

Edge to Core: Redefining Virtualization with Cisco Intersight

Jon Ebmeier

Cloud Infrastructure and AI SE – Enterprise Central

Jordan Glamann

Cloud Infrastructure and AI SE – Commercial Central

Jeff Olson

Cloud Infrastructure and AI AE – Commercial Central

Date placeholder



Agenda

- 01 Hypervisor Update
- 02 New Edge Hardware
- 03 Intersight New features
- 04 Call to Action

Hypervisor Update

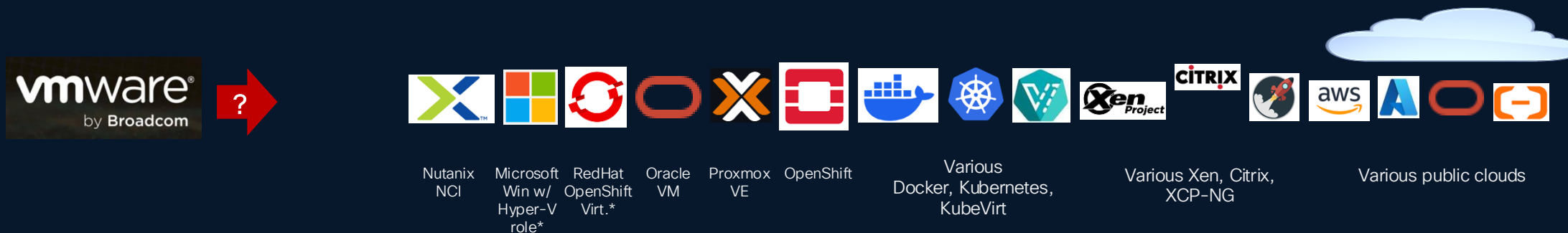
Let's talk about the Elephant in the room

Broadcom/VMware



- End Of Availability of Perpetual licenses
- Minimum core licensing requirements
- Transition to subscription-based license model
- Transition from CPU to Core based licenses
- Reduced many single products down to 4 packages potentially forcing some customers to buy functionality they will never use.

Market Remains Fragmented



Multiple challenges:

- **No clear #2 market leader** (VMware was 70+% share, demand not converging on ONE option)
- **No normalization solution** (vs. unrealistic to support “many” or “all” of these options).
- **No perfect solutions** (none of these cover all customer and Cisco concerns).

* Hyper-V Server discontinued. Now use Windows Server w/ Hyper-V role.
RHV / RHEV discontinued. Now use OpenShift Virtualization.

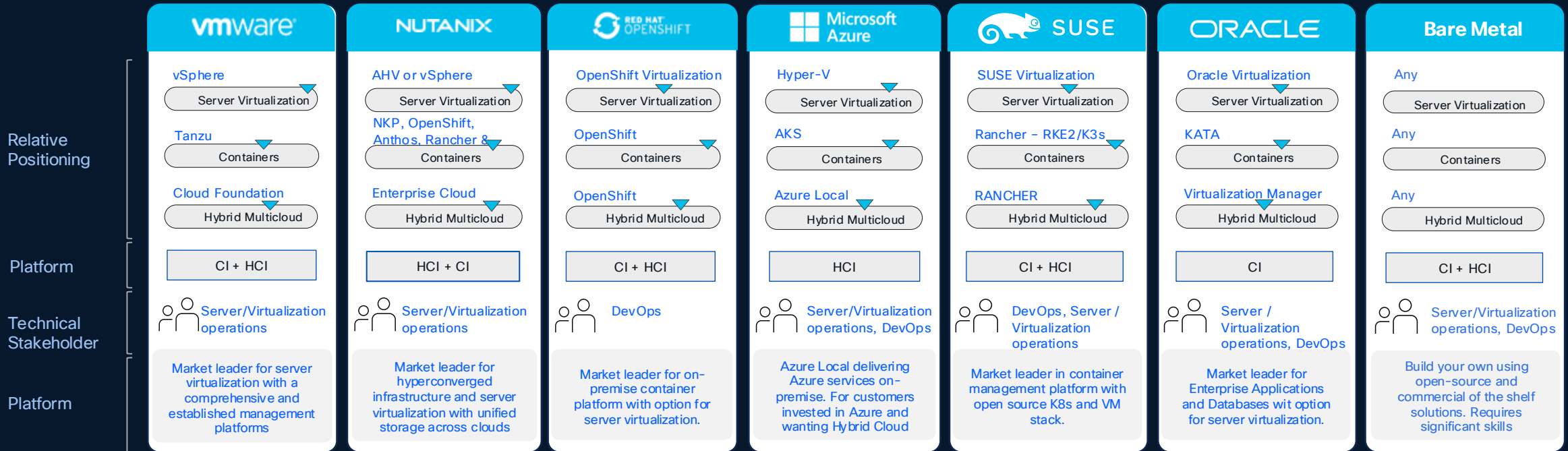
Many Supported Options – UCS HCL

<https://ucshcltool.cloudapps.cisco.com/public/>

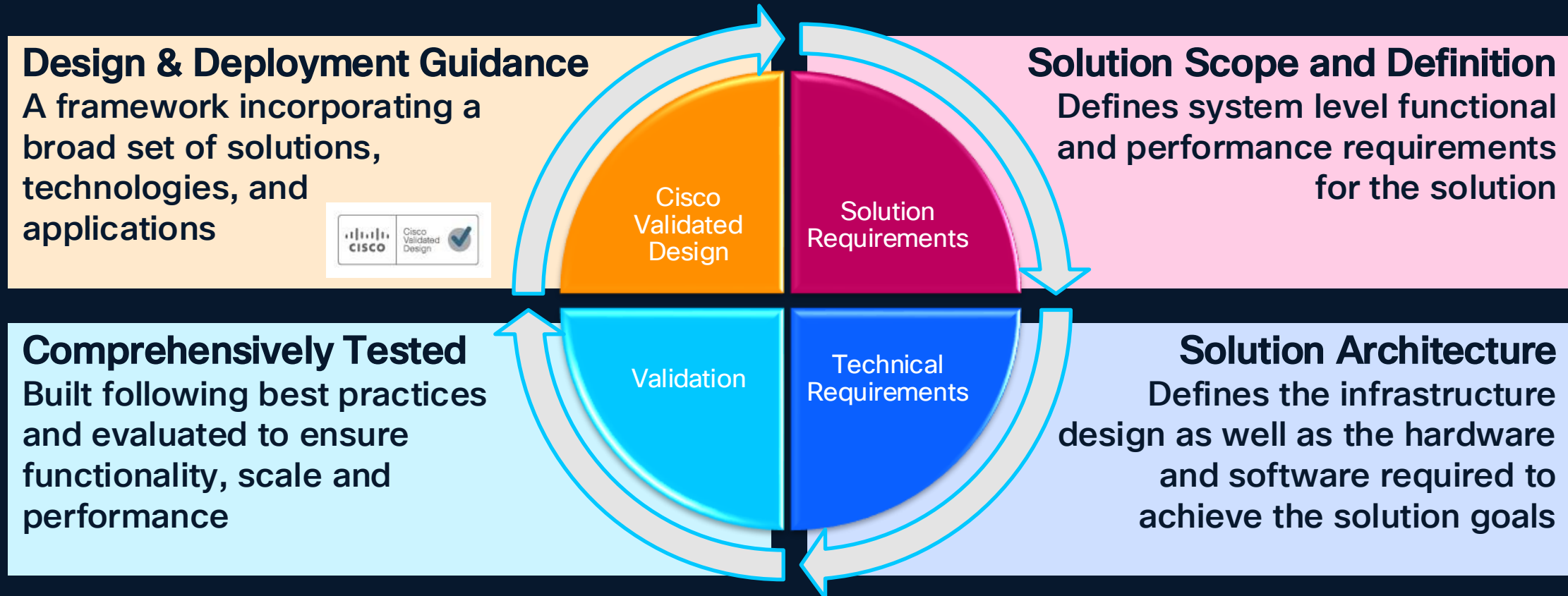
The screenshot shows the Cisco UCS Hardware and Software Compatibility tool interface. The browser address bar displays ucshcltool.cloudapps.cisco.com/public/. The page title is "UCS Hardware and Software Compatibility". The interface includes a search bar set to "Servers" and several dropdown menus for "Server Type" (X-Series), "Server Model" (Cisco UCS X210c M8), and "Processor Version" (Intel Xeon 6). The "Operating System" dropdown is open, showing a search input and a list of options: Citrix, Microsoft, Oracle, Red Hat, Rocky Linux, SuSE, Ubuntu, and VMware. A "Compatibility Notes" section is visible at the bottom left. On the right side, there is a "Choose or Drag and drop file." area with an "Import JSON" button. A notification badge with the number "10" is present in the bottom right corner.

Customers can run Proxmox VE on Cisco UCS M7 and M8 servers. The inboxenic driver in Proxmox VE 9 provides native support for the Cisco VIC 15000 series adapters, and other components are also supported by Linux inbox drivers. Proxmox VE support is provided by Proxmox, their support partners, and the open-source community. For customers running Proxmox on UCS servers, Cisco TAC will provide hardware and firmware support for Cisco servers under the relevant warranties and support contracts.

Many Options One Platform - Cisco UCS



Cisco Validated Design Process



Easily Deploy New Systems With Expert Guidance
Consistent, Successful Technology Deployments Addressing Business Initiatives

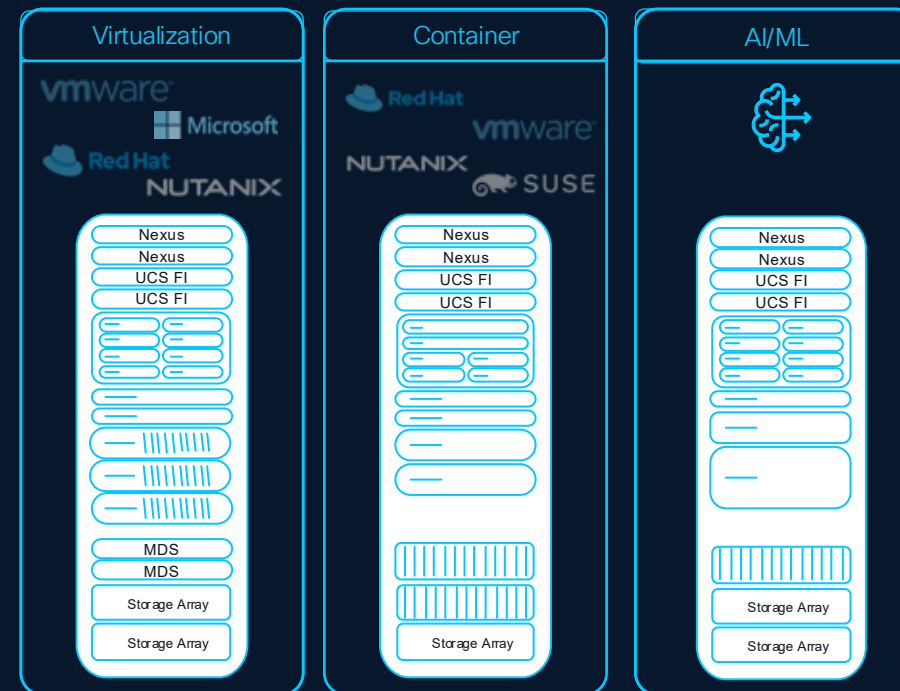
Infrastructure modernization Solutions

CVDs offering choice and flexibility for a variety of deployment types.

Pre-designed data center architectures that incorporate Cisco computing, Cisco networking, storage and virtualization delivering best practice design, compatibility and lowering business risk.

Designed for enterprise use cases and applications including AI/ML, Containers, SAP HANA, Desktop virtualization, Data protection and hybrid multi-cloud.

The Configuration principals used in the CVD allow customers to scale each component as required.



Cisco Validated Design (CVD): Cisco and Pure Partnership

Cisco Validated Designs (CVD)

- Set of tested and documented design blueprints
- Accelerates Cisco solution deployment while reducing risk
- Includes instructions, guidelines and configuration best practices
- New CVD for solution released in Feb.
 - [Flashstack-on-Nutanix-CVD](#)



Cisco and Pure Partnership

- Full Stack solution tested and validated by Cisco and Pure Storage
- Designed, implemented and supported by Pure Partners
- Storage, Network and Compute: Best of breed components, flexible design
- 61+ Cisco validated designs

Partnership Differentiators



Comprehensive joint roadmap & engineering efforts



Direct Intersight integration & remote deployment



Connected & eBonded support organizations



Cisco Validated Designs (CVDs)



Hardware reusability & investment protection



Cisco Enterprise Agreements and Cisco Capital for Nutanix software + Promos

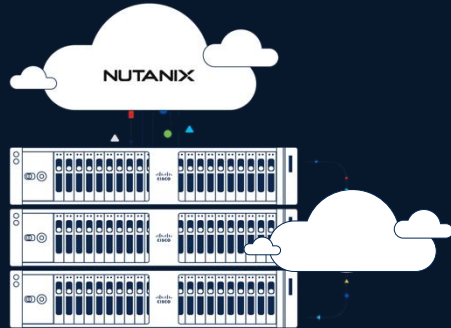


Modular servers - UCS X-Series and Unified Edge



FlashStack with Nutanix
Cisco + Pure Storage + Nutanix

FlashStack is one option and there is more available!



Node expansion options		Hypervisor options		Networking options	
<p>HCI</p> <p>Adds CPU, memory and disk capacity to a cluster</p>	<p>Compute Only</p> <p>Flexibly add memory and CPUs to an AHV cluster</p>	<p>Nutanix Hypervisor (AHV)</p> <p>min 1 max 32 nodes per cluster</p>	<p>vmware vSphere Hypervisor (ESXi)</p> <p>min 1 max 32 nodes per cluster</p>	<p>Fully Integrated Networking</p> <p>with 4th and 5th Gen Fabric Interconnect</p>	<p>Non-Integrated Networking</p> <p>with existing Top of Rack (ToR) switches</p>

<p>NUTANIX Cloud Infrastructure (NCI)</p>	<p>Max raw capacity per node depending on node type</p> <p>370TB*</p>	<p>Mixed Drive Support</p>	<p>Mixed Node Support</p>
--	--	-----------------------------------	----------------------------------

Cisco Compute Hyperconverged with Nutanix

Cisco Compute Hyperconverged node options	
<p>1RU, 2RU, and modular form-factor options available</p>	<p>All-Flash drive capacity options available</p> <p>1.9TB, 3.8TB, 7.6TB or 15.3TB</p>
	<p>All-NVMe drive capacity options available</p> <p>1.9TB, 3.8TB, 7.6TB or 15.3TB</p>

*NOTE: Roadmap item

* 370TB max capacity is only supported with new, greenfield all NVMe nodes



**Complete Stack Solution for
the Edge**

Workloads are moving to the edge

Data center

DATA PROCESSING

On premises edge

DATA PROCESSING

90%

2021

10%

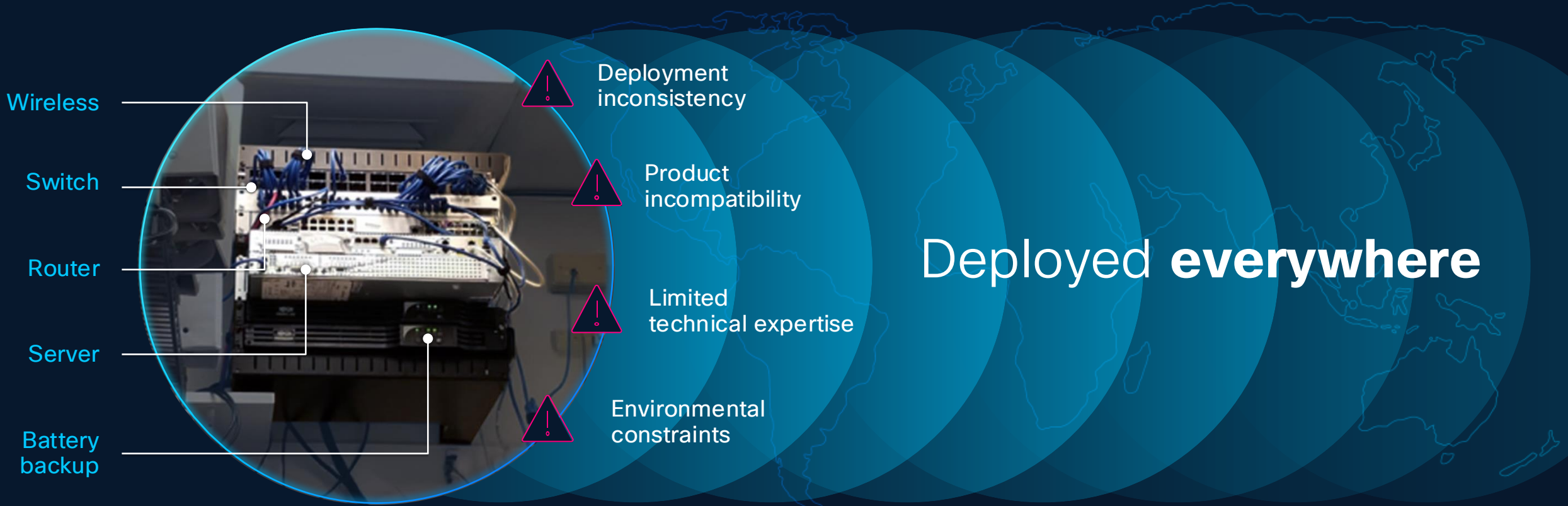
25%

2027

75%

The status quo is not ready for this future

Legacy edge infrastructure



Operational complexity



Security risks

Cisco Unified Edge

Not a server, a platform.

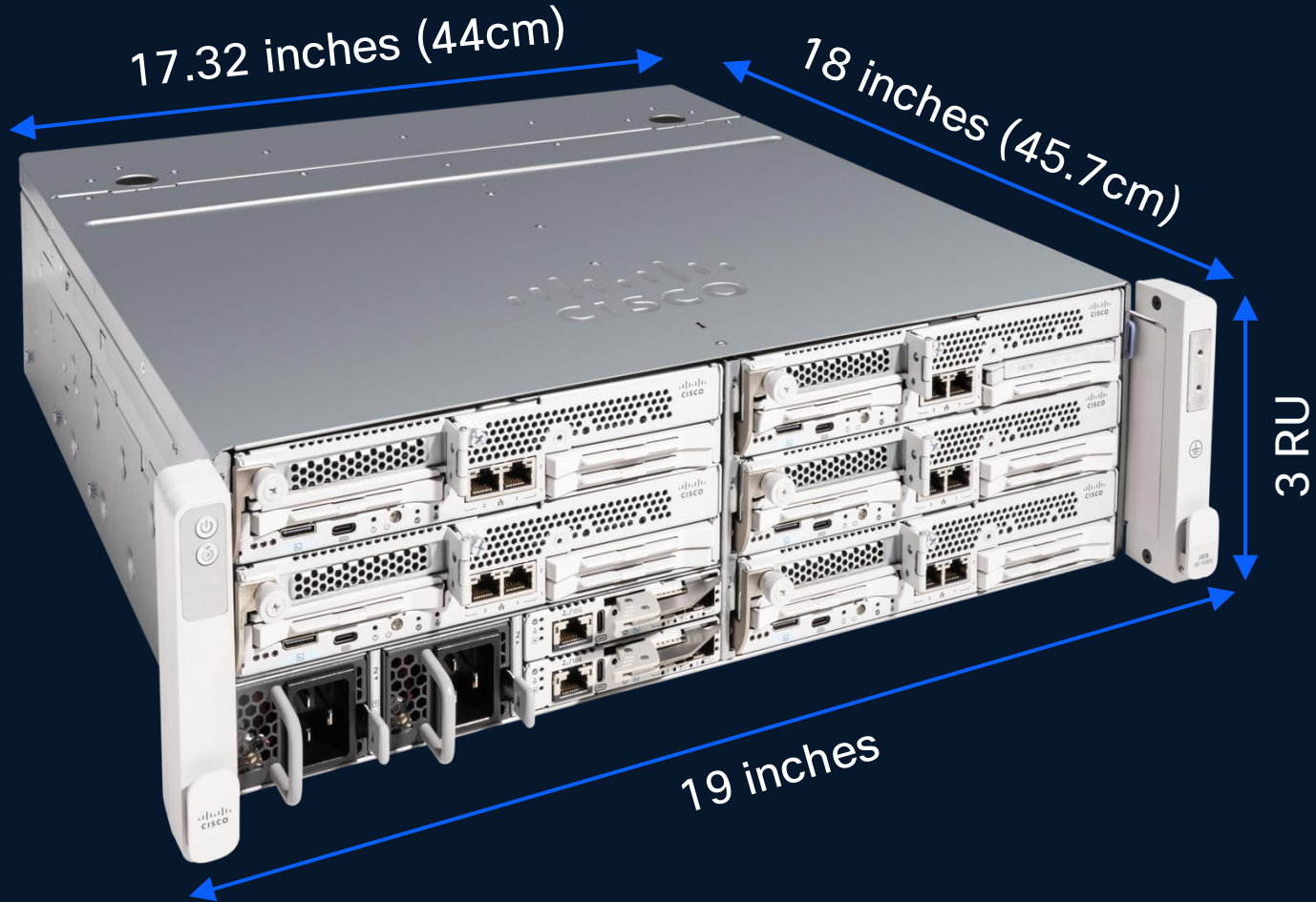
Unified operations from core to edge



Security fused into the network

Cisco Unified Edge

Physical Specifications



Temperature Range

0°C to 45°C

Fully Loaded Weight

37.5 kg

Cisco Unified Edge

Mounting Choices



4-post rack with sliding rails



2-post rack with center mount brackets



Wall mount bracket (view with bezel installed)



Mount brackets for horizontal positioning



Mount brackets for vertical positioning

Cisco Unified Edge

Front Bezel



Cisco Unified Edge XE130c M8 Compute Node

Storage Optimized Configuration

Intel 2 x 25G NICs

Backplane connected NICs
One NIC is connected to each of the eCMCs

8 memory DIMMs

Up to 768 GB with 96 GB DIMMs
4 Channels, 2 DIMMs per channel

Up to 1 TB with 128 GB DIMMs later this year

Intel 2 x 1/10G NICs
RJ45 LOM

Intel Xeon 6 SoC

Granite Rapids architecture
12, 20, or 32 core options

GPU slot

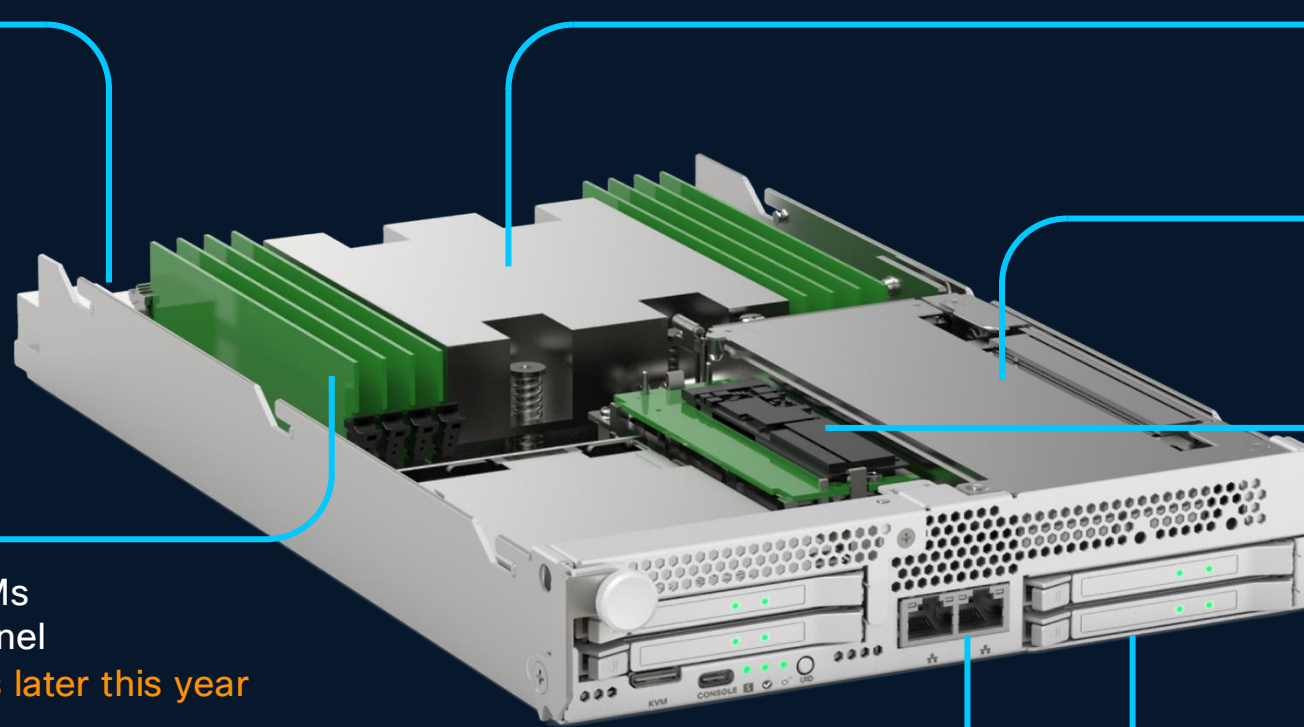
Half Height Half Length
PCIe Gen5

M.2 Boot

SATA Hardware RAID1

4 x E3.s drives

Up to 120 TB
with 30 TB drives



Cisco Unified Edge Compute Node

Available Intel® Xeon® 6 SOC

Model	Cores	Base Frequency	Max Memory Speed	Cache	TDP
Intel® Xeon® 6503P-B Processor	12	2 GHz	4800 MT/s	48 MB	110 W
Intel® Xeon® 6513P-B Processor	20	2 GHz	5600 MT/s	80 MB	130 W
Intel® Xeon® 6543P-B Processor	32	2 GHz	5600 MT/s	128 MB	160 W

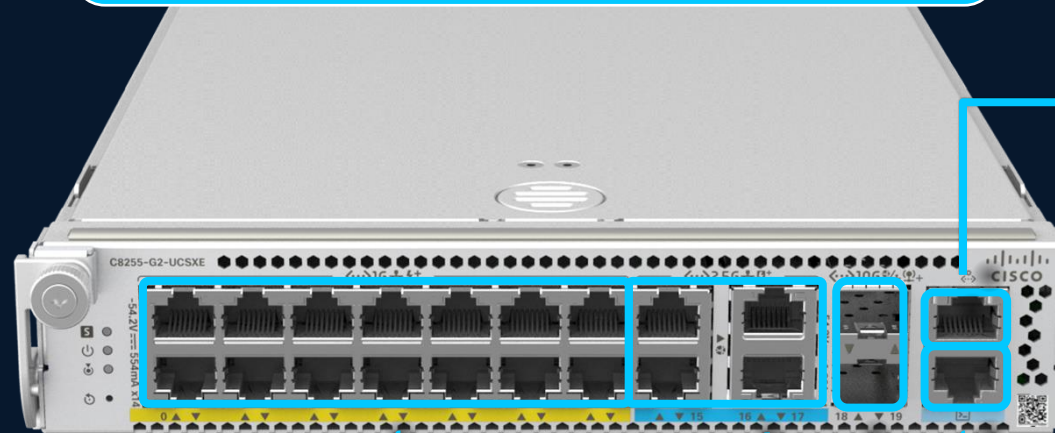


Cisco Unified Edge

C8255 G2 Secure Router Node

0, 1, or 2 Secure Router Nodes
per Unified Edge Chassis

360W PoE Budget



1G Base-T Management

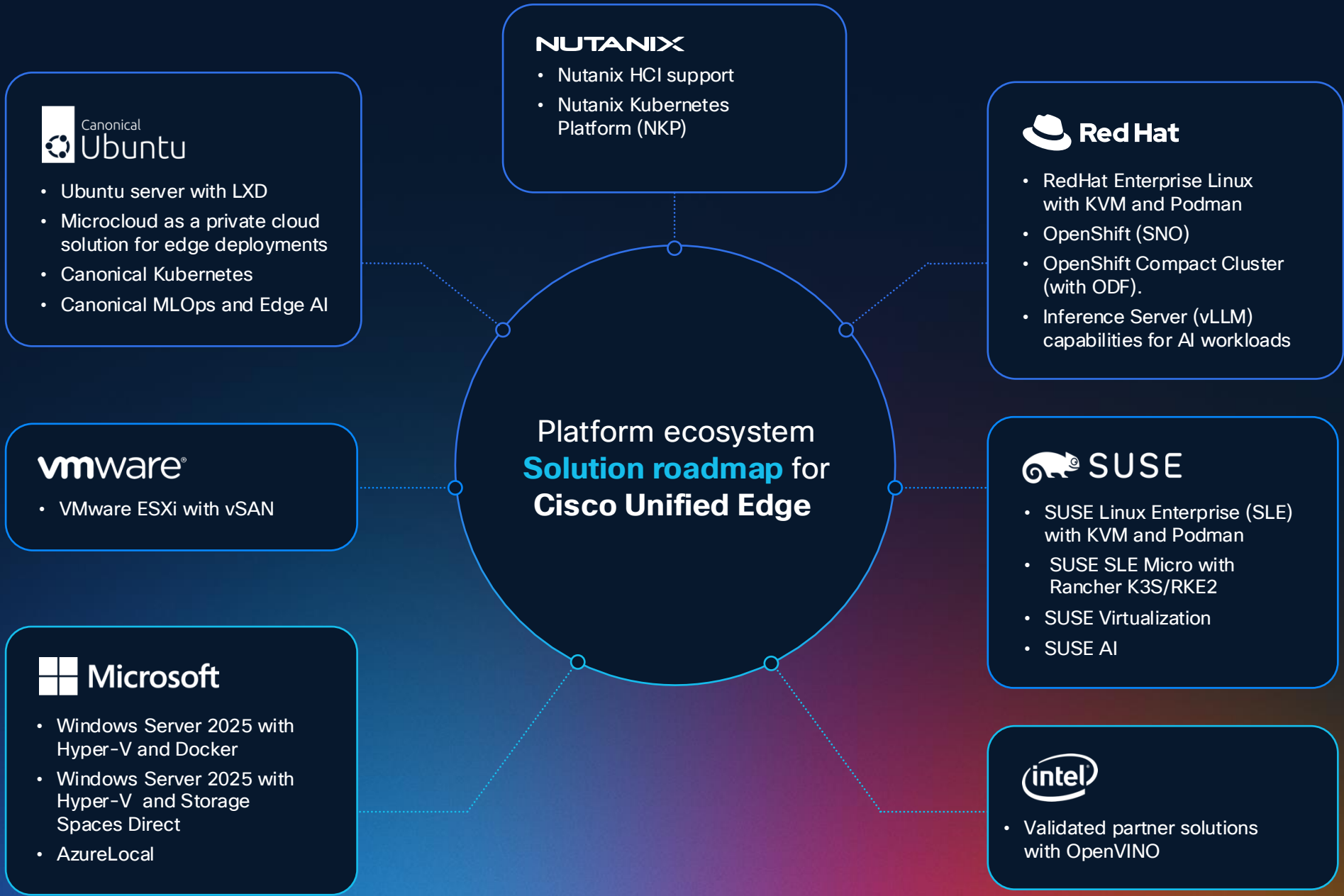
14 x 1G Base-T
LAN ports with 30W PoE+

RJ45 Serial Console

4 x 2.5G mGig
LAN/WAN ports with 90W UPOE+

2 x 1/10G SFP+
LAN/WAN ports

This is an unreleased product, and features or specifications are subject to change



Cisco Unified Edge Compute Node

Common Architecture Options

Hyperconverged Clusters

Almost any App or DB or OS can be run in a VM

Nutanix

2026 Q2

VMs and Containers
Nutanix Files & Nutanix Database Service

VMware VCF

2026

VMs and Containers
vSAN File Services & Data Services Manager

Azure Local

2026

VMs and Containers

Red Hat OpenShift

Now

VMs and Containers

Standalone Servers

Now

Windows Server

Domain Controller
Application Server
File & Print Server

Now



Linux

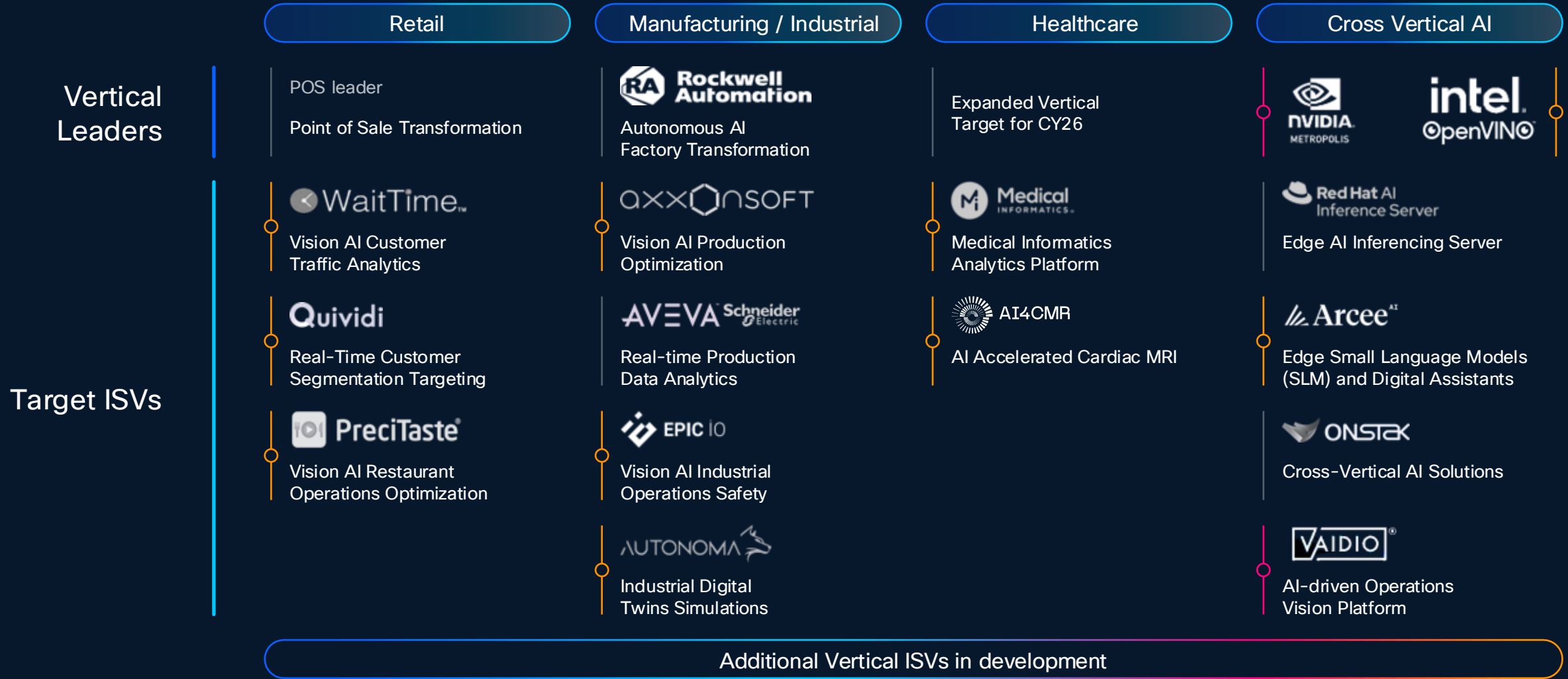
Standalone VMs or Containers
Standalone AI Inferencing
Nutanix NKP
NFV hosting

This includes unreleased solutions, so timelines and details are subject to change

Verticals and use-case focus areas

ISVs Ecosystem for Unified Edge

-  Leverages Nvidia Metropolis requires L4 GPU
-  Joint Cisco & Intel Edge ISVs CPU-only inferencing (no GPU)



What is different about management at the edge?

Deployment scale is horizontal vs. vertical

- 01 Data center: Deploy hundreds to thousands of devices across a few sites
- 02 Edge: Deploy small number of devices at hundreds to thousands of sites

Deployments are highly standardized from site to site

- 01 Manage edge deployments like herds of cattle, not pets
- 02 Consistency in deployment across site types is key
- 03 Replacing hardware or rebuilding configuration needs to be a repeatable process that “just works,” given lack of IT staff on premise to troubleshoot

Intersight fleet management—key takeaways



Simplified onboarding & zero-touch provisioning

- NFC claim & Guest Access empower on-site staff to securely claim devices
- Blueprints deliver consistent, repeatable deployments across sites
- Zero-touch provisioning accelerates large-scale rollouts



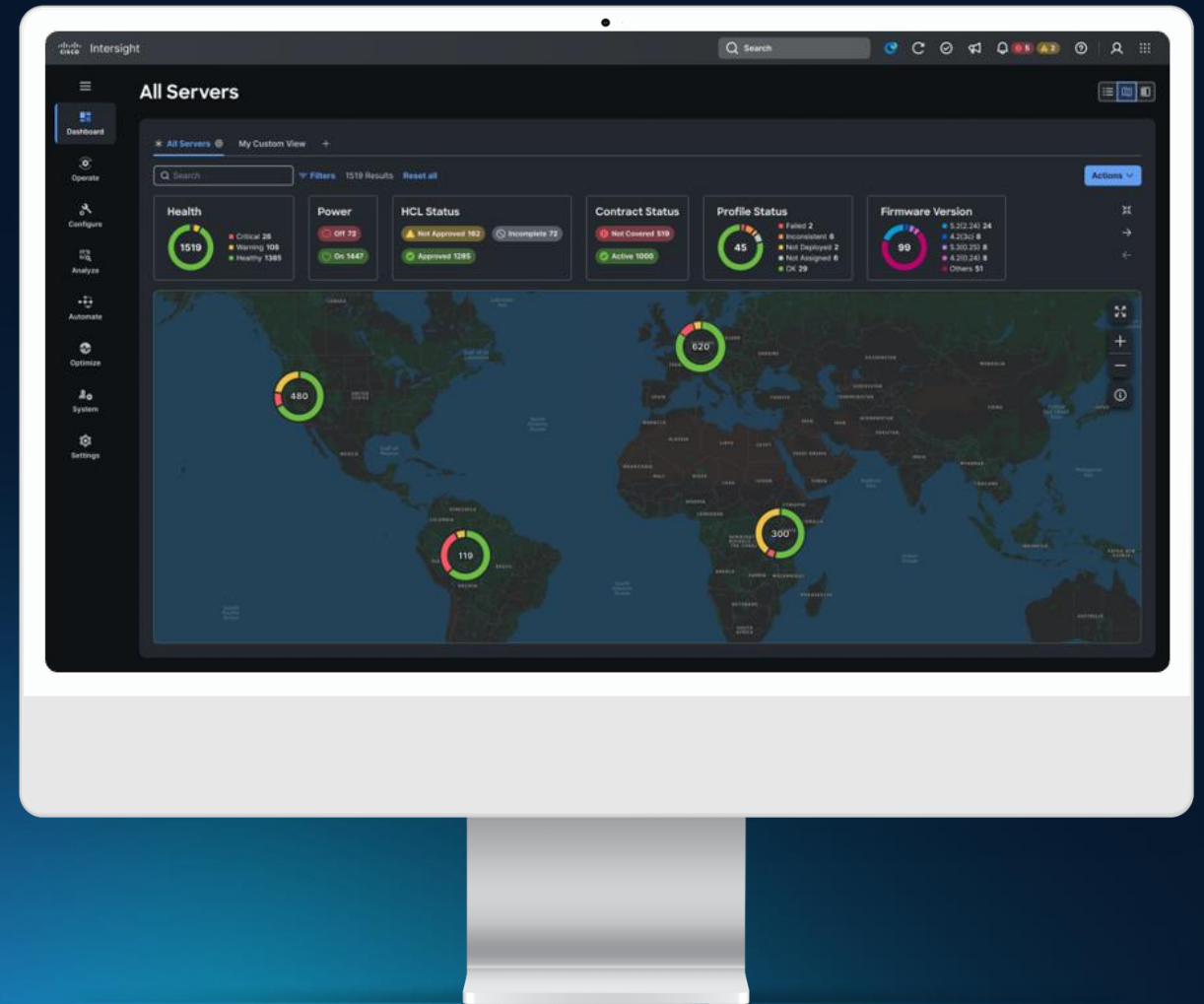
Automated lifecycle management

- Config-versioning for conformance tracking
- Localized maintenance windows for global automated upgrades
- Custom rollout strategies to maximize uptime



Global visualization

- Map views to instantly identify and resolve issues across thousands of systems
- Geo-locations and path tags for organized, business-aware resource views





Intersight Overview and New Features



CISCO INTERSIGHT



See



Control



Automate



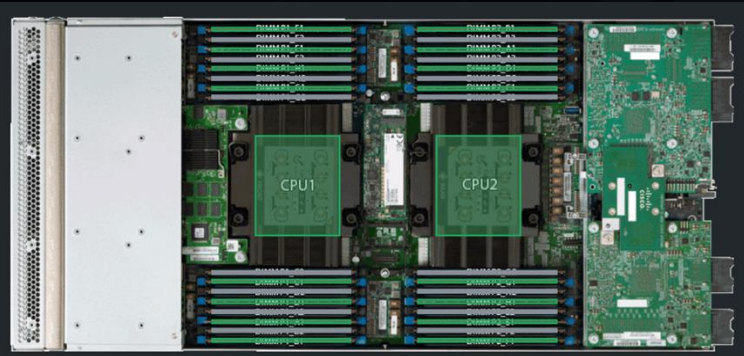


See



CISCO INTERSIGHT

Inventory



Alarms/Advisories

- + Alarms 🚫 1
- + Requests No Requests
- + Advisories 🛡️ 2 🚩 1

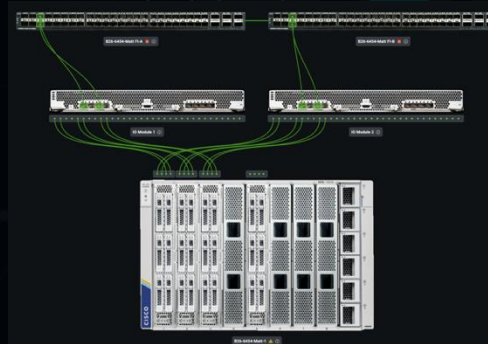
HCL

- 1 Server Hardware Compliance ✅ Validated
- 2 Server Software Compliance ✅ Validated
- 3 Adapter Compliance ⚠️ Not Listed

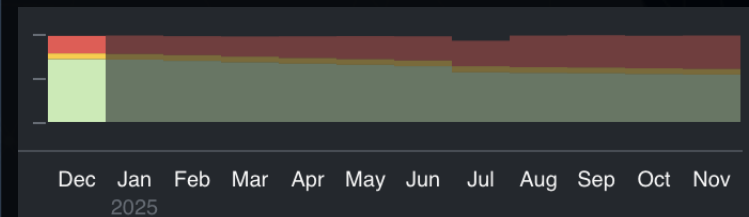
Metrics



Topology



Contract Status





Control



CISCO INTERSIGHT

Pool

List of identities
(IP, MAC, WWN,...)

LAN Connectivity

Storage

BIOS

...and many more

Policy

Bucket of settings
with a specific focus



Template

Blueprint for one or
more Profiles



Profile

Contains all settings and
identifiers for a server



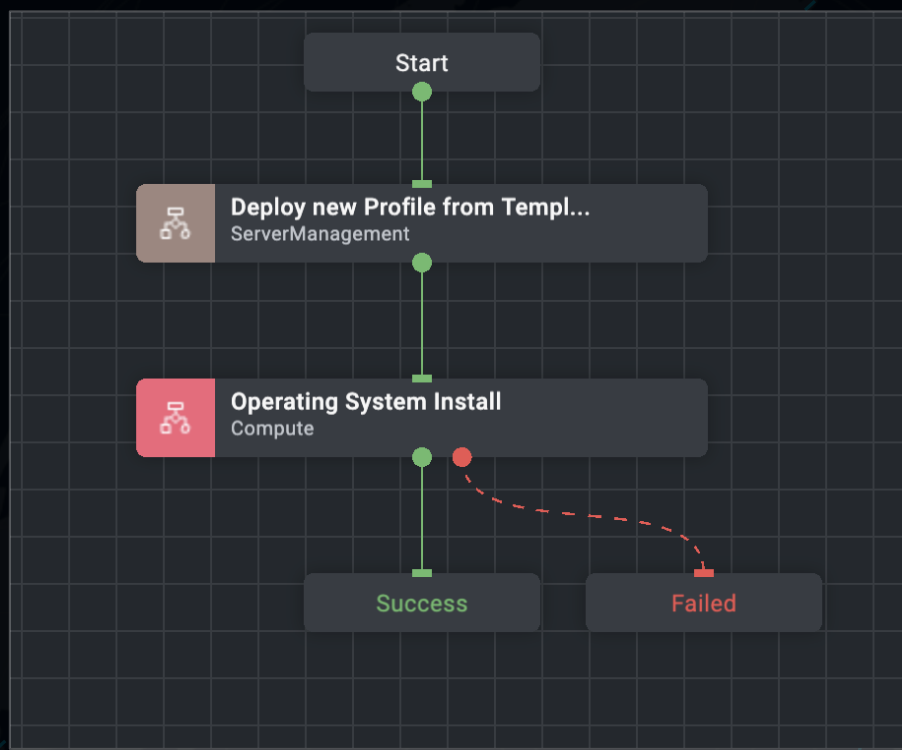


Automate



CISCO INTERSIGHT

Built-in Workflow Automation



API and Tool Support

REST APIs for all Intersight objects

Tool Support:

- Ansible
- PowerShell
- Python
- Terraform

CVDs with code samples

[Intersight.com/apidocs](https://intersight.com/apidocs)

What's new with Intersight?

- Utilization and Limit Metrics
- Enhanced Topology view
- CLI launch for Fabric Interconnects
- Notifications for flapping alarms
- Deployment for modified policies only
- MACsec on Fabric Interconnects
- Intersight Add-on for Splunk
- GPU metrics
- Direct firmware downloads from Intersight
- IMC launch from device console
- Diagnostic file management in Intersight
- Enhanced Nutanix view in Intersight
- Forwarding of vCenter tags to Intersight
- Simplified server profile editing experience
- User labels for ports and port channels
- Environmental metrics for storage arrays
- Filtering capability for E-Mail notifications
- New fan control mode for maximum cooling
- Improved server power view for Servers and Chassis
- Hardware information in profile assignment view
- CDP/LLDP neighbors in topology view

- Guest Access
- Policy Comparison
- SNMP over OOB
- User activity tracking for Fabric Interconnects
- VFC Operations enhancements
- Faster processing for Advisories
- Metrics collection for physical VIC adapter ports
- Code generation in Intersight UI
- Metrics collection for standalone servers
- Improved policy scalability and performance
- Support for IPMI user accounts
- Path Tags
- Geolocations
- API Changelog
- Server diagnostics
- Mapping of IP ranges to organizations or resource groups
- Workload Management
- E-Mail notifications for Advisories
- Alarm suppression rules
- Custom Hardware Compatibility Lists
- ...

Major new feature: Workload Management



Global admin

Admins pick one or more blueprints to be used in a workload definition, which is the basis for lifecycle management across the fleet

Regional admin

Workload deployments are used to form workload instances from mapped resources groups, and to allow an admin to override specific parameters that are region specific

Workloads are deployed, configured, and lifecycle managed together across all workload instances tied to a given workload definition (e.g. "branch_small").

Allows to manage an entire system in one go with minimal effort

Policy comparison

Compare BIOS Policy

Display
Compare Only

Details
BRKCOM-2456-BIOS-A [🔗](#) BRKCOM-2456-BIOS-B [🔗](#)


Name	BRKCOM-2456-BIOS-A	BRKCOM-2456-BIOS-B
Memory		
Memory RAS Configuration	maximum-performance	adddc-sparing
Power And Performance		
Enhanced CPU Performance	Auto	platform-default
LLC Dead Line	enabled	platform-default
XPT Remote Prefetch	disabled	platform-default
Processor		
Adjacent Cache Line Prefetcher	disabled	platform-default
CPU Performance	platform-default	enterprise
KTI Prefetch	disabled	platform-default
Patrol Scrub	disabled	platform-default
Processor C1E	platform-default	disabled
Sub Numa Clustering	enabled	platform-default
DCU Streamer Prefetch	disabled	platform-default
XPT Prefetch	disabled	platform-default

Comparison of up to five policies of the same type

Deployment of changed policies only


Deploy UCS Server Profile

UCS server profile "BRKCOM-2456-example" will be deployed to server "int-ucs-1-1-1".

 The server is powered on. Deploying and activating the profile may cause a reboot and disruption. If deploying policy configurations requires an immediate reboot, check **Reboot immediately to activate**.

^ More Details

Search Filters 1 results Export

Server Name	Profile Name	Reboot
 int-ucs-1-1-1	BRKCOM-2456-example	NO

Rows per page 10 < 1 >

Reboot immediately to activate.

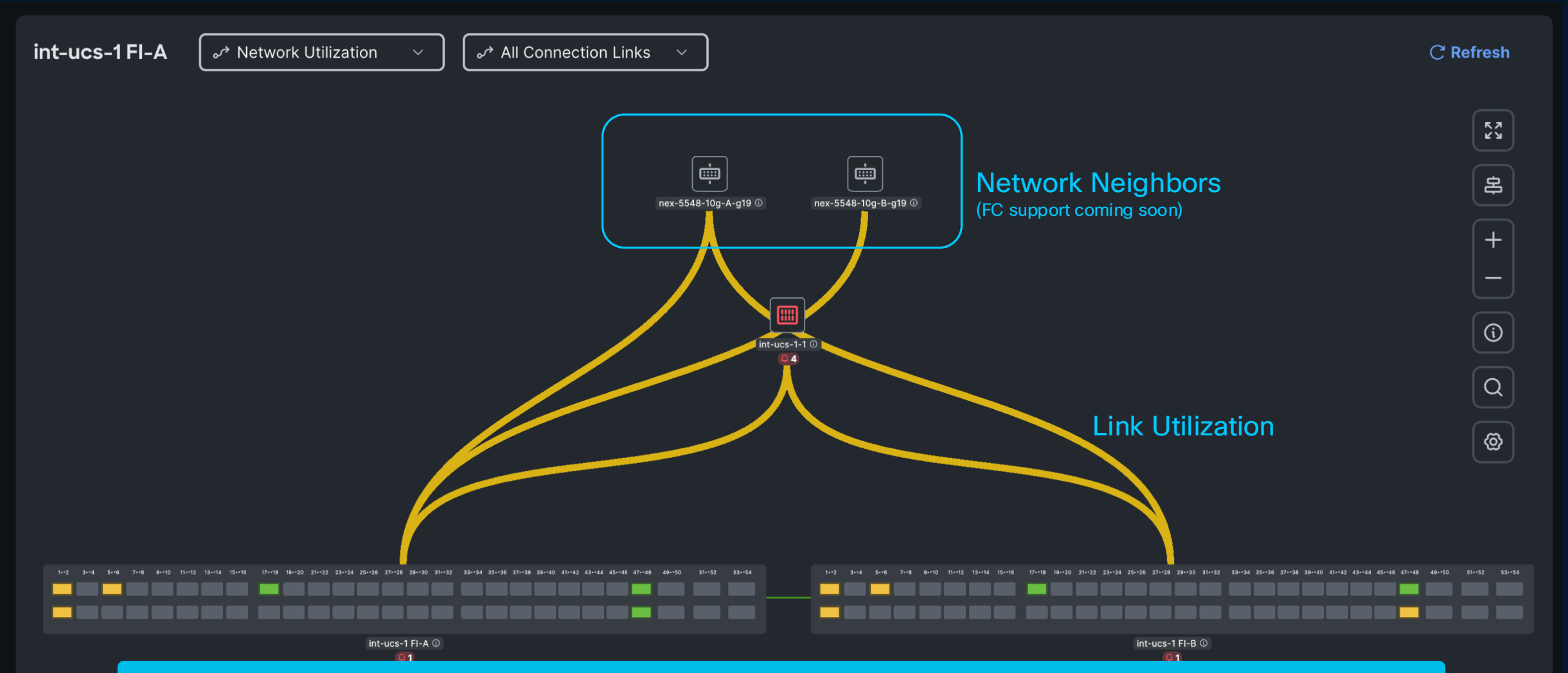
Deploy all associated policies whether modified or not. **Classic deployment**

I understand that potential disruption may occur during profile deployment. *

Indicator shows if reboot should be expected

By default, only changed policies will be deployed for server profiles now

Topology view enhancements



Topology view now shows network utilization and network neighbors

Server Diagnostics

WARNING

Disruptive operation – server will be unavailable while this is running!

BRKCOM-2456

Details

Status

✔ Completed

Name

BRKCOM-2456

Diagnostic Type

Comprehensive

Diagnostic Components

BMC, CPU, Memory, Storage

Target Name

int-ucs-1-1-8

Start Time

Jan 7, 2026 4:32 PM

Duration

5 h 52 m 35 s

Diagnostic Test Result

⌵ Collapse All | ✔ Successful

^ **BMC**

✔ BMC

^ **CPU**

✔ CPU1

✔ CPU2

^ **Memory**

✔ Memory

^ **Storage**

✔ MRAID

✔ MRAID/Volumes/0

← Servers

Run Diagnostics

1 General

2 Diagnostic Details

3 Summary

Diagnostic Details

Name *

BRKCOM-2456

Diagnostic Type

Quick
Runs a fast diagnostics of hardware components for quick status check

Comprehensive
Runs a full diagnostics of hardware components for detailed analysis

Diagnostic Components

All

BMC CPU Graphics Memory

Network NVMe Storage

Close

Back Next

Server Diagnostics suite can now be run autonomously from Intersight

Upcoming Intersight Features

What's New

intersight.com/help/saas/whats_new/upcoming

Released [Upcoming](#)

Many of the products and features mentioned are still in development and will be made available as they are finalized, subject to ongoing evolution in development and innovation. The timeline for their release is subject to change.

February 19

- **Policy Operations in Code Generator**
Intersight will support Auto Support, External FC Storage, External iSCSI Storage, Replication Network Configuration, and other policy operations in the Code Generator.
- **Custom Privilege Set**
Intersight will introduce custom privilege sets. This feature will allow administrators to manage user privileges, ensuring that users have access only to the resources and actions necessary for their roles. By granting only the relevant privileges required for each user, you can improve security, reduce risks, and maintain compliance.
- **RMA in Fleet**
Intersight will support Return Material Authorization (RMA) for servers managed as a fleet, enabling a single server to be seamlessly detached from the fleet, replaced, and reattached—all in a controlled and automated manner. This process ensures that the behavior of the remaining servers in the fleet remains unaffected and that system operation for these servers is consistent both during and after the replacement, with minimal manual intervention required.
- **Account Lockout for Unified Edge**
Intersight will support configuring account lockout settings in the Device Console for Unified Edge.
- **Server Profiles Automatic Deployment**
Intersight will support the automatic deployment of server profile when it is assigned to a server for the first time after creation. This enhancement reduces the number of steps required to deploy a profile.
- **Custom Metric Alarms – Threshold Definitions**
Intersight will introduce custom metric alarms with threshold definitions. This feature will allow you to set thresholds for a specific set of metrics—such as Host Power and Status, and Network Interface instruments—so that alarms are triggered when defined conditions are met.

March 5

- **PFC Watchdog Support**
Upcoming enhancements to configure Priority Flow Control (PFC) watchdog timer that will help prevent data loss caused by network congestion. A faulty network card (NIC) or switch can cause a PFC storm by continuously sending pause signals (PFC pause frames) to the network.
- **UCS X410c M8 Compute Node Support**
Intersight will support Cisco UCS X410c M8 Compute Node in Intersight Managed Mode and UCSM Managed Mode.
- **Cisco UCS FI 6652 Support**
Intersight will support Cisco UCS 6652 Fabric Interconnect (FI) in Intersight Managed Mode.
- **Cisco UCS 6652 FI - Enhanced Speed on Unified Ports**
The unified Ethernet ports on the Cisco UCS 6652 FI will support the speed of 50 Gbps, enabling greater bandwidth and improved connectivity.
- **NetFlow Data Collection**
Intersight will enable NetFlow data collection for Cisco UCS 6400 Series, 6536, 6664, and UCS X-Series Direct Fabric Interconnects. This will allow network administrators to monitor, optimize, and

March 5

March 19

April 2

Intersight Release Notes now show upcoming features in the next 2 months

Houston, we have a problem...

“Average infrastructure deployment cycles still span **6-12 weeks**, directly hindering agility and delaying time-to-value.”

(Forbes, 2024)

What's Next????

Cisco has evolved to help you do more with less

01

Cisco Validated Designs

Tested, validated configurations

02

AI PODs

AI Model

NVIDIA Software

Kubernetes

Cisco Network

Cisco Compute

Partner Storage

Pre-packaged solutions

03

AI Sizing Tools

AI Sizer

Services

Cisco AI Defense

splunk >

VAST

04

Cisco Secure AI Factory with NVIDIA

Foundation for deploying AI workloads and use cases

IaC modules and playbooks

Automated, on-prem, cloud-like experience

Zero touch deployment



Join Cisco experts and your industry peers as an **Intersight Insider**



- Direct interaction with Intersight technical experts and product team
- Access to Intersight Insider user community forum
- Live sessions on new features, how-to's, roadmaps, and much more
- Participate in feedback sessions to shape future of Intersight

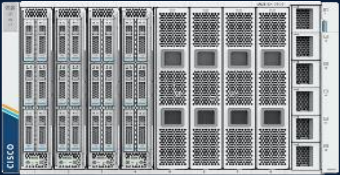


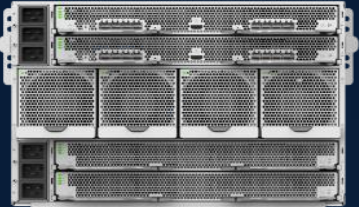
Scan QR code and follow instructions to join!


Summary

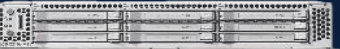
Cisco UCS Compute Portfolio


Blade


- 

UCS X-Series X9508 Chassis IFM Module
- 

New UCS X-Series Direct
- 


UCS X210c M7
- 


New UCS X210c M8
- 


UCS X410c M7
- 


New UCS X215c M8


Rack


- 


New UCS C240 M8E3S 36 EDSFF E3.S1T
- 


New UCS C240 M8SX 28 HDD/SDD/NVMe
- 


New UCS C240 M8L 16 LFF + 4 SFF
- 


New UCS C240 M7SN 28 NVMe
- 

New UCS C220 M8E3S 16 EDSFF E3.S1T
- 

New UCS C220 M8S 10 HDD/SDD/NVMe
- 

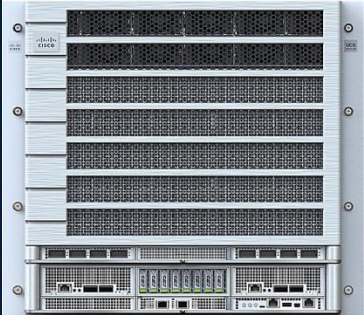
New UCS C220 M7N 10 NVMe
- 

New UCS C245 M8SX 28 HDD/SDD
- 

New UCS C225 M8S 10 HDD/SSD
- 


New UCS C225 M8N 10 NVMe

AI Servers

- 

New UCS C885A M8 UCS C880A M8 8RU Dense GPU Server

...and even more HGX follow ons

Coming
- 

New UCS C845A M8 4RU MGX Server

Edge

- 

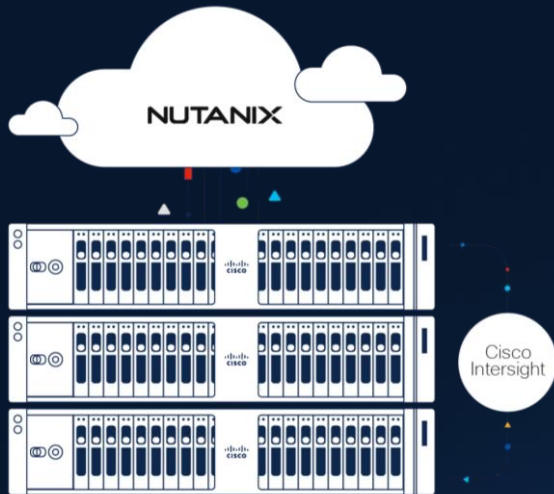
New UCS XE9305 Chassis UCS XE130c M8 Compute Nodes

Intersight Partners



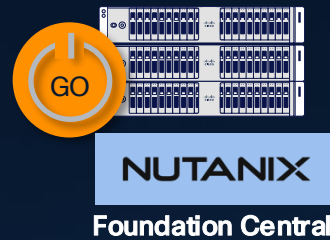
Nutanix + Intersight

Integrated & Automated Life-Cycle Operations



Cisco Compute
Hyperconverged with Nutanix

Cluster Installation

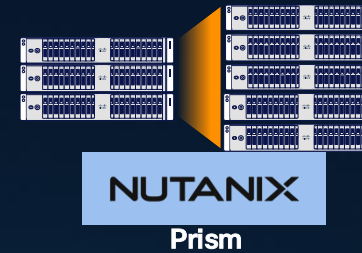


Fully integrated cluster installation automation across Cisco UCS and Nutanix Cloud Infrastructure, driven from Nutanix Foundation Central.

Operational Summary

- Inventory Cisco UCS servers
- Create Cisco UCS Service Profiles
- Perform hypervisor imaging
- Deploy Nutanix storage controller VM (CVM)
- Create new hypervisor and storage cluster

Cluster Expansion

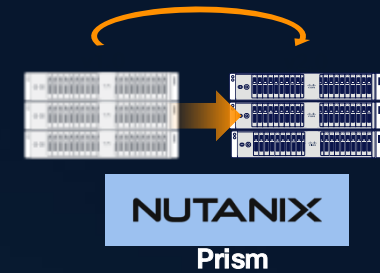


Fully integrated cluster expansion automation across Cisco UCS and Nutanix Cloud Infrastructure, driven from Nutanix Prism or Prism Central.

Operational Summary

- Inventory new Cisco UCS servers
- Create Cisco UCS Service Profiles for new nodes
- Perform hypervisor imaging
- Deploy Nutanix storage controller VM (CVM) on new nodes
- Join new nodes to existing hypervisor and storage clusters

Cluster Upgrade



Fully integrated end-to-end cluster software and firmware upgrades with Nutanix Prism or Prism Central Life Cycle Management (LCM).

Operational Summary

- Upgrade of Cisco UCS infrastructure and server firmware
- Upgrade of hypervisor software, VMware ESXi and/or Nutanix AHV
- Upgrade of Nutanix Cloud Infrastructure software

Call to Action

Thank you



