

All-Flash High-Performance SAN/NAS Solutions for Virtualization & OLTP

All-flash configurations are designed to deliver maximum IOPS and throughput for mission critical workloads and applications including server virtualization, VDI, and high load OLTP/database use cases.

Performance Range

300K/150K R/W IOPS per Storage Pool based on 20x SSD in RAID10

Appliance Configuration

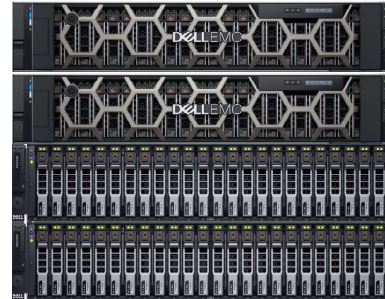
2x QuantaStor SDS Appliances (cluster pair)

- QuantaStor v4 Enterprise Edition
- Dell PowerEdge R740 Server
- 2x Intel Xeon Gold 5122 Processors
- 256GB RAM (8x 32GB RDIMM)
- 2x 480GB SATA 6G Read Intensive SFF (boot)
- 1x PERC H330+ RAID Controller (boot)
- 2x PERC 12Gb SAS HBAs (one per Storage Enclosure)
- 2x Dual-port 10/25/40/50/100GbE Ethernet Adapters
- 2x Dual-port 16Gb FC Adapters (Qlogic) (optional)

Configuration Notes

- Recommend RAID10 or RAIDZ1 (2d+1p) layout for maximum IOPS
- Recommend 25GbE or faster NICs
- Read Intensive (RI) SAS SSDs work well for most workloads as wear leveling spans all devices in a given storage pool.
- NIST 800-53, CJIS, HIPAA Compliant
- VMware Certified (iSCSI, FC, NFS) & VAAI Certified
- FIPS 140-2 option available Q3/2018
- Call-home via PagerDuty, Email, SNMP, Slack

All-Flash High-Performance



2x Dell PowerEdge R740

2x Dell MD1420
24 bay 2.5" SFF 12Gb SAS

Storage Enclosure Options



Dell MD1420
24 bay 2.5" SFF 12Gb SAS

- Add up to 2x additional storage enclosure units (4 total) may be added to each controller pair. Each enclosure is connected to dedicated HBA controller ports on both servers.
- Storage enclosures may be partially populated.
- Growing capacity in increments of 8x, 16x, or 24x drives is recommended.

Dell EMC based hardware platform

Hybrid Performance SAN/NAS Solutions for Virtualization & OLTP

Using a combination of HDD with SSD for read and write performance acceleration, QuantaStor hybrid SAN/NAS configurations are ideal for a broad spectrum of general application workloads and use cases including OLTP, VDI and server virtualization.

Performance Range

15K – 30K IOPS per Storage Pool
2GB – 3GB/sec read/write sequential per Storage Pool

Appliance Configuration

2x QuantaStor SDS Appliances (cluster pair)

- QuantaStor v4 Enterprise Edition
- Dell PowerEdge R740 Server
- 2x Intel Xeon Gold 5118 Processors
- 256GB RAM (8x 32GB RDIMM)
- 2x 480GB SATA 6G Read Intensive SFF (boot)
- 1x PERC H330+ RAID Controller (boot)
- 2x PERC 12Gb SAS HBAs (one per Storage Enclosure)
- 2x Dual-port 10/25/40/50GbE Ethernet Adapters
- 2x Dual-port 16Gb FC Adapters (Qlogic) (optional)

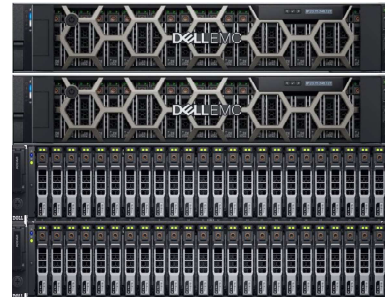
Storage Enclosure Configuration

- Add up to 2x additional storage enclosure units (4 total) may be added to each controller pair. Each enclosure is connected to dedicated HBA controller ports on both servers.
- 2x 800GB SAS Mixed-use SSDs per enclosure for write acceleration
- Storage enclosures may be partially populated.

Configuration Notes

- Storage grid scales to 32x controller pairs (64 appliances total)
- Storage grids may span sites and use different hardware configurations
- Recommend RAID10 or RAIDZ1 (2d+1p) layout for maximum IOPS
- NIST 800-53, CJIS, HIPAA Compliant
- VMware Certified (iSCSI, FC, NFS) & VAAI Certified
- FIPS 140-2 option available Q3/2018
- Encryption, compression, high-availability, remote-replication included
- Call-home via PagerDuty, Email, SNMP and Slack channel

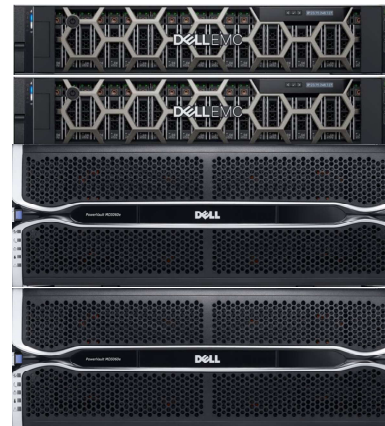
Hybrid Performance



2x Dell PowerEdge R740

Up to 4x Dell MD1420
24 bay 2.5" SFF 12Gb SAS

Hybrid Capacity



2x Dell PowerEdge R740

Up to 4x Dell MD3060e
60 bay 3.5" LFF SAS

Dell EMC based hardware platform

S3/SWIFT Object Storage for Biotech, Energy, Media & CDN Workloads

Using a combination of HDD with SSD for improved read and write performance acceleration QuantaStor scale-out object storage configurations are ideal for a broad spectrum object storage workloads. Object storage configurations can start with as few as three appliances and scale to sixty-four appliances in a single grid enabling organizations to easily scale on demand with zero downtime.

Appliance Configuration

3x or more QuantaStor SDS Appliances, each containing:

- Dell PowerEdge R740xd Server
- 2x Intel Xeon Gold 6126 Processors
- 192GB RAM (8x 32GB RDIMM)
- 2x 480GB SATA 6G Read Intensive SFF (boot)
- 1x PERC BOSS RAID1 Controller (boot)
- 1x PERC H330+ RAID Controller
- 2x Dual-port 10/25/40/50GbE Ethernet Adapters

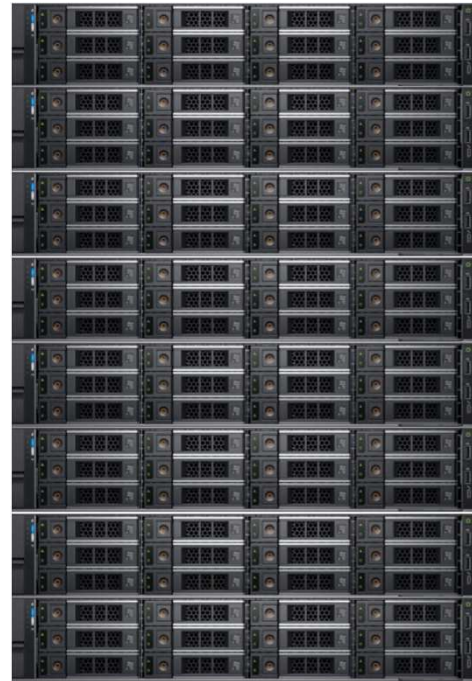
Storage Grid Configuration:

- 3x appliances minimum
- 64x appliances maximum

Configuration Notes

- Usable capacity depends replica count or erasure coding selection. 66% usable is a good estimation guideline (4k+2m).
- Separate front-end and back-end networks are recommended but not required.
- Compression & AES 256 bit encryption included
- SMB/NFS gateway access included
- Integrates with Ceph Luminous, see documentation for S3 API coverage
- Automatable via extensive QuantaStor REST APIs & multi-platform QS CLI
- NIST 800-53, CJIS, HIPAA Compliant
- FIPS 140-2 option available Q3/2018
- Call-home via PagerDuty, Email, SNMP, Slack

S3 Object Storage Cluster



- Dell PowerEdge R740xd
 - 3x to 64x systems/grid
 - Up to 192TB per system

DELL EMC DellEMC based hardware platform