

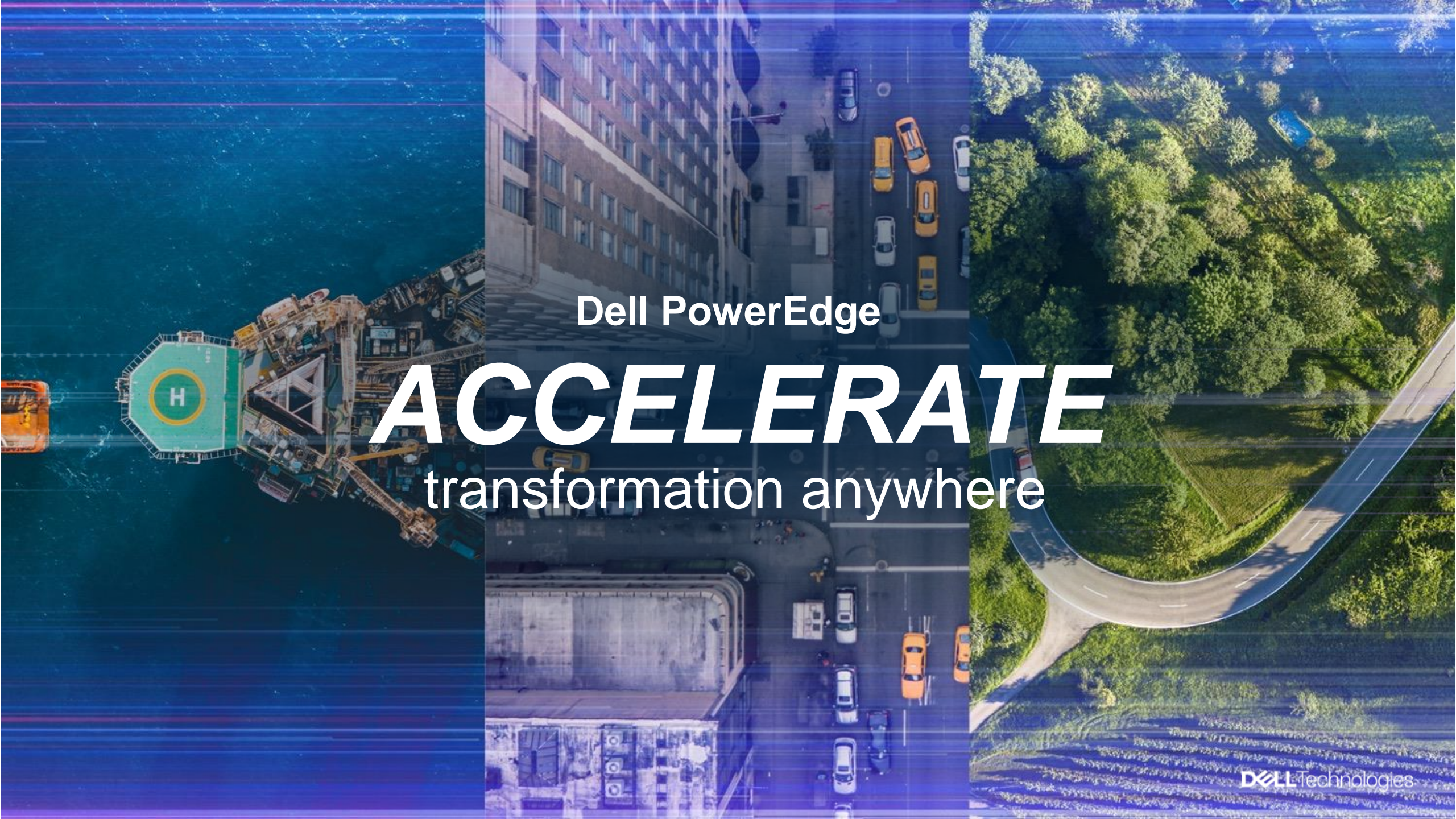


Harness the Transformative Power of Technology: Channel Update

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Dell Technologies



Dell PowerEdge

ACCELERATE

transformation anywhere

PowerEdge Servers

Purpose-built | Intelligent | Cyber Resilient | Sustainable



Purpose-built

Scale AI, Edge & Performance Anywhere



Intelligent

Accomplish more with Automation & Improve Operational Efficiencies



Cyber Resilient

Accelerate Zero Trust Adoption



Sustainable

Maximize power efficient performance

Subscribe or Consume aaS with APEX

The Next Generation PowerEdge Server Portfolio

Purpose-built to address evolving customer needs

Core

Acceleration-Optimized



R760xa

Mainstream

Mainstream 4 Socket



Storage Dense



R6625

T560

Modular



Mainstream Optimized



C6620

Edge

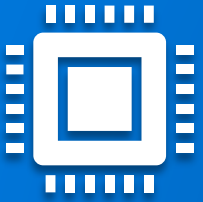


Scale

Cloud Service Providers



Industry Enabled Technologies Overview



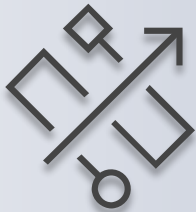
Next Generation Intel & AMD Processors

- Intel 4th Gen Xeon (Sapphire Rapids)
 - ✓ Up to 60 cores/CPU*
 - ✓ 50% performance increase over Ice Lake
- AMD 4th Gen EPYC (Genoa)
 - ✓ Latest 5nm technology with up to 96 high-performance “Zen 4” cores
 - ✓ 1.5X & 1.25X the density and power over Milan



Memory: DDR5

- DDR5 (4800MT/s)
 - ✓ Latest DRAM technology with higher speed & bandwidth
 - ✓ Greater efficiency with 2 channels per DIMM
 - ✓ Improved RAS features with on-die ECC
 - ✓ Lower power
 - ✓ Enhanced telemetry for temperature reporting and systems management



PCIe Gen5 Capability

- Doubles throughput compared to PCIe Gen4
 - ✓ Benefits NVMe drives, GPUs, and some networking cards



EDSFF E3.S NVMe Gen5

- E3.S form factor will be introduced with PCIe Gen5 NVMe drives
 - ✓ Benefits density, thermals, and improved packaging in space constrained servers
- Double the performance over NVMe Gen4

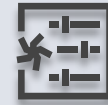
*Max 60 cores for 4S CPUs, max 56 cores for 2S CPUs

Dell enabled Technologies Overview



Next Gen HWRAID (PERC12)

- New gen controller with 2X better performance over PERC11 and 4X better than PERC10
 - ✓ Supports all drive interfaces: SAS4, SATA & NVME
 - ✓ x16 connectivity to devices to take full advantage of PCIe Gen5 throughput



System Cooling & Efficiency

- Power Manager & Smart Cooling
- High Power Optimized Airflow chassis design to maximize air cooling capabilities
 - ✓ Support for XCC/HBM in air-cooled chassis
- Optional CPU direct liquid cooling (DLC) solutions



BOSS-N1

- Segregated RAID controller for OS with secure UEFI boot that is rear facing and hot-pluggable
 - ✓ Enterprise-class 2 x M.2 NVMe devices with strong endurance and high quality that provide increased performance over BOSS-S1 with SATA drives



Data Processing Unit (DPU)

- SmartNIC with hardware accelerated networking and storage that enables customers to save CPU cycles
 - ✓ Improved security, running workloads and security software on different CPUs (“air gap”)
 - ✓ Offload hypervisor, networking stack, and storage stack to the DPU making them OS independent



System Management

- Seamless integration of new 16G servers into your existing processes and tool set
- Complete iDRAC9 support for all components
 - ✓ PERC12, BOSS N-1, PCIe Gen5 devices, UEFI Secure Boot, Smart Cooling, DPU's, and more



Security

- TLS 1.3 with FIPS certification, SEKM 2.0 with support for NVMe drives and VxRail
- End-to-end threat management with Zero Trust approach
 - ✓ Silicon-based platform root of trust, multi-factor authentication (MFA), inventory and platform component tracking during delivery, tamper protection during shipping

The background features a dark blue field with abstract geometric shapes. A large white semi-circle is positioned in the upper center, partially overlapping a teal semi-circle to its left and a yellow semi-circle to its right. Below these, a teal triangle points left, and a yellow triangle points right. The Dell Technologies logo is in the top left corner.

DELLTechnologies

Welcome to the PowerStore Experience

Introducing the next phase of software-driven,
continuously modern storage

Introducing the next phase of software-driven, continuously modern storage

Boost workload performance
Innovate without limits
Stay continuously modern

PowerStoreOS 3.0

120+ new software features

3rd major release in two years

Largest release to date

Gen 2 platform refresh

- Next-gen controllers
- NVMe expansion
- 100GbE network support

Next-gen PowerStore node upgrade

Makes modernizing hardware feel like...software!

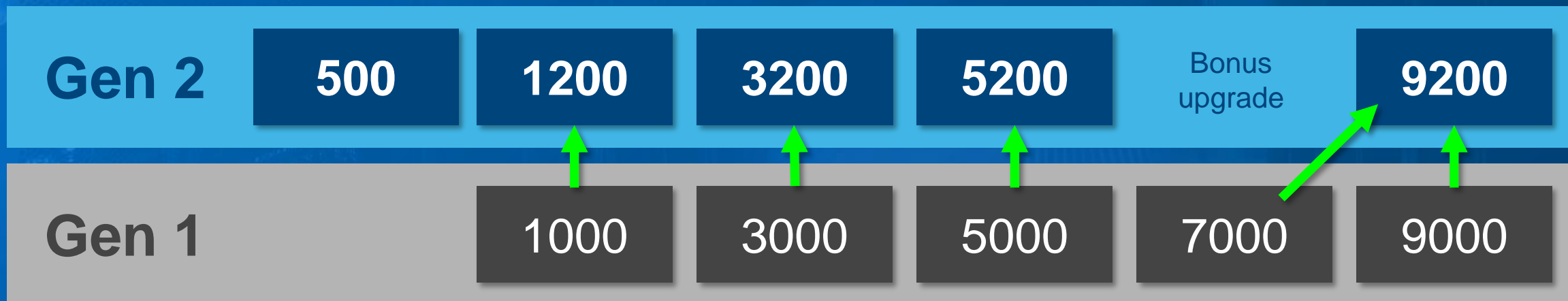
Anytime Upgrade customers

Get ready for your DIP,
non-disruptive, ZERO
cost update!



- ✓ Easy controller swap
- ✓ Keep original chassis, drives and expansion enclosures
- ✓ Same FRU/CRU support
- ✓ Secure Boot / HWRoT protection

Model lineup



* Next-gen appliances planned for July, 2022. DIP upgrades available future release.

Summary: the PowerStore experience

Largest release to date: 120+ new software features



Boost workload performance

- **Radical speed**
 - Up to 50% faster¹
 - 10X faster copy²
 - More NVMe support
 - ✓ 100Gb NVMe/TCP
 - ✓ NVMe expansion
- **Increased scale**
 - 66% max capacity³
 - 8X more volumes⁴
 - PowerStore 500 scale-up



Innovate without limits

- **More data mobility**
Async replication, FLR, CEPA, NFS, Datadobi
- **Enterprise file**
Now protect any workload: block, file, vVols, metro
- **Deeper security**
KMIP, FIPS 140-2, HWRoT
- **VMware integrations**
Visibility & control, VSI, VAAI, vVols over NVMe/FC



Stay continuously modern

Anytime Upgrade reward time

- All-inclusive software subscription
- DIP upgrades to next-gen hardware⁵
- **Makes even hardware feel like software!**

¹ Based on internal tests comparing PowerStore 1200T peak IOPS with PowerStore OS 3.0 vs. PowerStore 1000T with PowerStoreOS 2.1, running 8k block size with 70/30 read/write mix, March 2022. Actual results may vary.

² Based on internal tests comparing XCOPY performance copying 1000 36GB VMs running on PowerStore 5000 with PowerStoreOS 3.0 vs. PowerStoreOS 2.0. Actual results will vary.

³ Maximum effective capacity for largest PowerStore cluster with PowerStoreOS 3.0 vs. PowerStoreOS 2.0. Assumes average 4:1 data reduction. Actual results vary.

⁴ Maximum supported volumes for largest PowerStore model (PS9000) with PowerStoreOS 3.0 vs. PowerStore OS 2.0.

⁵ Next-gen nodes available July, 2022. DIP upgrades available future release.

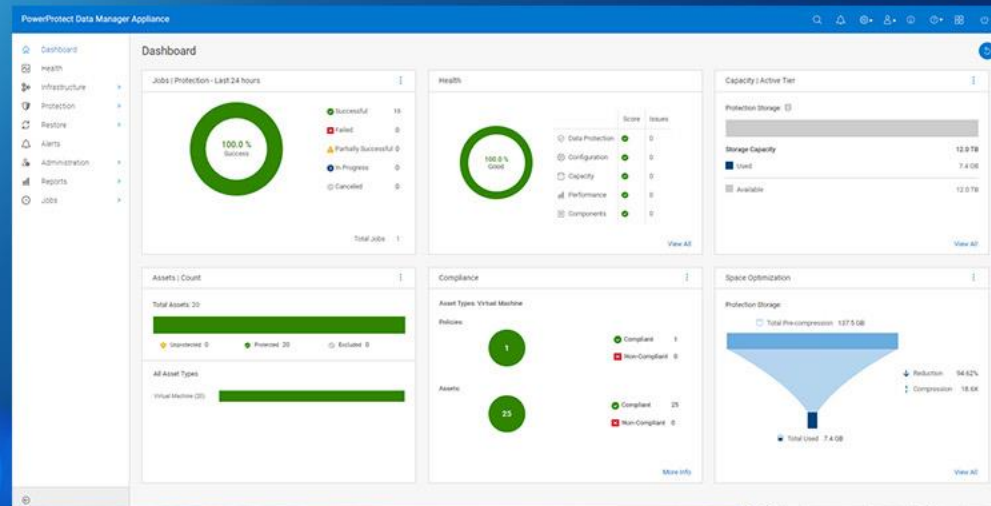
PowerProtect Data Manager Appliance

DM5500

INTRODUCING

PowerProtect Data Manager Appliance

Simplify Modern Data Protection



MODERN

Software-defined architecture

SECURE

Operational and cyber resilience

SIMPLE

Unified user experience

PowerProtect Data Manager Appliance

Deploy in under 30 mins¹

12TB – 96TB

Grow in place
or to the cloud



Search &
Analytics



Deduplication



Backup &
Restore



Cyber
Recovery



VMware
Integration



Cloud enabled



Instant Access
+ Restore



Disaster
Recovery

¹Based on Dell internal testing, October 2022. Actual results may vary.

DM5500 Benefits

Delivering a unified customer experience

Unified user experience

- Rapid deployment (< 30 min)
- Integrated alerts, monitoring and reporting
- Fully orchestrated upgrade workflow with reduced upgrade times
- Path to Power Avamar Migration*
- BETB licensing 12TB–96TB in 12TB incr.

Operational and cyber resilience

- Centralized IAM with single sign-on, RBAC and 2FA*
- At-Rest and In-flight encryption
- Replicate data to Cyber Recovery Vault (on prem or in-cloud)*
- Immutability & Retention Lock Compliance (Cohasset certified)*

Modern workload protection

- Unique VMware protection with Transparent Snapshots
- Broad Kubernetes support
- Oracle, MS SQL, Exchange, SAP HANA, D-NAS
- Windows, AIX and Linux FS
- Storage efficiency
- Built-in Data Resiliency (DIA)
- DD Boost performance

* 90-120 Days Post launch

DELLTechnologies

Dynamic AppsON

VxRail dynamic nodes + PowerStore T

vCenter control

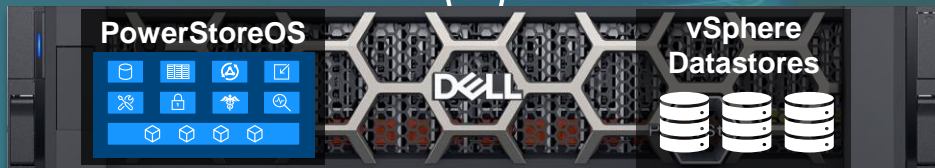
VxRail dynamic nodes (compute only)



Low latency connection

- 100/25Gb NVMe/TCP
- 32Gb NVMe/FC
- Direct Connect

Lifecycle Management*



PowerStore, VMware plugins (VSI)

Combine the advantages of VxRail and PowerStore

- Scale compute or storage independently
- PowerStore storage services (4:1 data reduction, data protection, more)
- End-to-end VMware integrations
 - Manage VxRail and PowerStore services directly from vSphere
 - Eliminate operational silos!
- **Solution-level lifecycle management* with included VxRail HCI System Software**

* LCM for PowerStore coming soon

What's new with VxRail

Smallest, most flexible, and self-contained VxRail form factor

NEW

**VD-4000 rugged platform, with a smaller, purpose-built form factor
extending the benefits of VxRail to extreme edge**

HCI for Unpredictable Environments



Standard-width rack mount or 14" x 12" chassis – the size of a shoe box

Rack it, stack it, or mount it on a wall for deployment flexibility

Operate in temperatures from 27F – 131F – NEBS and MIL-STD certified

Embedded vSAN Witness



1st vSAN HCI with embedded vSAN witness and automated LCM

Self-contained 2-node vSAN cluster in a small footprint

Allows for far-edge deployments with low latency and low bandwidth constraints

Sustainability in the Data Center



Consolidate infrastructure – more nodes in a smaller footprint

VD-4000 with embedded vSAN witness requires 38% less power than standard 3-node cluster

What's new with VxRail

VMware vSphere 8 and vSAN ESA synchronous ship

NEW

Industry's first and only jointly engineered HCI system optimized for vSAN Express Storage Architecture

Increased performance and scale



Ability to reconfigure network configurations

Reduce the overall failover time of the vSAN FS VMs

Support for IPv6

Optimization and simplicity



Enhancements to cluster shutdown and startup when infrastructure services are also running on the vSAN cluster

Improve and Optimize vSAN boot times

Simplify expanding clusters greater than 32 nodes

Ready for anything



Isolating and running vSAN Services in a sandbox

vSAN encryption key verification before mounting disks or rekey

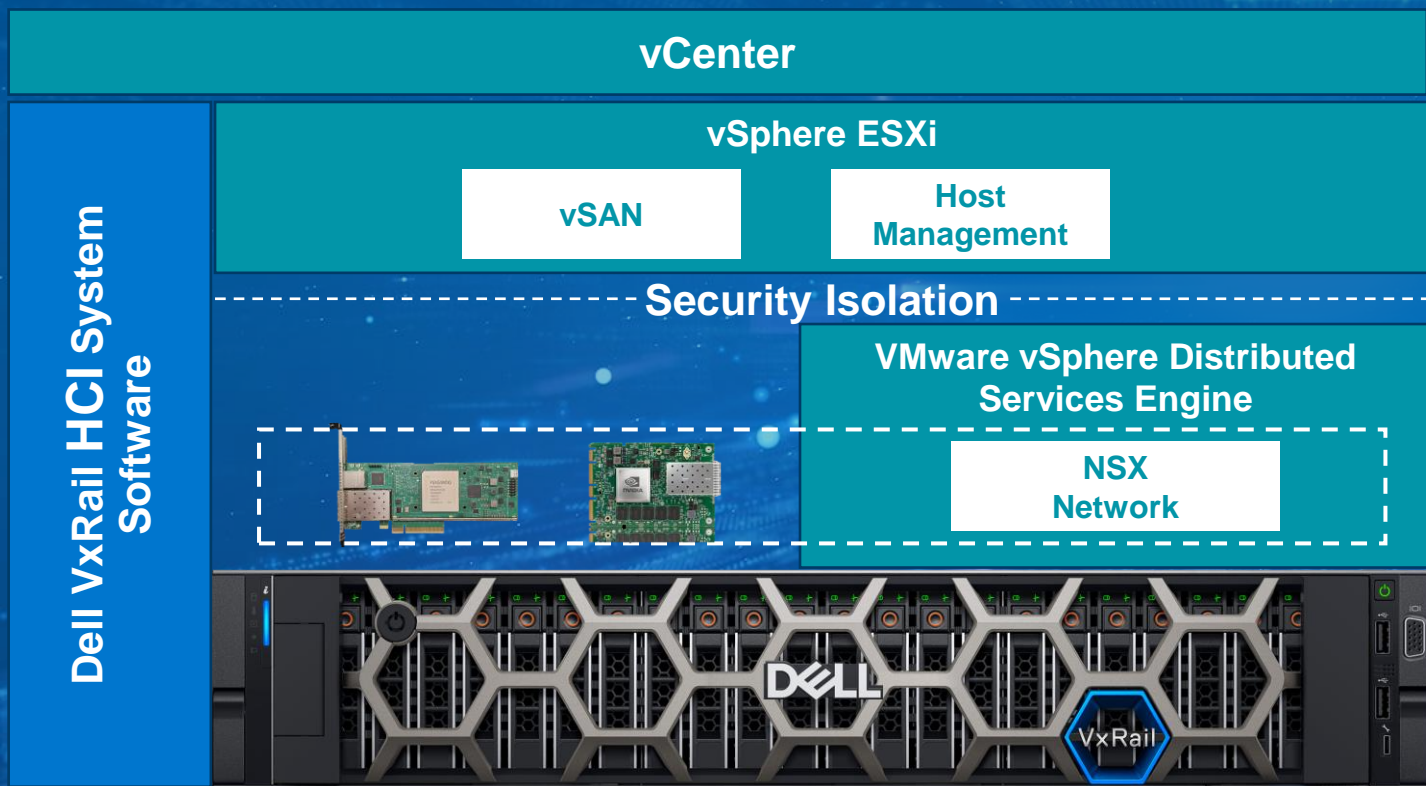
Proactive Insights

What's new with VxRail

VMware Distributed Service Engine on DPUs

NEW

Industry's first and only jointly engineered HCI system running VMware Distributed Service Engine on DPUs



Offload Network & Security Services onto the DPU

- Adopt new SmartDPU technology on a common operational model
- Consistent manageability with automated LCM
- Single point of support for all hardware and software
- Available on E660F, P670N, and V670F
- Support for NVIDIA Bluefield-2 and AMD Pensando DSC-25/DSC-100