



Enterprise Protection Storage

# Data Domain® Appliance Series

## ENTERPRISE PROTECTION STORAGE FOR BACKUP/RECOVERY IN A SIMPLE PACKAGE

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. Plain 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 by addressing the data volume issue with Global Compression™ technology. Backup data is reduced in size by an average of 20x with Data Domain's patented combination of high speed deduplication and compression. Disk backup storage is now cost-effective for long-term onsite retention and highly efficient for WAN vaulting to disaster recovery sites. Data Domain's Enterprise Protection Storage appliances are central to any tapeless data protection architecture for the enterprise.

## MASSIVE DATA REDUCTION

The Data Domain Appliance Series of restorers is the industry's highest throughput, cost-effective and scalable protection storage appliances for disk backup and network-based disaster recovery (DR). All Data Domain appliances are designed with Data Domain's Global Compression technology for data deduplication. 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 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 20x data reduction for enterprise recovery images, enabling cost-efficient

retention on disk for high-speed and more reliable recoveries.

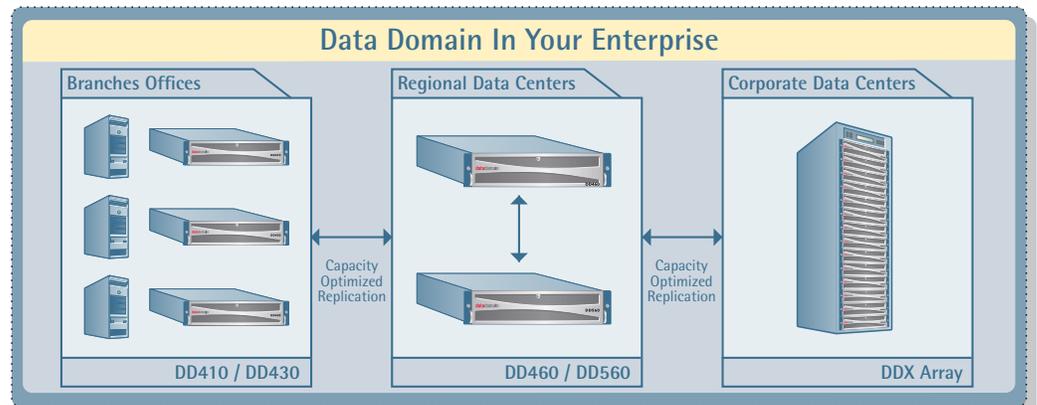
## Easy Integration Into Existing Enterprise Backup Infrastructures

The Appliance Series of easy to deploy, disk-full storage systems is qualified with all leading enterprise backup software and easily integrates into the existing backup infrastructure without change for either data center or distributed office data protection.

Use the Appliance Series to protect all enterprise application and home directory data.

## High Capacity, High Throughput Deduplication

The Appliance Series offers data protection capacities from 15 TB to 980TB of usable storage per appliance for a typical enterprise data set and backup policy. With



STORAGE



its high performance system architecture, the series offers hundreds of GB/hour of throughput, exceeding LTO-3 performance.

**Local and Multi-site Data Protection**

Connect a 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 and archive support. Also, the Data Domain Replicator software option is ideal for WAN vaulting to another site for disaster recovery (DR), remote office data protection or multi-site tape consolidation. With Data Domain's deduplication technology, backup data sets are effectively shrunk by 99%, to a size where WAN vaulting is operationally feasible.

**Ultra-Safe Backup 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 life cycle of the backup data. Unlike any other enterprise array or file system each appliance ensures recoverability is verified at backup time and continuously re-verified. The Appliance Series is configured with DD RAID, a dual disk parity RAID 6 configuration, 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**

	DD410	DD430	DD460	DD560
Capacity: Raw (3)	960 GB	3.2 TB	6 TB	Up to 22.5 TB (4)
Capacity: Standard (1,3)	15 TB	40 TB	80 TB	400 TB
Capacity: Redundant (2, 3)	55 TB	100 TB	230 TB	980 TB
Throughput maximum	160 GB/hr	220 GB/hr	290 GB/hr	400 GB/hr
Power	518 W	518 W	575 W	575 W
Cooling	1370 BTU/hr	1370 BTU/hr	1570 BTU/hr	1570 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. Supports up to 2 add-on shelves, to be available separately.

**SOFTWARE**

Data Domain Operating System (DD OS) 4.0 or later

**Software Features**

Global Compression, Data Invulnerability Architecture including end-to-end verification (ongoing) and integrated dual disk parity RAID (DD RAID), telnet, FTP, SSH, email alerts, scheduled capacity reclamation (clean), 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**

DD410/430: 60 lbs (28 kg)  
DD460/DD560: 80 lbs (36.3 kg)

**System Dimensions (WxDxH)**

19" x 26" x 5.25" (48.3 cm x 66 cm x 13.3 cm)

**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

DD410/DD430: 3.0/1.5A  
DD460/DD560: 3.5/1.8A

**Maximum Current at Power Up** 115VAC/230VAC

DD410/DD430: 4.5/2.3A  
DD460/DD560: 5.0/2.5A

**System Thermal Rating**

DD410/430: 1370 BTU / hr  
DD460/DD560: 1570 BTU / hr

**Operating Temperature and Humidity**

+5°C to 35°F at 5% to 90% RH, noncondensing

**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: UL 1950  
Emissions: FCC Class A  
Immunity: EN 55024: 1

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