

### Key Benefits

#### Scalable Nearline Storage

- > Fast, inline deduplication with up to 800 GB/hour of throughput
- > Extended retention providing up to 1.25 PB of protection storage

#### Multi-Site Disaster Recovery

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

#### Easy Integration

- > Supports leading backup and archive applications
  - > Symantec
  - > EMC
  - > HP Data Protector
  - > IBM TSM
  - > CommVault
  - > Computer Associates
  - > Atempo
  - > BakBone
- > Supports leading enterprise applications
  - > Database: Oracle, SAP, DB2
  - > Email: Microsoft Exchange
  - > Virtual environments: VMware
- > Simultaneous use of VTL and NAS

#### Ultra-Safe Storage for Reliable Recovery

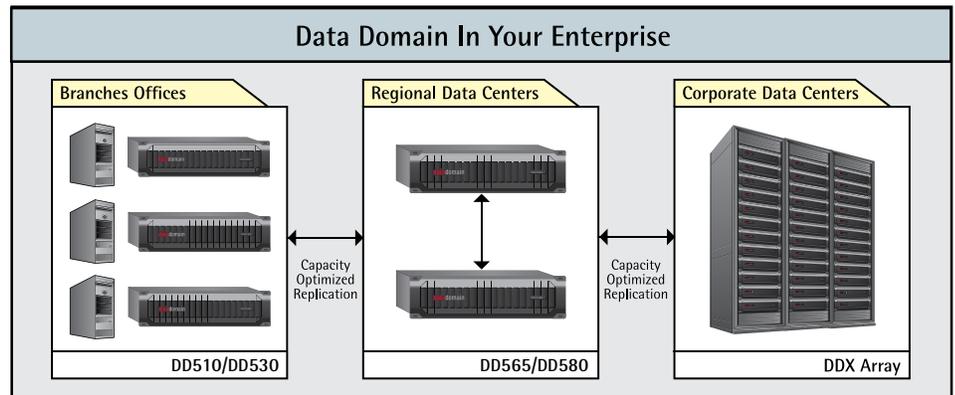
- > Continuous recovery verification
- > Continuous fault detection and healing
- > Dual disk parity RAID-6

#### Operational Simplicity

- > 10-30x data reduction
- > 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 data for any length of time, and backup 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 WAN vaulting to disaster recovery sites.



### Massive Data Reduction

The Data Domain Appliance Series is the industry's highest throughput, most cost-effective and scalable nearline storage solution for disk backup and network-based disaster recovery (DR).

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. Backup data, for example, is ideal for this technology, and Data Domain is the only vendor to offer the benefits of data reduction and the throughput to meet backup windows.

The Appliance 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.

### Easy Integration Into Existing Infrastructures

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

### Scalable Data Protection

The Appliance Series offers data protection capacities from 25 TB to 1.25 PB of logical storage per appliance for a typical enterprise data set and backup policy. With its high-performance system architecture, the Appliance Series offers up to 800 GB/hour of inline deduplication throughput, significantly exceeding LTO-4 performance.

### Multi-Site Disaster Recovery and Nearline Storage

Connect an appliance to your backup software's media server as either a file server via Ethernet or a virtual tape library (VTL) via Fibre Channel. It takes just minutes to start backing up and recovering data. If required, duplicating to tape is simple using your existing software for offsite protection and long term retention. For other nearline workloads, simply copy and paste files or use an archiving application to move data to the appliance.

Data Domain Replicator software is also ideal for WAN vaulting 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 WAN vaulting is operationally feasible.

### Ultra-Safe Storage for Reliable Recovery

Data Domain's 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 the initial backup and throughout the data life cycle. Unlike any other enterprise array or file system each appliance ensures recoverability is verified and then continuously re-verified.

The Appliance Series is configured with dual disk parity RAID-6, so two disks can fail simultaneously and the system will remain healthy. Fans and power supplies (N+1) are redundant and easy to replace for added system resilience.

SPECIFICATIONS	DD510	DD530	DD565	DD580
Capacity: Raw <sup>3</sup>	2.25 TB	4.5 TB	Up to 23.5 TB <sup>4</sup>	Up to 31.5 TB <sup>4</sup>
Logical Capacity: Standard <sup>1,3</sup>	25 TB	55 TB	400 TB	550 TB
Logical Capacity: Redundant <sup>2,3</sup>	65 TB	140 TB	980 TB	1.25 PB
Maximum Throughput	290 GB/hr	360 GB/hr	630 GB/hr	800 GB/hr
Power	408 W	408 W	648 W	687 W
Cooling	1393 BTU/hr	1393 BTU/hr	2213 BTU/hr	2346 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).
- Includes support for up to 2 add-on shelves for the DD565, and 3 add-on shelves for the DD580, available separately.

#### SOFTWARE

Data Domain Operating System (DD OS) 4.3 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, Data Domain Replicator (add-on option)

#### Management

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

#### Protocols

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

#### HARDWARE PLATFORM

3U 19-inch, four-post, rack-mount enclosure, hot-plug disks, redundant fans, N+1 power supplies, 2 copper 10/100/1000 Ethernet ports (optional dual add-on Gb Ethernet, copper or fiber), serial port

#### System Weight

DD510/DD530, 9 drives: 68 lbs (30.9 kg)  
DD565/DD580: 78 lbs (35.5 kg)

#### System Dimensions (WxDxH)

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

#### System Expansion

DD510/DD530: 9 drives  
DD565: Up to 2 ES20 disk shelves  
DD580: Up to 3 ES20 disk shelves

#### Minimum Clearances

Front, with Bezel Closed: 1" (2.5 cm)  
Front, with Bezel Open: 5" (12.7 cm)  
Rear: 5" (12.7 cm)

#### Normal Operating Current 115VAC/230VAC

DD510/DD530, 9 drives: 3.5/1.8 Amps  
DD565: 5.6/2.8 Amps  
DD580: 6.0/3.0 Amps

#### System Thermal Rating

DD510/DD530, 9 drives: 1393 BTU/hr  
DD565: 2213 BTU/hr  
DD580: 2346 BTU/hr

#### Operating Temperature and Humidity

+5°C to 35°C at 20% to 80% relative humidity, non-condensing

#### Non-operating Temperature

-40°C to +65°C

#### Operating Acoustic Noise

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

#### REGULATORY APPROVALS

Safety: UL60950-1, CSA60950-1, EN60950-1, IEC60950-1, SABS  
Emissions: FCC Class A, EN55022, CISPR 22  
Immunity: EN 55024, CISPR 24  
Power Line Harmonics: EN61003-2

#### Data Domain

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