

Gateway Series

High-Speed, Inline Deduplication for Third-Party Storage Systems

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 protection 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)
- > Supports third-party enterprise storage

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

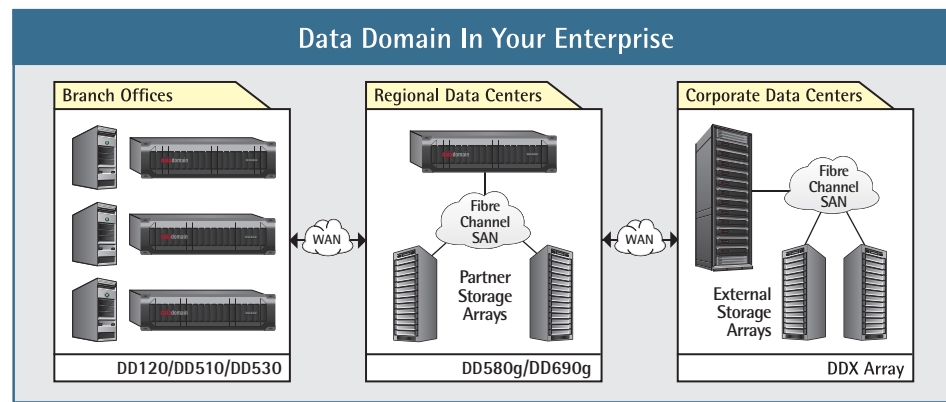
- > Continuous recovery verification
- > Continuous fault detection and healing

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

Today's traditional disk backup systems go no further than providing a front-end to a tape library infrastructure with a fast cache, temporarily alleviating backup window problems. They fail to replace tape automation technology because they lack the requisite economic and operational qualities. Traditional disk cannot cost-efficiently retain backup and archive data for any length of time, and the data is too large to be replicated over a Wide Area Network (WAN).

Data Domain has revolutionized disk backup and remote office data protection with patented high-speed, inline deduplication. Backup data can be reduced in size by an average of 20x, so disk backup storage is now cost-effective for long-term onsite retention and highly efficient for network-efficient offsite replication to disaster recovery sites.



Scalable Nearline Storage

Massive Data Reduction

The Data Domain Gateway Series offers the industry's highest throughput and most scalable nearline storage systems for disk backup and network-based disaster recovery (DR). The Gateway Series complements the Data Domain Array Series and Appliance



DD690g Gateway



DD580g Gateway

Series by optimizing storage capacities for environments that want to use third-party enterprise storage systems for long-term retention. Using Data Domain high-speed inline deduplication, the Gateway Series offers an average of 20x data reduction for enterprise recovery images, enabling cost-efficient retention on disk for high-speed and more reliable recoveries.

Scalable Data Protection

The Gateway Series offers data protection capacities up to 1.7 PB of logical storage per gateway for a typical enterprise data set and

backup policy. With its high performance system architecture Data Domain gateways offer up to 1.4 TB/hour of throughput, significantly exceeding LTO-4 performance.

Easy Integration Into Existing Infrastructures

The Gateway Series is qualified with leading enterprise backup and archive software and with storage systems from several leading enterprise storage providers. The gateway easily integrates into the existing infrastructure without change for either data center or distributed office data protection. Use the Gateway Series to protect all enterprise application and home directory data.

Multi-Site Disaster Recovery

Connect the gateway to your backup software's media server as either a file server via Ethernet, as a virtual tape library (VTL) via Fibre Channel, or via Symantec OpenStorage (OST). It takes just minutes to start backing up and recovering data. If required, duplicate to tape using your existing software for off-site and archive support, or use Data Domain Replicator for network-efficient movement of data to another site for disaster recovery,

remote office data protection or multi-site tape consolidation.

With Data Domain deduplication technology, backup data sets are effectively shrunk by 99%, to a size where network-based replication is operationally feasible.

For other nearline workloads, simply copy and paste files or use an archiving application to move data to the system.

Ultra-Safe Storage for Reliable Recovery

Data Domain Data Invulnerability Architecture provides the industry's best defense against data integrity issues. Continuous recovery verification along with extra levels of data protection continuously detect and protect against data integrity issues during initial backup and throughout the data life cycle. Unlike any other enterprise array or file system each gateway ensures recoverability is verified and then continuously re-verified.

Operational Simplicity

Data Domain systems are very simple to install and manage resulting in lower administrative and operational costs.

All Data Domain systems have an automatic call-home system reporting capability, called Auto-Support, which provides email notification of complete system status. This non-intrusive alerting and data collection capability enables proactive support and service without administrator intervention, further simplifying ongoing management.

Data Domain

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SPECIFICATIONS	DD580g	DD690g
Capacity: Raw ³	Up to 22.8 TB	Up to 35.5 TB
Logical Capacity: Standard ^{1,3}	430 TB	710 TB
Logical Capacity: Redundant ^{2,3}	1.08 PB	1.77 PB
Maximum Throughput	800 GB/hr	1.4 TB/hr
Power Dissipation	431 W	559 W
Cooling Requirement	1472 BTU/hr	1908 BTU/hr

- Mix of typical enterprise data (file systems, databases, mail, developer files), full backup weekly, incremental backup daily, to system capacity
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- All capacity values are calculated using Base10 arithmetic (i.e., 1TB = 1,000,000,000,000 bytes)

SOFTWARE

Data Domain Operating System (DD OS) 4.5 or later

Software Features

Global Compression, Data Invulnerability Architecture including end-to-end verification (ongoing), snapshots, telnet, FTP, SSH, email alerts, scheduled capacity reclamation, Ethernet failover and aggregation, multi-path storage connectivity, 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, 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

DD580g: 52 lbs (23.6 kg)

DD690g: 51 lbs (23 kg)

System Dimensions (WxDxH)

DD580g: 19" x 26" x 5.25" (48.3 cm x 66 cm x 13.3 cm), 3 EIA Units

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 Bezel: 1" (2.5 cm)

Rear: 5" (12.7 cm)

Operating Current

115VAC/230VAC

DD580g: 3.7/1.9 Amps

DD690g: 4.9/2.4 Amps

System Thermal Rating

DD580g: 1472 BTU/hr

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

EXTERNAL STORAGE

Interface

PCI-based Fibre Channel Fabric and Fibre Channel-Arbitrated Loop (FC-AL) / 1 to 4 Gb/sec; Redundant HBA and port connectivity

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