

Key Benefits

Scalable Nearline Storage

- > Fast, inline deduplication with up to 1.4 TB/hour of throughput
- > Extended retention providing up to 1.7 PB of deduplication storage
- > 10-30x data reduction average

Easy Integration

- > Supports leading backup and archive applications from:
 - Symantec EMC
 - HP IBM
 - Microsoft CommVault
 - Atempo BakBone
 - Computer Associates
- > Supports leading enterprise applications including:
 - > Database: Oracle, SAP, DB2
 - > Email: Microsoft Exchange
 - > Virtual environments: VMware
- > Simultaneous use of VTL, NAS and Symantec OpenStorage (OST)

Multi-Site Disaster Recovery

- > 99% bandwidth reduction
- > Flexible replication topologies
- > Multi-site tape consolidation
- > Remote site replication
- > Cost-efficient disaster recovery

Ultra-Safe Storage for Reliable Recovery

- > Continuous recovery verification
- > Continuous fault detection and healing
- > Dual disk parity RAID-6

Operational Simplicity

- > Lower administrative costs
- > Power and cooling efficiencies for green operation
- > Reduced hardware footprint
- > Supports any combination of nearline applications in a single system

The DDX Controller Series powers the Data Domain DDX Array Series, the industry's highest throughput, highest performance nearline storage systems for the data center.

All DDX controllers use Data Domain high-speed inline deduplication technology which yields an average of 10-30x data reduction. The result is cost-efficient disk-based data retention for fast, reliable recoveries and longer term retention. DDX controllers scale to support data capacities of up to 1.7 PB of logical storage per controller for a typical enterprise data set and backup policy, and provide up to 1.4 TB/hour of throughput.

DDX controllers are qualified with leading enterprise backup and archive software and easily integrate into the existing infrastructure.

The DDX Controller Series is available with integrated dual disk parity RAID-6 protected storage or can be configured to use third-party enterprise storage systems.

SPECIFICATIONS	DD565	DD580	DD580g	DD690	DD690g
Capacity: Raw ³	Up to 23.5 TB ⁴	Up to 31.5 TB ⁴	Up to 22.8 TB	Up to 48 TB ⁴	Up to 35.5 TB
Logical Capacity: Standard ^{1, 3, 4}	320 TB	430 TB	430 TB	710 TB	710 TB
Logical Capacity: Redundant ^{2, 3, 4}	810 TB	1.08 PB	1.08 PB	1.77 PB	1.77 PB
Maximum Throughput	630 GB/hr	800 GB/hr	800 GB/hr	1.4 TB/hr	1.4 TB/hr
Power Dissipation ⁵	648 W	687 W	431 W	559 W	559 W
Cooling Requirement ⁵	2213 BTU/hr	2346 BTU/hr	1472 BTU/hr	1908 BTU/hr	1908 BTU/hr

1. Mix of typical enterprise data (file systems, databases, mail, developer files), full backup weekly, incremental backup daily, to system capacity.
2. Mix of typical enterprise data (file systems, databases, mail, developer files), full backup daily, to system capacity.
3. All capacity values are calculated using Base10 arithmetic (i.e., 1TB = 1,000,000,000,000 bytes).
4. Includes support for up to 2 add-on shelves for the DD565, 3 add-on shelves for the DD580, and 6 add-on shelves for the DD690, available separately.
5. Controller only

SOFTWARE

Data Domain Operating System (DD OS) 4.5 or later

Software Features

Global Compression, Data Invulnerability Architecture including end-to-end verification (ongoing) and integrated dual disk parity RAID-6, snapshots, telnet, FTP, SSH, email alerts, scheduled capacity reclamation, Ethernet failover and aggregation, Data Domain Replicator and Retention Lock optional software

Management

Data Domain Enterprise Manager, GUI, SNMP, and command line management interface

Protocols

NFS v3 over TCP, CIFS, NDMP v2, Symantec OpenStorage (OST), tape library emulation (VTL) over Fibre Channel

HARDWARE PLATFORM

19-inch, rack mountable, for use in 4-post rack, hot-plug disks, redundant fans, N+1 power supplies, serial port, 2 copper 10/100/1000 Ethernet ports and optional dual port copper or optical 1Gb Ethernet and dual port copper 10 Gb Ethernet

System Weight

DD565/DD580: 78 lbs (35.5 kg)

DD580g: 52 lbs (23.6 kg)

DD690/DD690g: 51 lbs (23 kg)

System Dimensions (WxDxH)

DD565, DD580, DD580g: 19" x 26" x 5.25"

(48.3 cm x 66 cm x 13.3 cm), 3 EIA Units

DD690/DD690g: 19" x 29" x 4.46"

(48.3 cm x 73.7 cm x 8.8 cm), 2 EIA Units

Minimum Clearances

Front, with: 1" (2.5 cm)

Rear: 5" (12.7 cm)

SYSTEM EXPANSION

DD565: Two (2) 8 TB ES20 disk shelves

DD580: Three (3) 8 TB ES20 disk shelves

DD690: Six (6) 8 TB ES20 disk shelves

DD580g: Up to 22.8 TB

DD690g: Up to 35.5 TB

OPERATIONAL SPECIFICATIONS

Operating Current

115VAC/230VAC

DD565: 5.6/2.8 Amps

DD580: 6.0/3.0 Amps

DD580g: 3.7/1.9 Amps

DD690/DD690g: 4.9/2.4 Amps

System Thermal Rating

DD565: 2270 BTU/hr

DD580: 2680 BTU/hr

DD580g: 1683 BTU/hr

DD690/DD690g: 1908 BTU/hr

Operating Temperature

5°C to 35°C (41°F to 95°F)

Operating Humidity

20% to 80%, non-condensing

Non-operating (Transportation) Temperature

-40°C to +65°C (-40°F to +149°F)

Operating Acoustic Noise

Max 75 dbA, at rear of unit when all drives seek simultaneously

EXTERNAL STORAGE FOR GATEWAY CONTROLLERS

Interface

PCI-based Fibre Channel fabric and Fibre Channel-Arbitrated Loop (FC-AL) / 1 to 4 Gb/sec

Connectivity

Direct-attached; Fibre Channel SAN fabric attached

REGULATORY APPROVALS

Safety: UL 60950-1, CSA 60950-1, EN 60950-1,

IEC 60950-1, SABS, GOST, IRAM

Emissions: FCC Class A, EN 55022, CISPR 22, VCCI, BSMI, RRL

Immunity: EN 55024, CISPR 24

Power Line Harmonics: EN 610003-2

Data Domain

2421 Mission College Blvd.

Santa Clara, CA 95054

866-WE-DDUPE; 408-980-4800

sales@datadomain.com

22 international offices:

datadomain.com/company/contacts

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