



Dell Technologies Partner Webinar Series 25-26: Modernized Data Center



For more information, contact Carahsoft or our reseller partners:
DellQuotes@carahsoft.com | 888-662-2724

Dell Technologies

Modernized Data Center

- Compute
- Core Storage
- Unstructured Data
- Networking
- Data Protection

Stephen Tuomey
Datacenter Account Executive – Federal Distribution
stephen_tuomey@federal.dell.com

DELL Technologies



Dell Technologies Advantage



Modern Workplace

- World's smallest,¹ thinnest, most powerful commercial AI PCs²
- World's #1 monitors³
- Most manageable and secure commercial PCs⁴
- Leading in use of sustainable materials



Modern Data Center & Multi-cloud

- #1 servers⁵
- #1 external storage⁶
- #1 storage software⁷
- #1 Purpose-Built Backup Appliances⁸



Artificial Intelligence

- The world's broadest AI solutions⁹
- Open ecosystem that continues to grow with proven, validated solutions
- World's best management consulting firms – Forbes 2024



Security / Resilience

Industries most secure supply chain



Sustainability

An industry leader in sustainable materials and packaging

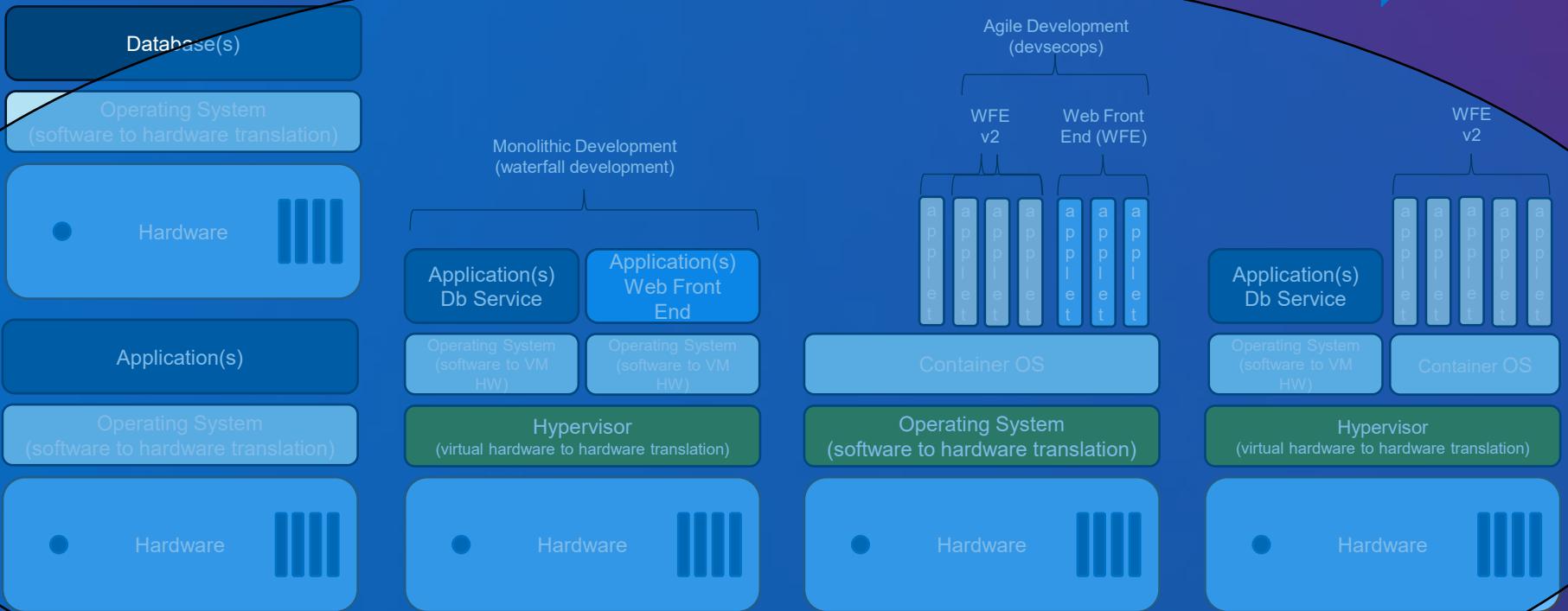
EDGE

CORE

CLOUD

Information Systems – Physical to Virtual to Cloud

Modernization



Hardware Based Systems

Virtual Machine Based Systems

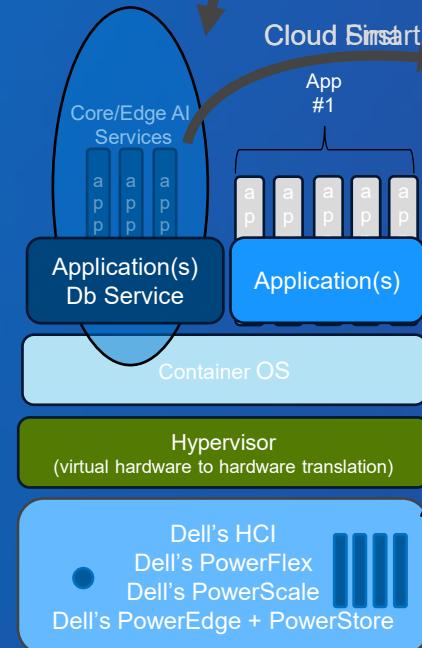
Container Based Systems

Dell's HCI & Disaggregated Systems

Cloud Native Applications (AI + Security + Compliance)

Re-patriotization

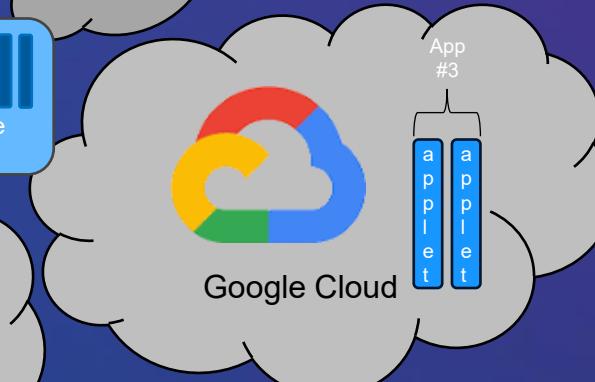
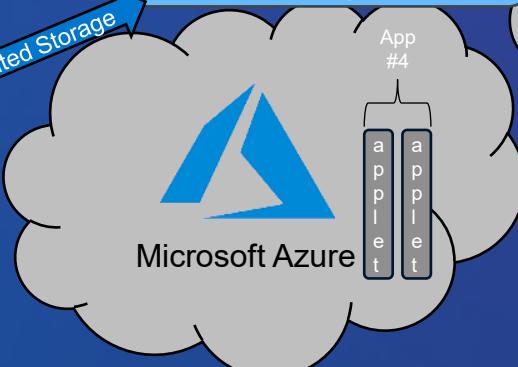
Cloud Smart



Dell's PowerScale
Dell's PowerFlex



Data Center, Cloud and Edge Storage



Dell's Modernized Data Center

Multi-Cloud by Design

Overcoming the Challenges

COMPLEX

Hyperscalers don't typically advocate for multi-cloud



LIMITED

No vendor can be best at everything

SILOED

Public clouds are closed ecosystems

INCOMPATIBLE

Interoperability issues lead to lock-in

CHAOTIC

Repatriation is a reality if rising costs outweigh benefits



Moving to **Multi-Cloud by default** creates
CHALLENGES

CUMBERSOME

Traditional models don't measure up to new expectations



UNPRODUCTIVE

Lengthy planning and overprovisioning

SUBOPTIMAL

On-premises vs. public cloud tradeoffs

COST INEFFICIENT

CAPEX rigidity or data gravity issues

Dell's Vision – The Power of Choice: Deployment Models

All-In Public Cloud

When good enough works

STANDARD WORKLOADS

- Mobile applications
- Web / content hosting
- Analytics
- Software Development / DevOps



Application interdependencies across multicloud workload deployments, re-platforming costs, vendor lock-in risks



HEAVY WORKLOADS

- Traditional Workloads
- OLTP, DBMS, HPC
- Interdependent Workloads
- Repatriation Targets



It's all about the workload

Multicloud

It's all about the workload



STANDARD WORKLOADS

- Mobile applications
- Web / content hosting
- Analytics
- Software Development / DevOps



Multicloud Sovereign-Adjacent

It's all about Interconnection & Locality



WORKLOAD OPTIMIZED

- Put the right workloads, in the right place, at the right time, without fear of crippling application interdependencies



SaaS
Providers
Partners
Suppliers

Solving for
• Performance, Latency
• Security, Compliance
...while reducing costs

Control SLAs and control costs through dedicated – or sovereign - infrastructure. But application interdependencies, data egress, and network challenges drive risk

- Cost containment
- Performance, latency
- Security, compliance issues

SIMPLICITY

Take advantage of cloud experiences everywhere



CHOICE

Achieve better outcomes

CONSISTENCY

Simplify IT operations

FREEDOM

Avoid vendor lock-in

AGILITY

React quickly to capture new opportunities



ADAPTABILITY

Align technology with needs

FLEXIBILITY

Deploy resources in more ways

PREDICTABILITY

Pay-as-you-go transparency

Dell delivers multicloud by design

MODERN
CLOUD

+

MODERN
CONSUMPTION



CONTROL

Minimize risk and maximize performance on your terms

SECURITY

Protect against cyberattacks

GOVERNANCE

Ease compliance obligations

PERFORMANCE

Achieve the speed you need

Dell Technologies – Hybrid Data Center Portfolio

SERVER



PowerEdge

BLOCK / UNIFIED



PowerMax

BLOCK



PowerStore



PowerVault

HYPER-CONVERGED



PowerFlex



Azure Stack



VxRail 8.0



Nutanix

NETWORK



PowerSwitch

FILE



PowerScale

OBJECT



ECS

CLOUD



Dell Technologies Cloud
(PowerFlex, PowerScale & DPS)



Data & Cyber Protection Solutions

PowerEdge Servers

Purpose-built | Intelligent | Cyber Resilient



Purpose-built

Scale AI, Edge & Performance Anywhere



Intelligent

Accomplish more with Automation & Improve Operational Efficiencies



Cyber Resilient

Accelerate Zero Trust Adoption

Dell PowerEdge 17th Generation - Purpose-built

XR-Series

Engineered for Extreme Environments



R-Series

The Ultimate Data Center Workhorse



XE-Series

AI Powerhouse for Extreme Acceleration



T-Series

Enterprise-Class Computing, Anywhere



PowerEdge R770 / R7725

Support for up to 28 Drives

- Up to 40 x EDSFF E.3.S Gen5 NVMe
- Gen5 NVMe* & SAS4 support
- Rear Hot-Plug BOSS-N1 (2 x M.2 NVMe) for boot
- Next-gen hardware NVMe RAID



Support for high-speed and memory capacity

- Up to 32 DDR5 DIMMs
- Up to 6TB

2 Socket Capable

- Intel / AMD processors
- High-bandwidth memory CPUs

Support for GPU

- 2 x 450W (DW) or 6 x 75W (SW)

Flexible I/O

- Up to 8 x PCIe Slots
- Optional 2x OCP 3.0 slot

- Smart Cooling
- Designed for growing scale-out solutions and air-cooled support
- Industry-leading manageability and security

MAINSTREAM

Data Center
(private cloud)

TARGET WORKLOADS

High Performance Scale-Out Databases

Architect for growth and scalability using high core count CPUs with the latest DDR5 memory technology, high-bandwidth networking and Gen5 based NVMe storage.



Next Level of Virtualization

6TB of memory combined with >192 cores of the latest generation Intel/AMD CPUs enables high-density virtualization in a 2S server..



AI Training

With the latest Gen5 PCIe enabled AMD GPUs and NVMe drives designed to offer the highest throughput on the largest datasets, customers benefit from reduced training cycles and faster AI deployments.



PowerEdge XE9780 / XE9785



8-way H100 SXM or
8-way B300 SXM



Intel / AMD
CPU



PCIe
Gen5



DDR5



NVME
Gen5



8-way SXM GPU server that provides leading AI performance in a dense air-cooled design

Purpose-built for the most demanding AI – ML/DL training, modeling and simulation workloads

7U air-cooled design chassis supports the highest wattage next-gen technologies in up to 35C ambient

Massive flexibility with 8-way B300 SXM or A100 SXM, 10 Gen5 x16 PCIe slots, and up to 16 drives

AI / ML & HPC

Data Center
(private cloud)

TARGET WORKLOADS



High Performance Computing

Architect for growth and scalability using high core count, 8x CPU Capable, CPUs with the latest DDR5 memory technology, high-bandwidth networking and Gen5 based NVMe storage.



Accelerated AI Training

With the latest Gen5 PCIe enabled NVIDIA GPUs and NVMe drives designed to offer the highest throughput on the largest datasets, customers benefit from reduced training cycles and faster AI deployments.

Dell EMC PowerScale

The Leader in Scale-Out NAS for Unstructured Data



Simplicity at any scale

Add nodes in 60 seconds.
Auto-discover, auto-balance.
Migration-free design.



Any data anywhere

Flexible file and object access.
Software-defined architecture.
Extends to edge and cloud.

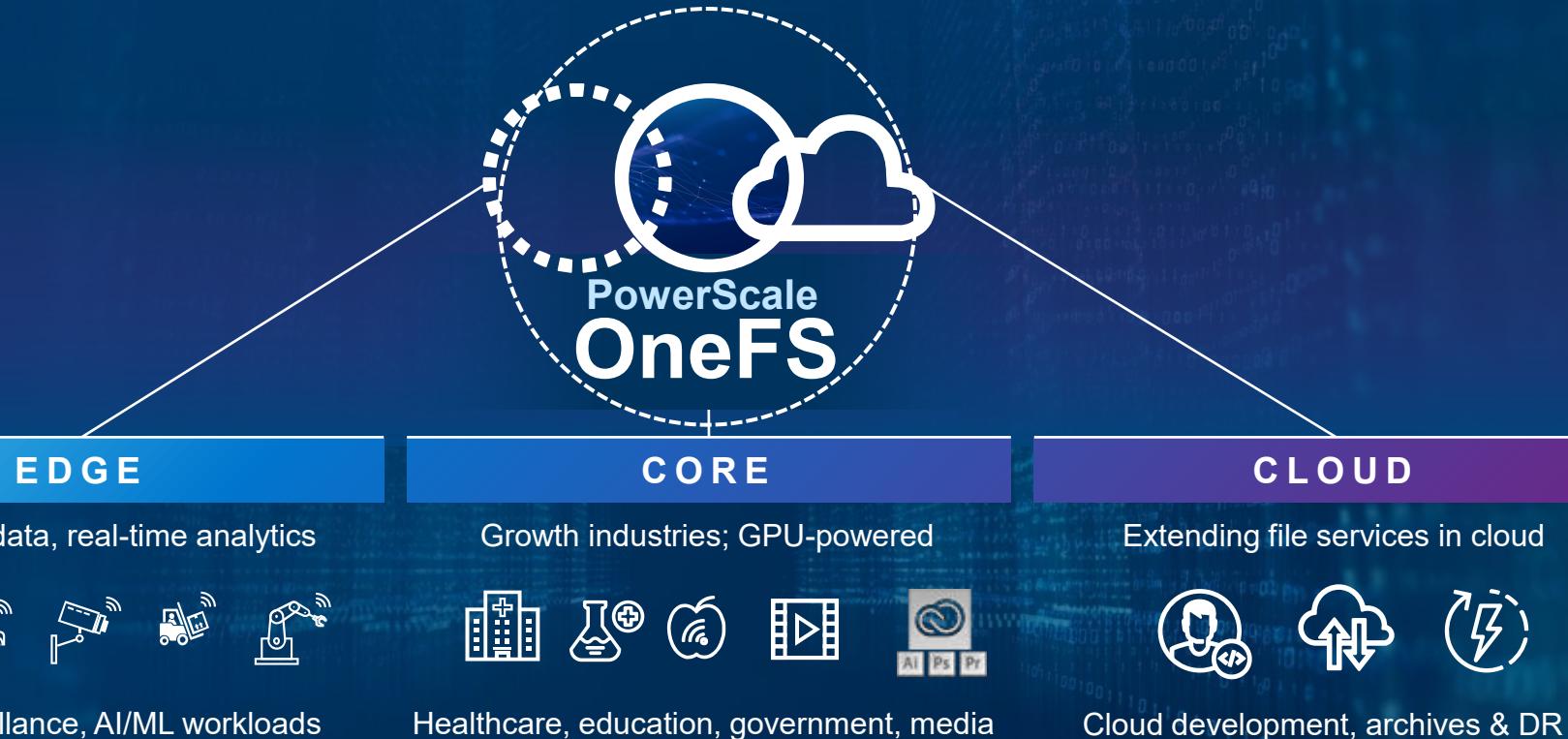


Intelligent insights

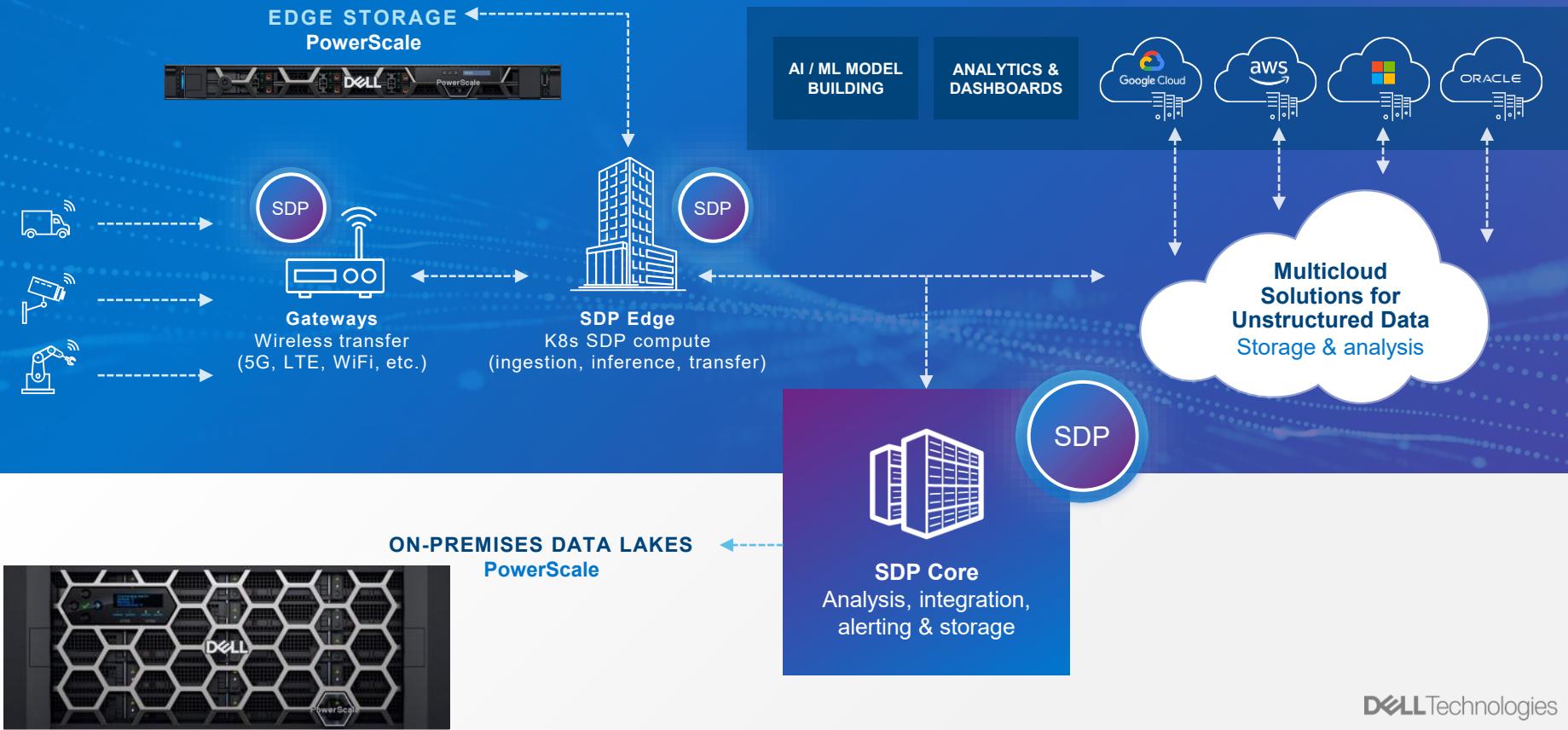
Intelligent software for all.
CloudIQ for infrastructure insights.
DataIQ for data insights.

PowerScale: Any data, anywhere

- Uniting the Core, the Cloud and the Edge



From edge, multi-cloud and to the core





PowerStore

Data-centric

Intelligent

Adaptable



Designed for the Data Era



Any Workload

Physical and virtual Apps and DBs, Containers and File



Performance Optimized

Scale up and scale out with end-to-end NVMe*



Efficiency Without Compromise

Always-on inline data reduction



Programmable Infrastructure

Streamlines development and automates workflows



Autonomous Appliance

Built-in automation and ML optimizes system resources



Flexible Architecture

Enables speed and application mobility



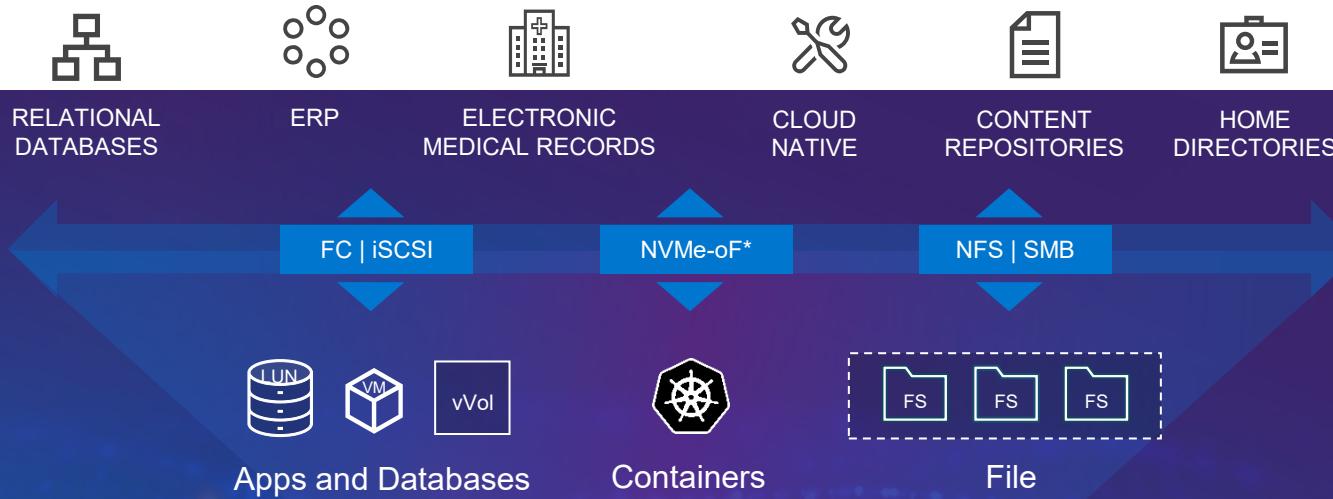
Flexible Deployment

Modernize the core, edge, and cloud without disruption

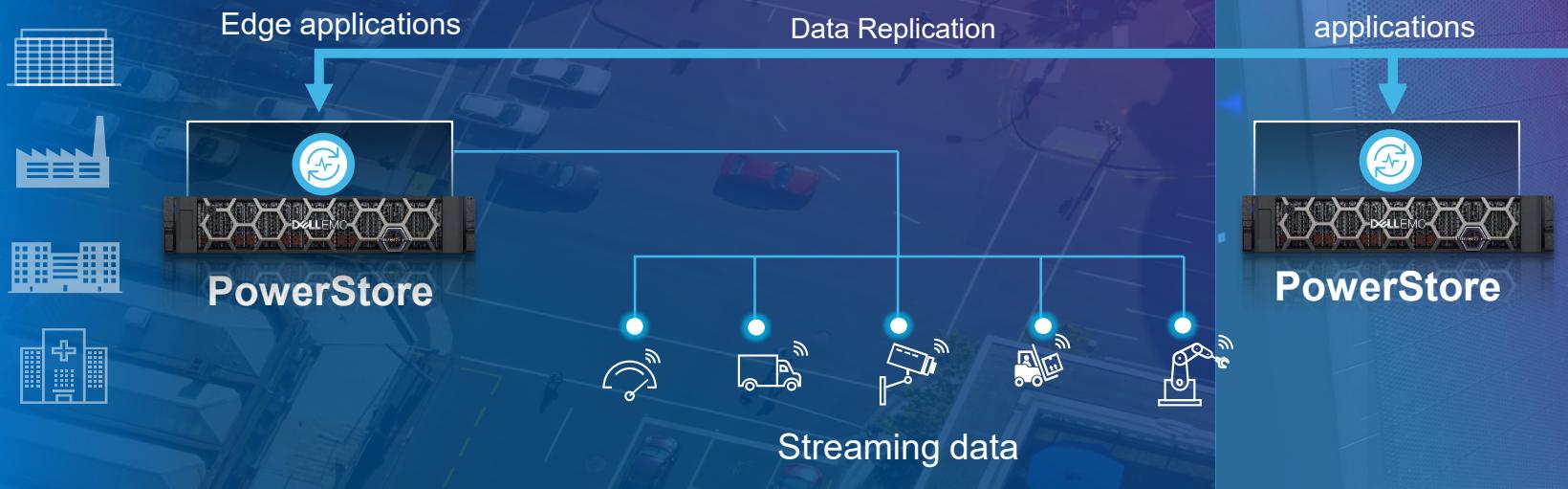
PowerStore – Any workload



Traditional and modern workloads



PowerStore



Small footprint,
easy to deploy

Optimized for data
retention and flexibility

Data can be replicated
to core data center

PowerFlex – Universal Infrastructure

Flexibility unleashed



Harness Software



Fluidity



Performance



Scale

Embrace Change



Platform Support



Consumption Options



Public Cloud Offerings



Deployment Architectures



Data Services

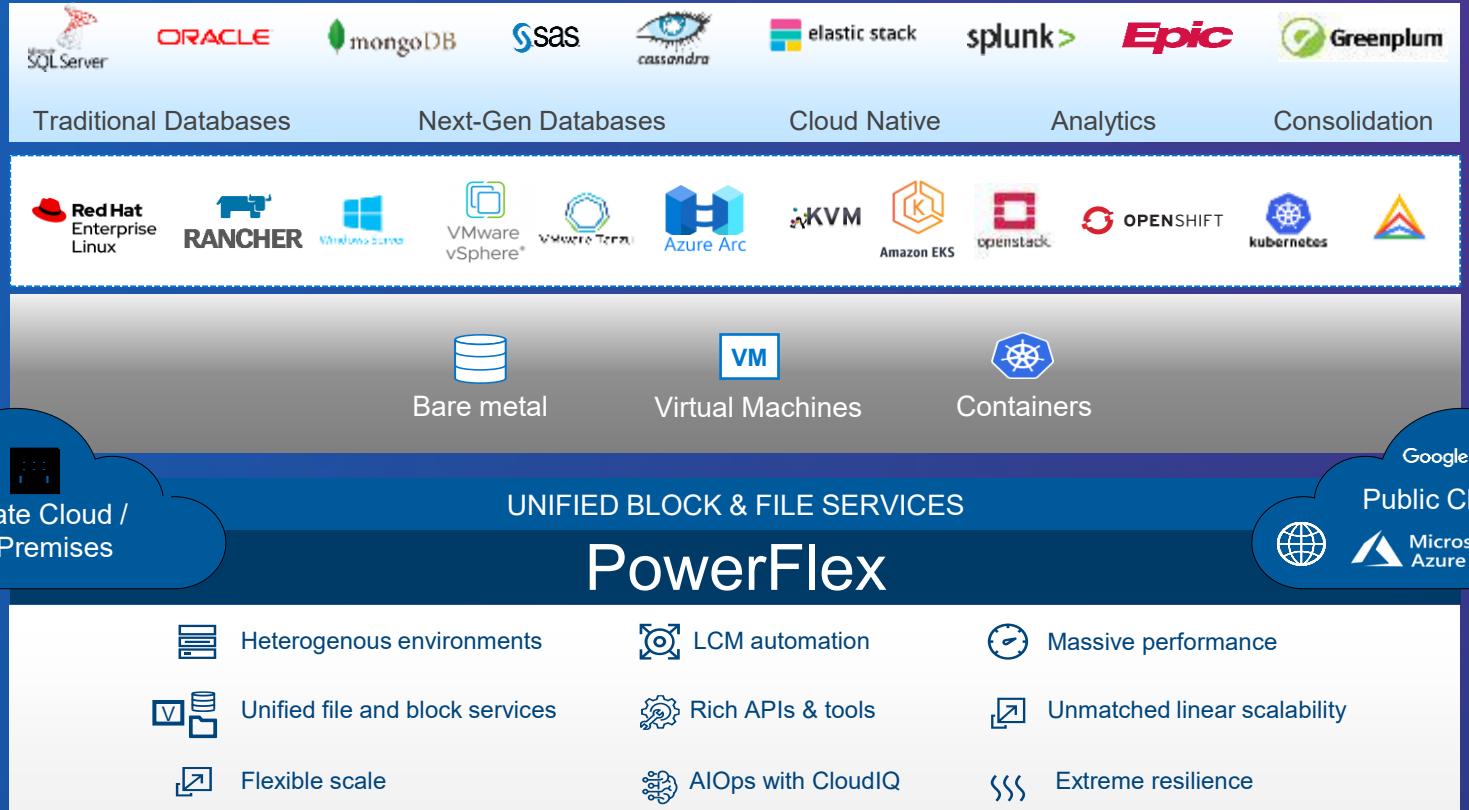


Automation

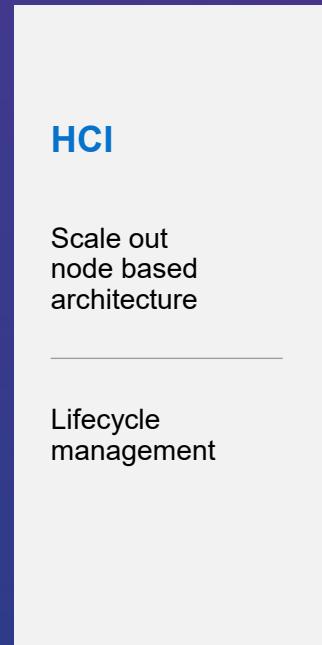
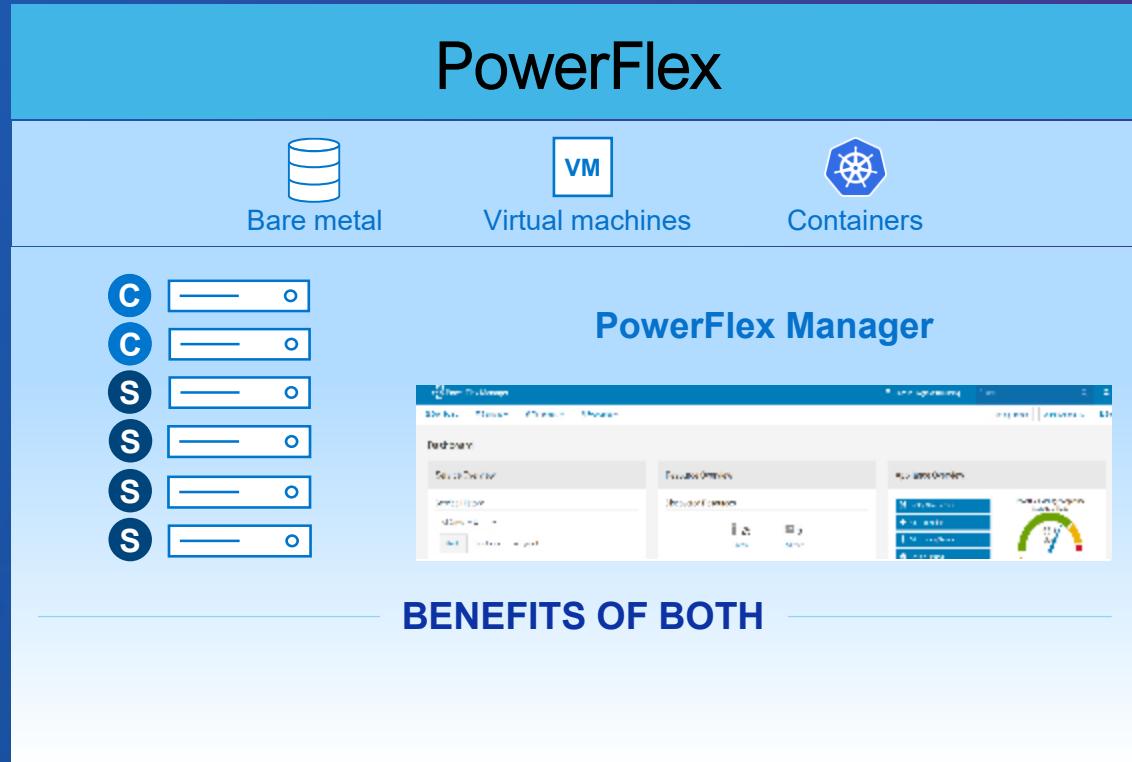


Workload Execution

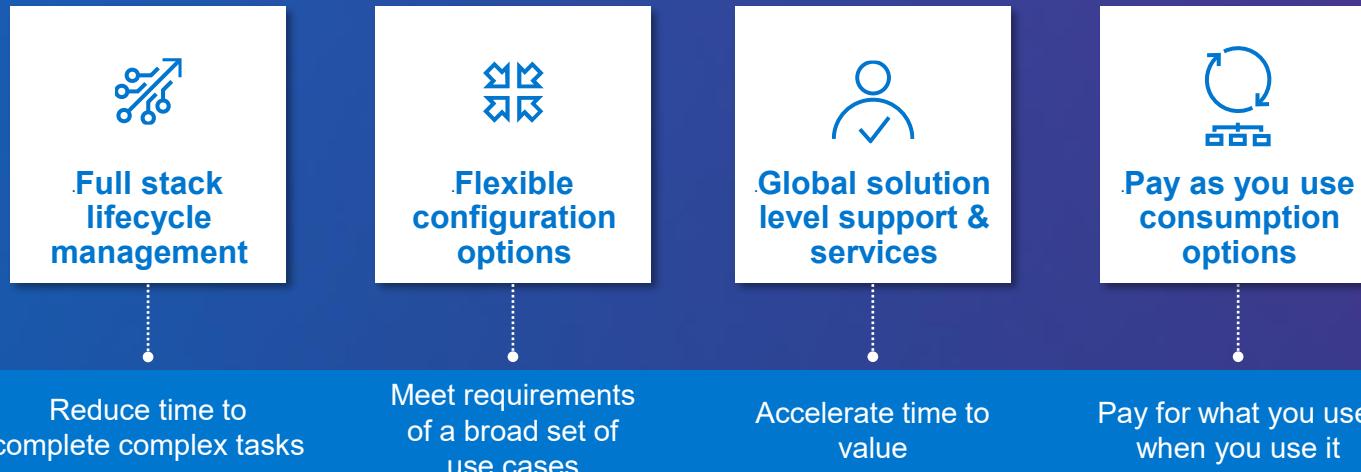
PowerFlex is the Universal Infrastructure Platform



PowerFlex Unique Architecture



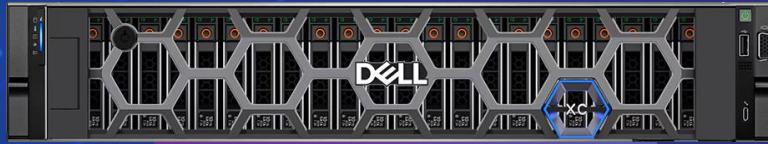
Dell EMC Integrated System for Microsoft Azure Stack HCI



All-in-one, validated HCI system

Dell Technologies

Dell XC with Nutanix



Automate



Remove complexity

Collapse **compute, storage and virtualization** into a single **Nutanix Cloud Platform** on Dell XC, with one stack to deploy

Simplify operations



Use **Nutanix Prism** as a single console for cluster management and troubleshooting across core, edge and cloud

Optimize infrastructure



Right-size environments with **small to large XC configurations** and independent scale of compute and storage

Innovate



Harness hybrid cloud

Deliver a **Nutanix private cloud** on **Dell XC** with the same operational model on-prem and in public cloud



Empower developers

Provide a **unified platform for VMs and containers** with Nutanix Cloud Platform and Kubernetes integration



Evolve workloads

Support a broad range of use cases — **VDI, databases, SAP HANA, AI/ML, ROBO/edge**

Accelerate



Streamline Ops

Reduce day-to-day admin effort with **policy-based automation, built-in AI/ML analytics, and guided lifecycle workflows**



Strengthen Resilience

Protect critical workloads with **integrated data protection, snapshots and replication**,



Avoid Lock-In

Implement a **dual-vendor strategy** (Dell + Nutanix) that reduces dependence on a single hypervisor vendor

VxRail



Automate



Remove complexity
with automated operations via
unique VxRail HCI System
Software



Simplify operations
through native integration with
vCenter and VMware Cloud
Foundation



Optimize infrastructure
with consistent ease of use while
lowering exposure with full stack
lifecycle management

Innovate



Harness hybrid cloud
with simple and direct path due to
unique integration with VMware
Cloud Foundation



Empower developers
with lock-step support for
VMware Kubernetes
advancements – K8s your way



Evolve workloads
with thousands of configuration
options and support for mixed
generation nodes

Accelerate



Drive productivity
with 6x9s and 92% less
unplanned downtime to focus on
differentiated IT activities



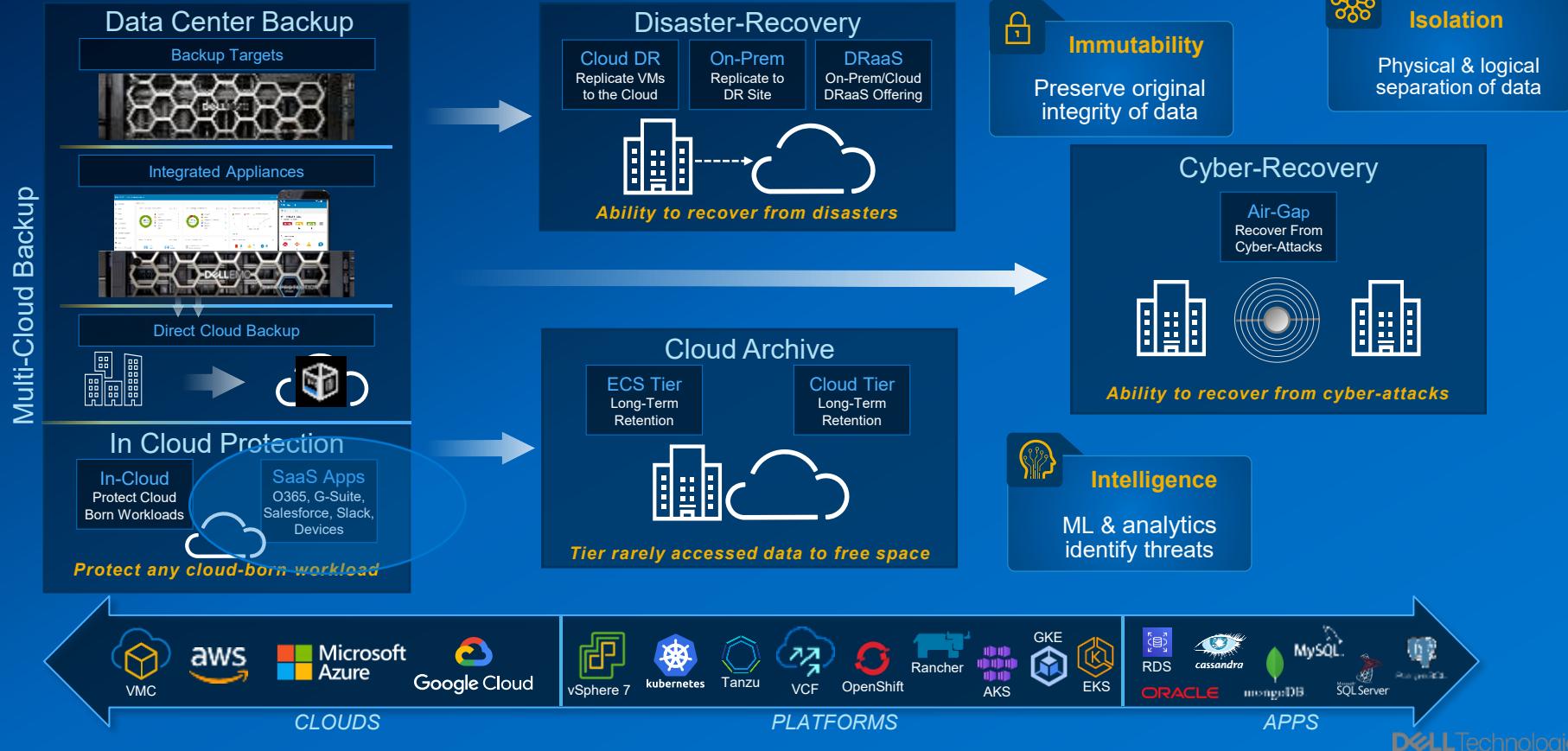
Surge ahead
by rapidly integrating new
VMware updates with 30-day
synchronous releases



Accelerate Multi-Cloud
by rapidly enabling VMware on
AWS

Dell Technologies Data Protection Solutions

Comprehensive portfolio built to protect proven & modern workloads



Dell's Extended Technology Partners



A Single Dell Quote

- Single Quote using Dell part numbers
- Custom Part Numbers or Bundled SKUs
- Apply Dell Financing to entire quote
- Dell support & pro services



Lower Cost

- Free Shipping*, Best OEM Price
- Out-year cost avoidance via multi-year contracts
- Higher Blended Margin



Reduce Need for Multiple RFQ/RFPs

- Purchase the entire solution through a Dell Partner
- Efficient MRR/RFI process



Solution Platform



SmartCabinet™
Intelligent, integrated infrastructure
in a rack



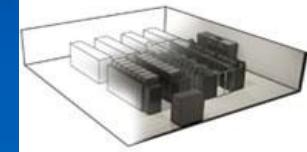
SmartRow™
Intelligent, integrated infrastructure
in a single row



SmartAisle™
Intelligent, integrated infrastructure
for multiple rows



SmartMod™
Intelligent, integrated infrastructure
in a rapid-deployment enclosure



SmartDesign
Intelligent, integrated infrastructure
using a room-based design

Application

Capacity
1-2 Racks
1-24kW

Segment:
Integrated Racks,
Network Closets,
Branches

Capacity:
3-10 Racks
20-36 kW

Segment:
SMB; Education;
Hospitals, Local
Government;
Remote Sites

Capacity:
Cost effective to
400kW

Segment:
Small/Medium Data
Centers; High
Density Zones in
Enterprise Data
Centers

Capacity:
Varies Upon
Application

Segment:
Enterprise
Expansion;
Co-location/Hosting
(Skids)
SMB Primary Data
Center

Capacity:
250kW+

Segment:
Enterprise Data
Centers;
Co-location/Hosting

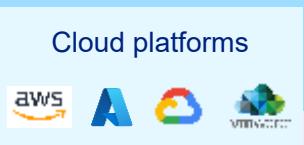
Modernize the data center with Dell Infrastructure Solutions

Accelerate innovation with intelligent & efficient systems

Power any workload across the edge, data center & public cloud

Deliver comprehensive data protection everywhere

AIOps — Virtualization — NativeEdge — Dell APEX



Storage & Data Protection



Server



Networking

Cloud Smart Discovery

Using data to make intelligent decisions about your cloud strategy

- IO distribution
- Memory provisioning
- xCPU provisioning
- VM IO bandwidth
- Compare cost – private cloud vs. public cloud



Move from multicloud by default to multicloud by design

Accelerator workshops are the first step

What is an Accelerator Workshop?

Interactive, strategic session with business and IT leadership

Align cross-organizational priorities and gain consensus

Deliver actionable roadmap with recommendations to achieve desired results



Dell Technologies Differentiators

As-Is / To-Be methodology rapidly assess environment and implements plan

IT expertise to architect solutions and operationalize technology

Completed over 10,000 transformation projects and 1,000+ strategic workshops

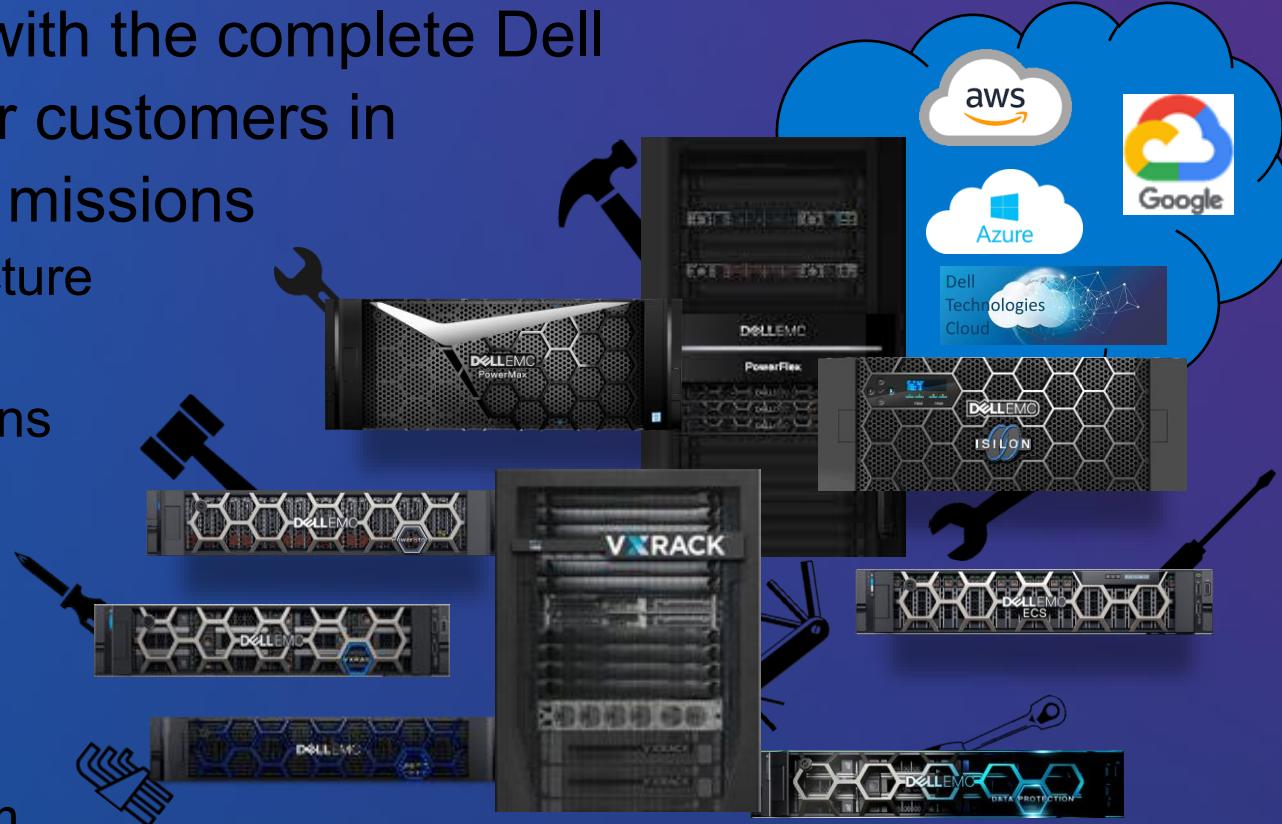
Next Steps and Q & A

Architect solutions with the complete Dell Portfolio, assist your customers in accomplishing their missions

- Data Center Infrastructure
- Client Devices
- Platforms & Applications
- Multi-Cloud

Next Steps

- Schedule a Test Drive
- Contact your Dell team



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To learn how to take the next step toward acquiring Dell Technologies' solutions, please check out the following resources and information:



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carahto.io/Dell-Resources



For additional Dell Technologies solutions:

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To purchase, check out the contract vehicles available for procurement:

carahto.io/Dell-Contracts



For upcoming events:

carahto.io/Dell-Events



For additional public sector services:

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To set up a meeting:

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