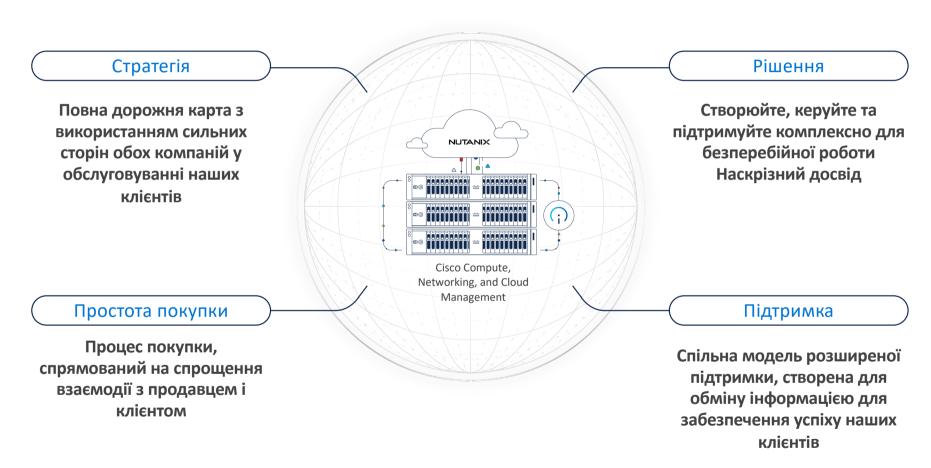






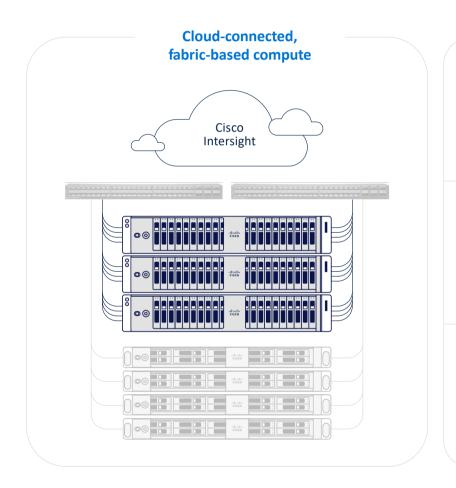
Cisco and Nutanix: 1 + 1 = 3

A 360-degree partnership



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1: Що пропонує Cisco



Цінність

ПРОСТОТА

Глобальна видимість, уніфікований досвід та підтримка на зв'язку

ГНУЧКІСТЬ

Вирішуйте будь-який випадок використання за допомогою гнучких варіантів розгортання та повної програмованості

СТІЙКІСТЬ

Вбудована безпека, висока доступність, фабрика з низькою затримкою та проактивна підтримка

Результат

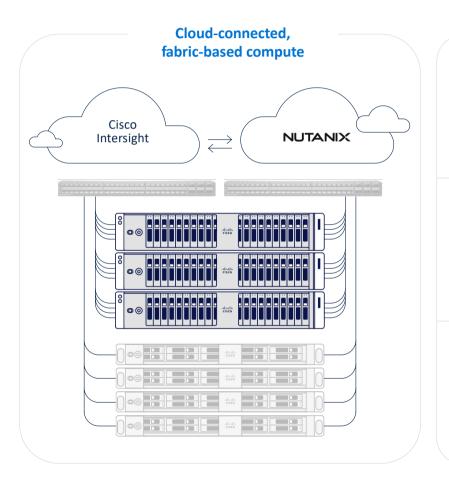
Робіть більше з меншими витратами часу та коштів

Робіть більше з меншими відходами та ефективніше

Захистіть свій бізнес завдяки більшому часу безвідмовної роботи та надійності

Cisco Compute

1 + 1 = 3: Що пропонують Cisco та Nutanix разом



Value

ПРОСТОТА Глобальна видимість, уніфікований досвід та підтримка на зв'язку

ГНУЧКІСТЬ Вирішуйте будь-який випадок використання за допомогою гнучких варіантів розгортання та повної програмованості

СТІЙКІСТЬ Вбудована безпека, висока доступність, тканина з низькою затримкою та проактивна підтримка •

Унікальності Nutanix

Повне управління життєвим циклом з автоматизованою конфігурацією «з коробки»

Ваш вибір гіпервізора, бездоганна масштабованість та повторне використання інвестицій

Безперервність бізнесу, висока доступність та інтегрована модель підтримки Outcome

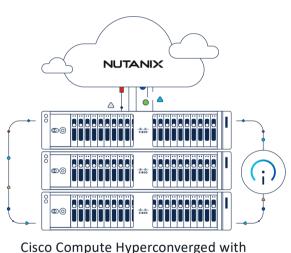
Робіть більше з меншими витратами часу та коштів

Робіть більше з меншими відходами та ефективніше

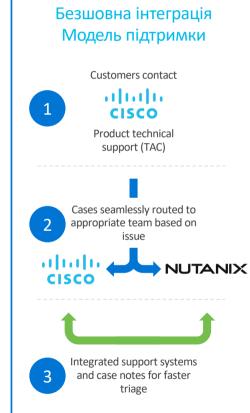
Захистіть свій бізнес завдяки більшому часу безвідмовної роботи та надійності

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Глобальна підтримка



Nutanix



Варіанти генерації кейсів

Manual



User initiated

Automated

NUTANIX Insights

for hardware and software alerts

CISCO Intersight

for hardware alerts

Customers can contact TAC to open a case and/or have intelligent software do it for them with features such as Proactive RMA.

Мінімізація навантаження на підтримку клієнтів

NUTANIX Insights

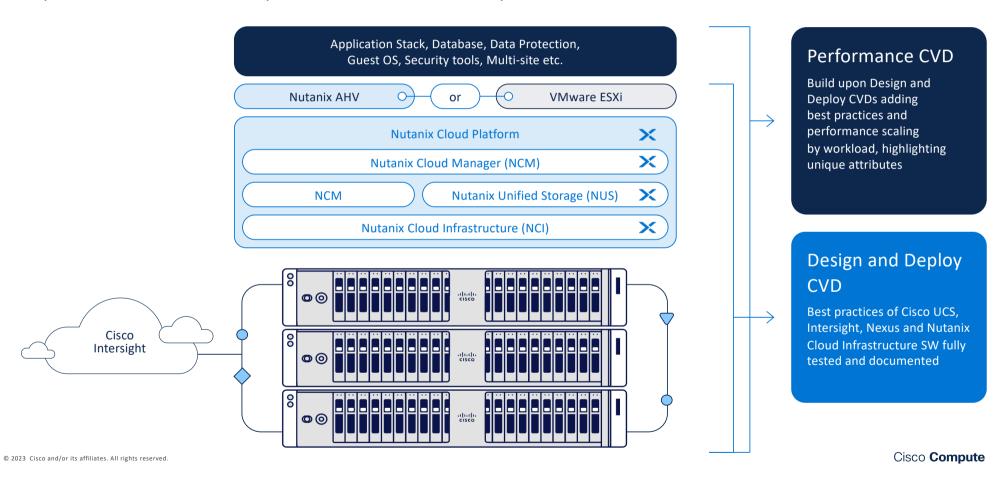
CISCO Intersight

- In-depth system health checks
- Security advisories and notifications
- Recommendations to remediate problems
- Proactive RMA of faulty components
- Automated log bundle collection
- Audit and correlate historical cluster events such as alerts, discoveries, upgrades, hardware replacement, and more via Cluster Timeline

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Валідовані дизайни Cisco + Nutanix

Enterprise workloads are built on a proven infrastructure with best practices documented



Key Takeaways

Унікальне партнерство

Вибір і гнучкість

- Все про клієнтський досвід
- Nutanix: гіпервізор, ліцензування та стійкість даних/захист даних
- Cisco: підключення до мережі, форм-фактор вузлів та управління інфраструктурою

Розробка

- Спільно розроблені роадмап
- Бачення та стратегія: бездоганний наскрізний досвід
- Глибока інтеграція на рівні продукту

Підтримка

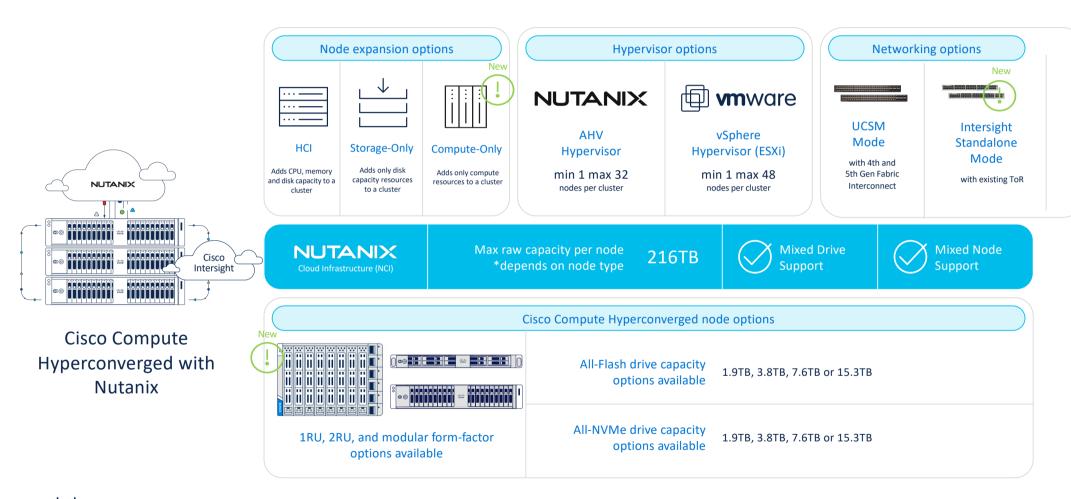
- Модель розширеної підтримки суглобів
- Технічна підтримка Backend e-bonding
- Cisco Connected TAC i Proactive RMA
- Оцінка мережевого промоутера Nutanix



НовинкиCisco Nutanix HCI



Прискорте ІТ-трансформацію завдяки більшій гнучкості та вибору



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NOTE: See solution documentation for all caveats, limitations and compatibility information

Cisco UCS X-Series Momentum















Success

Modernization

Reduces total power consumption of M4 servers by up to 31%

51% Blade Market Share

Continued market share lead

2000+

Unique customers

+115%

Y/Y Growth

56,000+ Servers

54%

M7 X-Series Mix of Total UCS

25%

New/dormant customers

5%

High-capacity local storage

1300+

Production customers

3,362

Offer Registrations 34,000+

Servers on-line

Innovations

X-Series Sustainability Benefits

~50% fewer raw materials vs 3 generations of rack servers

5th Gen Fabric

Strong 100G adoption (60% Mix on X-series)

GPU on X-Series

Wide range of GPUs being adopted for rack W/L

X-Direct and AMD Blade

Demo at Clive, orderability, EFT

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Sales Enablement and Acceleration

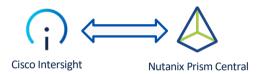
Sneak Peek

Розширення портфоліо за допомогою HCI-X

Modular Compute with UCS-X (HCI-X)

Cisco Compute Hyperconverged X210c M7 All NVMe Nodes w/Intel SPR & EMR CPUs

- Up to 6 x 1.9TB, 3.8TB, 7.6TB or 15.3TB NVMe disks
- 5th Gen mLOM @ 4x 25Gbps or 2x 100Gbps
- Dual M.2 SATA SSDs with HW RAID for boot
- Mandatory 2 CPUs and up to 8TB Memory
- GPUs via X440p PCIe node: L4, L40S, H100-80, A16.
- Intersight Managed Mode (IMM) support
- 1-node, 2-node, and 3-node+ clusters
- Support for ESX and AHV







Material impacts in rack lifecycle vs. blade

- Example of material used in production by raw weight
- 8 servers @ 3 generations
- 24 total rack servers est 1080 lbs of raw materials
- 24 Modular nodes est 578lbs of raw materials

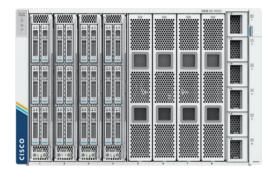
Modular compare is roughly 50% lower consumption of raw materials and impact of production

3 Lifecycles for comparison



At 8 x 3

Each Server:
~45lb*
= 1080 lb



At 8 x 3: Chassis: ~146lb Each Node: ~18lb* = 578 lb

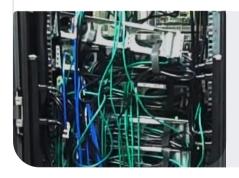
Impact of Cisco Converged 100Gb Fabric Design

Conventional Approach

Silos of multiple ethernet and SAN fabrics and adapters

48 LEGACY RACK SERVERS:

- 48 BMC management cables
- 96 DP ethernet cables
- 96 Fabric connect cables
- 384 Optics (4 ethernet, 4 fabric connects)



Massive complexity at scale

UCS X-Series

Cisco Unified Fabric and 100G reduces adapter, cabling, network and storage port needs

48 UCS X-SERIES SERVERS:

- 24 Chassis 100G cables
- 48 Chassis optics

88% \



reduction in cables and optics

66% √



reduction in cost of cabling components



Simplified, optimized, and automated

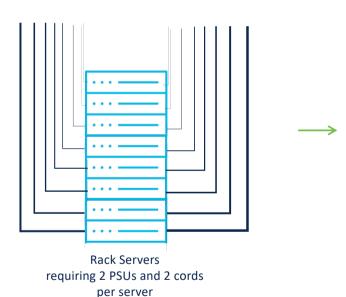
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Вплив дизайну енергоефективності Cisco

Powering a chassis v rack servers

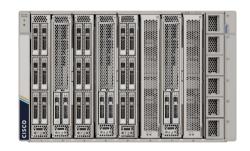
Conventional approach

Rack servers requiring Dual PSUs per server for power and redundancy



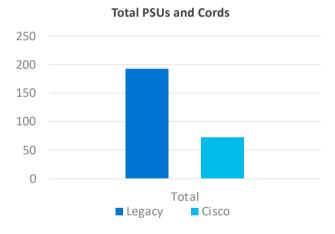
X-Series Power Efficiency

Purpose built for efficient transfer of power, redundancy, and materials reduction



- Efficient 54V Power Distribution
- Reduced Materials with fewer PSUs and cables
- 6 PSUs and 6 cords per chassis

X-Series vs Competitive Rack 48 Server comparison:



192 PSUs and cords vs Only 72 for X-Series

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X-Series Reduction Raw Materials vs Competitors

DXXX requires over 3X the amount of components than Cisco

266% more raw materials

HXX needs 2X the amount of components than Cisco

95% more raw materials

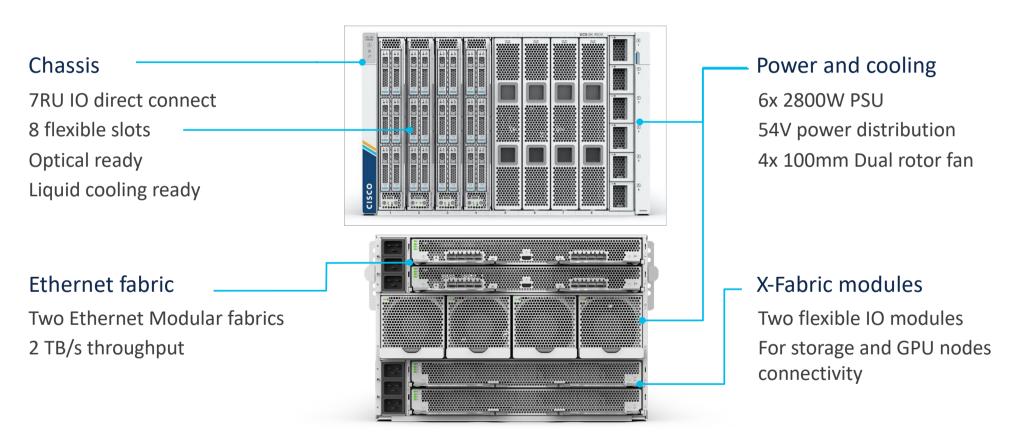


5 Chassis configuration compare supporting 200Gb of Ethernet and FC fabric connectivity to any blade

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Architecture

UCS X9508 System chassis



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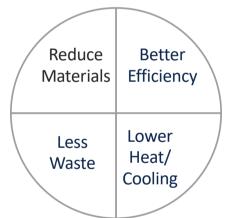
X-Series 54V Power Distribution What's the Big Deal?

Distribute same power with 80% less current Less space and materials

Reduces heat generation and lower cooling burden 54V fans 25% more efficient than 12V

Improves AC-DC conversion efficiency 1.5-2% over 12V

Less copper required to carry current Smaller server power distribution components



Open Chassis Eliminates IO Midplane



Substantially higher performance per RU with flexibility for a long term technology roadmap

Cisco UCS X9508 Modular System Chassis



Prevents technology lock-in



Reduced airflow restriction



Maximize power efficiency

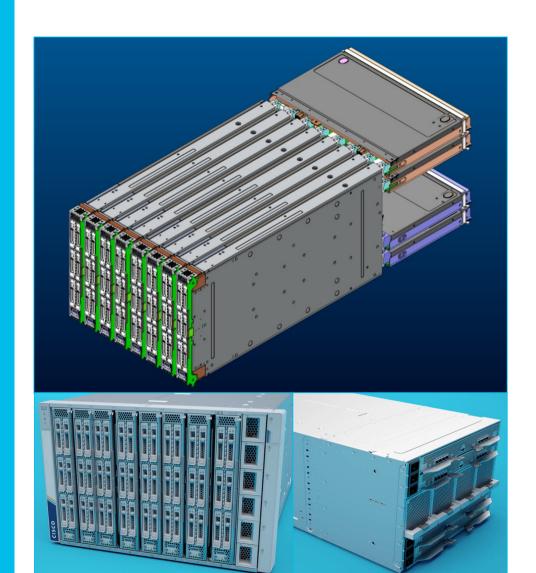


Configure as needed for workload

Direct node to fabric connections

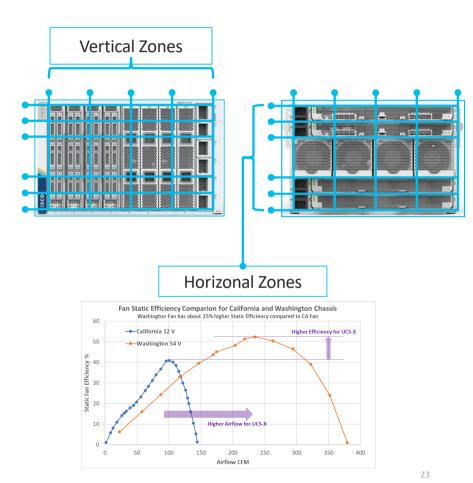
Dual redundant fabrics

- Network (top)
- X-Fabric (bottom)



Cisco Optimized Fan and Cooling Design

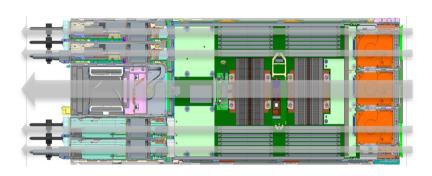
- Provide cooling where it is needed most no wasted airflow and saving power
- Low impedance chassis fan design
 - Moves more air volume (better cooling) while using less fan power
 - Other vendors use high impedance designs and can consume
 2-3 times more fan power using 9-10 chassis fans
- Advanced Fan control system
 - Unique variable speed fan control algorithms to dynamically run fans at lower speeds to minimize fan power consumption
- Straight through air flow architecture with no bends or recirculation

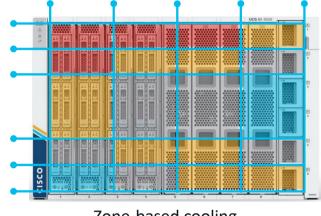


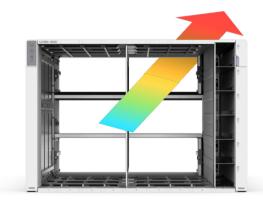
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Thermal Solution - Innovations

UCS-X Systems: Straight Airflow







Zone-based cooling



350W CPU Airflw ooling with no ompomise



Futue Liquid ooling apability 500 W CPU liquid ooling



200+ omponentsensor b éed ooling algrithm



Opimized an par with one-based ooling

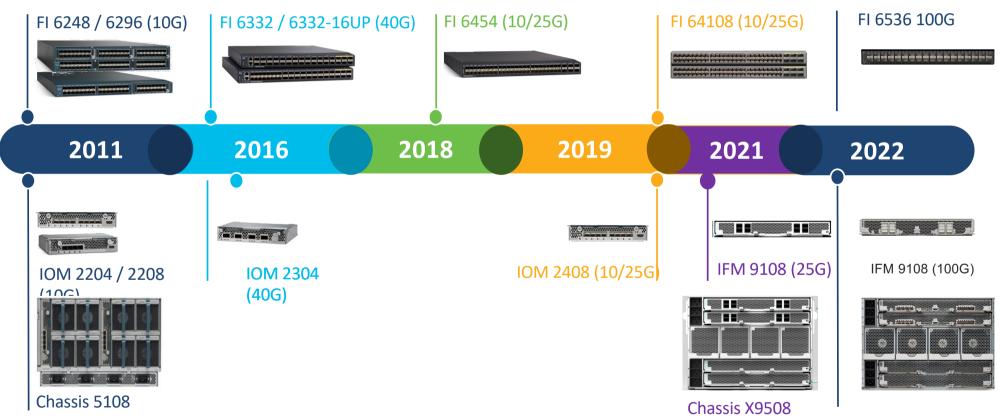


+30% air ooling **f**iciency



No midplane obruction

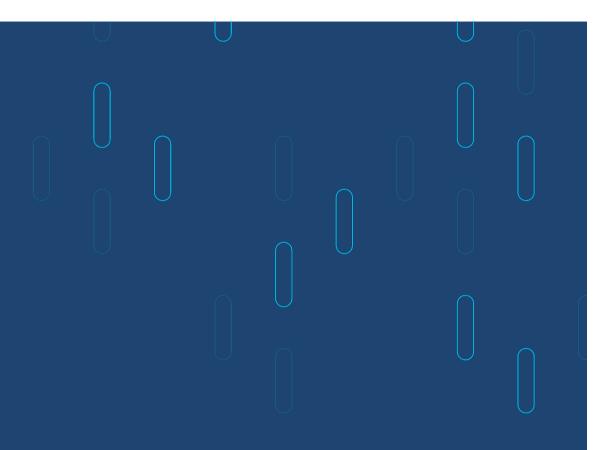
UCS Fabric Interconnect, IOM, & Chassis



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25

UCSX-Direct

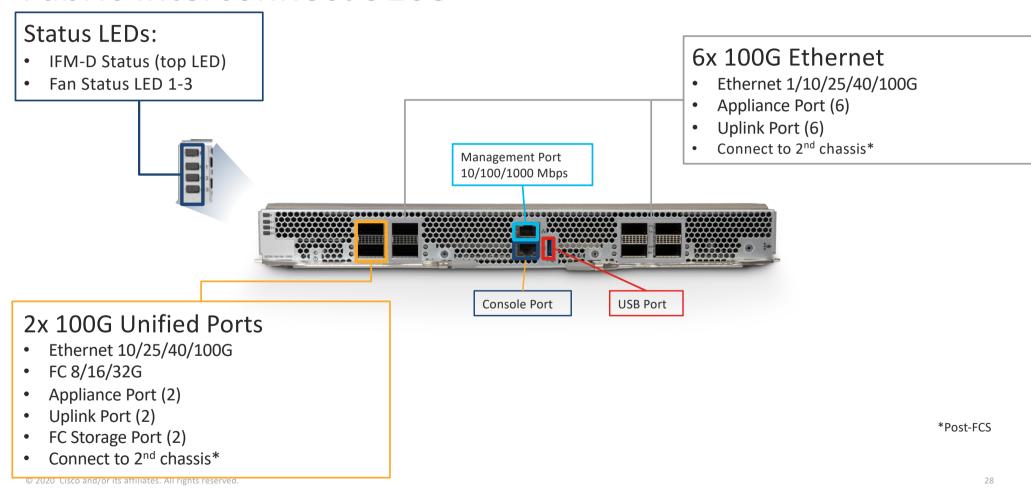


Heading off to new Shores to push Boundaries

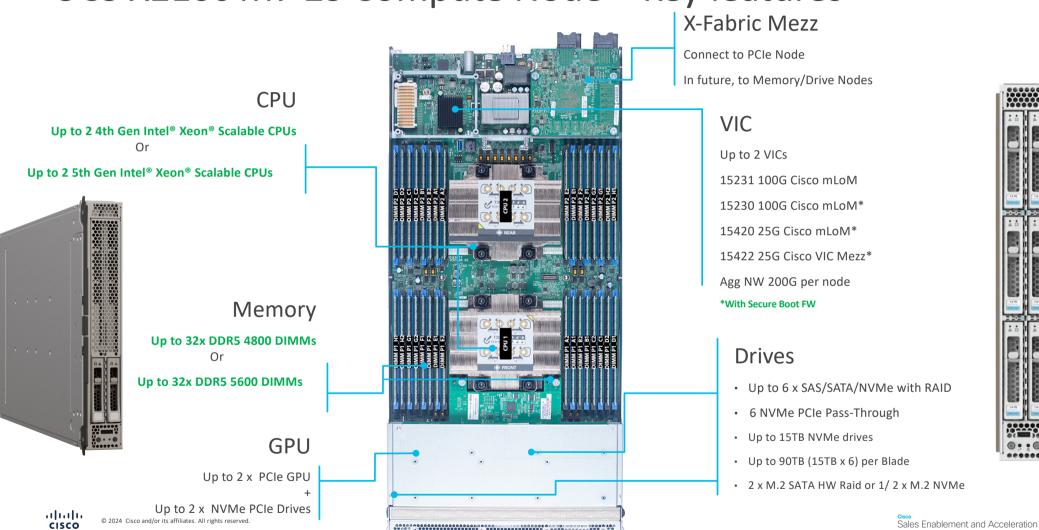
- Eth 1/10/25/100G
- FC 8/16/32G
- IMM / UCSM (post-FCS)
- Benefits from all things UCS X-Series

- Solution in a box
- Virtual Desktop Infrastructure
- Converged Infrastructure (CI) Flexpod, Flashstack
- Hyperconverged Infrastructure (HCI) vSAN, Nutani
- AI/ML Workloads

Fabric Interconnect 9108



UCS X210c M7 2S Compute Node – Key features



UCS X410c M7 4S Compute Node – Key features

- Primary (X410c-M7-M) & Secondary (X410c-M7-S) boards in node
- Single physical node occupies two slots in chassis

CPU

4 Intel 4th Gen Xeon CPUs

X-Fabric Mezz

Connect up to 2x PCIe Nodes (post FCS)

Memory/Drive Nodes (post FCS)

Memory

Up to 64x DDR5 4800 DIMMs



VIC

200G Aggregate/ 100G per Fabric $100G\ 15231\ 5^{th}\ Gen\ VIC\ mLOM$ or $25G\ 5^{th}\ 15420\ Gen\ VIC\ mLOM$

25G 5th 15422 Gen VIC Mezz

Drives/GPU

Front Mezz options

6 SAS/SATA with HW RAID

6 NVMe PCle Gen4 x4

2 NVMe PCle Gen4 x4, plus 2 PCle GPUs

M.2 options

2x M.2 SATA HW RAID1

2x M.2 NVMe



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Sales Enablement and Acceleration

UCS X-Fabric Technology and PCIe Nodes with GPU

PCIe node supports up to:

4x 2

Intel Data Center Intel Data Center GPU Flex 140 GPU Flex 170

2x 2x

Nvidia A16 Nvidia H100

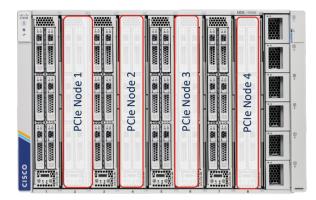
Nvidia L40

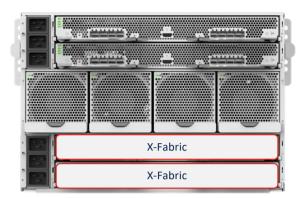
4x Nvidia L40S **

Nvidia T4 Nvidia A40

Nvidia L4 Nvidia A100

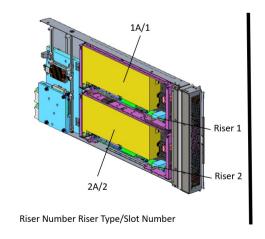
Nvidia H100 NVL *

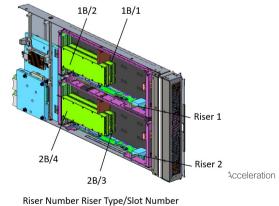




X-Fabric decouples the lifecycles of CPU, GPU, memory, storage and fabrics - providing a perpetual architecture that efficiently brings you the latest innovations.

- Cloud-powered composability with Cisco Intersight
- Flexible GPU acceleration across server nodes
- No backplane or cables = easily upgrades





UCS X215c M8 X-series Server Specs Overview



	Enterprise-class mainstream blade server with high performance for compute-intensive workloads.	
Use Cases	 Virtualization 	Database and Analytics
	 Hyperconverged 	 Virtual Desktop Infrastructure
	 Mixed Workload Standardization 	• AI/ML
Core Platform	Dual Socket Platform	
	Support for Genoa (-X)/Bergamo/Turin	
	Support for 24xDDR5 DIMMs (1DPC, 12 channel)	
	PCle Gen 5 support and CXL 1.1+ support	
X Fabric/PCIe Node	Connect to PCIe nodes, only Nvidia GPUs	
VICS	200G aggregate/100G per fabric, 100G5th gen VIC mLOM or 25G 5th gen VIC mLOM, 25G 5th Gen VIC Mezz	
Drives/GPU	Front mezz options 6 SAS/SATA with HW RAID, 6 NVMe PCIe Gen5 x4, up to 2x GPUs	
	Internal 2x M.2 SATA HW RAID1, 2x M.2 NVMe	
Management	Intersight Management and UCSM	

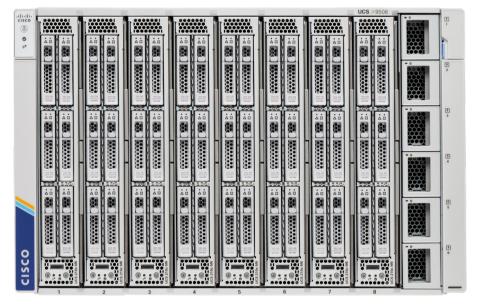


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Sales Enablement and Acceleration

UCS X-Series with Intel M7



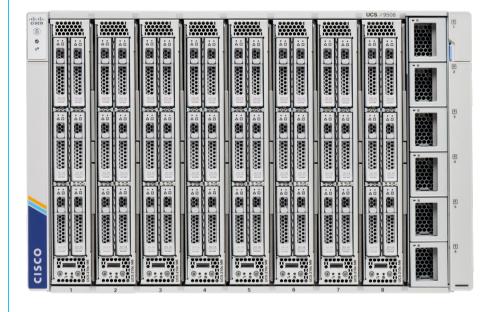


Up to 1024

Cores per Chassis (M6/M7)

UCS X-Series with AMD M8

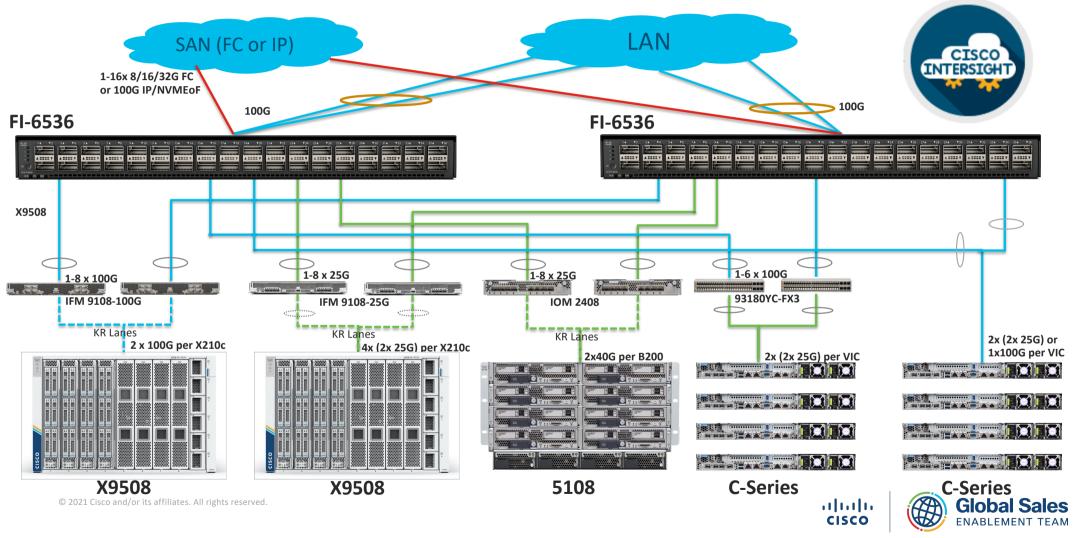




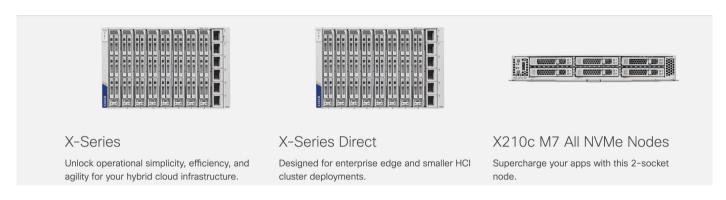
Up to 2048

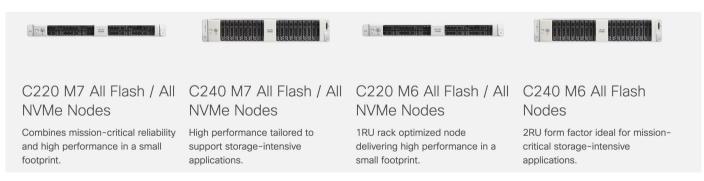
Cores per Chassis (M8)

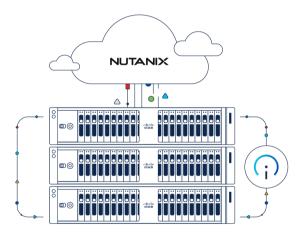
5th Gen Fabric – 100G End-to-End

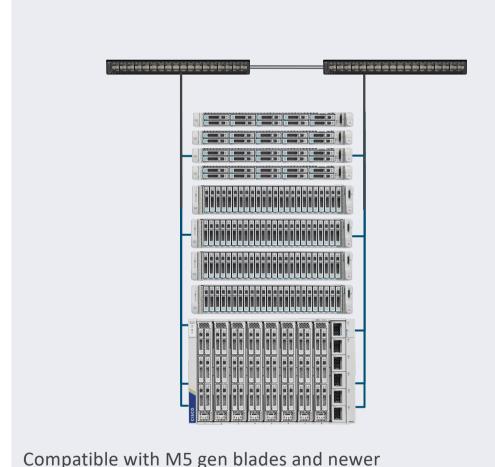


Портфоліо Cisco HCI









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AHV на будь-якому сервері Cisco

Exclusive

Jointly Co-Engineered with Nutanix Compute only nodes

Accelerate your Infrastructure and Application

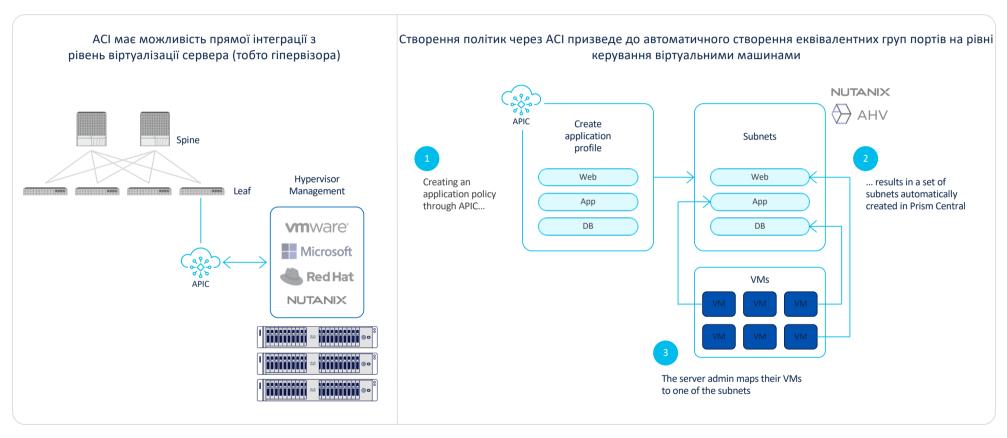
Modernization - Service more workloads leveraging AHV as a non-VMware native hypervisor and integration with Nutanix's rich data services.

Go Green! - Advance your sustainability goals by reusing your existing UCS blade and rack infrastructure (B-Series, C-Series, UCS Fabrics) as compute-only nodes with Nutanix and maximize the return of investment of compute resources independently from storage resources

Stay Flexible! - Modernize your compute infrastructure with next generation UCS X-Series modular compute system while retaining the flexibility to leverage X-Series as part of hyperconverged or converged infrastructure build outs, all managed through Cisco Intersight

Інтеграція Cisco ACI VMM з Nutanix AHV

Introduced in ACI 6.0.3



Cisco Intersight Standalone Mode

Огляд

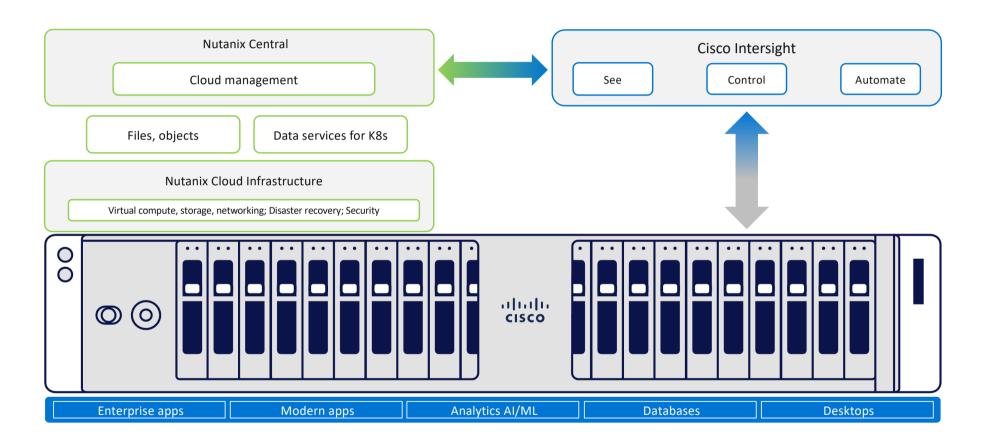


Хмарна SaaS платформа управління, що забезпечує глобальну видимість і управління автопарком для всіх вузлів Cisco Compute Hyperconverged with Nutanix

- Deploy Nutanix cluster in ISM mode on Cisco HCI Nodes
- No UCS Fabric Interconnect Required
- Can be deployed in Edge/Remote locations or Primary data centers
- Flexible networking options with Cisco VIC and Intel NICs
- Policy based management from Intersight
- Start as small as 1 node and 2 nodes for ROBO
- Parallel multi-cluster deployment with Nutanix Prism Central
- Support for AHV and ESXi hypervisors
- Support for M6 and M7 Platforms
- Targeted for Q2 CY24 (orderable)

Cisco Intersight забезпечує підтримку інтеграції з Nutanix Prism Central для розгортання кластерів Nutanix HCI на автономних серверах, що монтуються в стійку.

One platform for hybrid multicloud



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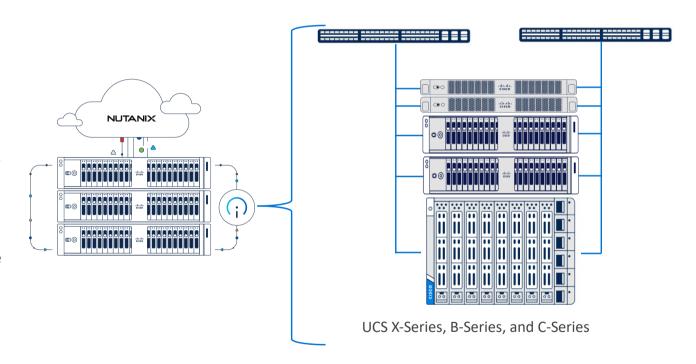
Розширена підтримка вузлів, що працюють лише з обчисленнями

Jointly co-engineered with Nutanix

Accelerate infrastructure modernization: Service more workloads leveraging AHV as a VMware-alternative, native hypervisor while integrating with Nutanix's rich data services

Advance sustainability initiatives: Reuse existing UCS blade and rack infrastructure as compute-only nodes and maximize the ROI of compute resources independently from storage resources

Maximize flexibility: Modernize compute infrastructure while retaining the flexibility to leverage as part of hyperconverged or converged infrastructure build outs

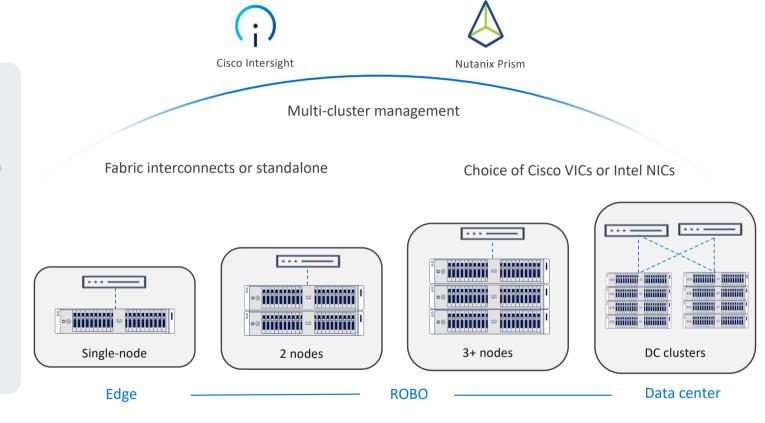


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Гнучкі можливості роботи в мережі Автономний режим Intersight для HCI

Deploy Nutanix cluster on Cisco HCI Nodes

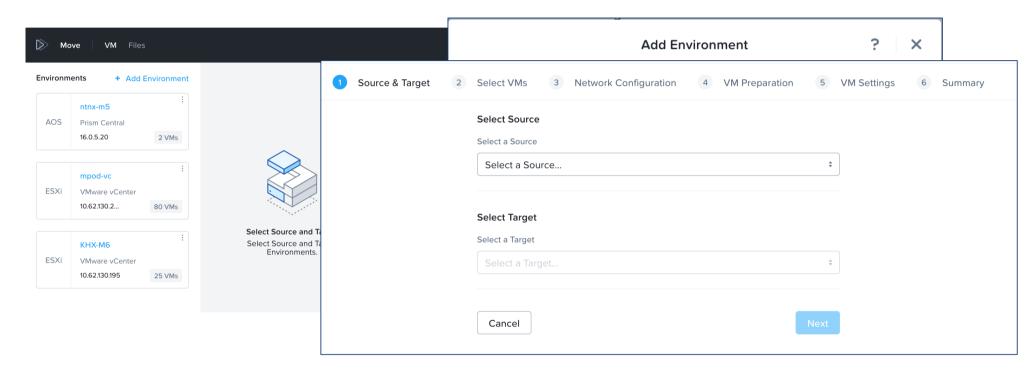
- · No UCS Fabric Interconnect required
- Deploy in edge/remote locations or primary data centers
- Flexible networking options with Cisco VIC and Intel NICs
- · Policy-based management from Intersight
- Start as small as 1 and 2 nodes for ROBO
- Parallel multi-cluster deployment with Nutanix Prism Central
- Support for AHV and ESXi hypervisors
- Support for M6 and M7 nodes



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Міграція робочих навантажень на Cisco Compute Hyperconverged

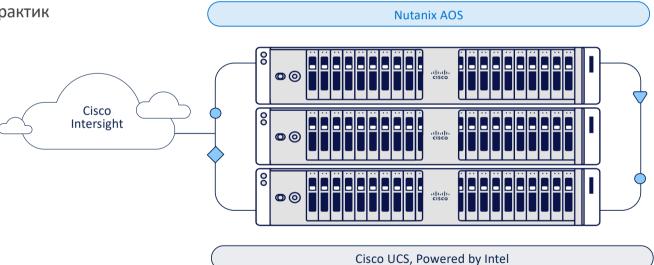


Migrating Workloads from Cisco HyperFlex to Cisco Compute Hyperconverged with Nutanix White Paper Nutanix Move



Nutanix GPT in a Box on Cisco

Розроблено, протестовано та перевірено з використанням найкращих практик розгортання



Foundation models

Kubeflow

PyTorch

Kubernetes

AHV virtualization

Opinionated AI stack

GPU-enabled

Select GPU according to availability and need (NVIDIA L40s CVD target)

Stack offers

- PyTorch (Al Framework)
- Kubeflow (MLOps)
- BYO Model

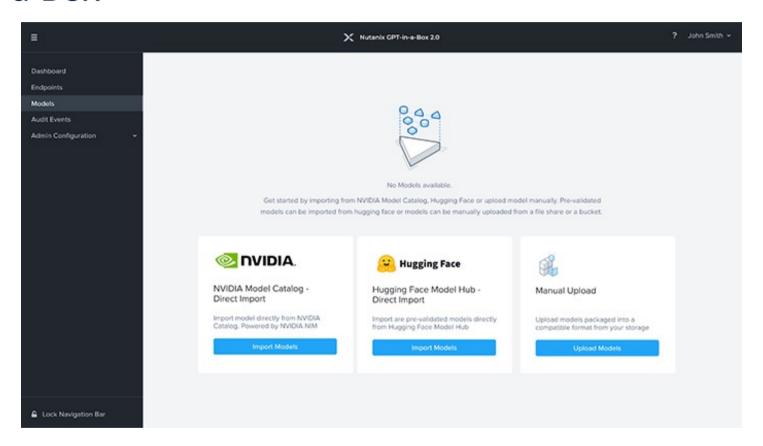
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Retrieval Augmented Generation

Nutanix files

storage and object storage

GPT in a Box

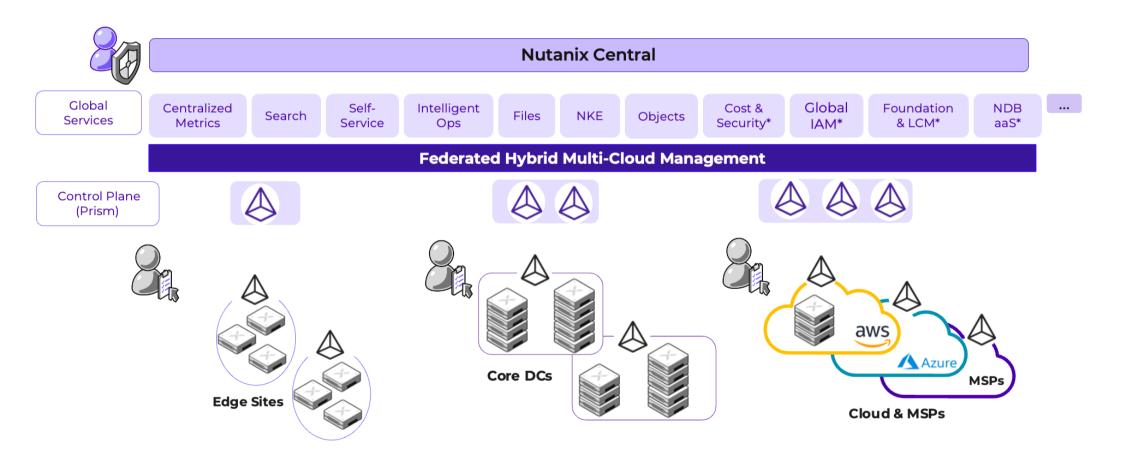


GPT in a BOX Validate design How to start with GPT-in-a-Box 2.0



Nutanix Central - hybrid multicloud management



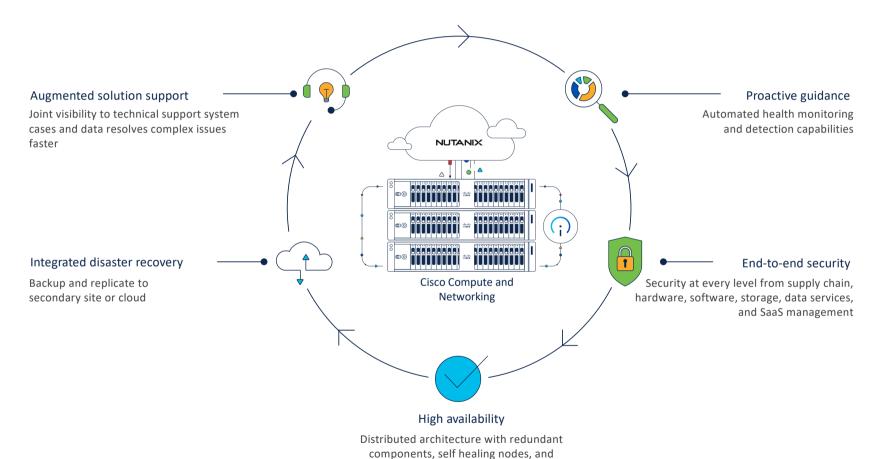


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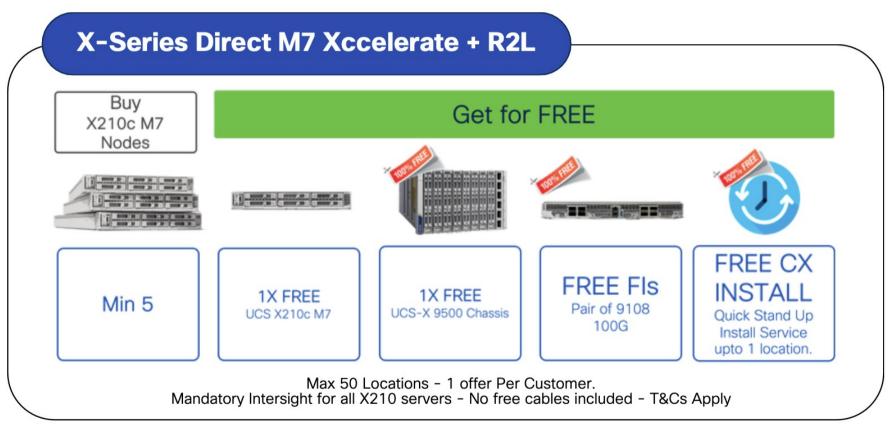
Відмінності Nutanix з Cisco

	cisco	Hewlett Packard Enterprise	Lenovo	DØLL	SUPERMICE
		DX Appliance	HX Appliance	XC Appliance	Supermicro
Strategic partnership and GTM		×	×	×	
Integrated management platforms HW and SW		8	×	×	8
Full HCI Solution (storage, network, compute)		×	×		×
Shared support case and visibility		×	×	×	
Co-engineered and optimized edge operations			×		×
Ability to reuse existing hardware as HCI node			×		×
SDL security lifecycle, development, PSIRT and proactive advisories		⊘	×		×

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NUTANIX

1 + 1 = 3