TOP REASONS WHY CUSTOMERS CHOOSE DELL EMC POWERSTORE FOR MICROSOFT SQL SERVER

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1 | Data Centric Storage Platform for the Data Era

PowerStore has innovative capabilities that unlock the power of an organization's most critical asset – its data. It has been designed to eliminate the typical tradeoffs in performance, scalability and storage efficiency. PowerStore's single architecture for block, file, and vVols utilizes the latest technologies to achieve these disparate objectives without sacrificing the cost-effective nature of midrange storage. Microsoft SQL Server 2019 includes expanded PolyBase features, called big data clusters, which enable companies to gain insights on data across a wide variety of data sources, a perfect fit for PowerStore.

2 | Performance for Development, Deployment & Beyond

PowerStore is designed from the ground up to utilize the latest in storage and interface technologies in order to maximize Microsoft SQL Server performance and eliminate bottlenecks. Microsoft SQL Server environments span wide variety of requirements, environments span dev/ops, critical workloads and legacy apps. PowerStore's design uses NVMe to take full advantage of the speed and low latency of solid state devices, with greater device bandwidth and queue depth. Storage Class Memory (SCM) provides performance and endurance beyond those of flash and approaching the speed of DRAM.

3 | Storage Efficiencies become Microsoft SQL Server Efficiencies

PowerStore delivers superior consistent storage efficiency enabled by its inline, always-on data reduction, with the performance benefits of data compression acceleration utilizing Intel QuickAssist Technology. With hardware offload capability integrated into each PowerStore appliance, providing 40 Gbps of total throughput to handle data compression, Microsoft SQL Servers can save resources by conserving CPU cycles for other tasks. The Dell EMC PowerStore system with the Future-Proof Program, discussed later, includes a 4:1 Data Reduction guarantee.

4 | Container-based Storage & Persistent Data for Containers

PowerStore's microservices and container-based software architecture enables feature portability, standardization and rapid time-to-market, and enables maximum deployment flexibility. Similarly, Microsoft is heavily invested in Linux-based containerized deployment models. For stateful applications like Microsoft SQL Server 2019, a plug-in based solution is required for support with Kubernetes. Dell EMC's CSI (Container Storage Interface) plug-in information for PowerStore and all other supported platforms can be found at GitHub.com/DellEMC.

5 | Automating the Deployment of Microsoft SQL Server

PowerStore streamlines application development and automates storage workflows through integration with a broad ecosystem of leading DevOps and open management frameworks. In the burgeoning areas on containerization and DevOps, PowerStore users can take advantage of plug-ins including those for CSI, Kubernetes, Ansible and vRealize Operations. Dell Technologies has developed simplified deployment models leveraging Kubernetes and Kubespray to completely automate the deployment of not only Microsoft SQL Server 2019 but also big data clusters.

6 | Protecting Big Data Clusters via Intelligent Snapshots

The amount of data stored in Big Data environments is in the terabytes to petabytes, but backup and recovery is often an afterthought and availability requirements will inevitably increase making these strategies unacceptable. The intelligent snapshot capabilities of PowerStore allow these environments to be protected by storage snapshots in a matter of seconds, allowing for fast, efficient point-in-time copies, and recovery times in minutes, not days or months.

7 | Scaling Capacity & Performance for Consolidation

Consolidating numerous versions of Microsoft SQL Server onto a single platform is a common task and yields great benefits in capacity efficiencies, business agility, security and availability. Advanced clustering technology enables PowerStore to scale system performance up to four appliances, while individual drive scaling addresses flexible capacity growth and resource balancing. PowerStore has a balanced approach to storage scalability, cost effective scaleup capacity, and the ability to scale performance as application needs grow and evolve. PowerStore can automatically balance storage and workloads to maximize system utility. With multiple models available, your Microsoft SQL Server data estate can be sized right from the start and scale to meet all future needs whether the initial deployment is small or large.

8 | Unmatched Agility with AppsON

Integration of PowerStore's software-defined architecture with on-board VMware ESXi results in a new level consolidation for enterprise storage, combining the benefits of a local on-array application environment with unmatched integration with the vSphere management environment and server resources. Benefits of the AppsON capability include a new level of agility for application deployments, with seamless movement between the PowerStore appliances and VMware ESXi servers, as well as the ability to shrink the stack by eliminating server and networking footprint for space-efficient edge and remote deployments.This means that PowerStore architecture enables offloading storage-hungry and performance-sensitive SQL Server workloads while also having the ease of VM migrations that vSphere provides.

9 | Future-Proof with Anytime Upgrades

Dell stands behind every Dell EMC PowerStore system with the Future-Proof Program including a 4:1 Data Reduction guarantee as well as Anytime Upgrades, the industry's most comprehensive upgrade program that provides data-in-place upgrades within the same generation or next-generation of appliances, or scale-out of their existing environment with a second system equal to their current model. PowerStore nodes can be replaced non-disruptively while preserving existing drives and expansion enclosures, without requiring new licensing or additional purchases. With PowerStore, infrastructure can be modernized without a forklift upgrade, without downtime, and without impacting applications. Please visit the Future Proof Loyalty Program page for further details.

10 | Predictive Analytics & Proactive Monitoring

CloudIQ is a native cloud-based storage analytics application that's included at no cost with PowerStore appliances. It provides comprehensive monitoring of system health, performance, capacity, configurations, and on-array protection metrics. It combines these metrics with machine learning and predictive analytic measurements to improve capacity planning and fix problems before they disrupt business. CloudIQ creates a comprehensive and proactive health score per array to ensure that each PowerStore appliance provides the optimal foundation for running business data with the highest availability.
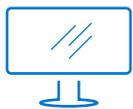
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