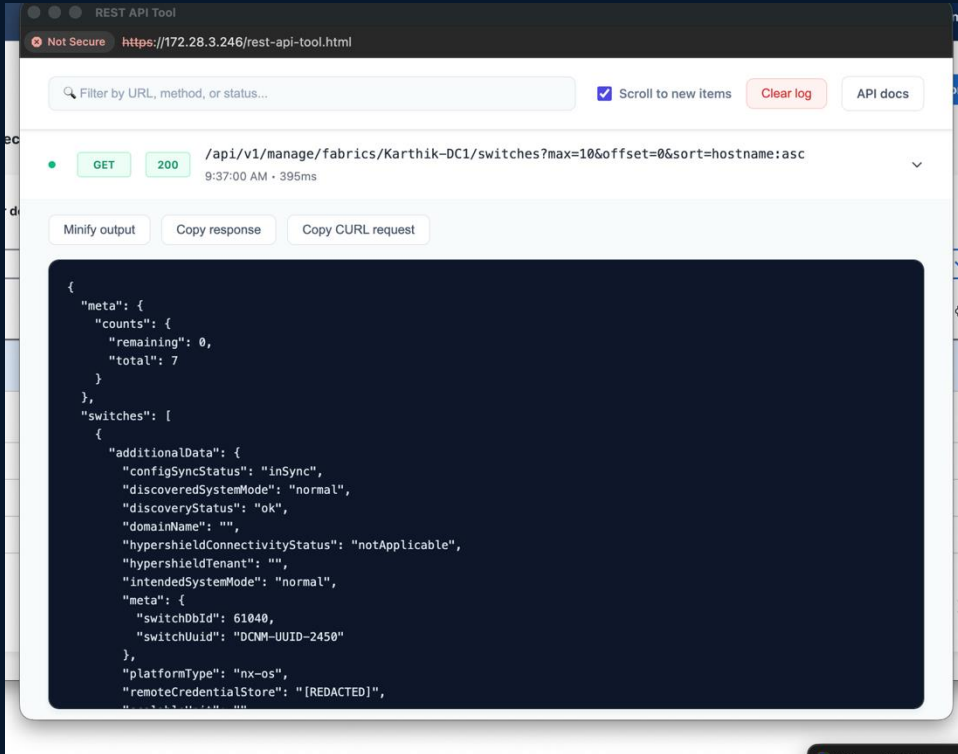
- Simplify ND Cluster options (1/3/6 sizes)
- Multi-Cluster scale increase
- Cluster switch scale increase
- Expand Hypervisor & public cloud support for vND (Nutanix, Azure, GCP)
- Native Splunk

# Cisco Nexus Dashboard

## API Inspector and Open APIs

POPULAR FEATURE RETURNED

### Enhanced Developer Experience



- **Detailed Request Analysis**

Access comprehensive details of API requests and payloads with clean, developer-friendly formatting

- **Advanced Search**

Quickly locate specific API calls with robust search and filtering options

- **Integrated Documentation**

Launch relevant API documentation directly from the inspector interface for seamless reference

- **Open APIs**

ND 4.2 introduces comprehensive model-driven Open APIs, enabling programmatic access to network services and automation workflows.

## Benefits

# Cisco Nexus Dashboard

Intent reconcile from switch to Nexus dashboard

The screenshot displays the Cisco Nexus Dashboard interface for a switch named 'N9k-244-gx'. The dashboard is titled 'Deploy Configuration - Core' and shows a progress bar with two steps: 'Config Preview' (1) and 'Deploy Progress' (2). Below the progress bar, there is a search bar and a 'Resync All' button. A table lists the switch's configuration details:

Switch Name	IP Address	Role	Serial Number	Fabric Status	Pending Config	Diff	Status Description	Progress	Resync
N9k-244-gx	172.22.31.244	Leaf	FDO231212T6	Out-Of-Sync	9 Lines	+2 -8 ^3	Out-of-Sync	<div style="width: 100%; height: 10px; background-color: green;"></div>	Resync

Below the table, a detailed view of the configuration lines is shown. The lines are color-coded: red for 'Out-Of-Sync' and green for 'In-Sync'. A 'Reconcile Block' button is visible next to the configuration lines. The configuration lines include:

```
5 5 no shutdown
6 spanning-tree port type edge trunk
7 switchport
8 switchport mode trunk
9 switchport trunk allowed vlan none
10 interface ethernet1/1/2
17 no shutdown
18 interface ethernet1/1/4
```

Run On-demand incremental sync-up of selected Out-of-Band configurations

Achieve operational efficiency

Local switch configuration, host port configuration, ACLs and global CLI (underlay only)

Benefits

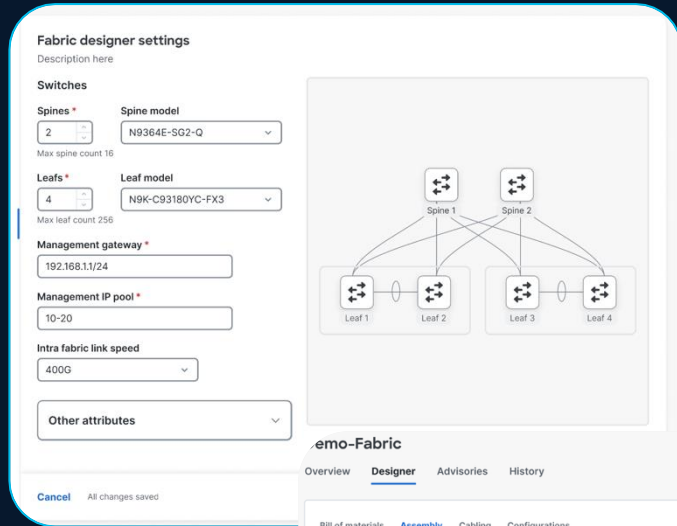
Single source of truth

# Cisco Nexus Dashboard Fabric Designer

Design your entire network fabric before buying any hardware

Pre-build Configurations and Cable Plan based on Cisco Best practices

Supports Data Center VXLAN, Routed, and AI/ML fabric types



**Fabric designer settings**  
Description here

**Switches**

Spines \*  
2  
Max spine count: 16  
Spine model: N9364E-SG2-Q

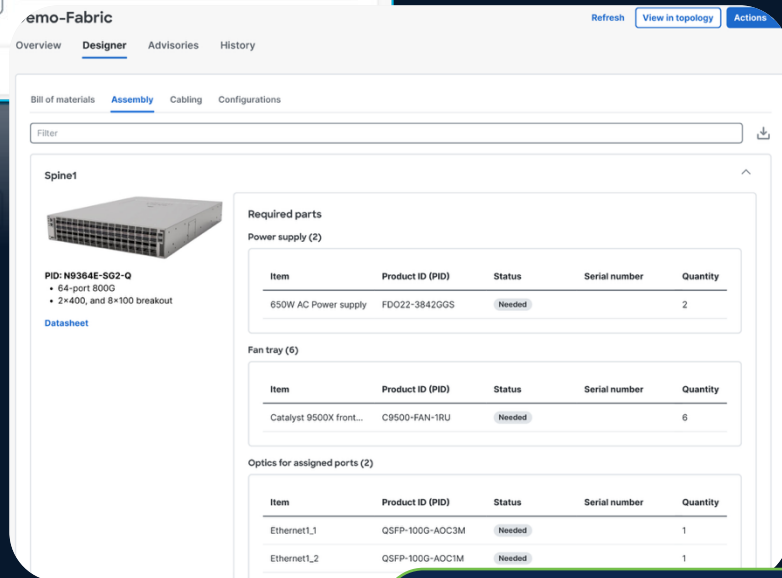
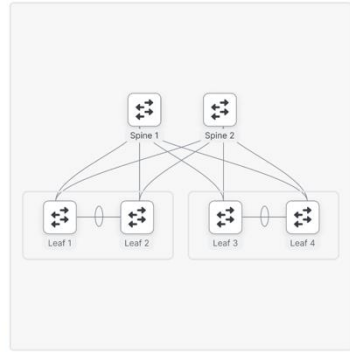
Leafs \*  
4  
Max leaf count: 256  
Leaf model: N9K-C93180YC-FX3

Management gateway \*  
192.168.1.1/24

Management IP pool \*  
10-20

Intra fabric link speed  
400G

Other attributes



emo-Fabric

Overview Designer Advisories History

Bill of materials Assembly Cabling Configurations

Filter

Spine1

**Required parts**

Power supply (2)

Item	Product ID (PID)	Status	Serial number	Quantity
650W AC Power supply	FDO22-3842GGS	Needed		2

Fan tray (6)

Item	Product ID (PID)	Status	Serial number	Quantity
Catalyst 9500X front...	C9500-FAN-1RU	Needed		6

Optics for assigned ports (2)

Item	Product ID (PID)	Status	Serial number	Quantity
Ethernet1_1	QSFP-100G-AOC3M	Needed		1
Ethernet1_2	QSFP-100G-AOC1M	Needed		1



Complete Configurations



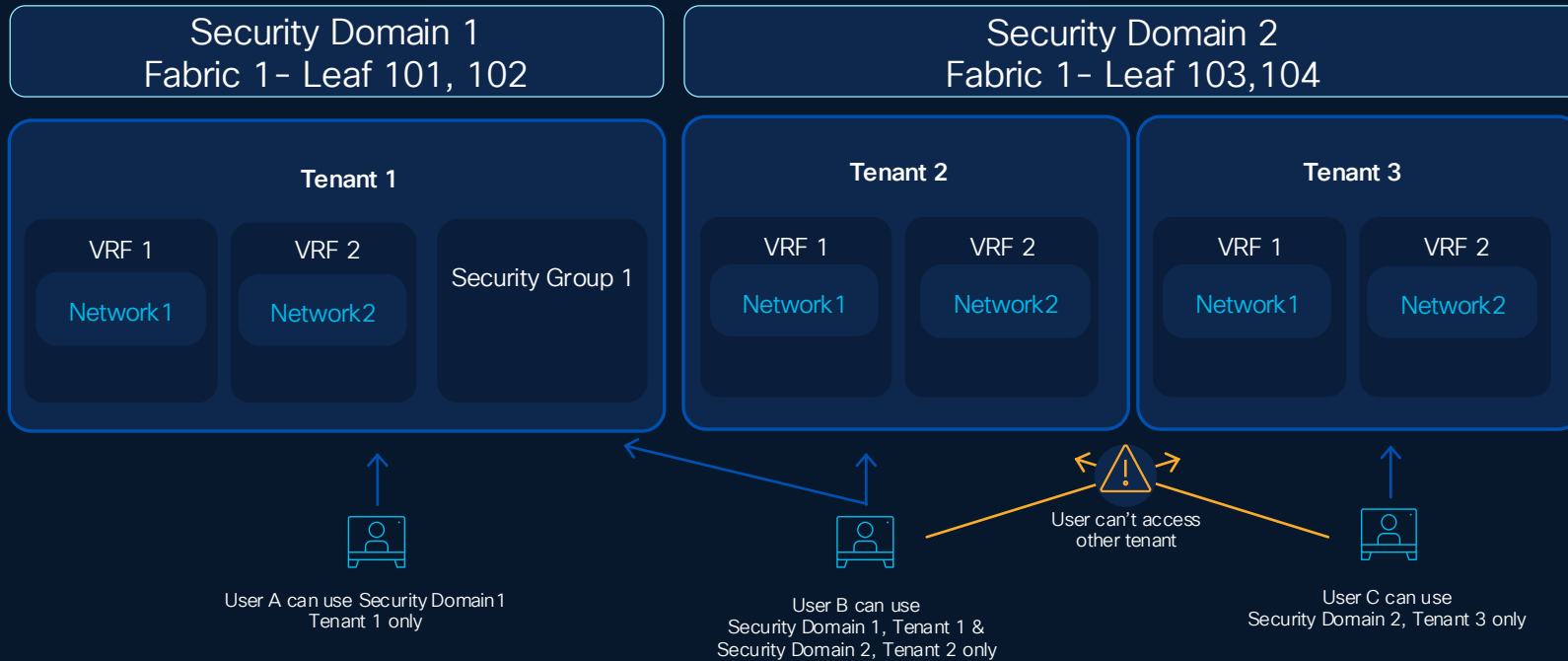
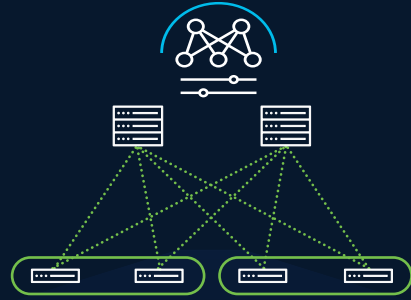
Detailed cable Plan and Assembly List

## Benefits

Design fabrics with foresight helping with faster approvals and smoother production

# Cisco Nexus Dashboard

## Administrative Multi-Tenancy



### Benefits

Administrative separation in addition to traditional VRF isolation

Tenants: Group of logical network resources

Security domains: Isolation of physical resources

Phase 1 (ND 4.2)

- Tenancy applies to VXLAN/External fabrics for provisioning and monitoring
- Tenancy applies to ACI - NXOS interop
- Tenancy applies to Orchestrator functions
- Tenancy will not apply to ACI fabrics monitored by ND in Phase 1

# Cisco Nexus Dashboard

## SMU support added for Nexus Dashboard



- Nexus Dashboard 4.2 introduces native support for installing Software Maintenance Updates (SMUs) to apply targeted fixes for the Nexus Dashboard software, eliminating the need to engage TAC for routine patching.
- This empowers customers to apply critical fixes faster, reduce operational delays, and maintain software compliance with greater independence.
- By streamlining SMU deployment within Nexus Dashboard, teams can respond more quickly to issues while keeping control and visibility centralized in a single operational platform.

### Benefits

# Cisco Nexus Dashboard

Enhancements to fabric software upgrades



## Prepare

- Seamlessly create and manage custom upgrade groups
- Directly upload software images to upgrade groups
- Run custom pre-upgrade checks to validate switch stability before upgrades



## Run

- Visualize the steps of your upgrade as they happen in real-time
- Quickly address issues and cancel upgrades if needed



## Synthesize

- Correlate data between pre-upgrade and post-upgrade checks  
Validate the state of your switches after upgrade

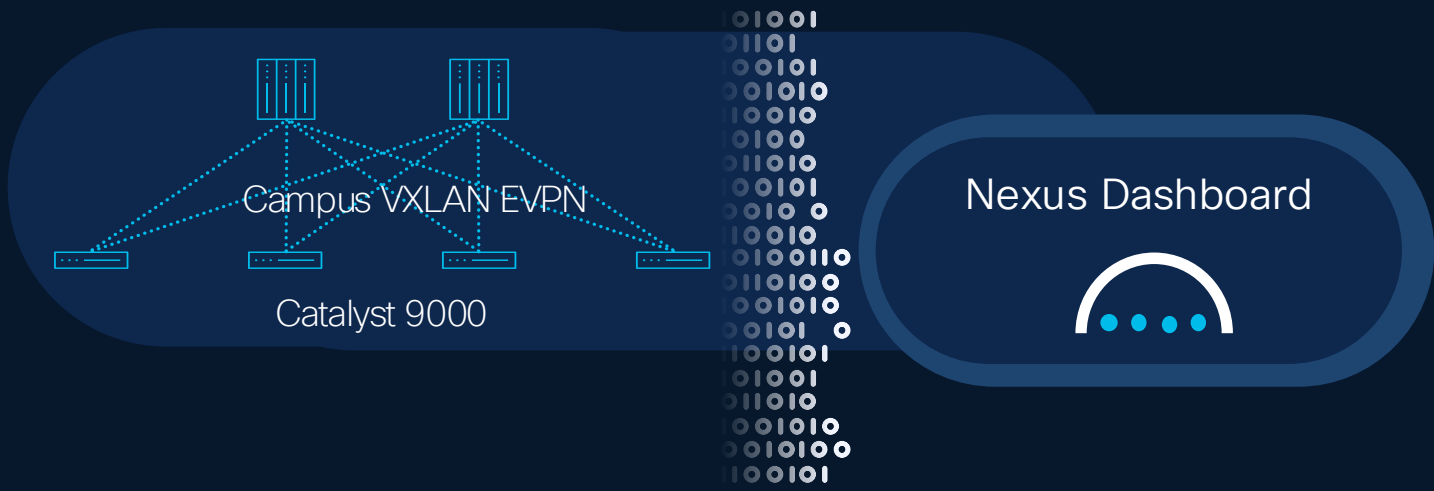
Platforms added to existing SWIM portfolio – Catalyst 8000 (pre and post checks are roadmap for Catalyst platforms)

## Benefits

Consistency and reliability in an automated switch upgrade process

# Cisco Nexus Dashboard

Telemetry Support on Catalyst - Phase 1



Collect telemetry from Catalyst switches for Managed Campus VXLAN Fabrics (Spine/Leaf role)

Support for TA Compatibility mode

Basic Anomaly, Interfaces, Endpoints, Trending, Environmental, CPU/Memory stats

IOS-XE 17.12.x and above

L2 ToR Support (future)

C9300L-24P-4G  
C9300L-48P-4G  
C9200CX-12P-2X2G-E

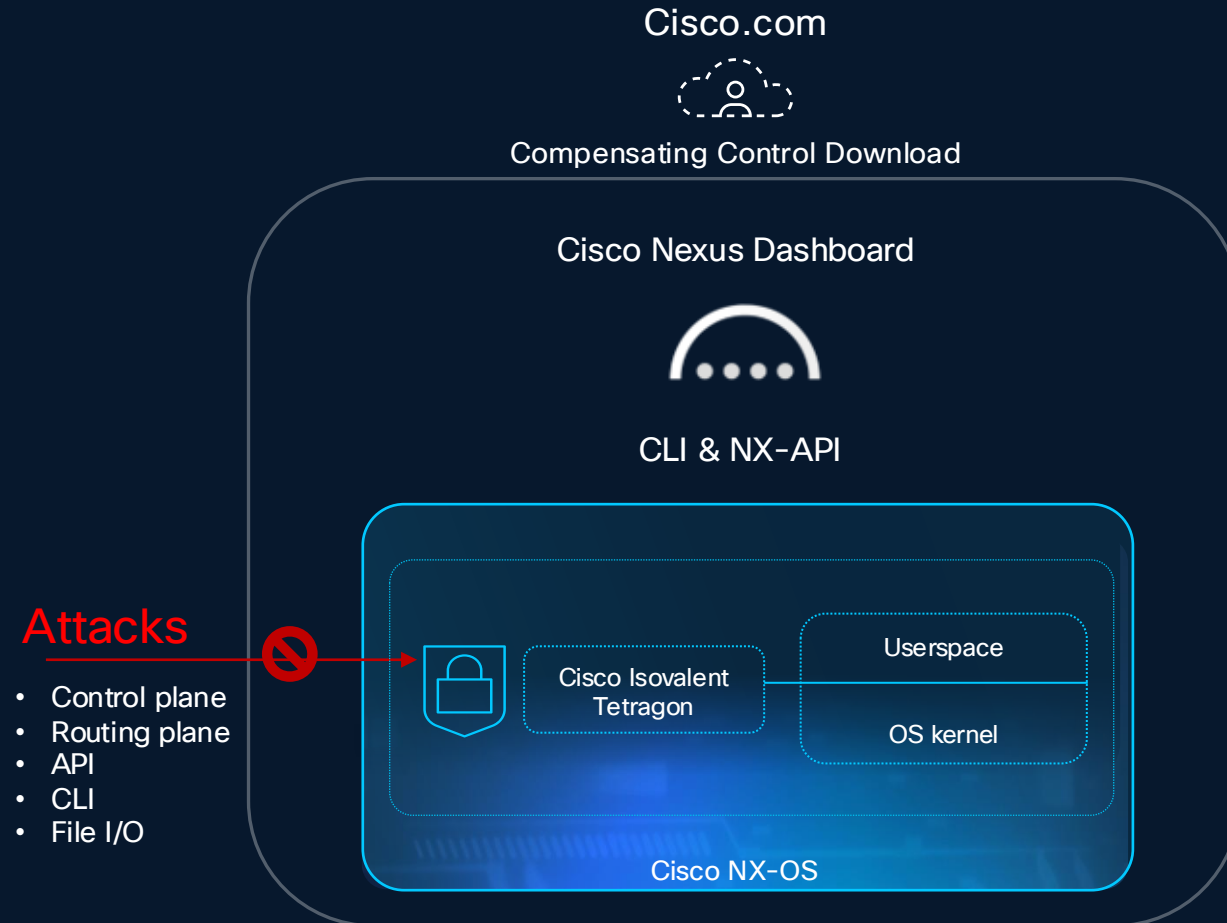
## Benefits

Comprehensive telemetry across both Nexus and Catalyst platforms

# 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

# Cisco Nexus Dashboard

## Live Protect for Nexus OS switches

Welcome, admin

Refresh

Overview Topology Dashboards

dual-14 at a glance

### Anomaly level

Warning ⓘ

19 total warning anomalies, out of which 19 occurred in the last week

Warning 19

19 Total

### Advisory level

Warning ⓘ

21 total warning advisories, out of which 21 occurred in the last week

21 active

#### Security advisories ⓘ

4 Active advisories

18 Impacted devices

### Network infrastructure

2 Fabrics ⓘ

0 Inter-fabric ⓘ

19 Switches ⓘ

2 Active Endpoints ⓘ

### Recent activity

View all

Login successful. roles: super-admin by admin 0 minutes ago

Modify Userpreference: local-admin by admin 5 minutes ago

Login successful. roles: super-admin by admin 16 minutes ago

Updated Security advisories card

Enable and Disable Live Protect feature

Deploy compensating control

Topology view of security advisories and one click deploy

### Device Security

Security advisories Topology

Advisories Devices

Filter by attributes

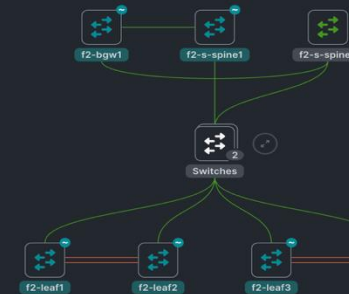
Advisory Id	Title	Advisory level	Status	CVSS	Nodes
<input type="checkbox"/> cisco-sa-nxos-cmdinj-Lq6jsZhH	CSCwh77786:	Warning	Active	4.4	f2-bgw1 View all (8 tota
<input type="checkbox"/> cisco-sa-nxos-cmdinj-Lq6jsZhH	CSCwh77786: cisco-sa-nxos-cmdinj-Lq6jsZhH	Warning	Active	4.4	f1-bgw1 View all (10 tot
<input type="checkbox"/> cisco-sa-nxos-psbe-ce-YvbTn5du	CSCwh77780:	Warning	Active	5.3	f2-bgw1 View all (8 tota
<input type="checkbox"/> cisco-sa-nxos-psbe-ce-YvbTn5du	CSCwh77780:	Warning	Active	5.3	f1-bgw1 View all (10 tot

### Device Security

Security advisories Topology

All fabrics > fab2

Live Protect == Enabled Edit Clear All



### Security Overview ⓘ

Advisories 2 Active

Select an advisory to highlight its devices

- CSCwh77780:** Warning  
For more information, please visit https://bst.clouda...
- CSCwh77786:** Warning  
For more information, please visit https://bst.clouda...

Devices 10 total Deploy Live Protect

Filter by attributes

Name	Compensating control
<input type="checkbox"/> f1-bgw1	Available
<input type="checkbox"/> f1-bgw2	Available
<input type="checkbox"/> f1-leaf1	Available
<input type="checkbox"/> f1-leaf2	Partially protected

# Nexus Dashboard Release Highlights

## Nexus Dashboard 4.3

### AI-driven Insights & Visibility

- Cisco AI Assistant (Docs)
- AI Job monitoring for server NIC stats
- Cisco Cloud Control integration
- MCP Server
- Traffic Analytics for S1 platforms
- Anomaly Suppression

### Secure DC Workload

- CyberArk Integration for SAN
- Live Protect Enhancements
- Campus to DC Micro-segmentation
- Kerberos 4.2 Proxy

### Unified Experience & Automation

- Intent Reconciler
- Policy Simplification
- TRM Visualization for VXLAN fabrics
- Nexus One Telemetry Enhancements (CA/TA)
- EPG to ESG Migration

### Platform & Integrations

- Connected TAC
- SONiC Support for Nexus
- OpenStack Reconciler & Network type support
- ESX 9.0.2

**Thank you**



