TOP REASONS
WHY CUSTOMERS CHOOSE DELL POWERMAX WITH NVME

10

Accelerate your journey to continuously modern storage with PowerMax -- trusted, intelligent, innovative enterprise storage that secures your mission-critical data. What are the top reasons customers choose PowerMax? Keep reading!

1 | AI-driven storage automation

PowerMax utilizes next-gen automation to streamline IT operations and deliver faster business results. Each system brings autonomous storage to life with built-in machine learning that uses predictive analytics and pattern recognition to maximize outcomes. The new AI-driven cache optimization engine reduces PowerMax response time latency by dynamically optimizing the cache layout. To reduce management overhead, autonomous health checks use predictive analytics and intelligent thresholds to identify potential optimization opportunities with recommended actions.

2 | Industry-leading cybersecurity

PowerMax offers unparalleled cyber resiliency. It stands as the world's most secure mission-critical storage[1], designed to accelerate "Zero Trust" adoption[2] for safeguarding your high-value information against any potential data breach with built-in security features, such as hardware root of trust (secure boot), secure access controls, and tamper-proof audit logs. The cyber intrusion detection for mainframe systems (zCID)[3], an industry first, continuously monitors to detect and alert storage personnel about anomalies that may result from malicious activities. PowerMax is included in the U.S. DoD Approved Products List, adheres to STIG compliance, supports TLS 1.3, and features an advanced ransomware recovery service (vault) for use in the event of an attack. Additionally, it supports policy-based secure and immutable snapshots, preventing accidental or malicious deletion before expiration.

3 | Breakthrough efficiency

PowerMax is the industry's most energy-efficient mission-critical storage[4] engineered to optimize efficiency and meet stringent sustainability goals. The latest PowerMaxOS release provides the industry's most comprehensive power monitoring solution[5]. It offers real-time power monitoring for PowerMax arrays, racks, and at the data center level through an Open Manager Enterprise plugin (OME). Dynamic data mobility enables customers to relocate workloads to a different array to maximize resource utilization across locations. And with the latest inline data deduplication and compression technology, PowerMax ships with a 5:1 data reduction guarantee for open systems[6] and a 3:1 data reduction guarantee for mainframe storage[7] (an industry-first). The newest models deliver up to 2.8 times more performance per watt[8] and provide $207K in electricity cost savings[9], along with an up to 82% reduction in greenhouse gases[10] compared to previous arrays.

4 | DevOps / container integration

PowerMax streamlines application development and automates storage workflows through integration with a broad ecosystem of leading DevOps and open management frameworks. It supports comprehensive integration with VMware management and its operational features include vSphere storage management and provisioning, VAAI, VASA, and native vVols support. For containerization and DevOps, PowerMax users can take advantage of plug-ins including those for CSI, Kubernetes, Ansible, and vRealize Operations.

5 | Mission-critical data availability

PowerMax sets the standard for mission-critical availability. Whether it's proven active-active data center replication to comply with stringent BC/DR requirements, non-disruptive PowerMaxOS upgrades in under six seconds[11], or continuous data integrity checks, PowerMax delivers the highest levels of data availability for your mission-critical applications. For mission-critical VMware virtual environments, customers can now deploy SRDF/Metro 3-site replication for the highest level of data availability.

6 | Highly resilient mainframe storage

PowerMax mainframe connectivity features I/O optimization designed to increase IOPs by reducing latency for workloads with I/O that varies over time. AI-enabled zCID adds pattern learning and heuristic building of warnings. PowerMax now leverages IBM System Recovery Boost (SRB) in IBM z15 and z16 processors, potentially reducing Recovery Time Objectives (RTO). 3:1 data compression, backed by Dell's Future-Proof program, enables up to 10 petabytes of effective mainframe capacity while anytime consolidation enables mainframe and open systems capacity allocation on demand.

7 | Ultra-Fast Direct Backup and Recovery

Storage Direct Protection for PowerMax delivers game-changing performance and multicloud agility for backup and recovery. With speeds of up to 46 TB/hour[12] for backups and 21 TB/hour[13] for restores, the PowerMax native integration with PowerProtect Data Domain appliances protects your data at ultra-fast speeds with a simple, intuitive user interface. PowerMax integration with PowerProtect Data Domain provides data integrity through immutability with the ability to incorporate a cyber vault, recovery flexibility, multicloud support, and seamless management and orchestration of backups and restores with PowerProtect Data Manager. And there is no performance impact on host applications.

8 | Seamless multicloud agility

PowerMax's software-driven architecture enables multicloud and hybrid cloud services. It integrates seamlessly with APEX Protection Storage for fast, efficient, and secure data protection. With flexible data mobility, you can easily move workloads between on-premises, cloud, or hybrid environments. PowerMax also provides elastic capacity through APEX Subscriptions, allowing you to right-size capacity for your changing workloads. This helps you leverage the strengths of individual cloud providers while reducing costs and maintaining complete control of your data.

9 | Continuously modern storage

Dell's Future-Proof Program takes the worry out of buying storage. Purchasing PowerMax qualifies for the 3-Year Satisfaction Guarantee, Hardware Investment Protection, and 5:1 Data Reduction Guarantee. Innovation paved the way for PowerMaxOS software to be updated without disruption in just 6 seconds. This ensures that companies can easily adopt storage innovations without costly and complicated data migration procedures.

10 | Backed by experts

Dell's services experts incorporate unmatched knowledge and proven approaches to help you quickly move from strategy to full-scale implementation of your IT priorities. Overcome obstacles and achieve results. Whether it's simplifying your data recovery strategy with Dell Technologies Security and Resiliency Services or optimizing your infrastructure to help your business remain agile, you can count on us. Learn more

Footnotes:

1 Based on Dell's internal analysis of cybersecurity capabilities of Dell PowerMax versus cybersecurity capabilities of competitive mainstream arrays supporting open systems and mainframe storage, April 2024.

2 Based on Dell's internal analysis of cybersecurity capabilities of Dell PowerMax compared to Dell's seven pillars of Zero Trust architectures, April 2024.

3 Based on Dell's internal analysis comparing PowerMax 2500/8500 cyber intrusion detection for mainframe storage to mainstream mainframe offerings. August 2024.

4 Based on Dell's analysis of published product specs and features impacting power usage of Dell PowerMax versus competitive mainstream arrays supporting open systems and mainframe storage operating at 8PBe, June 2024.

5 Based on Dell's internal analysis of the power monitoring capabilities of Dell PowerMax versus the power monitoring capabilities of competitive mainstream arrays supporting open systems and mainframe storage, August 2024.

6 Based on Dell's Future-Proof program that offers 5:1 data reduction guarantee based on PowerMax data reduction tools (dedupe and data compression) for open systems storage, August 2024. Actual data reduction rates will vary.

7 Based on Dell's Future-Proof program that offers 3:1 data reduction guarantee based on PowerMax data reduction tools (data compression) for mainframe storage, April 2024. Actual data reduction rates will vary.

8 Based on Dell's internal testing comparing IOPS per watt for PowerMax 2500 vs. PowerMax 2000 using the 8K random writes workload, August 2024.

9 Based on Dell's internal analysis of total electricity cost savings over 5 years operating PowerMax 2500 at 8PBe (5kW) versus 6 PowerMax 2000s at 8PBe (27.5kW) using $.21 per kWh (U.S. EIA April 2024 report, California Commercial rate). July 2024. Actual cost savings will vary.

10 Based on Dell's internal analysis of total CO2 emissions over 5 years for PowerMax 2500 at 8PBe (5kW) vs. 6 PowerMax 2000s at 8PBe (27.5kW). July 2024.

11 Based on Dell's internal analysis measuring the time to upgrade PowerMaxOS software without disruption (PowerMax 2500/8500), April 2024.

12 Based on Dell's internal testing for PowerMax 2500 and PowerProtect DD9900 using the Epic GeneratorIO for a single storage group backup, March 2024. Actual performance may vary.

13 Based on Dell's internal testing for PowerMax 2500 and PowerProtect DD9900 using the Epic GeneratorIO for a single storage group restore, March 2024. Actual performance may vary.

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