EMC DATA DOMAIN SOFTWARE

Software Options for EMC Data Domain Deduplication Storage Systems

EMC DATA DOMAIN BOOST

ADVANCED APPLICATION INTEGRATION
EMC Data Domain Boost™ software provides advanced integration between leading backup and enterprise applications and Data Domain systems. With DD Boost, parts of the deduplication process are distributed to the backup server or application server, enabling client-side deduplication so only unique data segments are sent to the Data Domain system. This enables 50% faster backups and reduces network bandwidth requirements by 80 to 99%. DD Boost provides advanced load balancing and failover, which further improves throughput and resiliency. In addition, Data Domain systems can grant secure access to multiple DD Boost users per system for data protection-as-a-service in private and public cloud deployments. Providing DD Boost users secure access to their data lays the foundation for logical data isolation enabling secure multi-tenancy on a Data Domain system in DD Boost environments.

DD Boost also enables backup administrators to control replication between Data Domain systems 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.

EMC DATA DOMAIN BOOST FOR ENTERPRISE APPLICATIONS

APPLICATION OWNER CONTROL
DD Boost for Enterprise Applications leverages DD Boost technology for client-side deduplication to deliver 50% faster backups. DD Boost for Enterprise Apps also integrates directly with Oracle RMAN, Microsoft SQL Server, IBM DB2, SAP, and SAP HANA. So, application owners and database administrators have control and visibility of backup directly from their native application utility to a Data Domain system. This empowers applications owners with the control they desire to eliminate silos of storage for application protection.

EMC DATA DOMAIN CLOUD TIER

COST-EFFECTIVE LONG-TERM RETENTION TO CLOUD
EMC Data Domain Cloud Tier provides best of breed technology that will allow businesses to gain the advantages of cloud while lowering overall TCO. With DD Cloud Tier, data is natively tiered to the public, private or hybrid cloud for long-term retention. Only unique data is sent directly from Data Domain to the cloud and data lands on the cloud object storage already deduplicated. With deuplication ratios of 10 – 30x, storage footprint is greatly reduced for cost-effective long-term retention in the cloud. DD Cloud Tier can scale up to 2x the max capacity of the active tier enabling up to 51 PB of logical capacity to be
protection in the cloud. With DD Encryption, data in the cloud remains secure. A broad ecosystem of backup and enterprise applications and a variety of public and private clouds are supported with DD Cloud Tier including EMC Elastic Cloud Storage (ECS) and Virtustream Storage Cloud.

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 tier. Long-term data access and recoverability is ensured through fault isolation. Specifically, when the retention tier reaches full capacity it will be sealed and becomes a self-contained unit to ensure long-term data preservation. As a result, in the event of a failure or 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 58.7 TB/hr. In addition, DD Replicator enables up to 540 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. Litigation hold protects compliance archive data under legal discovery through the ability to enforce new retention periods on a Data Domain system, preventing deletions or modifications to the archive data during the course of legal action. 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 virtual tape drives, supporting up to LTO-5 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.

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