

TOP REASONS WHY CUSTOMERS CHOOSE DELL POWERMAX WITH NVME

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 | Breakthrough efficiency

PowerMax is the industry's most energy-efficient mission-critical storage¹ engineered to optimize efficiency and meet stringent sustainability goals. The latest models offer real-time power and environmental monitoring and alerting based on actual usage, tracking power, voltage, current, frequency, temperature, and humidity for all components inside the 42U rack (storage, switches, servers). 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 systems² and a 3:1 data reduction guarantee for mainframe storage³ (an industry-first). The newest models deliver up to 2.8 times more performance per watt⁴ and provide \$207K in electricity cost savings⁵, along with an up to 82% reduction in greenhouse gases⁶ compared to previous arrays.

2 | Industry-leading cybersecurity

PowerMax offers [unparalleled cyber resiliency](#). It stands as the world's most secure mission-critical storage⁷, designed to accelerate "Zero Trust" adoption⁸ for safeguarding your high-value information throughout any potential data breach. It comes with built-in security features, such as hardware root of trust (secure boot), secure access controls, and tamper-proof audit logs. The new cyber intrusion detection for mainframe systems (zCID)⁹, an industry first, continuously monitors data's working set size 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 cyber recovery 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 | Intelligent storage automation

[PowerMax](#) gets business results faster with next-gen automation that simplifies IT operations. Each system brings autonomous storage to life with a built-in machine-learning engine that uses predictive analytics and pattern recognition to maximize performance with no management overhead. New AI-driven autonomous health checks using predictive analytics identify potential optimization opportunities with recommended action. Automated storage provisioning for open systems and mainframe workloads is accomplished by using a simple REST API saving considerable time and effort. And you can use the software-defined NVMe/TCP utility for [storage resource automation](#) to further simplify network storage operations.

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 seconds¹⁰, 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 includes 32Gb FICON and IBM zHyperlink, the fastest data transfer protocol available for mainframe storage¹¹. The 3:1 data compression, backed by Dell's Future-Proof program, enables up to 10 petabytes of effective mainframe capacity. Industry-leading cyber security enables both virtual and physical mainframe cyber vaults with new cyber intrusion detection for mainframe (zCID). Anytime consolidation enables mainframe and open systems capacity allocation on demand, improving storage footprint efficiency and sustainability.

7 | Ultra-Fast Direct Back 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/hour¹² for backups and 21 TB/hour¹³ 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 | Cost-effective agility with storage-as-a-service

PowerMax with [APEX Subscriptions](#) provides you with elastic capacity, where we work with you to right-size capacity for your workloads as they shrink and grow over time. You gain immediate access to buffer capacity on PowerMax should you need it, while only paying for the technology you use. And your payment adjusts up or down to match your actual usage. Combine the scalability and cyber resiliency of PowerMax with the agility and flexibility of Dell APEX Subscriptions.

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. Past innovations have 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 consulting services experts know what it takes to harmonize business and IT needs. Our outcome-focused approach accelerates your ability to deliver cloud platforms, workforce experiences, and advanced applications, and achieve a resilient business. Dell Technologies [ProConsult Advisory Services](#) facilitate a plan for beneficial and lasting change.

Footnotes:

¹ 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 2023.

² 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, 8/2023. Actual data reduction rates will vary.

³ Based on Dell's Future-Proof program that offers 3:1 data reduction guarantee based on PowerMax data reduction tools (dedupe and data compression) for mainframe storage, April 2023. Actual data reduction rates will vary.

⁴ Based on Dell's internal testing comparing IOPS per watt for PowerMax 2500 vs. PowerMax 2000 using the 8K random writes workload, August 2023.

⁵ 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 \$ 0.21 per kWh (U.S. EIA April 2023 report, California Commercial rate), July 2023. Actual cost savings will vary.

⁶ 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 2023.

⁷ 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 2023.

⁸ Based on Dell's internal analysis of cybersecurity capabilities of Dell PowerMax compared to Dell's seven pillars of Zero Trust architectures, April 2023.

⁹ Based on Dell's internal analysis comparing PowerMax 2500/8500 cyber intrusion detection for mainframe storage to mainstream mainframe offerings, August 2023.

¹⁰ Based on Dell's internal analysis measuring the time to upgrade PowerMaxOS software without disruption (PowerMax 2500/8500), April 2023.

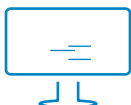
¹¹ zHyperlink reads

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.

*Storage Direct Protection for PowerMax is expected to be available later in 2024.

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