



Dell Compellent Software Suite

Automated, integrated enterprise storage software

Data has become the fuel that drives business acceleration, making organizations today extremely reliant on data storage. And that makes the storage decision strategic, far-reaching and full of risk. Limited-point products, dead-end growth paths and bolt-on software applications create rigid boundaries around data storage. With an integrated software feature set, Dell Compellent enables enterprises of all sizes to move beyond simply storing data to actively, intelligently managing data. Powerful storage software with built-in automation optimizes the provisioning, placement and protection of data throughout its lifecycle.

Built from the ground up to manage data differently

Dell™ Compellent™ Storage Center™ leverages a patented architecture that changes the way you manage data. Empowered by real-time system intelligence about each block, data is moved where it's needed, when it's needed, based on actual use and performance needs. This granular, real-time system intelligence also enables Storage Center to virtualize the storage infrastructure—bringing new efficiency, agility and resiliency to enterprise storage by creating a pool of high-performance storage shared by all hosts.

Deliver better performance with less hardware

Dell Compellent virtualizes storage at the drive level, accelerating data access by spreading read/write operations across all drives so multiple requests are processed in parallel. You can create high performance, highly-efficient virtual volumes in seconds without allocating drives to specific servers, without complicated capacity planning and without performance tuning. Remove the limitations of physical drives and dynamically change and scale your virtualized pool without disruption or downtime.

Drive down the total cost of storage

With patented tiering technology, Dell Compellent Data Progression™ automatically classifies and migrates data to the optimum storage tier and RAID level based on actual usage. All new data is written to tier 1, RAID 10, and snapshots cascade to the lowest available tier within 24 hours. Then, the most active blocks of data remain on high-performance SSD, FC or SAS drives, while less active blocks automatically move to lower-cost, high-capacity SAS or SATA drives. The result is storage that is always in tune with application needs—and an overall cost per GB that decreases as you grow.

Maximize storage utilization

Built into every Dell Compellent system, Dynamic Capacity™ thin provisions volumes for ultra-efficient storage utilization. Our advanced thin provisioning completely separates storage allocation from utilization, enabling users to allocate any size volume upfront, yet only consume physical capacity when data is written. You can even reclaim capacity that is no longer in use by applications, automatically reduce the space needed for virtual OS volumes and convert traditional volumes on existing storage to thin-provisioned capacity.

Protect data against downtime and disaster

With Data Instant Replay™, you can take continuous space-efficient snapshots to speed the local recovery of lost or deleted files. Once an initial snapshot of a volume is taken, only incremental changes in data need to be captured. These readable and writable Replays are automatically stored on lower cost drives and can be used to recover any size volume to any server in less than 10 seconds.

Remote Instant Replay™ leverages these Replays between local and remote sites to deliver a cost-effective replication solution. After initial site synchronization, only incremental changes in data are replicated on an ongoing basis—cutting hardware, bandwidth and administration costs. You can replicate over Fibre Channel or native IP, depending on your unique business requirements.

Provide dynamic business continuity

Live Volume™ enables organizations to move storage on demand between Dell Compellent arrays to deliver high availability and continuous access to data. All migration occurs transparently while applications remain online. And the functionality is fully integrated, eliminating the need for additional hardware or server-side agents. Live Volume supports any virtualized server environment and complements leading virtual machine (VM) movement engines.

Feature	Dell Compellent Software Suite
Dynamic Capacity	
Allocate on Write Technology	Yes
Pre-allocation Required	No
Define Volumes Larger Than Physical Storage	Yes
Automated Page-Based Allocation	Yes
Allocation Page Size	2MB by default, with option of 512KB or 4MB
Dynamic RAID Level Conversion	Yes
Storage Added Online Without Disruption	Yes
Drive Operations on Written Data Only (including Copy, Replication and Rebuilds)	Yes
User-defined Thresholds for Capacity Utilization	Email, Pager, Alerts, PhoneHome
Data Progression	
Storage Tiers Defined by	Drive Type, RAID Level, Rotational Speed
RAID Level Support	RAID 0, 5, 6 and 10
Drive Support	Fibre Channel, Solid State Drives, SAS, SATA
Drive Intermixing	Yes, any combination in shared pool (across tiers and RAID levels)
Volumes Stored Across Multiple RAID Levels and Tiers	Yes
Snapshots Migrated	Yes, automatic
Additional Software Required for Data Classification and Movement	None
Data Instant Replay Remote Instant Replay	
Automated Replay Creation and Scheduling	Yes
Pre-allocation Required	No
Readable and Writeable Replays	Yes
Copy-on-write Technology	No, Pointers to Data only
Volume Clone Required for Recovery	No
Automated Coalescence of Expired Replays	Yes
Replay Scheduling Frequency	Once, Minutes, Hours, Days, Weeks, Months
Multiple Replay Schedules for Volumes	Yes
Volume Recovery Using Only Written Data	Yes
Replication Topology Options	Point-to-Point, Point-to-Multipoint, Peer-to-Peer
Asynchronous Replication Support	Yes
Replication Interface	Fibre Channel, iSCSI
Replication Link Speed	T1 and above
Replication Link Bandwidth Estimation & Optimization	Yes
Replay De-duplication	Yes
Independent Replay Schedules per location	Yes
Validate Volume Recovery While Links are Operational	Yes
Volume Recovery to any Host	Yes
Integration with Microsoft VSS and VMware SRM	Yes
Live Volume	
Asynchronous Replication	Yes
Number of Volumes Supported: Live Volume Size Limit	50: 150TB
Managed through Enterprise Manager	Yes
Migrate Volumes Non-Disruptively	Yes
Distance Limitation	None (application dependant)
PowerShell Support	Yes
Supports Clustered Environments: MPIO	Yes
Primary Site Auto-Migration	Yes

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