Dell Technologies Storage Portfolio Update

Virtual Fireside Chat
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Dell EMC storage vision

A simple interconnected portfolio – architected for all data at any scale

EMPOWER
YOUR IT ORGANIZATION
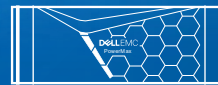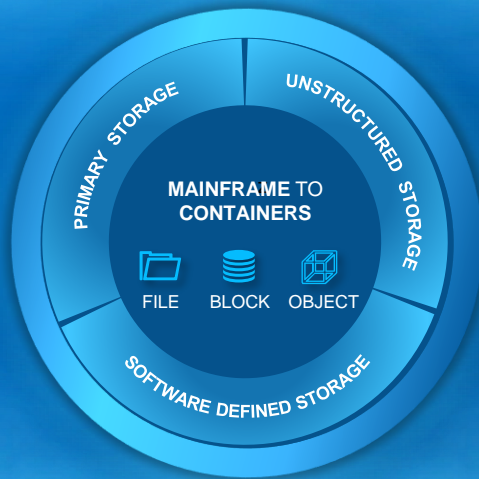
HARNESS
THE POWER OF DATA

ACHIEVE
PEACE OF MIND

CLOUD-CONNECTED

AUTONOMOUS

COMMON MONITORING

PRIMARY STORAGE

UNSTRUCTURED STORAGE

MAINFRAME TO **CONTAINERS**

FILE   BLOCK   OBJECT

SOFTWARE DEFINED STORAGE

STORAGE DNA

FUTURE-PROOF

WORLD-CLASS SERVICES

EASE OF USE

BROAD PORTFOLIO

IT EXPERTISE

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Dell EMC simplified storage portfolio

Primary Storage

High End — **PowerMax**

Midrange — **PowerStore**, **Unity XT**

Entry — **PowerVault**

Unstructured Storage

File & Object — **Isilon**, **ECS**

HCI

Hyperconverged — **VxRail**

CLOUD CONNECTED

AUTONOMOUS

COMMON MONITORING

D&LL Technologies

FY21 Primary Storage Portfolio

PowerMax

"High End"

Unmatched Performance, resiliency and cutting edge innovation for **high-value workloads**

PowerStore

"Midrange"

Flexibility, scalability, simplicity and performance with market-leading economics for a **wide range of legacy and next-gen apps**

Unity XT

"Entry"

PowerVault

Simplicity for SMB

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PowerStore

Designed for the data era

Data-centric

Intelligent

Adaptable

Data-centric design that optimizes system performance, scalability, and storage efficiency to support any workload without compromise
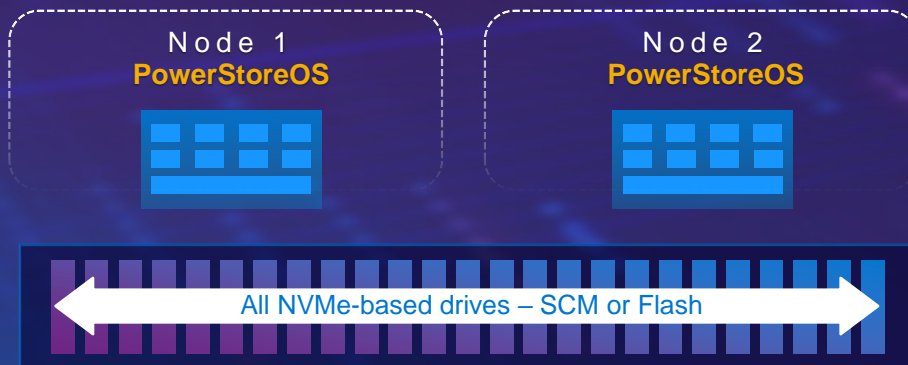
Intelligent automation through programmable, autonomous infrastructure that simplifies management and optimizes system resources, while enabling proactive health analytics to easily monitor, analyze, and troubleshoot the environment

Adaptable architecture that enables speed and application mobility, offers flexible deployment models, and provides choice, predictability, and investment protection through flexible payment solutions and data-in-place upgrades

PowerStore - Optimized for performance

Designed from the ground up to utilize the latest in storage and interface technologies in order to maximize application performance and eliminate bottlenecks

Node 1
PowerStoreOS

Node 2
PowerStoreOS

All NVMe-based drives – SCM or Flash

Each PowerStore appliance has two nodes and uses NVMe to take full advantage of the tremendous speed and low latency of solid-state devices. This performance-centric design enables PowerStore to deliver 7x more IOPs and 3x lower latency for real-world workloads compared to previous generations of Dell midrange storage.
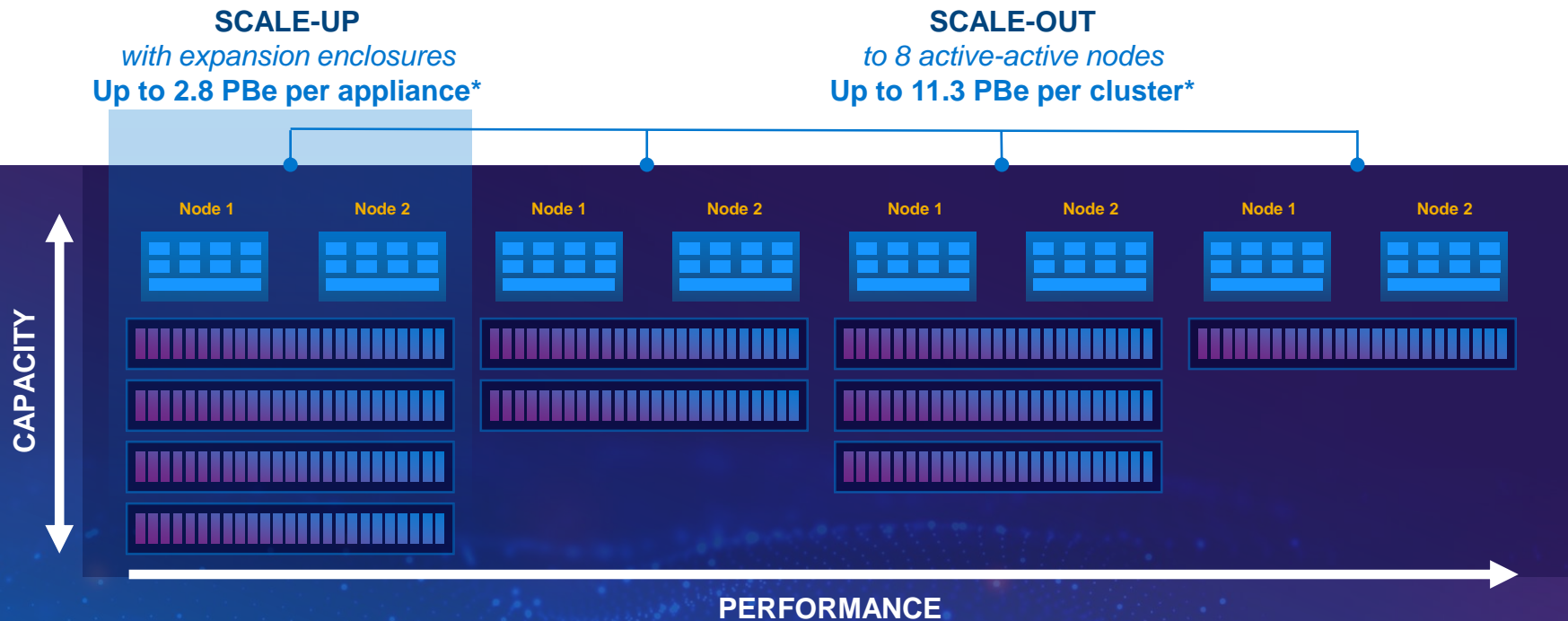
7x faster

3x lower latency

Based on internal testing versus Unity XT

Designed for 99.9999% (six-nines) availability*

* Based on Bellcore component reliability modeling for common configurations of all PowerStore models.

PowerStore - Scale-up and scale-out

SCALE-UP
with expansion enclosures
Up to 2.8 PBe per appliance*

SCALE-OUT
to 8 active-active nodes
Up to 11.3 PBe per cluster*

Node 1 · Node 2 · Node 1 · Node 2 · Node 1 · Node 2 · Node 1 · Node 2

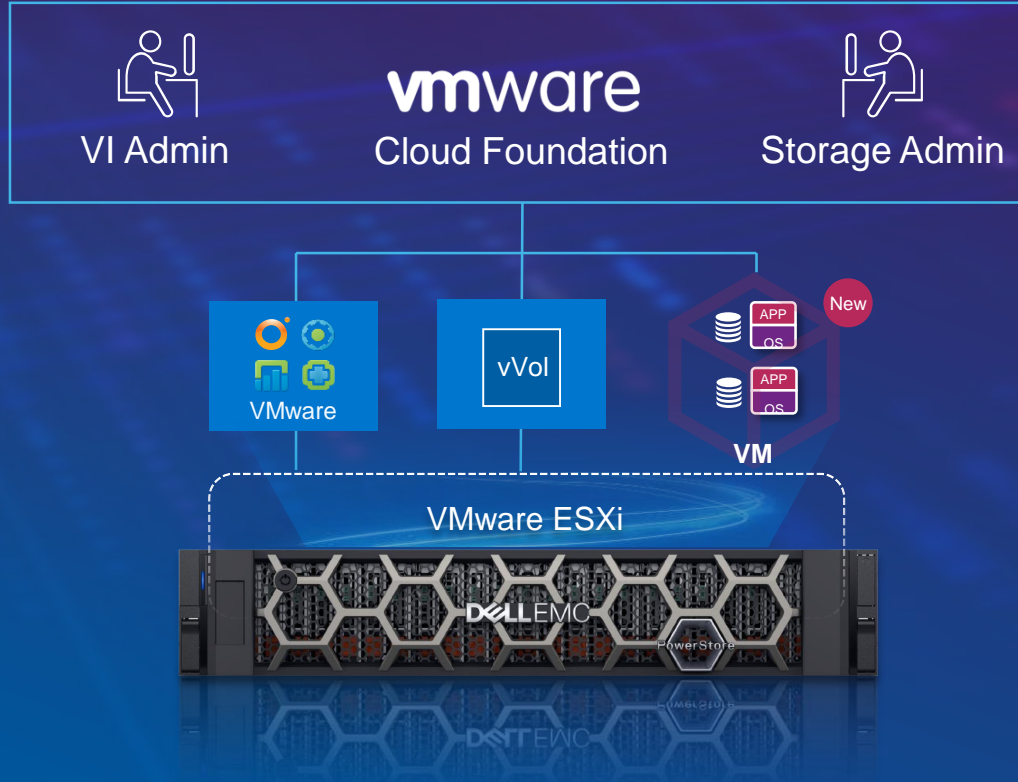**CAPACITY**

PERFORMANCE

Advanced clustering technology allows PowerStore to scale system capacity by adding expansion enclosures and processing power by clustering up to four appliances/8 active-active nodes

*Effective capacity assumes 4:1 DRR

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PowerStore - VMware integration

Enabling consistent operations

VI Admin

vmware
Cloud Foundation

Storage Admin

VMware

vVol

APP OS

New

APP OS

VM

VMware ESXi

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PowerStore

PowerStore appliances offer deep integration with VMware vSphere such as VAAI and VASA support, event notifications, snapshot management, storage containers for Virtual Volumes (vVols), and virtual machine discovery and monitoring in PowerStore Manager

The only purpose-built array with a built-in VMware ESXi hypervisor

PowerStore - Introducing AppsON

Run applications directly on the appliance

Traditional & Modern Workloads

Network

PowerStoreOS

New

APP
OS

APP
OS

VM

VM

VMware ESXi

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PowerStore

Administrators can also access the VMware hypervisor to deploy their own applications directly on the PowerStore appliance, using the same VMware tools and methods they use with external hosts.

This game-changing capability, known as AppsON, is ideal for data-intensive workloads in core or edge locations where infrastructure simplicity and density is required, as well as for "infrastructure applications" such as anti-virus or monitoring software

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PowerStore the only storage designed for the data era

MORE THAN
3x
THE DATA REDUCTION*

Maximize
storage efficiency

OVERALL EFFICIENCY 9.6:1

| 3.3 TB | 32 TB |

OVERALL EFFICIENCY 3.1:1

| 10.1 TB | 32 TB |

Amount of data reduced while running a
256KB 100% write test. Lower is better.

UP TO
53%
MORE IOPS*

Satisfy more users with
faster storage performance

218,054 IOPS

142.042 IOPS

Number of input/output operations per second
(IOPS) supported while running four different
workloads on the Vdbench benchmark.
Higher is better.

UP TO
125%
MORE BANDWIDTH*

Process more data
with higher bandwidth

25,612 MB/s

11,358 MB/s

Amount of bandwidth (MB/s) provided while
running two Vdbench workloads with 256KB
blocks of data. Higher is better.

UP TO
52%
LOWER LATENCY*

Protect users and applications
from experiencing wait times

0.70 ms

1.48 ms

Response time (milliseconds) delivered while
producing 360,000 IOPS. Lower is better.

MORE THAN
5x
FASTER PROVISIONING*

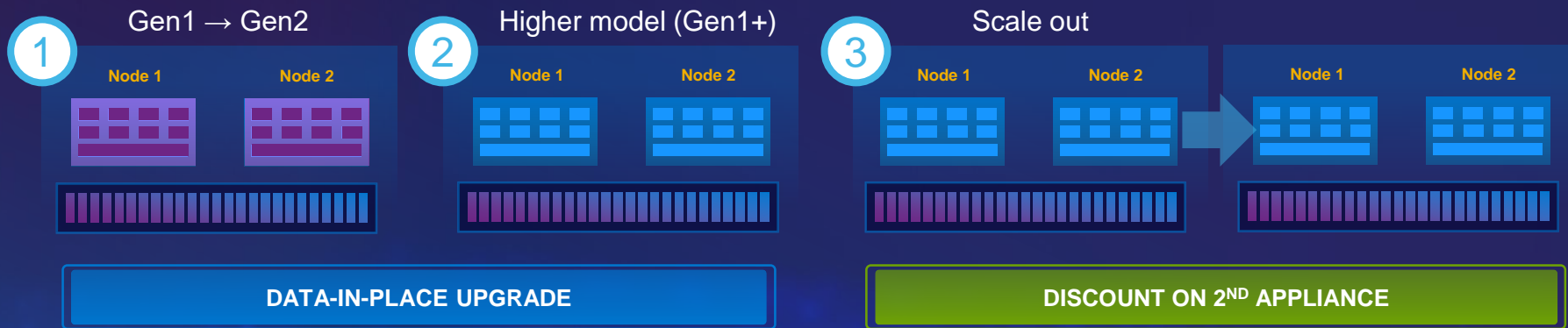Cut provisioning time
for IT staff

1 m 25 s

8 m 57 s

Time to provision eight storage LUNs on
clustered systems to ESXi environments.
Lower is better.

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PowerStore - Anytime Upgrade program

PowerStore goes one step further to provide data-in-place upgrades, enabling the infrastructure to be modernized without a forklift upgrade, without downtime, and without impacting applications

(1) Gen1 → Gen2

Node 1   Node 2

(2) Higher model (Gen1+)

Node 1   Node 2

(3) Scale out

Node 1   Node 2   Node 1   Node 2

DATA-IN-PLACE UPGRADE

DISCOUNT ON 2ND APPLIANCE

FUTURE-PROOF

Flexible upgrade options, beyond just a next-gen controller swap

The upgrades can be done **anytime in contract** as opposed to waiting three years or more

No renewal is required when the upgrade is performed

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Wide-ranging **consumption** models

Extending $9B in financing to our customers and partners, providing choice, flexibility, and predictability needed now to deliver solutions and maintain business continuity

FLEXIBLE PAYMENT SOLUTIONS

PAYMENT FLEXIBILITY PROGRAM

Pay As You Grow

Align payments with technology deployment plans and growth schedules

Flex On Demand

Meter usage and pay only for what you consume with elastic capacity that scales up and down

Data Center Utility

Establish a pay per use environment across your entire IT infrastructure

Constrained Budgets

0% interest financing for 24 or 36 months on data center infrastructure products and services

Limited Cash Flow

180-day deferrals on data center infrastructure. Up to 90 days on commercial laptops, desktops and workstations

Uncertain Business Climate

Short Terms, 6 to 12 month lease options on commercial laptops, desktops and workstations

12 month Flex on Demand offer to pay for infrastructure technology as it is used

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