TOP 10 REASONS WHY CUSTOMERS DEPLOY DELL EMC POWERMAX STORAGE SOLUTIONS FOR ORACLE

Redefine Your Oracle Database Infrastructure

Wide-ranging Oracle workload solutions demand performance and agility. High-performance Dell EMC PowerMax storage, the world’s fastest storage array\(^1\), is engineered to meet the most demanding Oracle requirements. Dell and Intel® have partnered together to deliver the industry’s first storage array to offer Storage Class Memory (SCM) a powerful, scalable performance architecture. Oracle performance plus a built-in machine learning engine for intelligent data placement with next-generation media; outstanding inline data reduction technologies; and integrated copy data management, enables easy consolidation of all workloads without compromise bringing development/test, and business analytics workflows onto a single mission-critical platform at cloud scale.

1. **Supreme Performance for Oracle Database Environments**

PowerMax removes storage performance bottlenecks for Oracle Database environments once and for all. With up to 15M IOPS and 350 GB/s throughput, it fundamentally changes the way your database teams design and builds Oracle databases. The end-to-end NVMe array provides sub-100 microsecond latencies at any scale and virtually eliminates all Oracle storage tuning requirements—enabling you to meet even the most stringent SLAs and freeing up time for database administrators (DBAs) to focus on strategic initiatives.

2. **Accelerated Oracle Analytics for Unmatched Business Agility**

Siloed data makes it extremely difficult to find, cleanse, and integrate data for analytics, hampering the ability to obtain high-value, time-sensitive insights. The ultra-fast performance of PowerMax enables you to not only accelerate IOPS-hungry transactional workloads but also to tremendously speed up bandwidth-heavy complex Business Intelligence (BI) queries while running both Oracle transactional and Oracle Analytics workloads on the same array. You can now consolidate and localize data to combat data mart sprawls while gaining real-time business insights.

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3. Cloud-scale Oracle Consolidation

PowerMax provides massive scale in every possible dimension—performance (millions of IOPS), capacity (4 PB), connectivity (hundreds of ports), LUNs/devices (64,000) and data copies (millions of snapshots)—all while incorporating the latest NVMe technology. Consolidate production and non-production Oracle databases at massive scale across online transaction processing (OLTP), online analytical processing (OLAP), enterprise data warehousing (EDW), and Big Data applications. PowerMax protects production database performance from the impact of non-production and other workloads, with Quality of Service (QoS) tools ensuring key workloads always get the performance you assign. Independent scaling of storage and compute in support of cloud environments provide the option to leverage Dell Technologies Cloud with deployment guidance for pre-test storage, compute and networking infrastructure that’s been validated with VMware Cloud Foundation.

4. Simple, Fast, Efficient Oracle Database Copies with Integrated Copy Data Management

With PowerMax, database copy management is no longer a source of contention between application owners, DBAs, and storage administrators. PowerMax leverages space-efficient snapshots that allow thousands of database copies to be created using hardly any additional storage capacity and no loss of performance. It includes integrated copy data management (iCDM) tools that provide simple creation, management, orchestration, and automation of Oracle database copies for testing or applications. DBAs can now create and manage their own database copies to suit their requirements.

5. Redefined DBA Productivity with Integrated Oracle Performance Analyzer

Understand and tune Oracle performance with Dell EMC’s Unisphere Database Storage Analyzer (DSA), which enables storage admins and DBAs to quickly troubleshoot performance anomalies or define where new workloads can be added while understanding the impact to performance. DSA bridges the gap between DBAs and storage administrators by serving end-to-end performance analysis with database relevant statistics (e.g., top wait events for storage devices, table spaces, objects, indexes, and partitions for Oracle). Analysis and design recommendations from DSA are widely leveraged by DBAs and storage administrators alike.

6. Outstanding Data Efficiency for Oracle Databases

PowerMax brings excellent capacity efficiency capabilities through thin provisioning and SnapVX tools which simplify deployment planning. Combining those with inline compression and deduplication delivers significant data reduction efficiencies. The inline data reduction operations are transparent and carried out in hardware, so there are no performance penalties. Customers receive 5:1 storage efficiency guarantees while simultaneously enjoying ultra-fast performance across any and all workloads without compromise.

7. Transformative Oracle Backups

Dell EMC PowerProtect for PowerMax dramatically reduces the Oracle database backup window by completely eliminating backup servers and the requirement to send backups over the network. Your Oracle DBAs can back up databases directly from Oracle RMAN with data sent directly from PowerMax to a Dell EMC Data Domain protection storage system. PowerProtect completely eliminates backup impact on application and database servers. PowerProtect brings the advantage of up to 20 times faster backup, up to 10 times faster recovery, and reduced cost and complexity.
8 | Enterprise Data Protection and Mission-Critical Availability for Oracle Deployments

PowerMax is designed for industry-leading six nines (99.9999%) availability. It uses advanced fault isolation, robust data integrity, and non-disruptive upgrades and migrations to ensure Oracle databases are protected and remain online and available at all times. With SnapVX, the modern space-efficient copy technology of PowerMax, your DBAs can create thousands of local copies that can be used for database protection and recovery. For mission-critical availability, PowerMax offers SRDF, the gold standard in remote replication.

Integration with Oracle Real Application Clusters (RAC) provides cluster-aware active-active remote disaster recovery for Oracle databases and applications. For constant availability, always on with zero downtime, customers leverage SRDF/Metro and Oracle RAC stretched clusters for true active-active configurations. New storage groups can be added without impacting availability. Dell EMC RecoverPoint is also available to provide heterogeneous replication support and ‘any point in time’ recovery for PowerMax.

9 | Proven Security for Oracle Environments

PowerMax comes with proven security features that meet corporate governance and compliance requirements, prevent accidental or malicious intrusion and are compatible with all data services. Key features for Oracle environments include D@RE with internal and external key management, secure snaps, tamper-proof audit logs, and secure access controls.

10 | Future-Proof Oracle Infrastructure Investments

PowerMax storage solutions for Oracle with the industry’s fastest end-to-end NVMe array offers future-proof investments for Oracle deployments. It protects today’s investments with non-disruptive upgrade paths to the latest next-generation Storage Class Memory (SCM) drives. More importantly, its operating system, PowerMaxOS, comes with an intelligent built-in machine learning engine that constantly analyzes the I/Os and will automatically place data on the most optimal media type (flash or SCM) with zero overhead. Oracle deployments will continue to benefit from the innovations in next-generation storage media because the PowerMaxOS machine-learning engine continues to optimally place the data between the fastest media available today and the next generation media of the future.