Transform SAP Landscapes with Dell EMC PowerMax

SAP® landscapes are mission-critical environments that require high performance and protection to be able to consolidate production and beyond. Dell EMC PowerMax is designed with end-to-end NVMe and combines the world's fastest storage array[1] with proven and uncompromising data protection capabilities.

The Most Trusted Platform for SAP Workloads

Powerful Architecture

- Active/active, Multi-controller architecture
- Scale up and scale out
- End-to-end NVMe design
- Global, inline deduplication and compression
- Component level fault domain

Simple Operation

- Automation and Orchestration of copy data workflows with iCDM
- Automation and integration with REST APIs
- Cloud based monitoring and analytics with CloudIQ
- Consolidated block, file, mainframe, and IBM i storage
- Investment protection with Future-Proof Loyalty Program

Trusted Innovation

- Built-in Machine Learning
- Designed for six-nines of availability
- Industry's Gold Standard in replication
- Controller based encryption with D@RE
- Secure snapshots

Redefine SAP Landscapes for High Performance and Business Agility with Dell EMC PowerMax

Modern data centers are now characterized by large sets of fast-moving data, highly virtualized systems, fluid workloads and proprietary, feature-rich SAP applications and custom applications.

This is all surrounded by teams of software developers and QA specialists who are working with highly agile development models and customizing business software for desktop, web and mobile systems. All-Flash data platforms change the playing field for the consumers of IT enterprise resources. PowerMax drastically changes long-standing assumptions associated with the traditional SAP challenges of:

- Landscape complexity and growth
- Unpredictable software-development cycles
- Business-application performance
- Lifecycle management
- Data protection

Reduce Landscape Complexity & Manage Growth at Scale

A typical SAP solution landscape can be large and complex. As a business grows over time and new functions are added to the landscape, the infrastructure often requires changes, such as additional storage for performance and capacity. However, adding more hard disks and tracking your growing storage with spreadsheets is just not sustainable.
With PowerMax you can:

- Consolidate SAP solution landscapes onto the world's fastest storage array, built with end-to-end NVMe and delivering up to 10M IOPS[2] and up to 150GB/s[3]. It is designed to handle the most demanding and mission-critical workloads.
- Reduce the energy costs of an ever-growing data footprint while reducing the data managed as a result of highly efficient data-reduction intelligence.
- Instantly provision more copies of more datasets to more applications, yet consume almost zero net-new storage within that process. You can also deliver those copies of data with 100 percent of the speed of the parent datasets while ensuring that all of the copies will never negatively impact or degrade the performance of the parent production datasets.
- Dramatically simplify the design, provisioning and management of storage used by SAP systems.
- Remotely track from any browser or mobile device the health and availability of your storage infrastructure, report on historical trends, plan for future growth, identify potential risks and utilize actionable insights to expedite resolutions.

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[1] Based on Dell EMC internal analysis of published bandwidth of the PowerMax 8000 versus competitive mainstream arrays, March 2018. Actual performance will vary.

[2] Based on Dell EMC internal analysis of Random Read Hits Max IOs Per Second (Within a single array on 2 floor tiles) for the PowerMax 8000, March 2018. Actual performance will vary.

[3] Based on Dell EMC internal analysis of Random Read Hits Max GB per Second (Within a single array) for the PowerMax 8000, March 2018. Actual performance will vary.

Improve Development Quality and Productivity

PowerMax can radically reduce the amount of storage required for your overall SAP system landscape, offering powerful snapshot capabilities that allow developers to have their own environments, whether they are working on upgrades, new features or urgent fixes. With SnapVX technology, these individual environments are created instantaneously at near-zero cost and near-zero performance impact to the production systems.

In addition, each environment includes a complete dataset (that consumes near-zero space) to help improve developer efficiency and code quality. With this approach, parallel-development projects can proceed without painstaking coordination, which helps unlock each developer's full potential and productivity.

Accelerate Performance for Transactional & Analytical Processes

Traditional SAP systems are designed to optimize performance for online-transaction processing (OLTP) business apps and functions, such as order to cash and procure to pay. Conversely, IT organizations operate under the traditional assumption that batch processing, such as online-analytical-processing (OLAP) business processes, period-end closing and batch input, runs much slower due to large datasets and cache limitations at various tiers.

PowerMax delivers reliable, predictable and highly consistent sub-300 microsecond latency for all I/O types and application-access patterns. Bring the power of end-to-end NVMe to long-running batch processes, complex Extract, Transform and Load (ETL) processes, and intricate interface operations by accelerating these frequent and critical SAP operations. As a result, businesses can see dramatic reductions in processing and wait times.

Simplify Lifecycle Management

Scheduled system outages for maintenance and refreshes can eat into productive time. For example, a typical SAP system landscape refresh or restore of production data to the quality assurance system (QAS) can take days, and BDLS runs (a post-copy process step) can take hours, if not days, for some large businesses. PowerMax enables you to provision SAP systems at previously unseen, lightning fast speeds, while also reducing operational complexity and cost.

Copy Data Management (CDM) snapshot related operations happen instantaneously, and long-running BDLS runs can finish three-to-five times faster. All this is achieved with zero changes to the database configuration, zero tuning and zero optimizations to any SAP system or application buffers. The faster that SAP dev/test and QA systems are back online, the faster regression tests can resume, and the quicker the business can respond.

Provide Enterprise-Grade All-Flash Powered Availability and Protection

SAP systems are mission-critical to businesses; therefore, data availability and protection are also mission critical. As datasets grow ever larger, so do the challenges of ensuring data integrity and protecting against data loss. Traditional data-protection methodologies make use of tape or disk backups and lacks the level of granularity, flexibility and agility that businesses require. In addition, different SAP systems require different recovery-point objectives (RPOs) and recovery-time objectives (RTOs).

PowerMax is equipped with robust and proven data-replication technologies, and they are tightly integrated with the rich Dell EMC portfolio of data-protection technologies. These features enable a shift from a traditional backup-and-recovery model to a high-availability, business-continuity model. PowerMax includes synchronous and asynchronous replication technologies with SRDF, the Gold Standard replication technology in the market, while its integration with Dell EMC ProtectPoint eliminates impact on backup and application servers as well as reduces overall complexity.

Get Faster Results

The Dell EMC Ready Bundle for SAP Landscapes delivers compute, networking and storage in a single solution to reduce the time it takes to realize the benefits of a modern SAP infrastructure. The Dell EMC Servers maximize application performance with the latest Intel® processors, while highly intelligent PowerMax arrays deliver advanced storage technologies like compression, deduplication, thin provisioning, SRDF Metro and VMware® vSphere® High Availability (HA) to enable continuous availability and live migration within an SAP virtual infrastructure deployment.
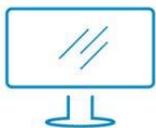
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