

# TOP 10 REASONS WHY CUSTOMERS DEPLOY DELL EMC POWERMAX FOR ORACLE

# 10

## Redefine Your Oracle Database Infrastructure

Dell EMC PowerMax, the world's fastest storage array<sup>1</sup>, is engineered to meet the most demanding Oracle requirements. It leverages a powerful, scalable performance architecture; a built-in machine learning engine for intelligent data placement with next-generation media; outstanding inline data reduction technologies; and integrated copy data management—enabling it to consolidate production, development/test, and business analytics workflows onto a single mission-critical platform at cloud scale.

### 1 | Supreme Performance for Oracle Environments

PowerMax removes the storage performance bottlenecks for Oracle environments once and for all. With up to 10M IOPS and 150 GB/s throughput, it fundamentally changes the way your database teams design and build Oracle databases. The end-to-end NVMe array provides sub-300 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

Today's method of using siloed Oracle data marts 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.

### 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. You can now 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 performance impact of non-production and other workloads, with Quality of Service (QoS) tools ensuring key workloads always get the performance you assign.

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<sup>1</sup> Based on Dell EMC internal analysis of published bandwidth of the PowerMax 8000 versus competitive mainstream arrays, March 2018.

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## 4 | Simple, Fast, Efficient Database Copies with Integrated Copy Data Management

With PowerMax, database copy management is no longer a source of contention between your 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. It includes integrated copy data management (iCDM) tools that provide simple creation, management, orchestration, and automation of database copies. DBAs can now create and manage their own database copies to suit their requirements.

## 5 | Redefined DBA Productivity with Integrated Oracle Performance Analyzer

PowerMax includes Database Storage Analyzer (DSA), which enables DBAs to quickly troubleshoot performance anomalies or define where new workloads can be added without affecting 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 Reduction Efficiency for Oracle Databases

PowerMax inline compression and deduplication delivers significant data reduction efficiencies. The inline data reduction operations are carried out in hardware, so there are no performance penalties. Customers receive 4:1 storage efficiency guarantees while simultaneously enjoying ultra-fast performance without compromise.

## 7 | Transformative Oracle Backups

Dell EMC ProtectPoint 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. ProtectPoint completely eliminates backup impact on application and database servers. You gain 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 built with 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 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 Multitenant and Oracle Real Application Clusters (RAC) provides cluster-aware active-active remote disaster recovery for Oracle databases and applications. For constant availability with zero downtime, customers leverage PowerMax SRDF/Metro for true active-active configurations and Oracle RAC stretched clusters. Dell EMC RecoverPoint is also available to provide heterogeneous replication support and 'any point in time' recovery for PowerMax.

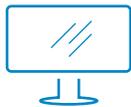
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## 9 | Proven Security for Oracle Environments

PowerMax comes with proven security features that meet corporate governance and compliance requirements, prevent accidental or malicious intrusion, and are compatible with all of its 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, 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 NVMe over Fabric and 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 IOs 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.



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