EMC DATA DOMAIN DD800 SERIES

Deduplication storage for enterprise data centers

ESSENTIALS

Scalable Deduplication Storage

- Fast, inline deduplication with up to 14.7 TB/hour of throughput
- Extended retention providing up to 14.2 PB of logical storage
- 10-30x average data reduction

Easy Integration

- Supports leading backup and archive applications
- Supports leading enterprise applications for database, e-mail, content management, and virtual environments
- Simultaneous use of VTL, NAS, NDMP and EMC Data Domain Boost

Multi-Site Disaster Recovery

- 99 percent bandwidth efficiency for network-based replication
- Flexible replication topologies for tape-free DR or tape consolidation
- Replication from up to 180 remote sites
- Encrypted replication

Ultra-Safe Storage for Reliable Recovery

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

Operational Simplicity

- Power, cooling, and space efficiencies for green operation
- Supports any combination of backup and archive applications in a single system

NEXT-GENERATION DATA PROTECTION

EMC® Data Domain® deduplication storage systems have revolutionized disk backup, disaster recovery, and remote office data protection with high-speed, inline deduplication. Backup data can be reduced in size by an average of 10-30x, so disk backup storage is now cost-effective for onsite retention and highly efficient for network-based replication to disaster recovery sites.

SCALABLE DEDUPLICATION STORAGE

A single EMC Data Domain DD890 system achieves single-stream throughput of up to 1.44 TB/hour—performance that is imperative for protecting large, business critical databases in the data center. The DD890 provides aggregate throughput of up to 14.7 TB/hour using multiple backup policies. Up to 14.2 PB of logical storage capacity per system is supported, enough to satisfy most enterprise backup and archive workflows.

Data Domain systems store each unique data sequence only once and save significant physical storage capacity by substituting small references for each identical redundant sequence. The DD800 series offers an average of 10-30x data reduction for enterprise recovery images, enabling cost-efficient retention on disk for high-speed recoveries. Snapshot technology further enables extended local and offsite retention on disk.

EASY INTEGRATION

The Data Domain DD800 series is qualified with all leading enterprise backup software and archiving applications and easily integrates into your existing storage infrastructure without change for either data center or distributed office data protection.

These systems support simultaneous data access methods through NFS and CIFS file service protocols over Ethernet, or as a disk-based target using application-specific interfaces such as EMC Data Domain Boost. DD Boost enables advanced integration for environments with EMC NetWorker®, Symantec NetBackup and Backup Exec. Users can leverage the same DD800 series system for both backup and archive workloads. This improves the efficiency across backup and archive applications and data types, as well as reduces management overhead by combining multiple applications' storage on a single system.

MULTI-SITE DISASTER RECOVERY

EMC Data Domain Replicator software enables network-efficient and encrypted replication to a remote site for disaster recovery, remote office data protection, or multi-site tape consolidation. The DD890 supports replication fan-in from Data Domain systems installed at up to 180 remote offices. Cross-site deduplication minimizes the required bandwidth between all sites, since only the first instance of data is transferred across any of the WAN segments. Datasets are effectively shrunk by 99 percent, to a size where network-efficient replication is

EMC²
where information lives®

fast and reliable. If confidentiality is required, deduplicated and compressed data can be encrypted in-flight when being replicated between Data Domain systems, independently of the replication topology used.

ULTRA-SAFE STORAGE FOR RELIABLE RECOVERY

The EMC Data Domain Data Invulnerability Architecture provides the ultimate defense against data integrity issues. Continuous recovery verification along with extra levels of data protection continuously detect and protect against data integrity issues during the initial backup and throughout the data lifecycle. Unlike any other enterprise array or filesystem, each system ensures recoverability is verified and then continuously re-verified.

OPERATIONAL SIMPLICITY

EMC Data Domain systems are simple to install and manage. Connect an appliance to the backup server as either a file server via Ethernet or as a virtual tape library (VTL) via Fibre Channel. EMC Data Domain Boost (for use with Symantec OpenStorage and EMC NetWorker) is also supported; all three interfaces can be used simultaneously.

SPECIFICATIONS

SOFTWARE

EMC Data Domain Operating System (DD OS) 5.0 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, e-mail alerts, scheduled capacity reclamation, Ethernet failover and aggregation, Link Aggregation Control Protocol (LACP), VLAN tagging, IP aliasing; EMC Data Domain Boost, EMC Data Domain Virtual Tape Library (for open systems and IBM i operating environments), EMC Data Domain Encryption, EMC Data Domain Replicator, and EMC Data Domain Retention Lock optional software

Management
EMC Data Domain Enterprise Manager, SNMP, and command line interface

Data Access
NFS v3 over TCP, CIFS, DD Boost (for use with Symantec OpenStorage and EMC NetWorker), tape library emulation (VTL) over Fibre Channel, NDMP Tape Server

SYSTEM EXPANSION

DD890: Up to 384 TB raw capacity
• Up to twelve 32 TB expansion shelves
• Up to twelve 16 TB expansion shelves
• Support for a mix of 32TB and 16TB expansion shelves up to raw capacity of 384 TB

DD860: Up to 192 TB raw capacity
• Up to six 32 TB expansion shelves
• Up to twelve 16 TB expansion shelves
• Support for a mix of 32TB and 16TB expansion shelves up to raw capacity of 192 TB

REGULATORY APPROVALS

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

HARDWARE PLATFORM

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

System Weight
52 lbs (23.6 kg)

System Dimensions (WxDxH)
19 "x 29.5 "x 3.5" (48.3 cm x 74.9 cm x 8.9 cm)
2 EIA units

Minimum Clearance
Front, with bezel closed: 1.56" (4.0 cm)
Rear: 5" (12.7 cm)

Power (VA)
100-120 / 200-240 V~, 50/60 Hz; 550 VA

System Thermal Rating
1783 BTU/hr

Operating Temperature / Altitude
10°C to 35°C (50°F to 95°F), derate 1.1°C/1000 feet above 7,500 feet to 10,000 feet

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: 7.52 bels
  Sound pressure, LpAm: 56.4 db

DD800 Series Specifications	DD860	DD890
Capacity, Raw [1]	Up to 192 TB	Up to 384 TB
Logical Capacity, Standard [1,2]	1.4 PB	2.9 PB
Logical Capacity, Redundant [1,3]	7.1 PB	14.2 PB
Maximum Throughput (Other)	5.1 TB/hr [5]	8.1 TB/hr [8]
Maximum Throughput (DD Boost) [6]	9.8 TB/hr	14.7 TB/hr
Power Dissipation [7]	523 W	523W
Cooling Requirements [7]	1,783 BTU/hr	1,783 BTU/hr

1. Mix of typical enterprise backup data (filesystems, databases, e-mail, 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.
2. Mix of typical enterprise data (filesystems, databases, e-mail, developer files), full backup daily, to system capacity.
3. All capacity values are calculated using Base 10 (i.e., 1 TB = 1,000,000,000,000 bytes) and the maximum raw capacity configuration.
4. Includes support for add-on shelves.
5. Maximum throughput achieved using OST and 10 Gb Ethernet.
6. Maximum throughput achieved using DD Boost and 10 Gb Ethernet.
7. Controller only.
8. Maximum throughput achieved using VTL interface and 8 Gbps Fibre Channel.

CONTACT US

To learn more about how EMC products, services, and solutions help solve your business and IT challenges contact your local representative or authorized reseller—or visit us at www.EMC.com

EMC²
where information lives®