EMC DATA DOMAIN DEDUPLICATION STORAGE SYSTEMS

EMC Data Domain deduplication storage systems continue to revolutionize disk backup, archiving, and disaster recovery with high-speed, inline deduplication. By consolidating backup and archive data on a Data Domain system, you can reduce storage requirements by 10-30x, making disk cost-effective for onsite retention and highly efficient for network-based replication to disaster recovery sites.

Data Domain Systems

Specifications

DATA DOMAIN CONTROLLER PERFORMANCE AND CAPACITY

	DD160	DD620	DD2500	DD4200	DD4500	DD7200	DD990
Maximum Throughput (Other)	667 GB/hr	1.1 TB/hr	5.3 TB/hr	10.2 TB/hr	10.2 TB/hr	11.9 TB/hr	15.0 TB/hr
Maximum Throughput (DD Boost)	1.1 TB/hr	2.4 TB/hr	13.4 TB/hr	22.0 TB/hr	22.0 TB/hr	26.0 TB/hr	31.0 TB/hr
Logical Capacity[1]	40–195 TB	83–415 TB	1.3–6.6 PB	1.8-9.4 PB	2.8-14.2 PB	4.2-21.4 PB	5.7–28.5 PB
Logical Capacity w/ DD Extended Retention[1]				5.6-28.4 PB	11.4-57.0 PB	17.1-85.6 PB	Up to 100 PB
Max Usable Capacity	Up to 3.98 TB	Up to 8.3 TB	Up to 133 TB	Up to 189 TB	Up to 285 TB	Up to 428 TB	Up to 570 TB
Max Usable Capacity w/ Extended Retention				Up to 569 TB	Up to 1.1 PB	Up to 1.7 PB	Up to 2.0 PB
ES30 Shelves Supported	-	-	2 TB, 3 TB	2 TB, 3 TB	2 TB, 3 TB	2 TB, 3 TB	1 TB, 2 TB, 3 TB
Drive Type	SATA	SATA	SAS	SAS, SATA	SAS, SATA	SAS, SATA	SATA

1. Mix of typical enterprise backup data (file systems, databases, email, developer files). The low end of capacity range represents a full backup weekly or monthly, incremental backup daily or weekly, to system capacity. The top end of the range represents full backup daily, to system capacity. All capacity values are calculated using Base10 (i.e., 1TB = 1,000,000,000,000 bytes).

EMC²

DATA DOMAIN CONTROLLER PHYSICAL SPECIFICATIONS AND ENVIRONMENTALS

	DD160	DD620	DD2500	DD4200	DD4500	DD7200	DD990
Weight	7 HDDs: 49 lbs 12 HDDs: 57 lbs		7 HDDs: 57 lbs 12 HDDs: 65 lbs	80 lbs			110 lbs
Dimensions	19" x 22" x 3.5" 2U EIA rack units			19" x 35.5" x 7" 4U EIA rack units			16.7" x 27.7" x 6.8" 4U EIA rack units
Power 100-120/200-24 0 V ~, 50/60 Hz	7 HDDs: 330 VA 12 HDDs: 373 VA		7 HDDs: 451 VA 12 HDDs:526 VA	800 VA			1,400 VA
Thermal Rating (Watts)	7 HDDs: 331 Watts 12 HDDs: 339 Watts		7 HDDs: 428 12HDDs: 500	760 Watts			1,400 Watts
Thermal Rating (BTU/hr)	7 HDDs: 1,061 BTU/hr 12 HDDs: 1,157 BTU/hr		7 HDDs: 1,462 12HDDs: 1,705	2,593 BTU/hr			6,924 BTU/hr
Operating Temperature/Altitude[2]	10°C to 35°C, 35°C at 7,500 ft						5°C to 35°C, 35°C at 7,500 ft
Non-Operating (Transportation) Temperature	-40°C to +65°C (-40°F to +149°F)						
Operating Humidity	20% to 80% non-condensing						
Operation Acoustic Noise (Sound Power)	LWad: 7.0 bels	LWAd: 7.2 bels		LWAd: 7.52 bels			LWAd: 7.2 bels
Operation Acoustic Noise (Sound Pressure)	-	LpAm: 65 db		LpAm: 58.4 db			LpAm: 56.4 db

[2] Derate 1.1°C/1,000 ft above 7,500 ft to 10,000 ft

DATA DOMAIN CONTROLLER REGULATORY APPROVALS

	DD160	DD620	DD2500	DD4200	DD4500	DD7200	DD990
Safety	UL 60950-1, CSA 60950-1, EN 60950-1, IEC 60950-1, GS, SABS, GOST, IRAM						
Emissions	FCC Class A, EN 55022, CISPR 22, VCCI, BSMI, MIC, ICES-003						
Immunity	EN 55024, CISPR 24						
Power Line Harmonics	EN 61000-3-2						

SOFTWARE

SOFTWARE FEATURES

Global Compression™, Data Invulnerability Architecture including inline verification and integrated dual disk parity RAID 6, snapshots, telnet, FTP, SSH, email alerts, scheduled capacity reclamation, Ethernet failover and aggregation, Link Aggregation Control Protocol (LACP), VLAN tagging, IP aliasing, EMC Data Domain Boost, EMC Data Domain Encryption, EMC Data Domain Extended Retention (DD860, DD990, DD4200, DD4500, and DD7200 only, cannot be used in conjunction with EMC Data Domain Encryption), EMC Data Domain Replicator, EMC Data Domain Retention Lock optional software and EMC Data Domain Virtual Tape Library (for open systems and IBM i operating environments)

SYSTEM MANAGEMENT

EMC Data Domain System Manager, EMC Data Domain Management Center, SNMP, and command line management interface

DATA MANAGEMENT

NFS v3 over TCP, CIFS and DD Boost over 1 GbE or 10 GbE, tape library emulation (VTL) over Fibre Channel, and NDMP Tape Server

DATA DOMAIN RACK

POWER CONFIGURATION

Single phase is standard, optional 3-phase

Two power domains (base and extended), each redundant

POWER INLET COUNT

Either two (for redundant base configuration) or four (for redundant extended configuration)

PLUG TYPES

NEMA L6-30p or IEC 60309 332P6

POWER CAPACITY

200-240 V~, single-phase, 47-63 Hz

4,800 VA (base configuration)

9,600 VA (extended configuration)

AC PROTECTION

30 A site circuit breaker on each power domain

DIMENSIONS

40U available rack capacity

Height: 75 in (190.8 cm); Width: 24.0 in (61.1 cm); Depth: 39.0 in (99.2 cm)

Weight: 380 lbs (173 kg) when empty

ES30 EXPANSION SHELF

EXTERNAL INTERFACE (HOST/EXPANSION)

Dual 4 lane 6 Gb/s serial attached SCSI II (SAS) ports per Link Control Card (LCC)—one for host and one for expansion

CONNECTOR TYPE

SFF-8088 connectors (mini-SAS)

SAS CABLE LENGTH

Up to 5 meter

DISK DRIVES

15-drive bays per ES30 expansion shelf, support low profile, one inch high, 3.5-inch form factor drives

Drives Choices*

- SAS (6 Gb/s), 3 TB or 2 TB, & 7200 RPM
- SATA (3 Gb/s), 3 TB or 2 TB or 1 TB, & 7200 RPM
- Integrated SAS expander module for shelves with SATA drives
- Point-to-point disk connectivity

* See Data Domain Controller Performance and Capacity section for Shelves & Drive Type Supported for each controller

DIMENSIONS

Height: 5.25 in (13.34 cm)

Width: 19.0 in (48.3 cm)

Depth: 14.0 in (35.56 cm)

Weight: 68 lbs (30.8 kg)

OPERATIONAL

Power (VA): 100-120/200-240 V~, 50/60 HZ 280 VA

Thermal Rating: 800 BTU/hr, 235 Watts

Operating Temperature/Altitude: 10°C to 35°C (50°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 Declared noise emission values per ISO 9296:

Sound Power, LWAd: 6.5 bels

Sound Pressure, LpAm: 48.5 dB

EMC²