

# EMC DATA DOMAIN SOFTWARE

## Software Options for EMC Data Domain Deduplication Storage Systems

### ESSENTIALS

#### EMC Data Domain Boost

- Speeds backups up to 50%
- Enables application control of replication
- Supports Majority of Backup Software Market

#### EMC Data Domain Encryption

- Encrypts data-at-rest
- RSA® BSAFE FIPS 140-2 Validated
- Supports internal or external encryption key management

#### EMC Data Domain Extended Retention

- Provides cost-effective, long-term retention of backups
- Designed for fault isolation to minimize reliance on Tape

#### EMC Data Domain Replicator

- Reduce bandwidth requirements by up to 99 percent
- Replicate from up to 270 remote sites into a single system

#### EMC Data Domain Retention Lock

- Secure retention of archive data
- Meets governance and compliance requirements

#### EMC Data Domain Virtual Tape Library

- Easily integrates with SAN environments
- Supports open systems and IBM i environments

#### EMC Data Domain Management Center

- Centralized management for large environments

### EMC DATA DOMAIN BOOST

#### ADVANCED APPLICATION INTEGRATION

EMC Data Domain Boost™ software significantly increases performance, reduces resource requirements and simplifies management. With DD Boost, parts of the deduplication process are distributed to the backup server or application clients, enabling it to compress and send only unique data segments to a Data Domain system. This enables 50% faster backups and reduces network bandwidth requirements up to 80 to 99 percent.

With DD Boost, applications can control replication between Data Domain systems with full catalog awareness - providing administrators a single point of management for all backup copies. This also provides more flexible retention management by enabling backup administrators to set retention periods for each backup copy individually. In addition, DD Boost provides application-aware advanced load balancing and failover, which further improves throughput and resiliency.

Data Domain Boost can be deployed in both Ethernet and Fibre Channel environments and provides advanced integration with majority of the backup application market and industry leading databases native utilities like Oracle RMAN. Specifically, DD Boost is integrated with EMC Avamar, EMC NetWorker, EMC Greenplum, Symantec NetBackup, Symantec BackupExec, Dell NetVault Backup, Dell vRanger as well as Oracle RMAN.

### EMC DATA DOMAIN ENCRYPTION

#### SECURE ENCRYPTION OF DATA-AT-REST

EMC Data Domain Encryption software enhances security for data that resides on Data Domain systems using industry-standard RSA® BSAFE FIPS 140-2 validated cryptographic libraries. With DD Encryption, backup and archive data is stored on a Data Domain system with encryption and compression performed inline—before the data is written to disk. DD Encryption supports internal encryption key management on each Data Domain system or external key management through RSA Data Protection Manager, which delivers a robust encryption key lifecycle management solution for the entire enterprise.

### EMC DATA DOMAIN EXTENDED RETENTION

#### LONG-TERM RETENTION OF BACKUP DATA

EMC Data Domain Extended Retention software provides internal tiering for cost-effective, long-term retention of backup data on a Data Domain system to minimize reliance on tape. DD Extended Retention software provides a transparent separation of backup data with short-term and long-term retention requirements by storing it in different tiers on Data Domain systems – the active and retention tiers. Long-term data access and recoverability is ensured through fault isolation. Specifically, the retention tier, which consists of multiple retention units, will seal each retention unit when it

reaches full capacity. When it is sealed, it becomes a self-contained unit to ensure long-term data preservation. As a result, in the event of a failure or a catastrophe, the system continues to operate with all unaffected components.

## **EMC DATA DOMAIN REPLICATOR**

### **NETWORK-EFFICIENT REPLICATION**

EMC Data Domain Replicator software provides automated, policy-based, network-efficient and encrypted replication for disaster recovery and multi-site backup and archive consolidation. DD Replicator software asynchronously replicates only compressed, deduplicated data over the WAN. Cross-site deduplication further reduces bandwidth requirements when multiple sites are replicating to the same destination system. With cross-site deduplication, any redundant segment previously transferred by any other site or as a result of a local backup or archive will not be replicated again. This improves network efficiency across all sites and reduces daily network bandwidth requirements up to 99% making network-based replication fast, reliable and cost-effective. In order to meet a broad set of DR requirements, DD Replicator provides flexible replication topologies, such as full system mirroring, bi-directional, many-to-one, one-to-many, and cascaded. In addition, customers can choose to replicate either all or a subset of the data on the Data Domain system. For the highest level of security, DD Replicator can encrypt data being replicated between Data Domain systems using the standard Secure Socket Layer (SSL) protocol.

DD Replicator scales performance and supported fan-in ratios to support large enterprise environments. When deployed over a 10Gb network, DD Replicator can mirror data between two systems at up to 52 TB/hr. In addition, DD Replicator enables up to 270 remote systems to replicate into a single DD990 system, which simplifies the administration and reduces the costs of providing disaster recovery for remote sites.

## **EMC DATA DOMAIN RETENTION LOCK**

### **RETENTION OF ARCHIVE DATA FOR GOVERNANCE AND COMPLIANCE**

EMC Data Domain Retention Lock software enables IT organizations to efficiently store and manage retention of archive data for both governance and compliance on a single Data Domain system. DD Retention Lock ensures that archive data stored on a Data Domain system meets secure data retention requirements driven by either governance policies or by strict regulatory compliance standards such as SEC 17a-4(f). In addition, DD Retention Lock enables secure file locking of archive data at an individual file level; enabling these files to be intermixed with unlocked files on the same Data Domain system – thereby allowing for a broader consolidation of backup and retention based archive data. By leveraging industry-standard protocols (such as NFS and CIFS) for time-based retention of files, DD Retention Lock seamlessly integrates with industry-leading archive applications including EMC SourceOne and Symantec Enterprise Vault, providing users an end-to-end archiving solution.

## EMC DATA DOMAIN VIRTUAL TAPE LIBRARY

### INLINE DEDUPLICATION FOR SAN ENVIRONMENTS

EMC Data Domain Virtual Tape Library software improves backup efficiency by eliminating the challenges of physical tape by enabling all Data Domain systems to emulate multiple tape devices over a Fibre Channel interface. Data Domain VTL software can emulate up to 64 virtual tape libraries with up to 540 LTO-1, LTO-2, LTO-3, LTO-4 virtual tape drives. DD VTL software provides up to 64,000 virtual slots and an unlimited number of virtual tape cartridges, with the ability to dynamically change the number of virtual slots and cartridge access ports. Data Domain VTL software is qualified with leading open systems and IBM i enterprise backup applications, and easily integrates into existing Fibre Channel SAN backup environments.

## EMC DATA DOMAIN MANAGEMENT CENTER

### CENTRALIZED MANAGEMENT FOR LARGE ENVIRONMENTS

EMC Data Domain Management Center is a scalable virtual appliance that streamlines management and reporting in large Data Domain environments, enabling aggregate management of multiple systems through a single interface. Customizable dashboards provide visibility into aggregate status and the ability to drill-down to system-level details. Role based access allows different levels of access via assigned user roles for various levels of expertise within the organization.

## CONTACT US

To learn more about how EMC products, services, and solutions can help solve your business and IT challenges, [contact](#) your local representative or authorized reseller—or visit us at [www.EMC.com](http://www.EMC.com).

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