# Thank you to our Sponsors!






# Navigating VMware Disruption

## Leveraging Cisco Intersight and UCS for Future-Ready Solutions

April 29, 2025

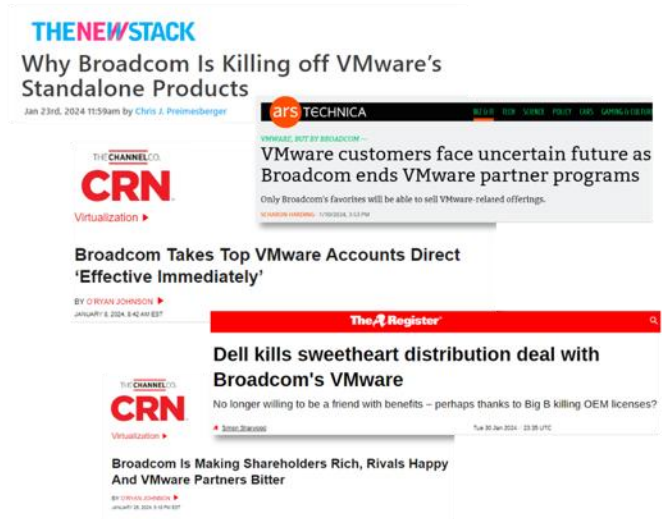
Justin Blinn – DC Field Solutions Engineer (Americas)
jblinn@cisco.com

# Server virtualization market disruption

"The server virtualization market is facing its most significant disruption in over a decade. I&O leaders will be forced to question their underlying assumptions for current and future workloads."

– Gartner

Gartner Server Virtualization Guide

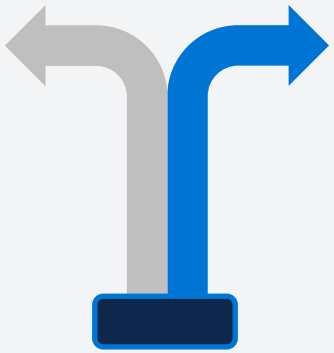



Sources: Gartner

# What is your current Broadcom/VMware situation?

# The crossroads...

*Stay with status quo*



*Explore other opportunities*

## Asking:

Is our virtualization strategy supporting our goals?

Can we reduce costs by moving workloads to bare metal?

Does our containerization strategy support modern applications and new AI workloads?

Does our AI strategy complement our infrastructure and tooling or create more cost and complexity?

# Cisco Intersight and UCS is the underlying infrastructure…

# for ALL options!

# Intersight – fleet deploy, operations and support

Centralized Management

Global Policies

Intuitive Experience

Enhanced Support

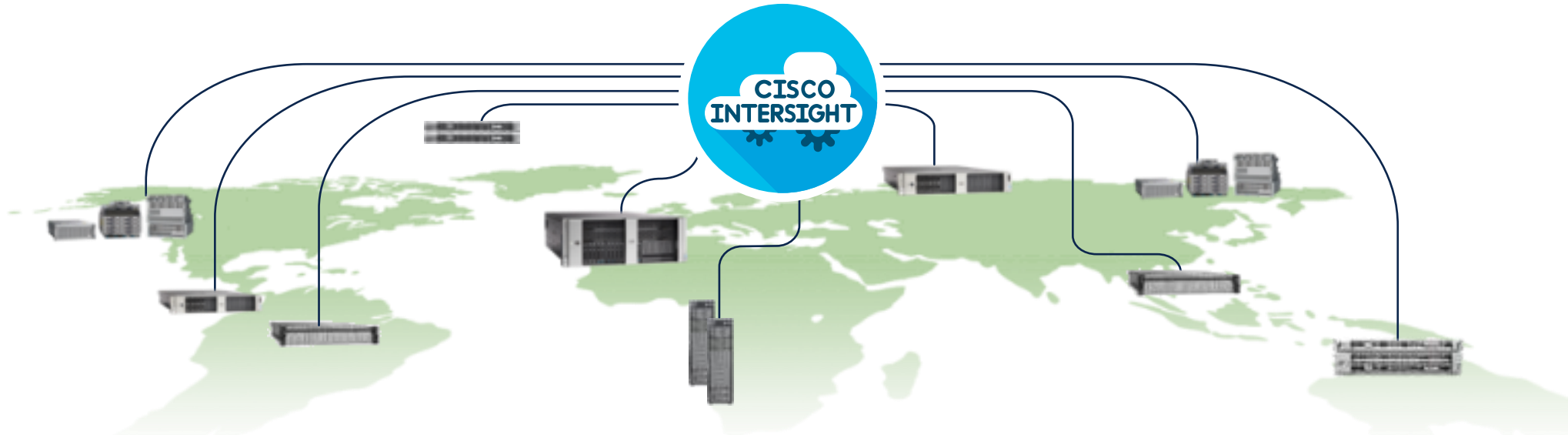
Proactive Guidance

Secure and Extensible

SaaS Delivered

Comprehensive Automation

Single Pane of Glass




Free customers from care and feeding of management tools and eliminate upgrade dependencies

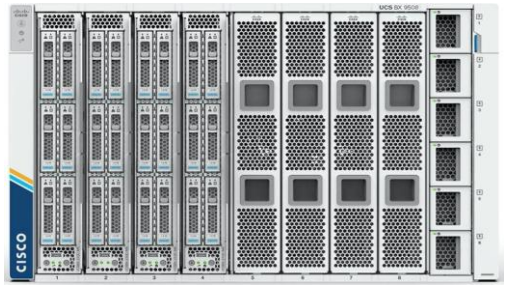
Simplify management across technologies and geography

Rapid development, delivery and customer feedback

# UCS – use case focused servers

## Modular/Blade

UCS X-Series X9508 Chassis



intel

UCS X210c M6-8

UCS X410c M7

AMD

UCS x215c M8

UCS X440p


## Rackmount

intel

UCS C240 M6-8

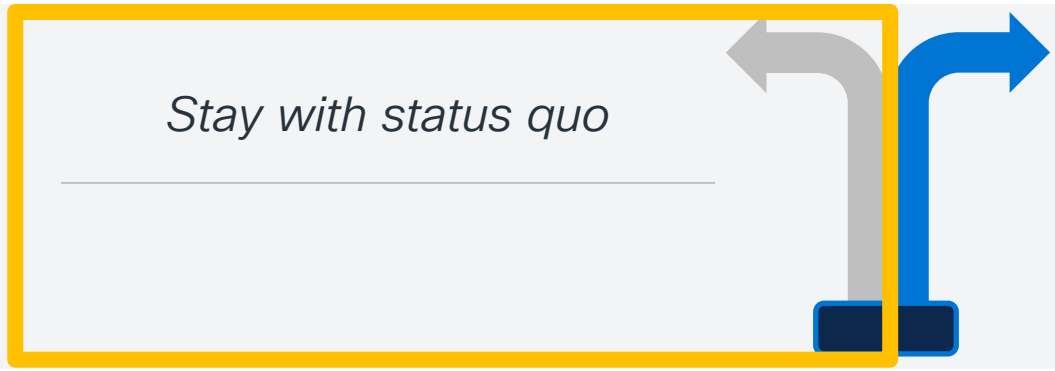
UCS C220 M6-8

AMD

UCS C245 M6-8

UCS C225 M6-8

# The crossroads...



*Stay with status quo*

*Explore other opportunities*

## Asking:

- Is our virtualization strategy supporting our goals?
- Can we reduce costs by moving workloads to bare metal?
- Does our containerization strategy support modern applications and new AI workloads?
- Does our AI strategy complement our infrastructure and tooling or create more cost and complexity?

# How can Cisco help with the Virtualization Disruption?

## STEP 1 Consolidate your Servers

Cisco UCS server generation M5 → M8 3-4:1 consolidation
*Intel 2nd gen (Cascade Lake)

Cisco UCS server generation M6 → M8 2:1 consolidation
*Intel 3rd gen (Ice Lake)
*AMD Rome/Milan

Cisco UCS server CPU switch Intel → AMD ~20% consolidation

# Server Refresh to Optimize VMware

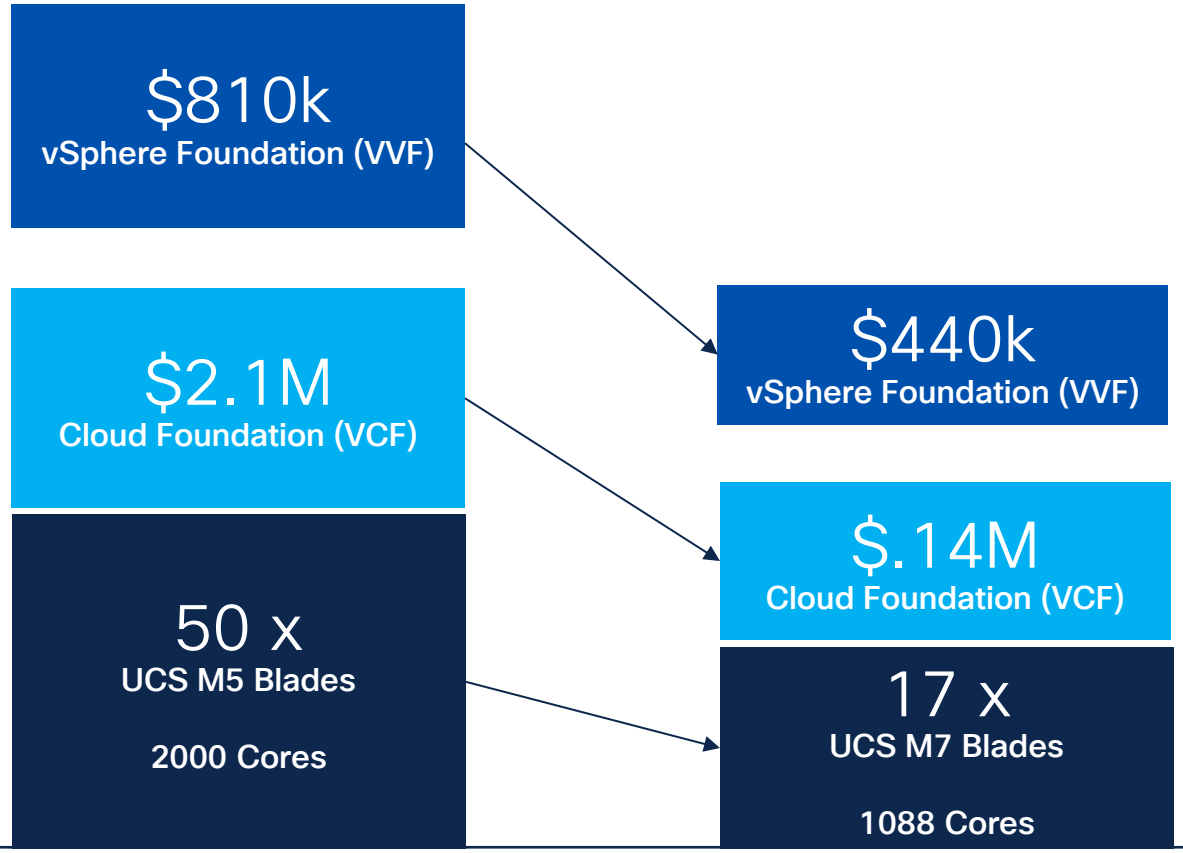
Reduce VMware licensing cost on latest gen UCS

## 3-year deal

**Example**

Refreshing existing server estate with the latest generation of Cisco servers and CPUs allows for consolidation that can lead to reduced VMware licensing cost.

Additional cost and sustainability savings can be realized through reduced footprint and power and cooling




**Refreshing NOW**

Saves the customer $370K (VSF) or $874.4K (VCF) list over 3 years without migrating away from VMware

Source: UCS TCO Advisor tool: https://mainstayadvisor.com/signin.aspx

# How can Cisco help with the Virtualization Disruption?

## STEP 2 Choose your Hypervisor

### OPTION 1

vmware®

Pro:

- No change in architecture, operations or skillset needed
- Cisco validated designs
- Runs on CI or HCI infrastructure

Con:

- Reduces vs. eliminates VMware licensing

# UCS Sizer – CPU/Memory at 40%

**Cluster Utilization Info**

Cluster1-DC1

| | | | |
|---|---|---|---|
| Cluster Name | Cluster1-DC1 | Growth Projected | 0 |
| Total VMs | 205 | Projected Total VMs | 205 |
| Total vCPUs | 1095 | Projected Total vCPUs | 1095 |
| Total Memory | 3170 | Projected Total Memory | 3170 |
| Total MHz | 148672 | Projected Total MHz | 148672 |

**UCS Cluster Assignment**

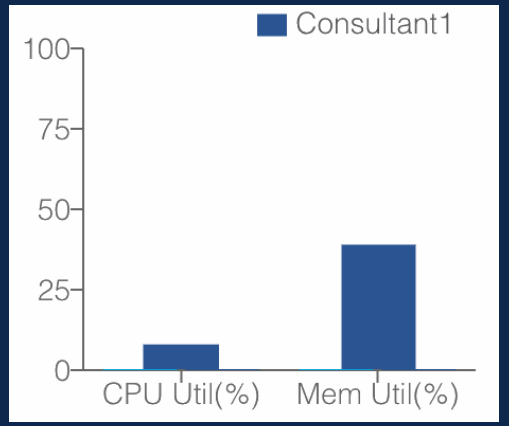
UCS 1 × | UCS All | + Add New

Cluster1-DC1

| | |
|---|---|
| NTE CPU(in %) | 40 |
| NTE memory(in %) | 40 |
| NTE VM/Server | 100 |
| NTE vCPU/Core | 10 |

**Summary** — **Cluster Type: UCS 1**

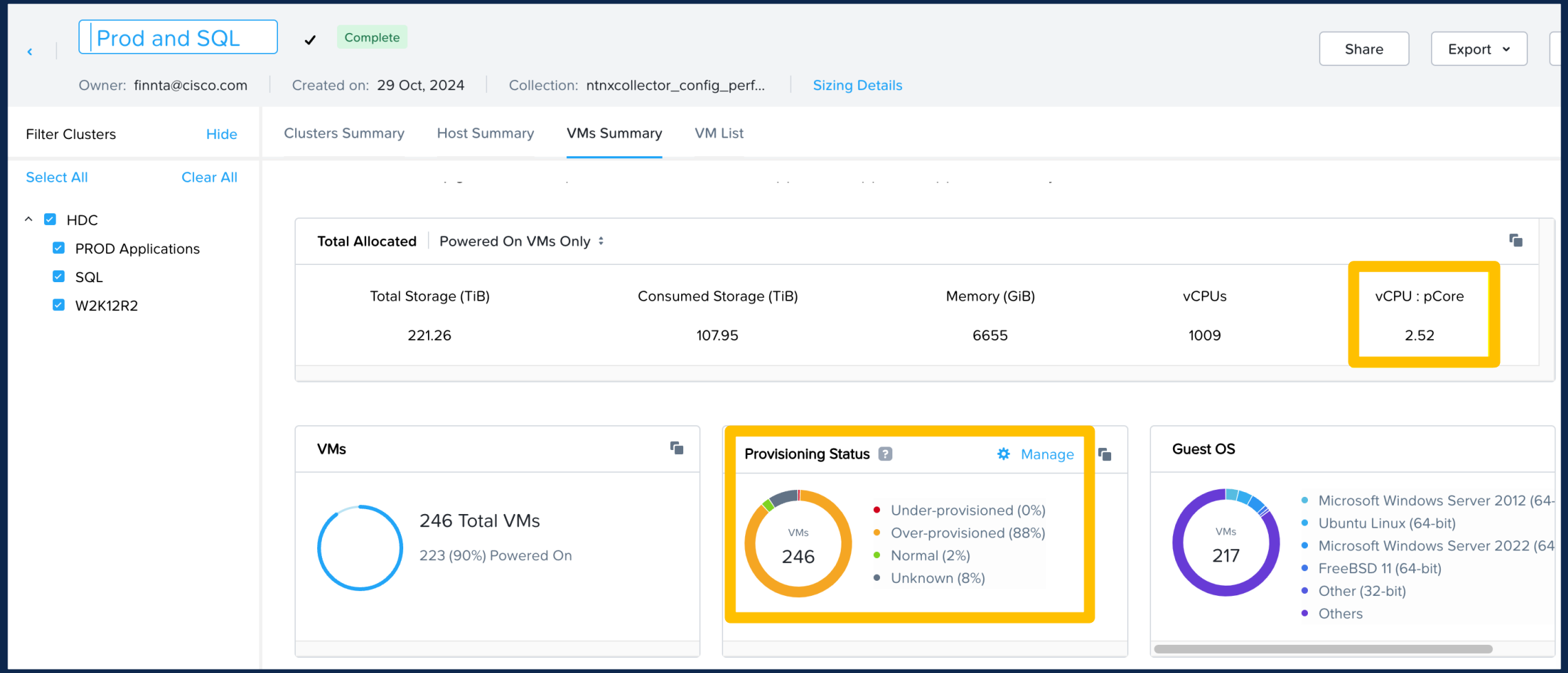
| | Consultant1 |
|---|---|
| **Server Count** | *8* |
| **Server Type** | *X210c M7* |
| **CPU Type** | *Intel 6538Y+ (32 core)* |
| **Memory** | *1024 (16x64GB)* |
| **Avg VMs/Server** | *25.63* |




**Server Configuration**

| | Server Family | CPU Family | Memory |
|---|---|---|---|
| **Consultant1** | X210c M7 | Intel 6538Y+ - 2. | 1024 - 16x64GB |

# Nutanix Collector: vCPU:pCore & Over-Provisioned



# Server Sizing to Optimize VMware

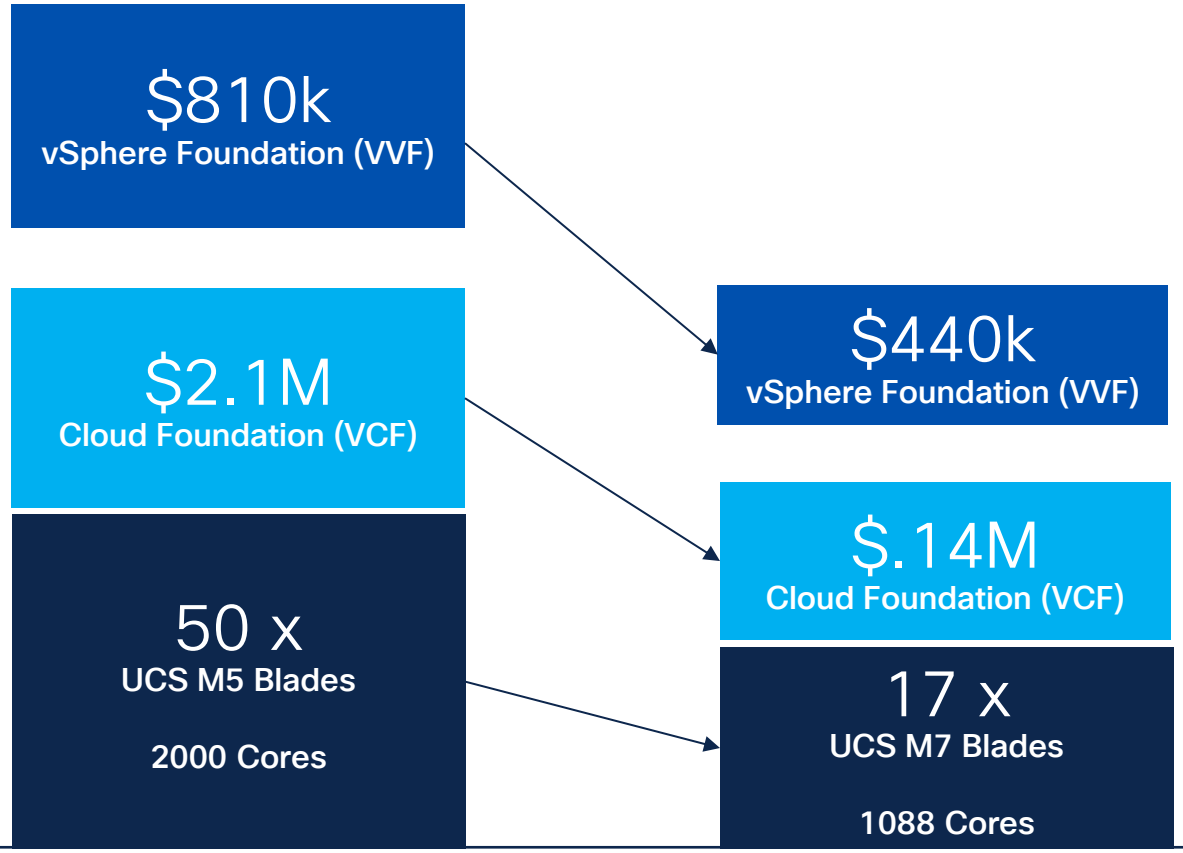
Reduce VMware licensing cost on latest gen UCS

## 3-year deal

**Example**

Refreshing existing server estate with the latest generation of Cisco servers and CPUs allows for consolidation that can lead to reduced VMware licensing cost.

Additional cost and sustainability savings can be realized through reduced footprint and power and cooling



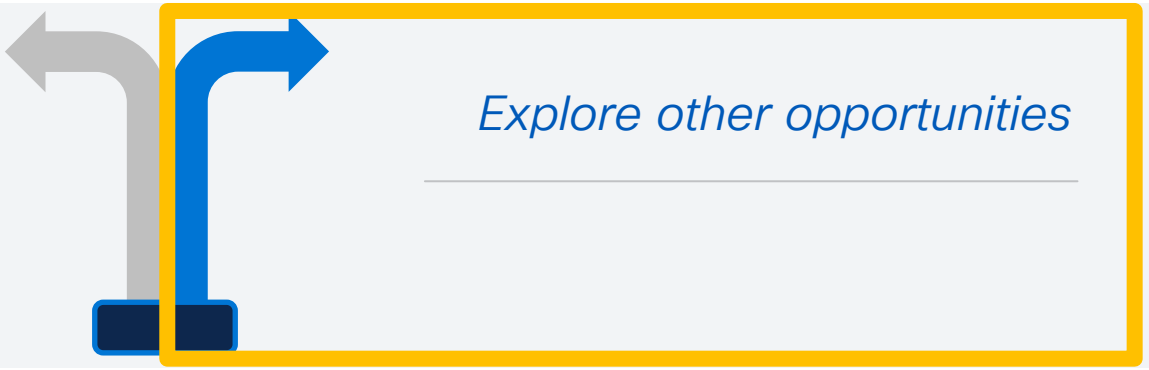

**Refreshing NOW**

Saves the customer $370K (VSF) or $874.4K (VCF) list over 3 years without migrating away from VMware

Source: UCS TCO Advisor tool: https://mainstayadvisor.com/signin.aspx

# The crossroads...

*Stay with status quo*



*Explore other opportunities*

## Asking:

- Is our virtualization strategy supporting our goals?
- Can we reduce costs by moving workloads to bare metal?
- Does our containerization strategy support modern applications and new AI workloads?
- Does our AI strategy complement our infrastructure and tooling or create more cost and complexity?

# How can Cisco help with the Virtualization Disruption?

## STEP 2 Choose your Hypervisor

### OPTION 2


Pro:

- Can eliminate VMware licensing
- 360 partnership
- Only Cisco can run Nutanix on blades
- Can reuse existing Cisco servers
- Cisco validated designs
- Simplification of DC operations

Con:

- Needs migration and slight learning curve
- Doesn’t integrate with CI today

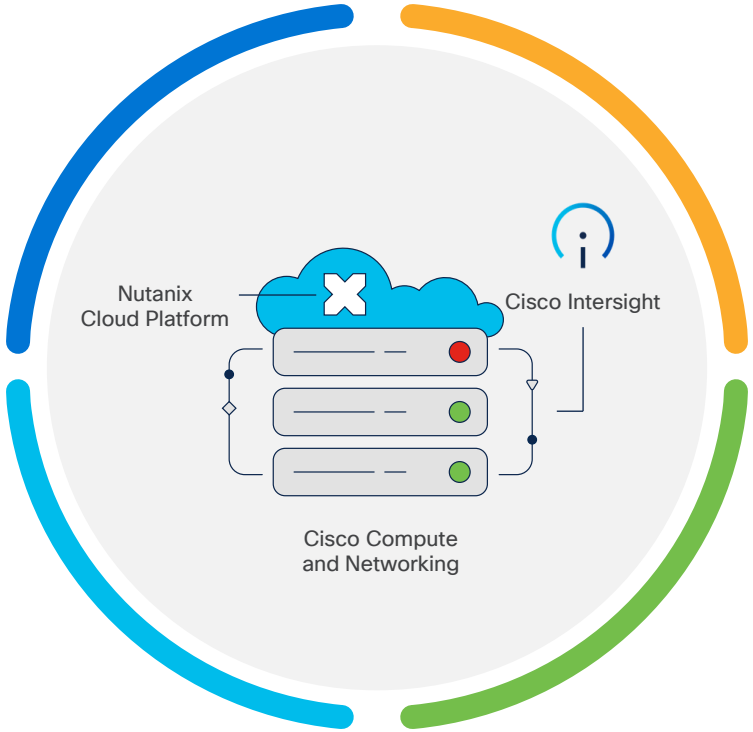
# Nutanix and Cisco, unique 360-degree partnership

## Strategy

Complete roadmap leveraging the strengths of both companies in service of our customers

## Go to market

Combined, expert sales teams and buying process focused on simplifying the customer experience




## Engineering

Built, managed, and supported holistically for a seamless end-to-end experience

## Support

A joint augmented support model built for information-sharing to ensure our customers' success

| Operate at scale | More choice and flexibility | End-to-end security | Comprehensive support | Easy to buy |
|---|---|---|---|---|

# HCI on blades?!


## Nutanix and Cisco UCS X-Series

Modular, sustainable, easily upgradeable solution

Higher performance, smaller footprint

Powers modern apps and traditional workloads

Fabric-based architecture with unified fabric connectivity

Sources: Energystar.gov / EPEAT.net

SEAL AWARD WINNER

THE CHANNEL CO. CRN TECH INNOVATORS WINNER 2023

Silverlinings

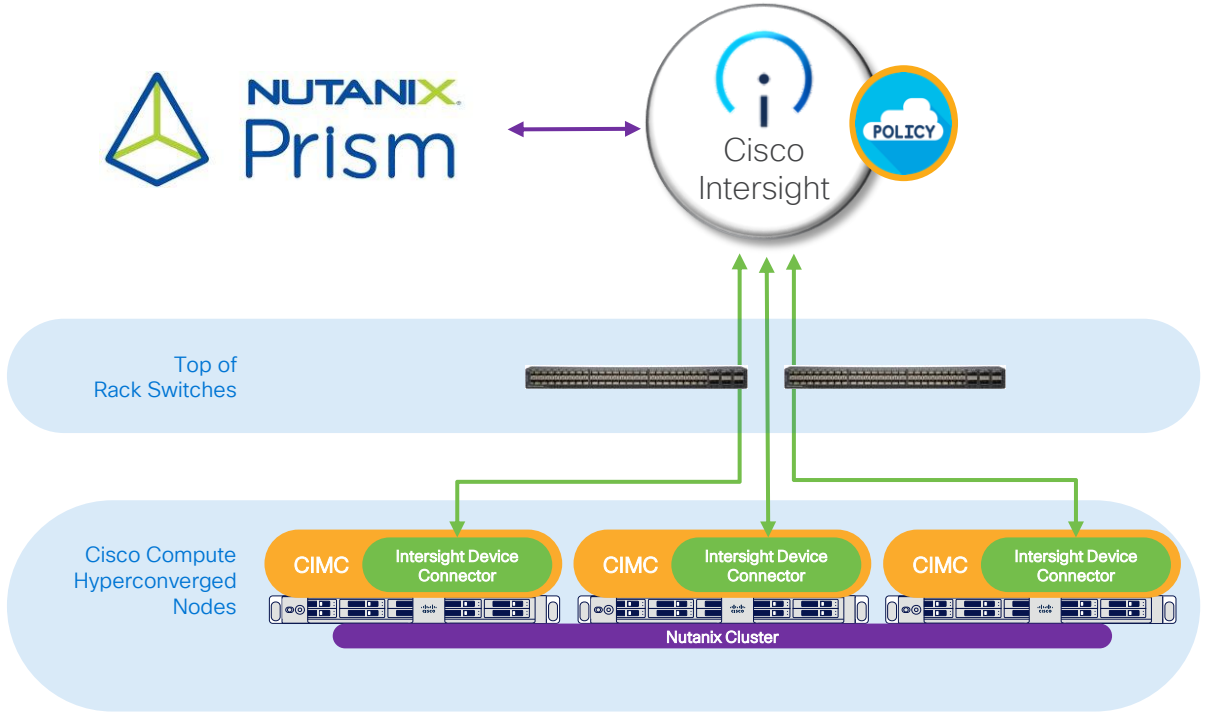
Enterprise Strategy Group by TechTarget TECHNICAL VALIDATION

epeat

ENERGY STAR

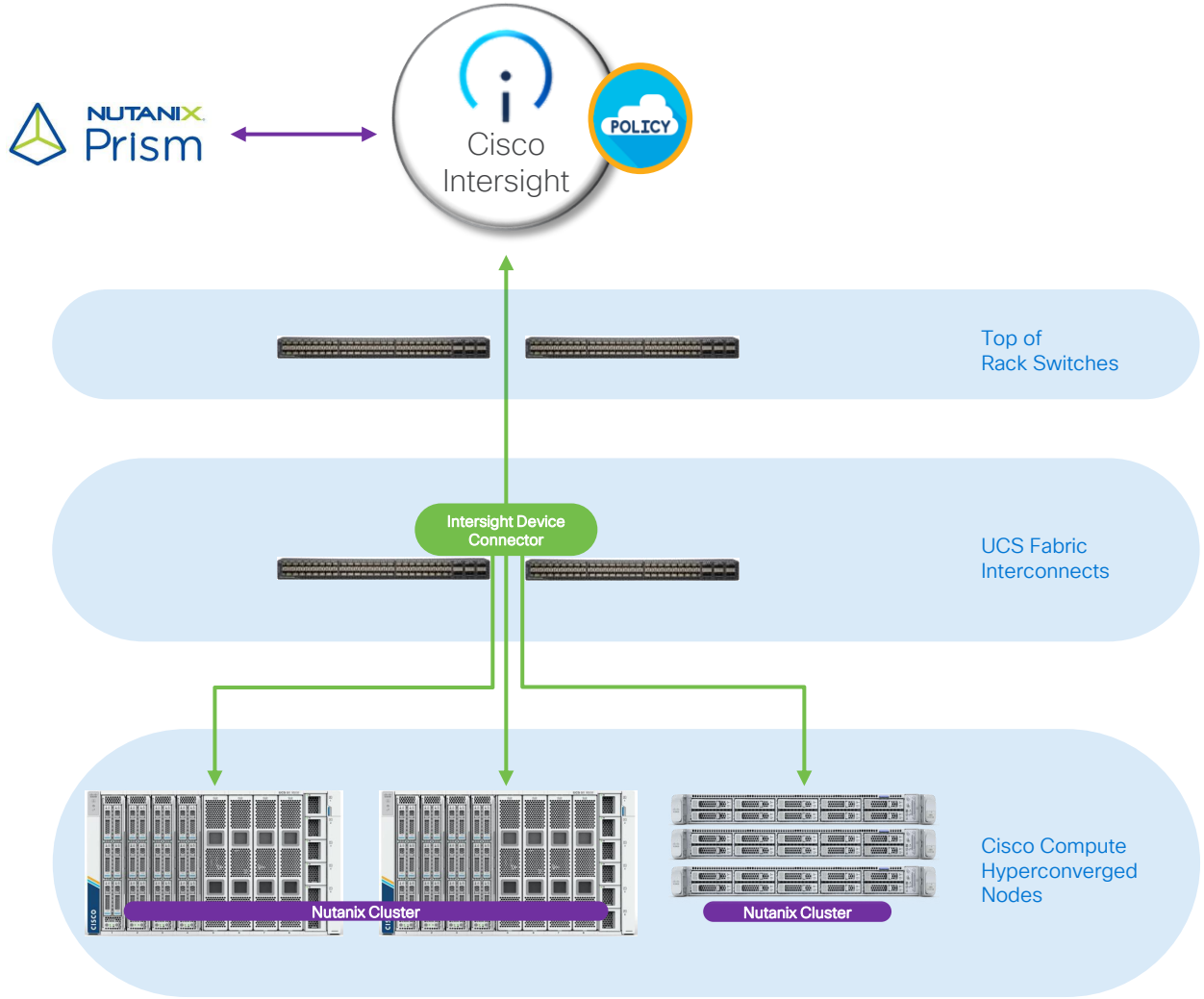
# Intersight Standalone Mode (ISM)

- Cisco rack-based M6-M8 HCI nodes only
- Solution leverages top of rack switches without Fabric Interconnects
- HCI node policy managed through Cisco Intersight
- Differentiated integration between Nutanix Prism Central and Cisco Intersight for lifecycle management



# Intersight Managed Mode (IMM)

- Cisco modular (blade) and rack M7-8 HCI nodes only
- Fabric Interconnects (ToR or XDirect) for network consolidation
- HCI node policy managed through Cisco Intersight
- Differentiated integration between Nutanix Prism Central and Cisco Intersight for lifecycle management



# Data Center Design Guides

## Proven Designs, Expert Guidance

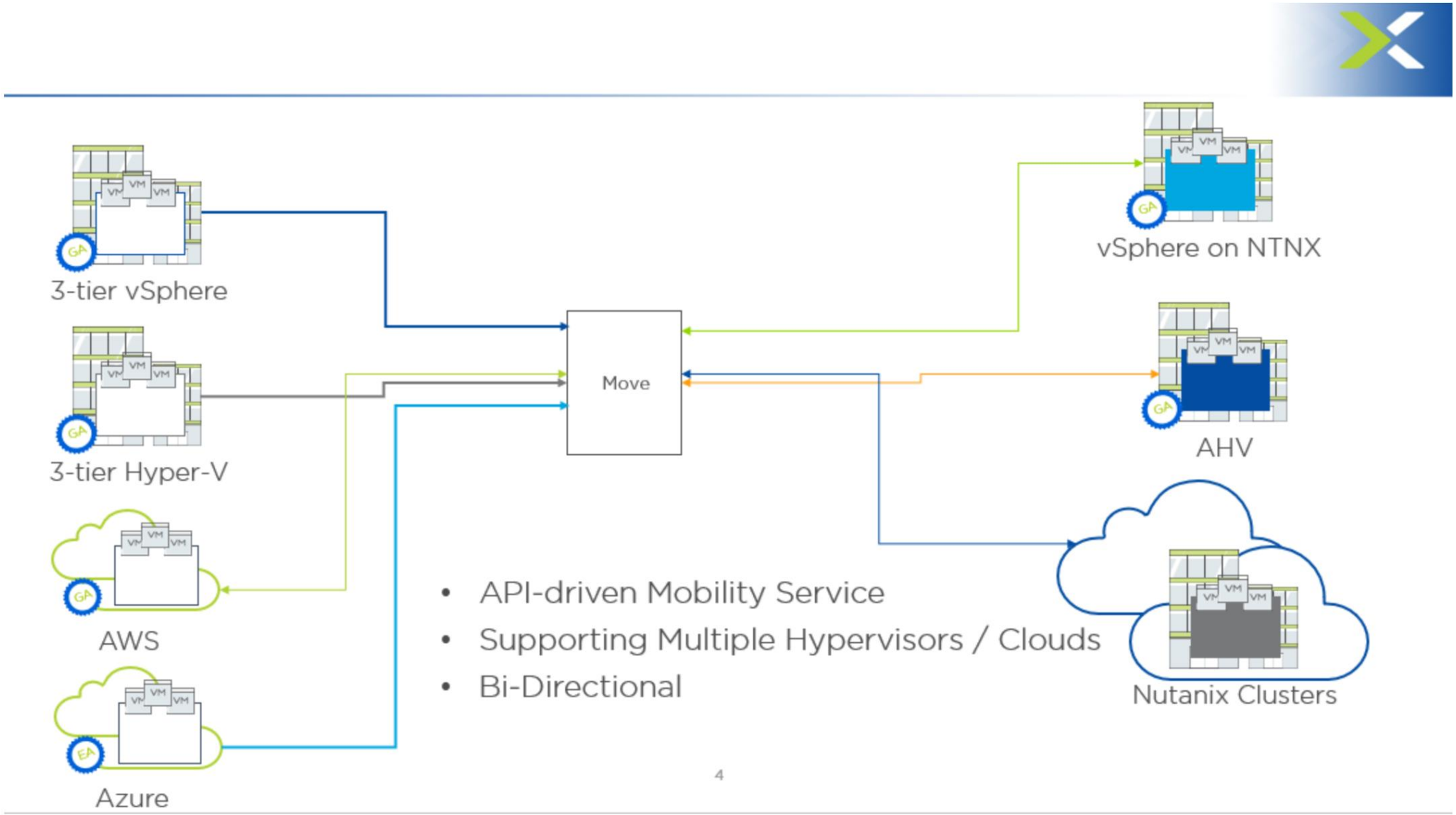
Cisco Validated Designs help you deploy our products with confidence. Use the Cisco Design Navigator to find the right deployment.

Navigate Designs

Data Center CVDs

# Hyperconverged Infrastructure

# Nutanix Move – makes migration easy!



# How can Cisco help with the Virtualization Disruption?

STEP 2 Choose your Hypervisor

OPTION 3



Pro:

- Eliminates VMware licensing
- Seamlessly extends Azure services to on-prem
- Cisco validated designs
- Simplifies operations, HCI can be managed by cloud team

Con:

- Needs migration and slight learning curve
- Doesn’t integrate with CI

# Cisco & Microsoft

- Alignment at senior levels: CEOs, exec leadership teams
- Cross-organizational activities worldwide in Engineering, Alliances, Marketing and Sales

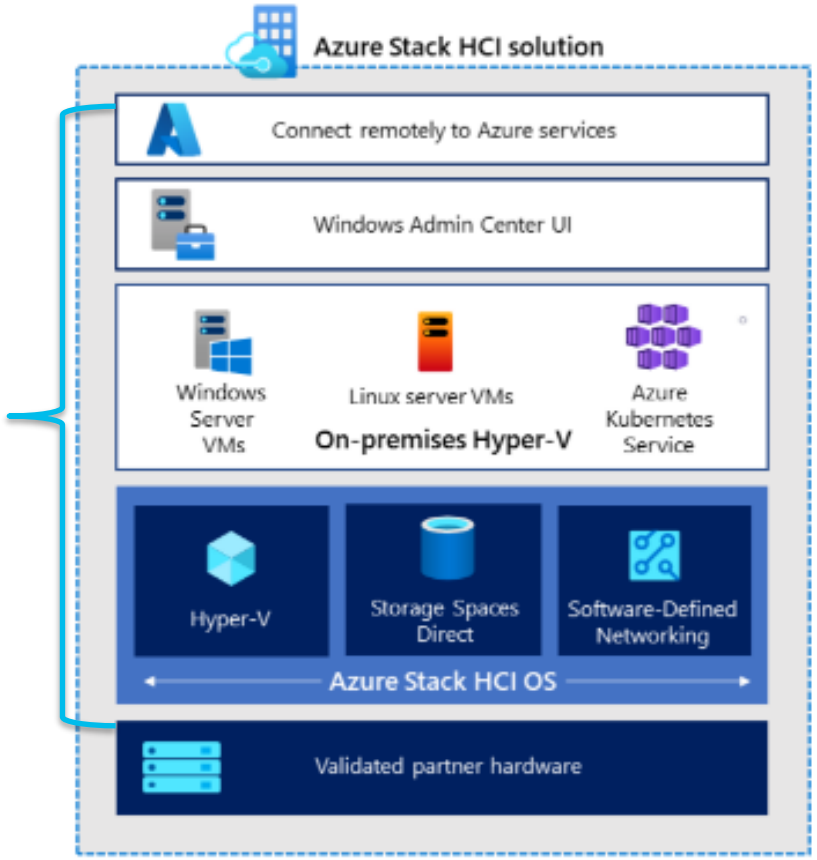

- 3-year joint go-to-market agreement; evolving…
- Azure Marketplace “Nurture” campaigns
- Focus on new work streams to generate differentiated value

- Production Azure network
- Azure Local HCI & Hub
- Security integration
- IoT connectivity & analytics
- Cisco virtual appliances
- CVDs across many solutions

- Joint WW activities: roadshows, regional events, webinars
- Sponsorship for key tradeshows: Inspire, Ignite
- Joint partner and solution awards

# Azure Local Architecture

Accessed From Azure




Range of services become available after HCI OS:

- Azure Backup
- Azure Site Recovery
- Azure File Sync
- Azure Monitor
- Azure Update Management

- Includes product support
- Automatic patching & security updates
- Requires connection to Azure, every 30 days.

# Data Center Design Guides

## Proven Designs, Expert Guidance

Cisco Validated Designs help you deploy our products with confidence. Use the Cisco Design Navigator to find the right deployment.

Navigate Designs

[Data Center CVDs]

Microsoft

Microsoft Azure | Search resources, services, and docs (G+/) | Copilot | finnta@cisco.com CISCO (CISCO.ONMICROSOFT.C...

Home >

# Azure Migrate | Get started

Microsoft

Search

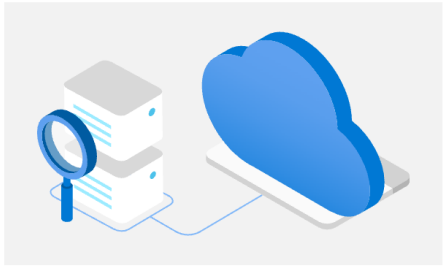
- Get started
- Explore more
- Migration goals
- Manage
- Support + troubleshooting

Get started | Explore more

[New] Migrate your VMware VMs to Azure Stack HCI with Azure Migrate.
[New] Migrate your Hyper-V VMs to Azure Stack HCI with Azure Migrate.
[New] SQL Server discovery and assessment now supports As On-Premises sizing criteria.
[New] Discover, assess, and migrate ASP.NET web apps running on IIS servers for migration to Azure App Service.
[New] Containerize your .NET and Java web apps and deploy on Azure Kubernetes Service and App Service containers.
[New] Build a business case to understand the return on investment for migrating your servers, SQL Server deployments and ASP.NET web apps to Azure.

## Migrate and modernize your datacenters

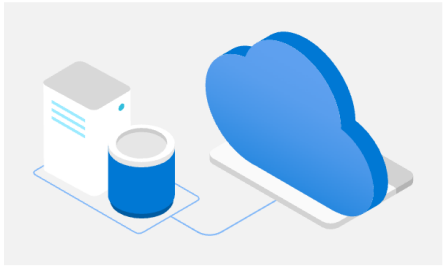
Simplify migration and modernization with a unified platform, or find an expert to help with your migration. Learn more



### Servers, databases and web apps

Discover, assess and migrate Windows, Linux and SQL Server (physical or virtual) from your datacenter or other clouds to Azure.
**(Preview)** Discover ASP.Net and Java web apps, and perform at-scale assessments of ASP.Net web apps from your VMware, Microsoft Hyper-V, and Physical environments.
**(Preview)** Build a directional business case with migration strategy and financial analysis of migrating your datacenter to Azure.

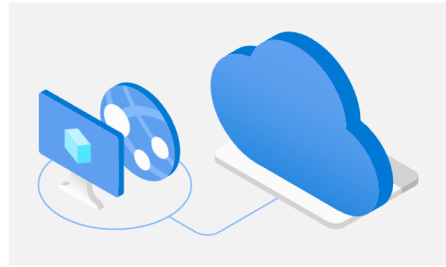
Discover, assess and migrate



### Databases (only)

Assess and migrate your on-premises databases to Azure using standalone tools.

Assess and migrate databases



### Explore more scenarios

Assess and migrate web apps, migrate data and assess virtual desktop infrastructure (VDI). Find guidance on various migration activites

Explore more

# How can Cisco help with the Virtualization Disruption?

STEP 2 Choose your Hypervisor

OPTION 4

Red Hat OpenShift


Pro:

- Eliminates VMware licensing
- Great for AI workloads
- Cisco validated designs
- Joint support

Con:

- Requires application modernization for legacy applications

# Cisco + RedHat Partnership

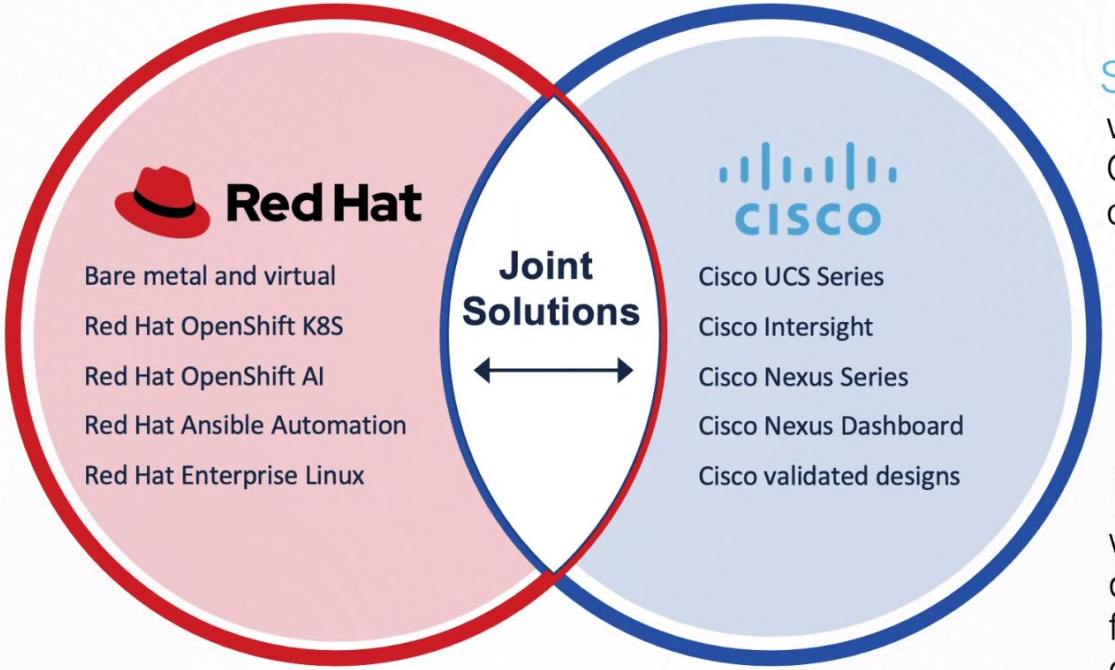
AI, Virtualisation and Kubernetes across on-premise and cloud

## Open Cloud Infrastructure

platform built on open-source innovation

## Accelerated time to value

with turnkey experience and integrated automation for containers and VMs




## Simplified Operations and Support

with Cloud managed infrastructure and Cisco Solution Support across Red Hat on converged infrastructure stacks

## Reduced Risk

with Cisco Validated Designs, delivering tested architectures for standardized, repeatable deployments.

| | | | | |
|---|---|---|---|---|
| **Operate across hybrid multicloud** | **More choice and flexibility** | **20+ Cisco Validated Designs** | **Consistent app dev experience** | **Increased sustainability** |

# Why Kubernetes?

> “ **Kubernetes** is now the **de facto standard** across the industry for ensuring container workloads run to specification and can scale effectively – and according to 84% of IT and security leaders, it’s fast becoming **the primary platform for developing all applications**. ”

*Source: Techzine*

**98%**

Run data-intensive workloads on cloud-native platforms

**86%**

Say they run cloud-native technology across both public and private clouds

**80%**

Say all or most new applications will be built in cloud-native platforms over next 5 years

**65%**

Plan to migrate virtual machine (VM) workloads within the next 2 years

**>50%**

Plan to migrate some of their VM workloads to Kubernetes

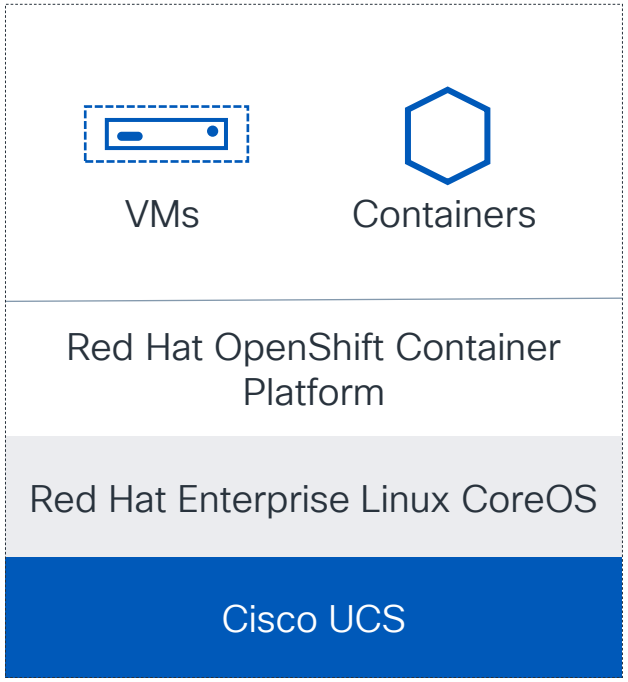


CISCO | Red Hat

# Containers + virtualization

## Red Hat OpenShift and OpenShift Virtualization

### A unified solution for running containers and virtual machines




- **Unified platform**
  virtual machines and containers
- **Consistent management**
  tools, interfaces, and APIs
- **Performance and stability**
  of Linux, KVM, and qemu
- **Healthy open source community**
  the KubeVirt project is a top 10 CNCF active project, with 200+ contributing companies
- **Includes Red Hat Enterprise Linux**
  Guest entitlements
- **Supports Microsoft Windows**
  guests through Microsoft SVVP
- **Inbound guest migration**
  using Ansible Automation Platform + Migration Toolkit for Virtualization, Training, and consulting

# Cisco + Red Hat Validated Designs

for performant and predictable deployments

## Reduce risk with proven Cisco Validated Designs providing tested architectures for standardized, repeatable deployments

Simplified, automated management with a rich collection of Ansible automation playbook

‘Ready to Go’ solutions

- Over 20+ CVDs with Red Hat technology
- Faster time-to-market with lower risk
- Strong TCO and faster time-to-value
- Backed by Cisco Solution Support

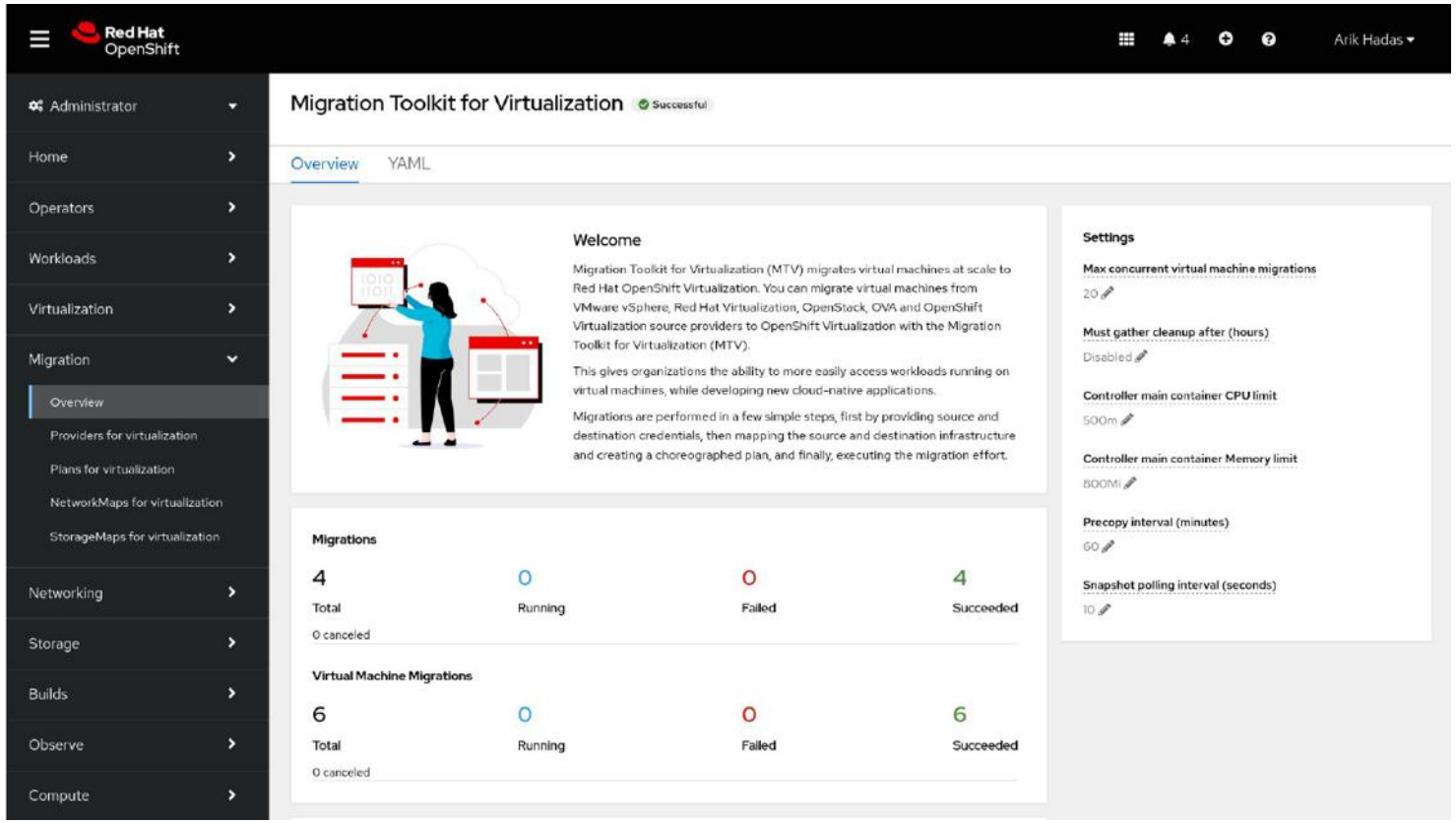
FlashStack

FlashStack CVDs

FlexPod

FlexPod CVDs

# Migration Toolkit for Virtualization (MTV)
## Included with OpenShift




Mass migration of virtual machines

- Migrate virtual machines at scale to OpenShift Virtualization in a few simple steps
- Provide source and destination credentials, map infrastructure and create migration plans

# How can Cisco help with the Virtualization Disruption?

OPTION 5

## Bare Metal

Pro:
- Eliminates VMware licensing

Con:
- Only for strategic applications like databases
- Losing the benefits of virtualization
- Space, power and cooling become a pain point

# How can Cisco help with the Virtualization Disruption?

## OPTION 6 / OPEX

### Hitachi Cisco EverFlex (HC2)

Pro:

- Reduces VMware licensing by qualifying applications
- Consumption based OPEX model, no need for upfront capital
- Works with customer's existing equipment
- Self or fully managed
- Single pane console for lifecycle management and operations
- % TCO reduction

Con:

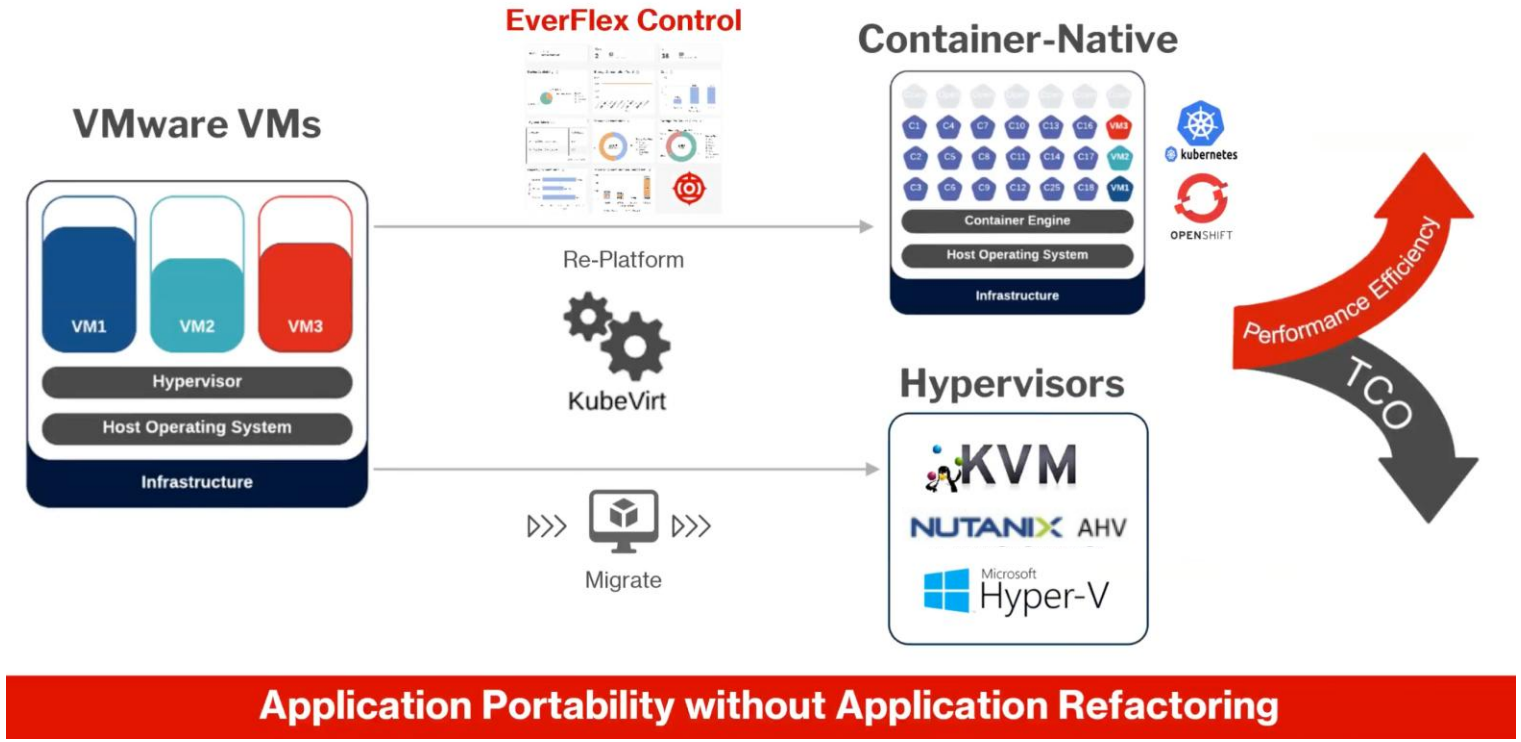
- Switching from CAPEX to OPEX has implications

# Cisco Powered Hybrid Cloud with Hitachi EverFlex

Prescriptive

Cloud Consumption

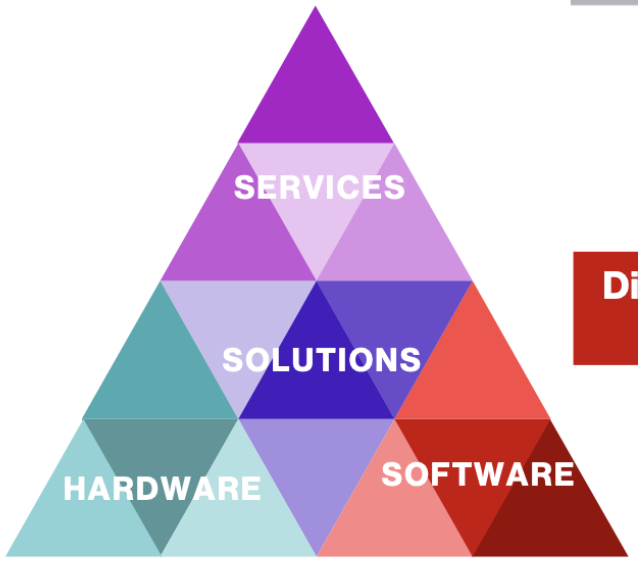
Op Ex Financed



# Hitachi EverFlex with Cisco Powered Hybrid Cloud

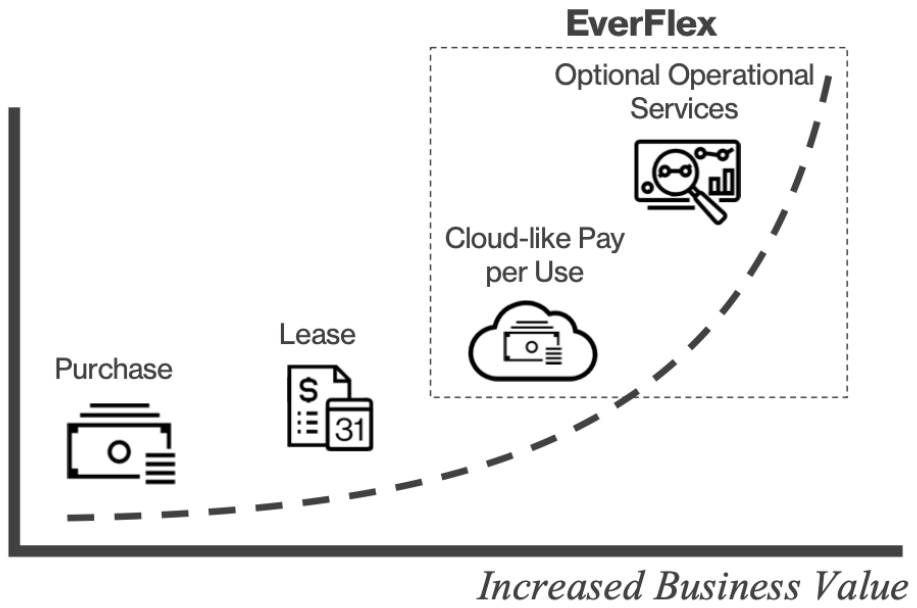
## Hitachi EverFlex IaaS

The business IT market is aligning to a flexible cloud-like consumption approach where the use of IT resources is matched to the business behavior. This has led to the rapid rise of the Public Cloud and Hitachi Vantara has created our EverFlex offering to provide this cloud experience to on-premise infrastructure with a better TCO




*Your Choice of Offerings*

**Different ways to procure**

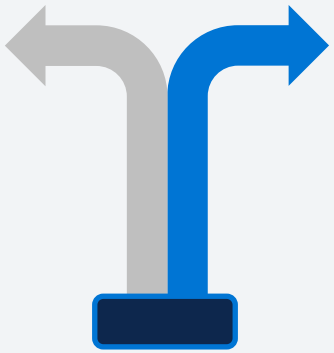



*Increased Business Value*

**New way to buy/manage: All the benefits of cloud economics with the security of on-premise**

# The crossroads...but options are available!

*Stay with status quo*



*Explore other opportunities*

## Asking:

- Is our virtualization strategy supporting our goals?
- Can we reduce costs by moving workloads to bare metal?
- Does our containerization strategy support modern applications and new AI workloads?
- Does our AI strategy complement our infrastructure and tooling or create more cost and complexity?

# All of these options can run with what infrastructure?


CISCO

# References

- Intersight Fundamentals - https://www.ciscolive.com/on-demand/on-demand-library.html?search=1666#/session/1740098277266001dIKN
- UCS - https://www.cisco.com/site/us/en/products/computing/servers-unified-computing-systems/index.html
- Nutanix - https://www.cisco.com/site/us/en/products/computing/hyperconverged/nutanix/index.html
- Azure Local - https://www.cisco.com/c/en/us/solutions/data-center-virtualization/microsoft-applications-on-cisco-ucs/microsoft-azure-stack-hci.html
- Openshift - https://www.cisco.com/site/us/en/solutions/computing/converged-infrastructure/red-hat/index.html
- Hitachi EverFlex - https://www.hitachivantara.com/en-us/services/infrastructure-as-a-service/managed-services/hybrid-cloud-services