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Dell EMC PowerStore Midrange Positioning

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Agenda



1

Dell EMC Storage Vision

2

Dell EMC PowerStore 3x3min

3

New Metro Nodes

4

Dell EMC Midrange Positioning

5

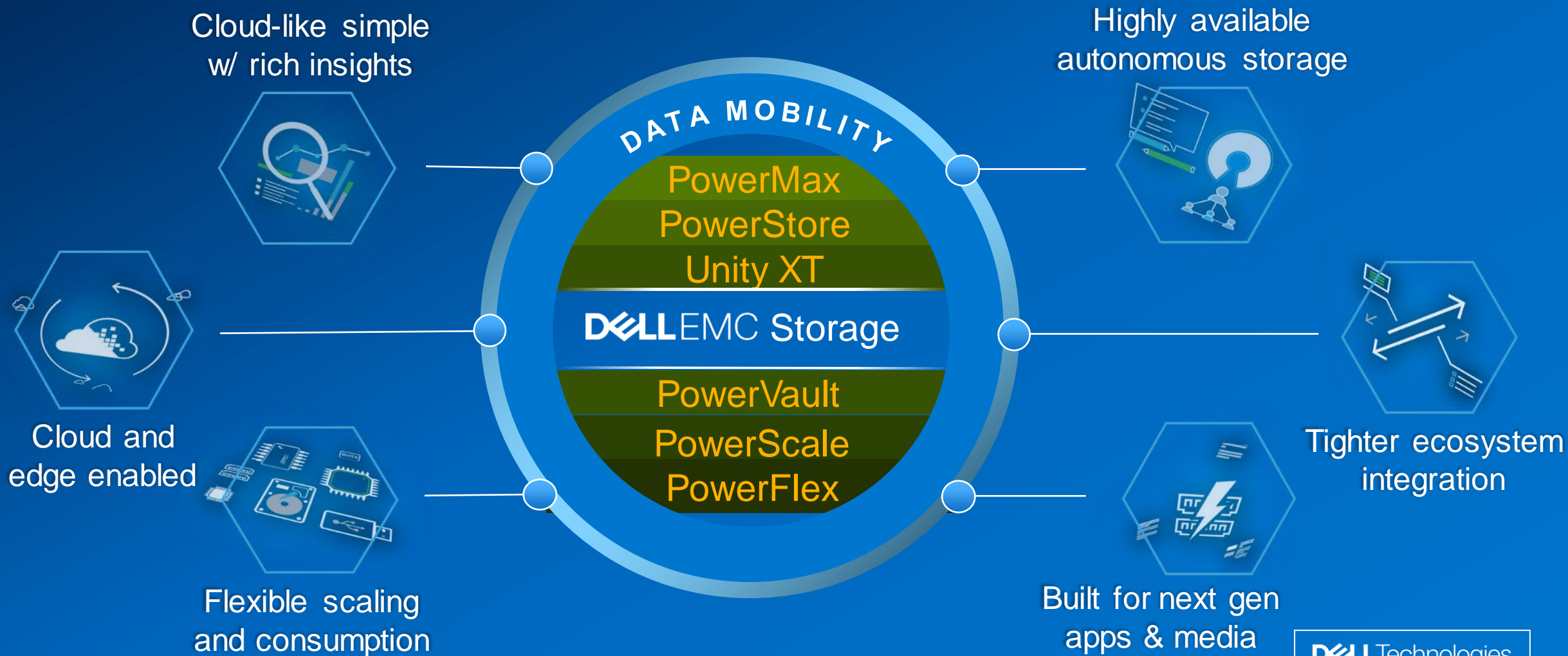
Competing (KLUE)

6

Tools & Resources

Dell Storage Vision

A modern, interconnected storage portfolio for your data in a hybrid multi-cloud environment





Dell EMC PowerStore 3x3min



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Data-centric

Ultimate workload flexibility

 **Any**
Workload

- **Unified:** single platform for block, file, and vVols
- **Scale:** scale-up and scale-out
- **Metric:** designed for 99.9999% availability

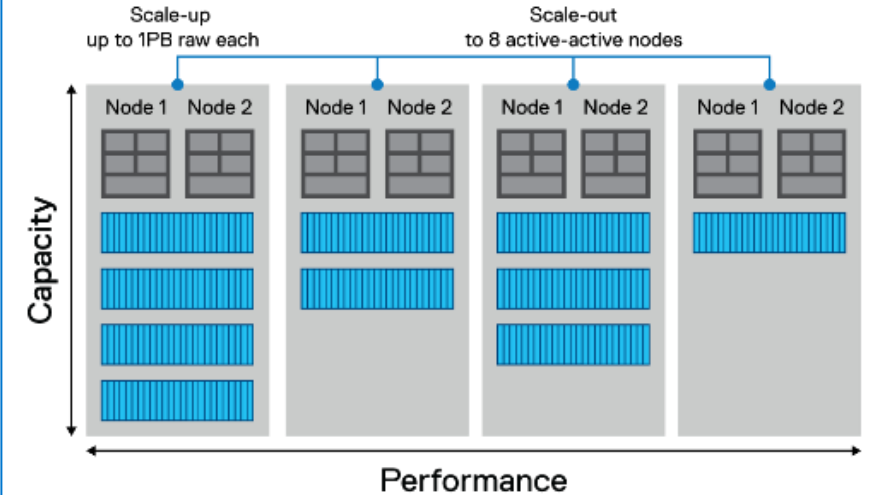
 **Performance**
Optimized

- **Controllers:** Active-Active with end-to-end NVMe
- **Media:** Flash or Storage Class Memory (SCM)
- **Metric:** 7x faster, 3x lower latency than Unity XT

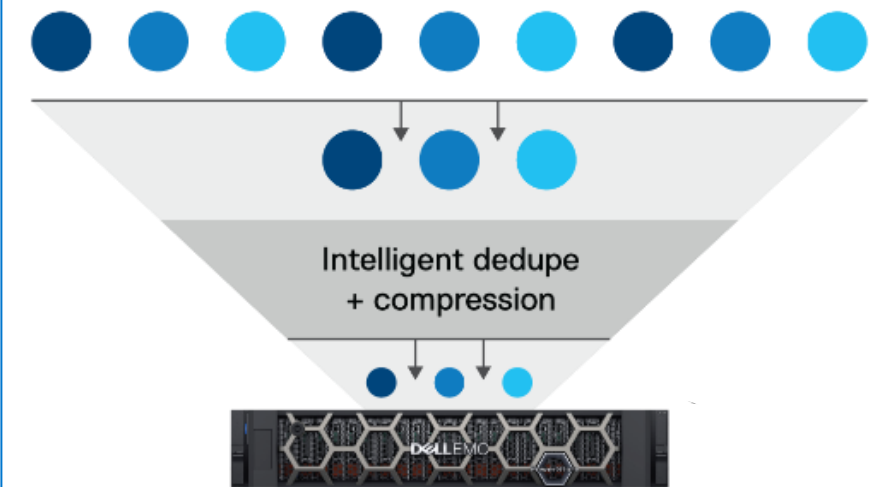
 **Efficiency**
Without
Compromise

- **Inline:** always-on data reduction
- **Intelligent:** dedupe and compression
- **Metric:** 4:1 data reduction guaranteed

Next-gen performance, advanced clustering



Inline, "always on" data reduction



Intelligent

Autonomous, consistent operations



Programmable Infrastructure

- **Automate:** storage provisioning processes
- **Deploy:** eliminate manual steps, reduce risk
- **Metric:** new resources in seconds vs days



Autonomous Appliance

- **Discover:** new appliances automatically
- **Machine Learning:** improved system utilization
- **Metric:** 99% less staff time to rebalance volumes



Proactive Health Analytics

- **Anticipate:** business needs and avoid outages
- **Simple:** single pane of glass view of data center
- **Metric:** 16x faster to identify HA problems

Automated, end-to-end workflows

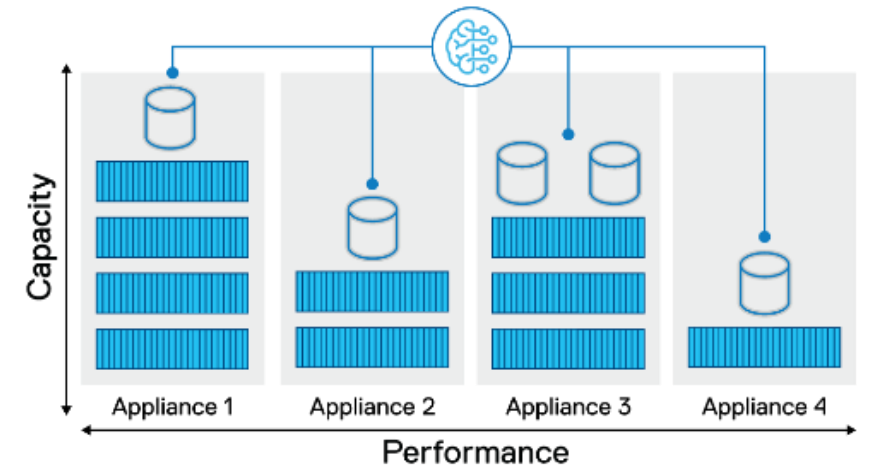
vmware®

kubernetes



Broad plug-in support

Machine learning engine



Adaptable

Continuously modern and highly adaptable

Flexible Architecture

- **Container-based:** design for faster innovation
- **Consistent:** services across platforms
- **AppsON:** ability to run apps locally

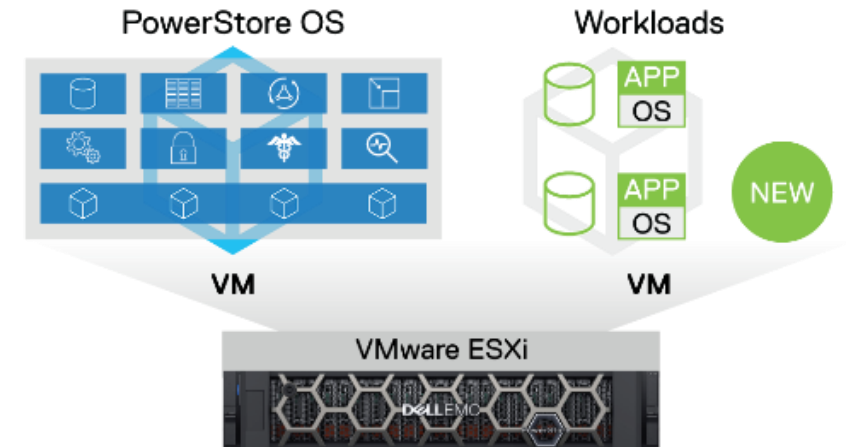
Flexible Deployment

- **Edge:** small footprint, easy to deploy
- **Cloud:** seamless application movement with VCF
- **Data Migration:** on to platform is fully automated

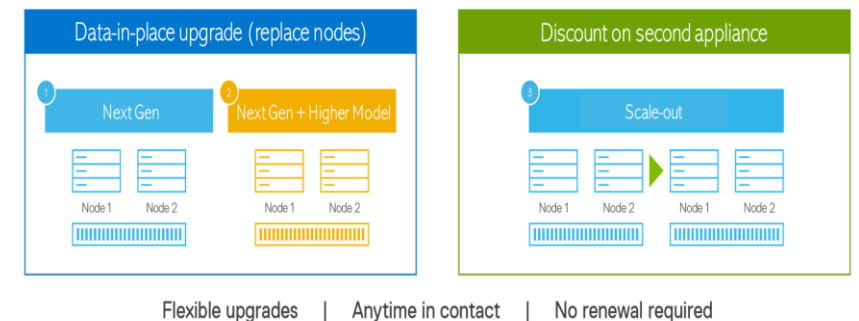
Flexible Consumption

- **Pay-Per-Use:** consumption solutions with DTOD
- **Future Proof Program:** backed with confidence
- **No Migrations:** non-disruptive controller swaps with the Anytime Upgrade Program

Introducing AppsON: Run any workload directly on PowerStore



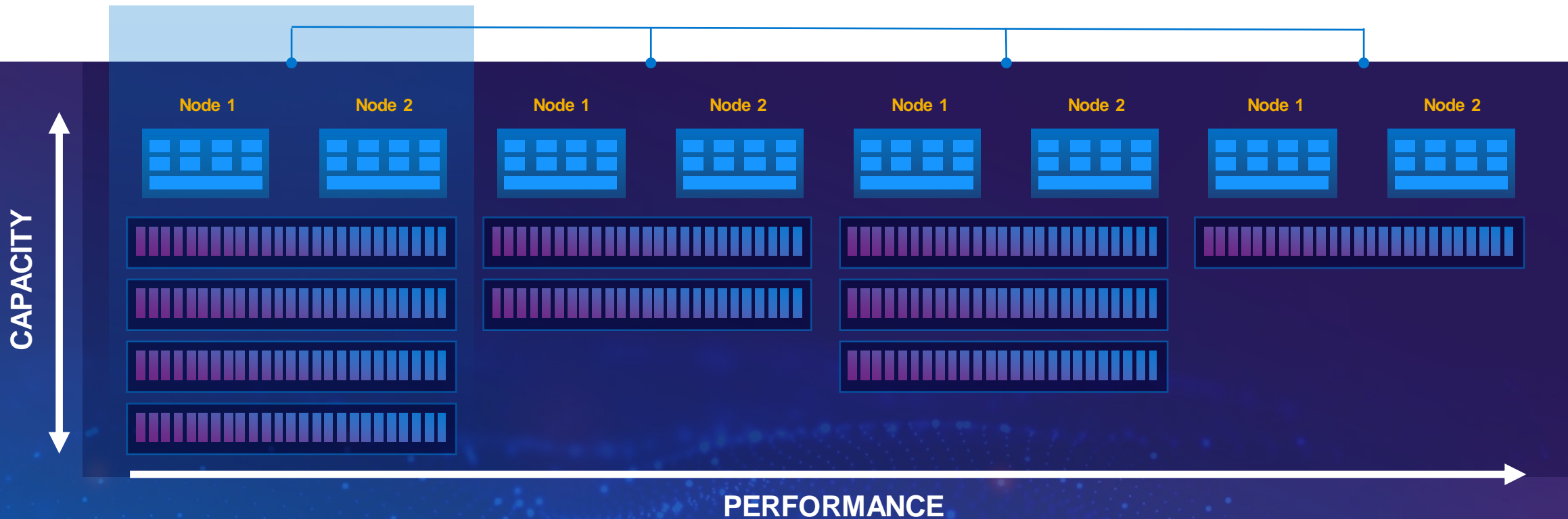
Anytime Upgrade Program:
Continuously modern without limits



Scale-up and scale-out

SCALE-UP
with expansion enclosures

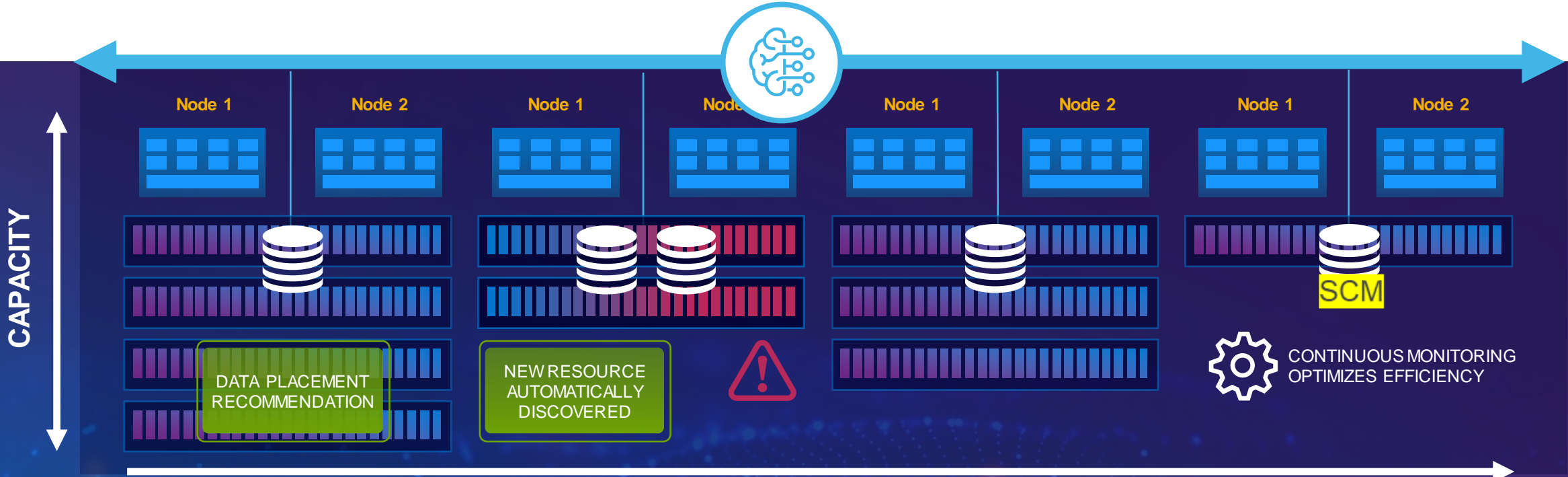
SCALE-OUT
to 8 active-active nodes



Independently scale compute and storage

Autonomous appliance

Machine learning engine



99% less staff time to rebalance volumes

Industry 1st AppsON



Run applications directly on the appliance

- Infrastructure apps
- Data-intensive, demanding workloads



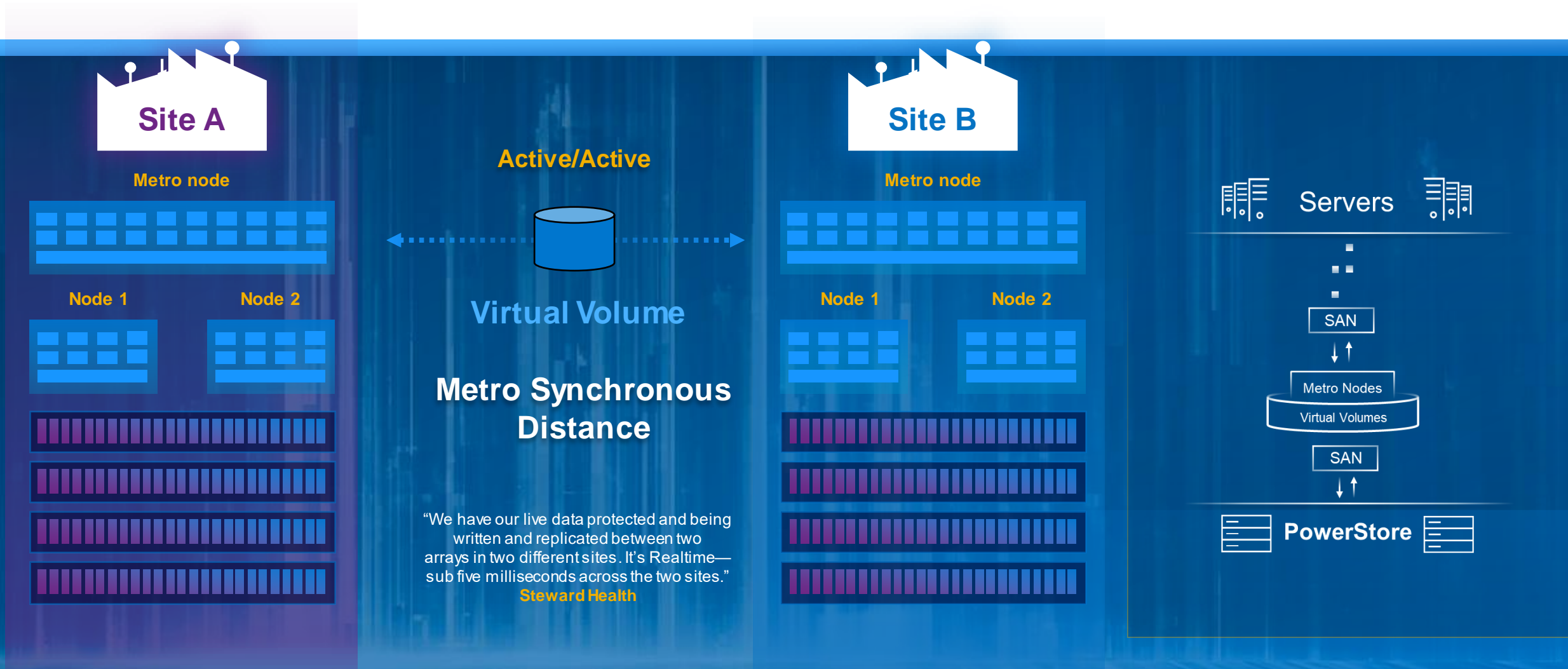
New PowerStore Metro Nodes



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Metro Node delivers Continuous Availability



Continuous dual site access

PowerStore metro node: a true differentiator

True Active/Active

 TRUSTED & PROVEN



Multi-site constant dual access
Immediate failback
Witness for automatic site recovery

Greater Flexibility

 MOST CAPABLE



Multi-platform support
Workload granularity Replicate
to any array

No Hidden Costs

 HW-ACCELERATED



Zero performance overhead
No capacity on the array
No additional host software

PowerStore metro node



19.JAN
2021



32Gb FC | Single Engine / Dual Node | Built in Management Server
Reduced form-factor | 30min to install | **Priced to Win**
Simple to manage: DevOps Automation Enabled (Ansible)

Best "Metro" solution in the market!



Storage Positioning

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FY21 Primary storage portfolio

PRIMARY STORAGE
LEAD PRODUCT

Y20

>\$250K
"High End"

PowerMax



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

\$25K–250K+
"Midrange"

PowerStore



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

<\$100K

UnityXT



<\$25K+
"Entry"

PowerVault



Simplicity for SMB

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Primary storage journey

PRIMARY STORAGE
LEAD PRODUCT

Y20

Y23

PowerMax

PowerMax

PowerStore

PowerStore

Unity XT

Unity XT

PowerVault

PowerVault

>\$250K
"High End"

\$25K-250K+
"Midrange"

<\$100K

<\$25K+
"Entry"



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



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



Simplicity for SMB

Primary storage transition

PRIMARY STORAGE
LEAD PRODUCT

Y20

UNLESS...

THEN...



Midrange storage positioning battlecard: <\$100k budget

Dell Technologies Channel

1 Customer has:



VNX 5300, 5400
PS 6210, 6610 (EQL)
SC4020, SC5020
...and \$50-\$100K budget

2 OR they are new to Dell EMC Storage:

LISTEN FOR:

- All Flash performance and low latency needed
- Wants better effective capacity via high DRR
- Needs to efficiently scale their storage infrastructure
- Looking at NVMe solution
- Scale-out, scale up

LISTEN FOR:

- Looking at **all flash** performance in this budget range, but with:
- Advanced file services and cloud integration
- Synchronous replication
- Fed certification

LISTEN FOR:

- Looking for strong performance at **hybrid** price points
- Advanced file services and cloud integration
- Synchronous replication
- Fed certification

3 What to say and position

WHAT TO SAY:

- All NVMe, highly adaptable NextGen architecture
- Scale Up/Scale Out
- Guaranteed 4:1 DRR

WHAT TO SAY:

- Unified array w/ native file
- Built for multi-cloud
- Guaranteed 3:1 DRR (all pools on 480F model)

WHAT TO SAY:

- Unified array w/ native file
- Built for multi-cloud
- Guaranteed 3:1 DRR (flash pools only)

POSITION >

PowerStore
All NVMe

Starting from
\$50k*

Unity XT 480
All Flash

Offers from
\$32K*

Unity XT 480
Hybrid

Offers from
\$20K*

4 Incentives FY21 1H

PARTNERS/CUSTOMERS

- Storage Unit Incentive
- Smart Value's
- Tech Refresh
- Competitive Swap
- Storage New Business Incentive

[REFER to Section 2 'Channel Incentives' for program and promotion details](#)

5 Competitive Talking points

HPE **NTAP** **PURE**

[REFER to Section 3 'Competing' for battlecards](#)

*Example recommended starting from Reseller price with deal reg. Prices may vary per country/region. Pricing is correct at time of publication. Dell reserve the right to change pricing at any time within the promotional period.

Entry storage positioning: \$10K–\$25K budget

Dell Technologies Channel

1 Customer has:



Dense Servers
MD12x0 or other DAS
SCv20x0
...and \$10-\$25K budget

2 OR they are new to Dell EMC Storage:

LISTEN FOR:

- Looking for strong performance at **hybrid** price points
- Advanced file services and cloud integration
- Synchronous replication
- Complete certifications

LISTEN FOR:

- Needs entry solution with basic data services
- Has multiple workloads to support w/ limited budget
- Looking for best “Bang for the Buck” value

LISTEN FOR:

- Need fast server expansion, no SAN needed
- Data services localized at server level
- Lowest \$/GB capacity

3 What to say and position

WHAT TO SAY:

- Unified array w/ native file
- Built for multi-cloud
- Guaranteed 3:1 DRR (flash pools only)

WHAT TO SAY:

- Great performance and capacity at entry prices
- Large feature/SW set at lower \$/GB
- Server-attach options

WHAT TO SAY:

- PE + MD better together
- Flexible direct attach platform options
- Scale up economics at local server level

POSITION >

Unity XT 380
Hybrid

Offers from
\$12,5K*

PV ME4
Hybrid

Offers from
\$6K*

MD14x0

Offers from
\$2,3K*

4 Incentives FY21 1H

PARTNERS/CUSTOMERS

- Storage Unit Incentive
- Smart Value’s
- Tech Refresh
- Competitive Swap
- Storage New Business Incentive

REFER to Section 2 ‘Channel Incentives’ for program and promotion details

5 Competitive Talking points

HPE

AF20Q/AF20
HF20H/C

NTAP

FAS2700

REFER to Section 3 ‘Competing’ for battlecards

**Recommended Smart Value Offer Reseller Price . Prices may vary per Country/Region. Pricing is correct at time of publication. Dell reserve the right to change pricing at any time within the promotional period.

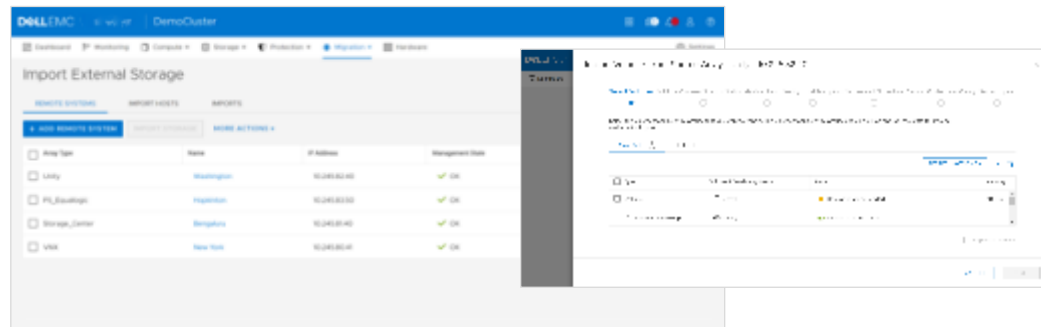
Migration to PowerStore

Native migration included with PowerStore

Flexible orchestration right from PowerStore Manager

Provides seamless transition from existing Midrange platforms

Agent based migration available



FUTURE-PROOF

PowerStore (Target)



VNX Series



PS Series



SC Series



Unity/Unity XT



XtremIO

Plus host/application tools, PPME, VPLEX & VMware Storage vMotion

vmware®

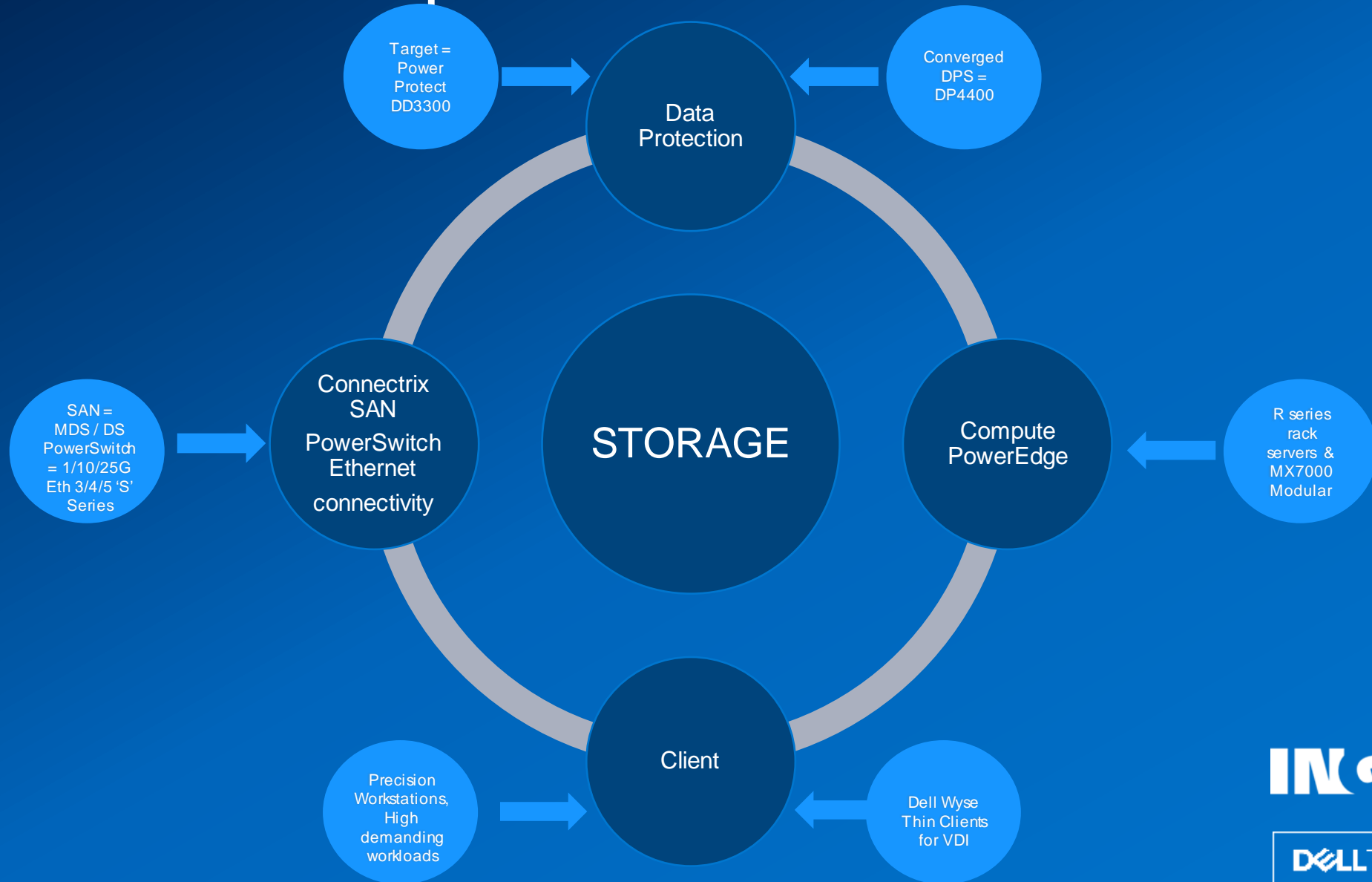
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DellEMC storage positioning: **What's the difference 'Summary'**

DellEMC midrange storage designs

PowerStore	Unity	ME4
Next Gen – Xtreme Performance	THE traditional platform of choice	Capacity at lower Pricepoints
High Performance Workloads	General Purpose Workloads	Capacity Workloads (e.g. video surveillance)
CloudIQ – cloudbased online monitoring (free of charge)		
all NVMe & SCM	Hybrid (Flash & Disk) incl tiering	
built for Exterme Performance lowest possible latencies	Strong Performance	Good Performance
Unified (block & file)		Block only
guarantueed 4:1 always-on data dedup	guarantueed 3:1 dedup	
Anytime Upgrades change to new h/w or next model without extra cost	Future Proof Loyalty guarantee	
Apps-On run VMware VMs on PowerStore		
Microservice based operating system		
Flexible deployment models and financing		

Dell EMC Portfolio possibilities



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Competing

vs NTAP, HPE, Pure

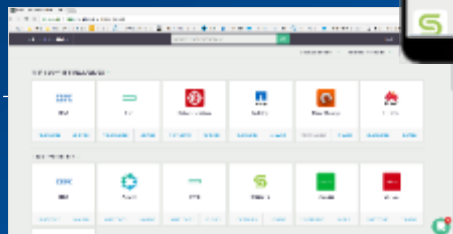
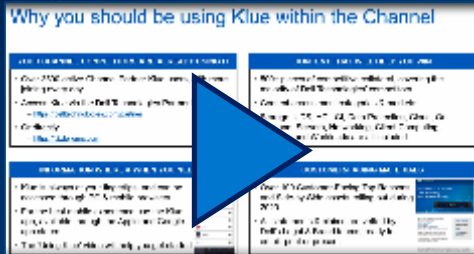
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Your Competitive Intel - Klue

Video Overview on Klue

Modern sales tools innovation



- Comprehensive coverage of Tier 1 Competitors across Storage, DP, CI/HCI, Cloud, Servers, Networking and Client
- Secondary focus on Tier 2 competitors
- 100+ competitors covered overall

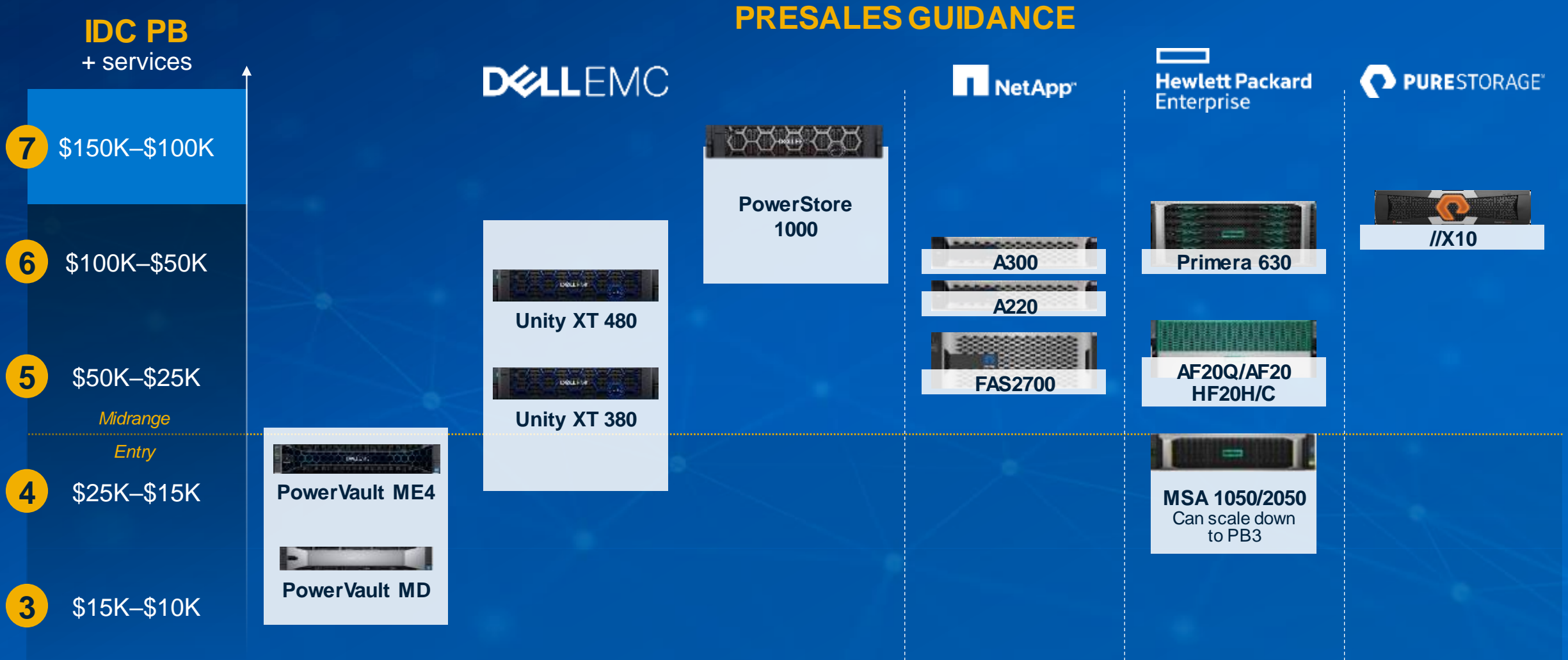
Engaging, informative content for partners



60+
COMPETITOR/TOPICS



Del EMC Storage: <\$100K NTAP/HPE/Pure competitive platforms



NOTE: Competitors by capacity, rough performance and scaling. Price is a factor but **directional only** in this picture.

Power Store 1000T

COMPETITIVE ENABLEMENT

PowerStore Competitive Enablement Training Program



This Competitive Intelligence *PowerStore Competitive Enablement Program* consists of **eight (8)** chapters of competitive enablement training on PowerStore.

Key Strengths & Weakness

Detailed PowerStore Strengths to Leverage

PowerStore

- ✓ **Native Application support**
Option to Deploy VMs and Apps directly on PowerStore X appliance
- ✓ **Anytime Upgrade**
Flexible upgrade options at anytime during contract. No renewal required
- ✓ **No compromise data reduction**
Always on inline data reduction with no performance compromise
- ✓ **Unified storage**
Native File, Block & VVols in a single unified platform with double the performance of Unity
- ✓ **NVMe and SCM support**
Support for up to 23 NVMe or SCM Drives for high performance workloads
- ✓ **Intelligent Scale-out**
PowerStore T - Scale out to 4 appliances for block applications, online load balancing
- ✓ **CloudIQ**
CloudIQ delivers proactive analytics and support to enhance the value of Dell EMC storage systems
- ✓ **VPLEX Bundles for Active/Active (Volume) Remote Replication**
PowerStore does not (yet) have synchronous or metro remote replication; VPLEX bundles deliver this functionality today

VS

HPE Primera

- ✗ **No Native Application support**
Cannot deploy additional VMs and Apps directly on the appliance
- ✗ **Technology Refresh Program**
Can only upgrade at end of 3 years and only to next gen controller
- ✗ **Data reduction means compromise**
Up to 50% performance impact when on. HPE recommends disabling data reduction for write-intensive workloads.
- ✗ **Block only**
File services require a gateway server adding costs and complexity
- ✓ **Limited NVMe and SCM**
Only up to 16 NVMe SSDs; SCM will be extended cache only
- ✓ **Scale-out**
No scale-out cluster, single array only, up to 4 controllers.
- ✓ **Infosight**
InfoSight cloud analytics, known issue detection, embedded in the array, some dark site functionality, real-time self optimization
- ✓ **Peer Persistence Active/Active (Array) Metro Cluster**
Included with Primera, 3rd site DR Async Replication. Metro Cluster currently supports up to 3 sites only.

Key

- ✓ Strength
- ✗ Weakness
- ✓ Partial Credit

SIDE-BY-SIDE

Key Strengths & Weakness

PowerStore

VS Pure

- | | |
|---|---|
| <ul style="list-style-type: none"> ✓ AppsON - Native Application support
Option to run VMware-hosted Apps directly on the appliance with PowerStore X. ✓ Anytime Upgrades
Flexible upgrade options to keep your infrastructure current. Upgrade your controller at any time to a next gen or higher model OR get free controllers when you add an appliance. No contract renewal required! 4:1 DRR guaranteed by FutureProof. ✓ NVMe Flash and Persistent SCM support
Purpose-built support for up to 21 NVMe NAND or SCM data drives in each chassis. ✓ Scale-Up & Scale-Out
Scale up to 900TB raw with a guaranteed 4 to 1 DRR per appliance. Scale out to four appliances for block applications with self-optimizing AI/ML data placement recommendations ✓ Metro Node Bundles For Active/Active Remote Replication
PowerStore does not (yet) have synchronous or metro remote replication; Metro Node (VPLEX) bundles deliver this functionality today ✓ Unified Storage – File, Block and VVols in a single unified and easy to manage platform ✓ Active/Active Controllers
Both nodes active both to hosts and disks | <ul style="list-style-type: none"> ✗ No Native Application support
Purity//Run cannot support ESXi and cannot support general user applications ✓ Evergreen Storage
"Free Every Three" is a six-year lock-in; refresh with a controller <i>Pure</i> chooses when <i>renewing</i> three-year contract. Only a 30 day satisfaction guarantee. Efficiency guarantee only if customer requires it; needs additional assessment. ✗ SCM only for read cache – primitive LRU management
SCM read cache is not persistent, no tiering, no sophistication. ✗ No scale-out, no federation
No clustering, all Pure arrays are managed independently. ✓ ActiveCluster for Active/Active Remote Replication
Active/Active remote replication ships with FlashArray ✓ Unproven NAS Support – announced June 10, 2020; untested and unknown ✗ Active/Passive Controllers
Only one controller communicates to media; limits scale and creates bottlenecks |
|---|---|

Key

- ✓ Strength
- ✗ Weakness
- ✓ Partial Credit

SIDE-BY-SIDE

Key Strengths & Weakness

Dell PowerStore

VS

IBM FlashSystem

- | | |
|--|---|
| <ul style="list-style-type: none"> ✓ AppsON - Native Application support
Option to run VMware-hosted Apps directly on the appliance with PowerStore X. ✓ Unified Storage – File, Block and VVols in a single unified and easy to manage platform ✓ Future Proof Loyalty Program w/ Anytime Upgrades
3 Year satisfaction guarantee & Anytime Upgrades ✓ Flexible upgrade options - Upgrade your controller at any time to a next gen or higher model OR get free controllers when you add an appliance
Data reduction; 4:1 all-flash DDR guarantee NO assessment needed ✓ Persistent SCM support
Purpose-built support for up to 21 NVMe NAND or SCM data drives in chassis to support business requirements ✓ Intelligent Scale-Up & Scale-Out
Scale out to four appliances (8 nodes) for block applications with self-optimizing AI/ML data placement recommendations ✓ Metro Node Bundles For Active/Active Remote Replication
PowerStore does not (yet) have synchronous or metro remote replication; Metro Node (VPLEX) bundles deliver this functionality today | <ul style="list-style-type: none"> ✗ No Native Application support
Doesn't support running user applications on the system ✗ No Unified Storage - Need a Windows NAS Server or Spectrum Scale Gateway for NAS ✗ IBM FlashWatch
Doesn't include a money back guarantee
Storage Upgrade Program only guarantees that you can refresh for the same price or less
Data reduction – Only 2:1 Guarantee, up to 5:1 with assessment ✗ Persistent SCM but only support for four SCM drives
Too small SCM to Flash ratio to enable effective tiering ✗ Manual disruptive federation
Manual federation; migration deletes local and remote replication. Data reduced volumes can't be migrated, other significant restrictions. ✓ HyperSwap for Active/Active Remote Replication
HyperSwap is pseudo active-active and forwards writes to the primary system increasing latency |
|--|---|

Key

- ✓ Strength
- ✗ Weakness
- ✓ Partial Credit



Resources

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PowerStore

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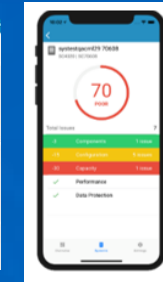
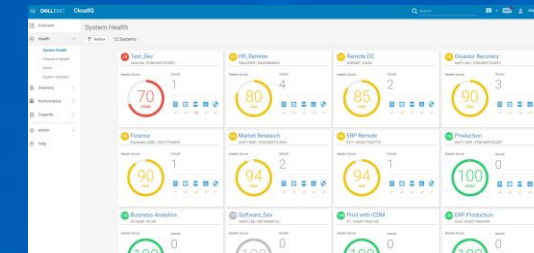
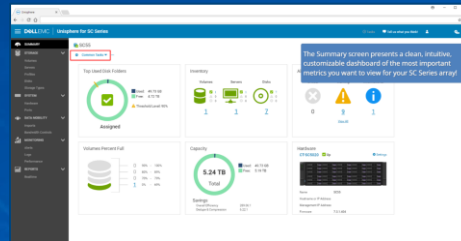
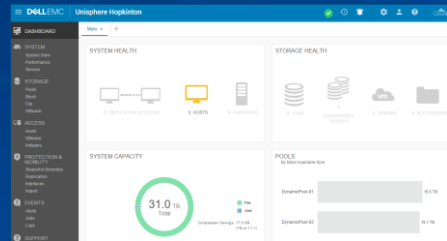


PowerScale



UNITY All-Flash

SC

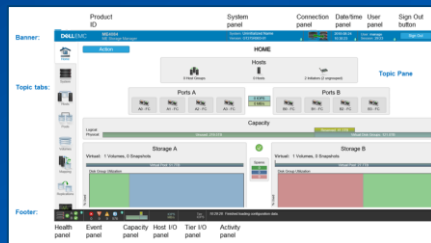


Cloud IQ

ME4

DP4400

VXRAIL





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