



Solution Brief

Boost SQL Server database availability and efficiency with Dell Compellent™ Storage Center Storage Area Networks

Improve SQL Server storage efficiency

- Dell Compellent Data Progression automatically maintains frequently used data on higher performance tiers of storage while moving infrequently used data to lower cost, higher-density disks.

Seamlessly grow SQL Server database storage

- Using Dell Compellent Dynamic Capacity (Thin Provisioning), storage resources are only consumed as the SQL Server database grows, deferring storage purchases until required.

Simply protect SQL Server databases

- Use Dell Compellent Instant Replays and Replay Manager to shorten recovery times, offload backups, and simplify disaster recovery planning while providing improved business continuity

Consolidate your database into agile and efficient storage architecture and help save money

- Dell Compellent combines a powerful data movement engine with a persistent hardware platform that doesn't require new models for upgrades or updates.

Database deployments play a crucial role in enterprise operations. As they become repositories for everything from sales transactions to customer information, their importance to successful business operations grows exponentially. Microsoft® SQL Server is widely used for many enterprises' mission-critical applications requiring maximum database uptime and data availability. In the event of a failure, data must be restored quickly and accurately. Transactions cannot be hindered by storage performance issues or downtime. Selecting the right storage is essential for meeting these requirements — organizations need available, responsive, and flexible storage that easily grows with their databases.

The Critical Role for Database Storage

To maintain SQL Server data integrity and resiliency, organizations can capitalize on key features provided by Dell Compellent Storage Center SAN. Dell Compellent, based on the Dell Fluid Data Architecture™, leads the way in transforming how Microsoft SQL Server data is stored and managed. Dell Compellent provides a flexible, resilient and agile SAN solution that dynamic SQL Server infrastructures require.

Features such as Compellent Data Progression, Dynamic Capacity, and Replay Manager, help simplify storage operations and data protection

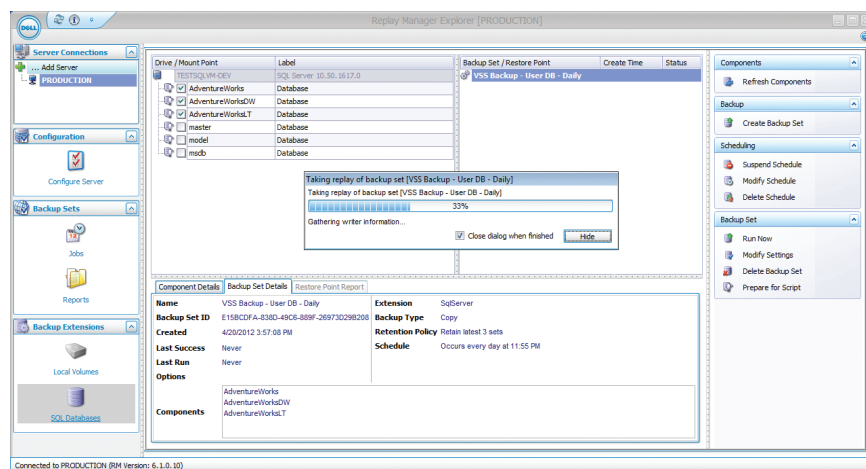


Figure 1. Take application aware, time consistent snapshots of the SQL Server data base Using Dell Compellent Replay Manager

for SQL Server environments, and provide flexible, cost-effective expansion to seamlessly scale as the database grows.

Dell Fluid Data Architecture delivers the right data in the right place at the right time

Dell Compellent Data Progression™ helps minimize latency for mission critical SQL Server applications by automatically moving infrequently used data from tier 1 to a lower storage tiers through automated storage tiering. This capability is especially useful in data warehouse environments, which typically store large amounts of static data. To facilitate and manage an often complex data warehousing process, administrators can allow Data Progression to automatically move older, infrequently accessed data to lower storage tiers; freeing the high performance tier 1 storage for newer highly active data.

A significant challenge faced by SQL Server administrators is how much storage to allocate and configure. Given the possibility of dramatic increases in database storage use and the potential challenges in reconfiguring DAS and JBOD storage, Dell Compellent's thin provision technology, Dynamic Capacity, provides a flexible and cost-effective alternative.

With Compellent Dynamic Capacity, storage is allocated automatically only as it is written. By creating virtualized data volumes, unused physical storage space is allocated from a common pool for use by all SQL Server volumes on an on-demand basis. This flexibility allows you to pay for storage resources as they are actually consumed and helps reduce ongoing power and cooling expense. As storage needs grow over time, storage resources are seamlessly added without incurring downtime.

Snapshot functions are critical for point-in-time SQL Server volume recovery and can help augment the often lengthy and arduous recovery process from tape backups. Dell Compellent Replay Manager™ snapshot consistency software helps SQL Server administrators avoid time consuming manual recovery operations and complement current data center backup policies with a granular SQL

Server recovery process. Replay Manager seamlessly integrates with Microsoft Volume Shadow Copy Service (VSS) to quiesce or pause I/O between the SQL Server and storage volumes. It takes space-efficient storage area network (SAN)-based snapshots of SQL Server volumes without taking the application offline. Instead of depending on full volume clones to back up server applications, Replay Manager enables space-efficient point-in-time copies across the entire database.

Efficient, agile and resilient, SQL Server storage with Dell Compellent

The high-availability and data protection capabilities of Dell Compellent Storage Center SAN and Microsoft SQL Server share the ultimate goal of protecting today's deluge of business-critical application data and help IT administrators meet ever-increasing service-level agreements. Dell Compellent helps enterprises transform the way in which their application data is stored and managed and provides a solid foundation for a shared resource architecture. Dell Compellent Storage Center SAN is the right choice for enterprise Microsoft® SQL Server deployment.

For more information, go to www.dellstorage.com

