CONSOLIDATE MICROSOFT SQL SERVER ON DELL EMC POWERMAX

With the majority of companies seemingly running every version of Microsoft SQL Server in their environments, PowerMax is the platform for optimizing the performance & capabilities for all your Microsoft SQL Server databases.

One Array for All Microsoft SQL Versions

Simple Management

- Embedded management
- QoS
- Granular Role based access

Availability and Protection

- Proven six-nines availability
- Industry's Gold Standard in replication
- Automated and self-service data protection

Extreme Efficiency

- Inline deduplication and compression
- 4:1 storage efficiency guarantee
- Unified block and file storage
- Seamless Migration

Proven Security

- Controller based encryption with D@RE
- Secure snapshots

Copy Data Management

- Automation and Orchestration of copy data workflows

Optimization

- Automated data path management
- Monitoring and reporting across heterogeneous storage environments

Microsoft SQL Server is the core database engine for many companies, supporting their business-critical applications. Enterprise grade storage is a key component to successfully design, deploy, and optimize a Microsoft SQL Server environment. An effective storage subsystem is not only crucial to delivering fast application response time, but also affects the availability, and efficiency of the database.

Microsoft SQL Server DBAs are constantly struggling with managing multiple legacy versions while facing pressure to deploy new releases which take advantage of feature and performance improvements. Feature differences inevitably result in massive inconsistencies in performance and availability making management of the environment overly complex and wrought with inefficiencies.

Dell EMC's PowerMax provides a single platform to increase the overall performance and capabilities of Microsoft SQL Server, regardless of version. PowerMax, the world's fastest enterprise array, delivers optimal levels of performance and efficiency today as well as being future proofed for next generation media advancements. With up to 10M IOPS, 150GB/s throughput and an architecture designed to be scaled up or out to meet the needs of your database instances today and beyond.
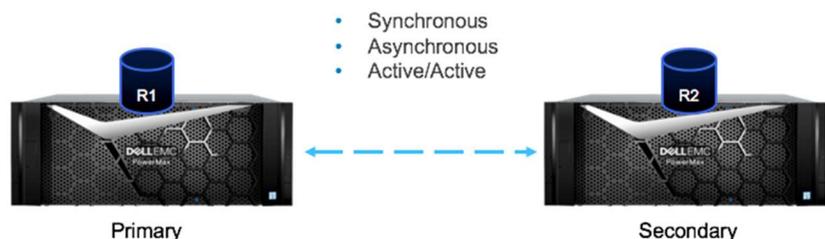
PowerMax is the ideal consolidation platform for Microsoft SQL Server, delivering a tier zero platform with proven six-nines availability for even the most demanding Microsoft SQL Server environments.
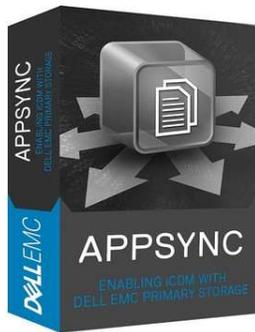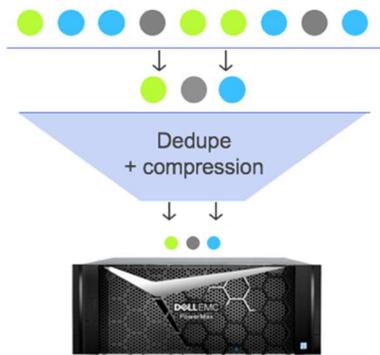
Always On Replicas & SRDF: Better Together

As Microsoft continues to improve their Always On Availability Group capabilities; PowerMax maintains Dell EMC's position as the gold standard in array based replication. For constant availability with zero downtime, SRDF (Symmetrix Remote Data Facility) provides a true Active/Active datacenter replication via SRDF/Metro as well and synchronous or asynchronous.

Always On Replicas are ideal for local synchronous HA replicas or local read-only replicas which can be leveraged for backups or real time reporting and analytics. SRDF provides superior capabilities for replication, spreading risk across up to four sites. Consistency groups, whether sync or async, ensure write order fidelity is maintained and the target devices always provide restartable replicas of the entire source application as a whole.

SRDF: The Gold Standard in Replication

- Synchronous
- Asynchronous
- Active/Active

R1 — Primary

R2 — Secondary

Extreme Efficiency for Microsoft SQL Server Databases

PowerMax delivers extreme efficiency with inline deduplication and compression to significantly reduce storage footprint and lower overall TCO. Compression provides benefits for all Microsoft SQL Server databases, even when already leveraging page or row compression. Deduplication works to help control the impact of database copy sprawl throughout the environment.

For database copies that are made via the host, PowerMax deduplication provides space efficiencies. However, to maximize the efficiencies available in the array, leverage SNAP/VX.

Superior Protection and Flexibility with SNAP/VX

SnapVX software is used to create zero-impact, space-efficient local snapshots that could be used for local protection and recovery or repurposed for other use cases including development/test, analytics, backups and patching.

Dell EMC's integrated Copy Data Management (iCDM), via AppSync software, transforms workflows in SQL environments. iCDM builds on PowerMax's efficient SNAP/VX technology and delivers incredible performance to production and non-production copies without impacting the production SLAs.

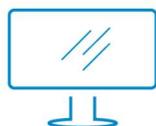### Orchestration & Automation for Copy Workflows

Further orchestration and automation of these copy workflows are achieved via Integrated Copy Data Management (iCDM) with AppSync, which seamlessly integrates with PowerMax. AppSync provides the ability for DBAs and application owners to leverage familiar tools such as PowerShell to execute ad-hoc snapshots for protection or repurposing. Leveraging PowerShell, advanced software development workflows can be simplified to accelerate development and release dates.

Intelligent Database Storage Analysis

Unisphere for PowerMax includes the Database Storage Analyzer (DSA) application which provides in-depth database to storage performance comparison troubleshooting capabilities for Microsoft SQL Server & Oracle Database. DSA quickly identifies databases which are suffering from I/O latency, non-storage issues, and overall greatly improves communication between your storage and database teams.

Future-Proof Infrastructure Investments

PowerMax offers future-proof investments with on-disruptive upgrade paths to NVMe over Fabric and next-generation storage-class memory (SCM) drives. The PowerMax operating system, PowerMaxOS, also comes with an intelligent built-in machine learning engine that constantly analyzes the IOs and will automatically place data on the most optimal media type (flash or SCM) with zero overhead.

Learn more about Dell EMC [product name] solutions

Contact a Dell EMC Expert