



Top 5 Ways to Enhance Your SQL Experience With Dell Technologies

The power of Dell EMC PowerEdge and PowerStore



Introduction

Today, enterprises of all sizes rely on processing and server capabilities to keep the business running. Email communication, the company website, payroll and accounting, e-procurement transaction processing and other specialized applications are just a few of the reasons that enterprises need secure, scalable infrastructure that allows for easy data management and storage.

For many organizations, the Microsoft® SQL Server® platform offers security and scalability needed to leverage data effectively and efficiently. Simply deploying SQL Server architecture is not enough, however, to achieve maximum benefits from the technology.

This ebook will look at five key ways to enhance the SQL experience for your organization. By harnessing the power of SQL Server technology to simplify infrastructure management and complex technologies and efficiently secure data, your enterprise will see increased productivity through automation and reliable, secure scalability.

1

Scalable infrastructure for flexible SQL Server deployments

Scalable, flexible growth

Data is the lifeblood of any organization, and success in today's business landscape depends on unlocking its potential. To get the most from your SQL experience, it's important to make sure that the server has the ability to scale for increased compute capacity and performance and to grow as your business grows.

A superior foundation for SQL performance

One way to achieve these goals is with Dell EMC™ PowerEdge™ and PowerStore. Together, PowerEdge and PowerStore create a superior foundation for SQL's advanced analytics capabilities and achieve complete flexibility to match your enterprise needs.

PowerEdge four-socket servers provide increased capacity for compute and storage for large databases, while PowerStore offers a balanced approach to storage scalability, cost-effective scaleup capacity and the ability to scale performance.



2 Optimize memory-intensive database workloads

Matching memory to workloads

No one wants to run out of memory or to pay for memory that's never used. It's especially important in a SQL Server environment to match the amount of memory to workloads. Configuring SQL for the maximum amount of memory allows enterprises to pair memory needs with mission-critical workloads.

The latest in memory technology

Dell EMC™ PowerEdge™ and PowerStore are equipped with the latest in memory technology, enabling your organization to take full advantage of SQL Server 2019. PowerEdge four-socket servers with Intel® Optane™ persistent memory can offer up to 15.36TB of memory to support large databases. Optimize SQL Server performance by supporting more than double the database virtual machines.¹

In addition, PowerStore uses the latest NVMe® storage to maximize Microsoft® SQL Server® performance, taking full advantage of the speed and low latency of solid-state devices.



3 A holistic view of your database environment

Assessing the health of your environment

In a clustered environment, it's very important to be able to assess the health of your cluster at all times. Problems with servers, memory or running out of storage can cause widespread problems and costly slowdowns. Likewise, as your SQL Server cluster grows, the ability to easily scale management and automate tasks is key to efficient, low-cost maintenance.

Tools for better insight

Dell EMC OpenManage™ Integration tools and the built-in machine learning provided by PowerStore give administrators visibility and control of hardware infrastructure, operating systems, virtual machines and containers.

By providing a comprehensive view into the SQL Server and full-stack environments and fast and meaningful insights into the health of your clusters, including dashboards, monitoring and real-time alerts, PowerStore enables you to address issues before they become problems.



4

A secure platform for your data

The trust and security of customers' data is paramount for any enterprise. Data breaches are increasing in number and sophistication, costing organizations time and money. While SQL Server has a proven track record for security, an application is only secure as the hardware it runs one.

Security from the start

PowerEdge™ servers are designed with security built directly into the hardware, so that an extra layer of protection is guaranteed from the start. For example, in-chip authentication and trust engine prevent data corruption while secure boot, system ease and lock-down guard against malicious or unintended changes.

Furthermore, PowerStore is a highly reliable storage platform, designed for 99.9999% availability. So, when SQL Server®, one of the most secure Relational Database Management Systems (RDBMS), is run on PowerEdge and PowerStore, you can have confidence that everything from the hardware to the software stack is secured.

5

Industry-leading technology that offers peace of mind

Large SQL Server cluster environments are complicated and complex, requiring professional engineering and reliable, time-tested hardware, like PowerEdge servers. Even so, in the event of major disruptions that threaten business continuity, it's important to have experts ready to step in with support.

Expert support when you need it most

PowerEdge servers are the bedrock of modern data centers, reliably and successfully supporting data-centric workloads. PowerStore leverages next-gen technology, and offers scalable architecture, intelligent automation and integrated security. Together, they provide the ideal foundation for your SQL Server® 2019 environment.

When problems, questions or new projects do come up, however, it's important to have access to expert support and guidance.

Insight is the perfect partner for your Dell EMC PowerEdge and PowerStore needs. A 2019 Dell Server Partner of the Year and Titanium Black Partner, Insight engineers have 64 Dell Technologies certifications and complete access to Dell Technologies™ solutions portfolio for data centers, the cloud, devices and more.



About Insight

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¹ Principled Technologies. (November 2019). Support more VMs with large databases and memory footprints by adding Intel Optane DC persistent memory to your Dell EMC PowerEdge R940 server. Dell EMC.