

# DELL EMC READY SOLUTIONS FOR MICROSOFT SQL

Designed for superior performance, significant cost savings and future-ready scalability for your Microsoft SQL Server 2017 environment.



## ESSENTIALS:

- Pre-architected and validated configurations
- Flexible design choices
- Data reduction and compression
- Backup and recovery
- Data protection

## BENEFITS:

- Superior performance
- Significant cost savings
- Future-ready scalability
- Incremental growth flexibility
- Mixed workload consolidation

## Embrace Microsoft SQL Server 2017

Microsoft® SQL Server® 2017 delivers breakthrough mission-critical capabilities with in-memory performance and operational analytics built in — while comprehensive security features help protect your data at-rest and data in-motion.

When you embrace Microsoft SQL Server 2017, you'll be able to gain deeper insights from all your data. With capabilities that go beyond business intelligence, SQL Server 2017 performs advanced analytics within your database and presents rich visualizations for business insights. In addition, SQL Server 2017 delivers a database platform for hybrid cloud, enabling you to easily build, deploy and manage solutions that span on-premises and in the cloud. SQL Server 2017 also represents a major step towards making SQL Server a platform that gives you choices of development languages, data types, and operating systems by bringing the power of SQL Server to Linux, Linux-based Docker containers, and Windows.

## Planning is essential

But building a new Microsoft SQL Server system can be tricky. SQL Server performance depends on the right architectural design and sizing. The infrastructure you buy — and how you plan the implementation — can have a huge impact on your results, costs and scalability. There are many different options available when it comes to selecting hardware and storage subsystems, and it could take multiple tries to find the right combination for maximum performance.

Having properly sized and configured hardware can both increase application performance and reduce capital expenses dramatically. In a database environment, it's also important to consolidate multiple components to reduce data center footprint and costs.

Also, scaling SQL Server can be a tedious and time-consuming undertaking that touches multiple systems, databases, memory, storage, CPU and network adapters. Making the right hardware decisions from the start is important for database scalability.

**42% increase in transactions per second<sup>2</sup>**

**43% increase in batch requests per second<sup>2</sup>**

**Cut wait times by 88%<sup>3</sup>**

**Support nearly 7x as many customers<sup>3</sup>**

**Answer database queries in 92% less time<sup>4</sup>**

**Experience read and write latencies under 500 microseconds<sup>6</sup>**

**Run SQL Server 2017 on Windows and Linux using a pre-tested and validated solution<sup>6</sup>**

## **Dell EMC has the Ready Solutions for Microsoft SQL environments**

Dell EMC understands these challenges and has both the SQL expertise and the extensive portfolio to help quickly find the right platform, implement the right process, and get the right performance while minimizing risk. In addition, data in Microsoft SQL Server 2017 can be on-premises, hybrid and in the cloud, with a consistent experience across all three platforms. Dell EMC can help you decide which model is best for your applications and workloads.

Dell EMC Ready Solutions for Microsoft SQL, are designed for superior performance, significant cost savings and future-ready scalability. Our solutions offer customers choices of server form factors, server virtualization versus bare metal, hypervisors including Microsoft Hyper-V and VMware ESXi, and storage flexibility including hyper-converged, storage array, and software-defined.

### **Superior performance**

Microsoft SQL Server delivers breakthrough database performance, including up to 30X faster transactions over traditional database engines and in-memory column store for up to 100X faster queries with row-oriented storage.<sup>1</sup>

Ready Solutions for Microsoft SQL are purpose-designed and validated to optimize performance with SQL Server 2017. It delivers strong linear scalability and performance. It consistently delivers sub-millisecond storage latencies enabling enterprise applications to respond faster and accelerates business processing.<sup>5</sup>

### **Significant cost savings**

Ready Solutions for Microsoft SQL helps you save the hours required to develop a new database and can also help you avoid the costly pitfalls of a new implementation, while ensuring that your company's unique needs are met. Our solution also helps you reduce costs with hardware resource consolidation and SQL Server licensing savings by consolidating and simplifying SQL systems onto modern infrastructure that supports mixed DBMS workloads, like OLTP and decision support system, making them future ready for data analytics and next generation real-time applications.

### **Mixed Windows and Linux environments**

Microsoft is supporting a broader range of operating systems, including Red Hat Linux (RHEL) and SUSE Linux Enterprise Server, so you can select the platform that works best for your business. Now you can confidently choose your platform knowing that the Ready Solutions for Microsoft SQL have been pre-tested and validated for both Windows Server 2016 and Linux. Dell EMC's engineering team has pushed the boundaries of scalability testing by running 16 virtualized databases in parallel—8 on Windows Server 2016 VMs and 8 on Red Hat Enterprise Linux VMs.<sup>6</sup> This solution was designed for scalability, performance and consolidation so you can experience the value of SQL Server 2017 regardless of your operating system.

### **Future-ready scalability**

Ready Solutions for Microsoft SQL have been designed, tested and optimized for SQL Server, so you can start or scale quickly and easily to keep up with growing database demands. The Ready Solutions for Microsoft SQL's flexible architecture enables you to add only in the areas where you need to and expand over time as you grow.

### **Modernize your Microsoft SQL infrastructure with confidence**

Dell EMC Ready Solutions for Microsoft SQL are designed based on Microsoft and Dell EMC best practices. Our tested and validated solutions provide exceptional performance and scalability, deliver faster time to value, and increase return on investment.

## Services and Financing

Dell EMC, a Microsoft Gold Certified Partner, offers a range of services to help you finance, deploy, and maintain your Ready Solution for Microsoft SQL Server.

[Dell EMC Consulting](#) helps customers accelerate their business priorities with Microsoft SQL Server, from platform upgrades to data modernization & migration and business intelligence & analytics. Whether you are looking to transition services to the cloud or deliver them via a hybrid model, Dell EMC will help you get there faster.

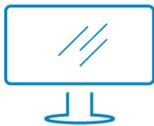
[Dell EMC ProDeploy Enterprise Suite](#) expedites and ensures the success of your Ready Solution implementation with local, personalized expertise and scale, and a proven delivery model.

With [Dell EMC ProSupport Enterprise Suite](#) you get a single source of accountability for your Ready Solution hardware, operating system, hypervisor and software, whether you purchased your license from Dell EMC or Microsoft. ProSupport provides 24x7 global support, including Next Business Day on-site service with four- and eight-hour parts and labor response options, and escalation management with customer-defined severity levels.

[Dell Financial Services](#) offers a wealth of leasing and financing options throughout the U.S., Canada and Europe.

- Financing available for the total technology solution
- Efficient electronic quoting and online contracts
- Convenient payment options

1. Microsoft, "[Run operational and analytical workloads at a sprint](#)", 2017.
2. Based on a Dell EMC Engineering study, "[Accelerating Microsoft SQL Server Performance with NVDIMM-N on Dell EMC PowerEdge R740](#)", August 2017.
3. Principled Technologies report, "[Serve more online customers with new Dell EMC servers and Microsoft SQL Server 2017 software](#)", October 2018
4. Principled Technologies report, "[Analyze data faster by upgrading to a Dell EMC PowerEdge R740xd running Microsoft SQL Server 2017 Standard on Red Hat Enterprise Linux 7.5](#)", October 2018
5. Based on a Dell EMC Engineering study using SQL Server 2017 with Windows Server 2016, VMware vSphere 6.7 on PowerEdge R740 servers, and Unity 650 All Flash storage. "[Dell EMC Ready Solutions for Microsoft SQL: Dell EMC Unity All Flash Storage Design Guide](#)", December 2018
6. Based upon Dell EMC Engineering tests in February of 2019 of SQL Server 2017 on Windows Server 2016 and RHEL 7.6. Actual results will vary.



[Learn More](#) about Dell EMC Ready Solutions for Microsoft SQL solutions



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