

# Simplify Your Upgrade to Microsoft® SQL Server® 2019

## Dell Technologies can help you build a VMware vSphere® infrastructure that is ideal for running SQL Server 2019 on Linux®.

Reaching the end of support for core systems and hardware is inevitable, but it provides an opportunity to invest in new technology that can keep your business moving forward.

This is especially true for database management systems (DBMSs) that keep businesses running. For organizations running legacy versions of Microsoft® SQL Server®, Microsoft ended support for SQL Server 2008 and SQL Server 2008 R2 in July 2019, and it will be ending support for SQL Server 2012 in 2022.<sup>1</sup>

If your organization is running a legacy version of SQL Server on old hardware, and you've been held back by concerns about the difficulty and cost of upgrading, Dell Technologies offers an upgrade path to SQL Server 2019 on Linux® running on VMware vSphere® and Dell EMC™ PowerEdge™ servers. This path provides simple and cost-effective original equipment manufacturer (OEM) licensing, one-stop technical support, broad tools for systems management, and multi-layer security.

## Build a Better Solution

Create Scalable, High-Performance Systems for  
SQL Server 2019 on Linux

Dell Technologies and VMware have collaborated for nearly two decades to bring innovative solutions to organizations of all sizes. This collaboration helps ensure that VMware® software runs optimally on Dell EMC PowerEdge servers.

An infrastructure built with Dell EMC PowerEdge servers and VMware software can provide:

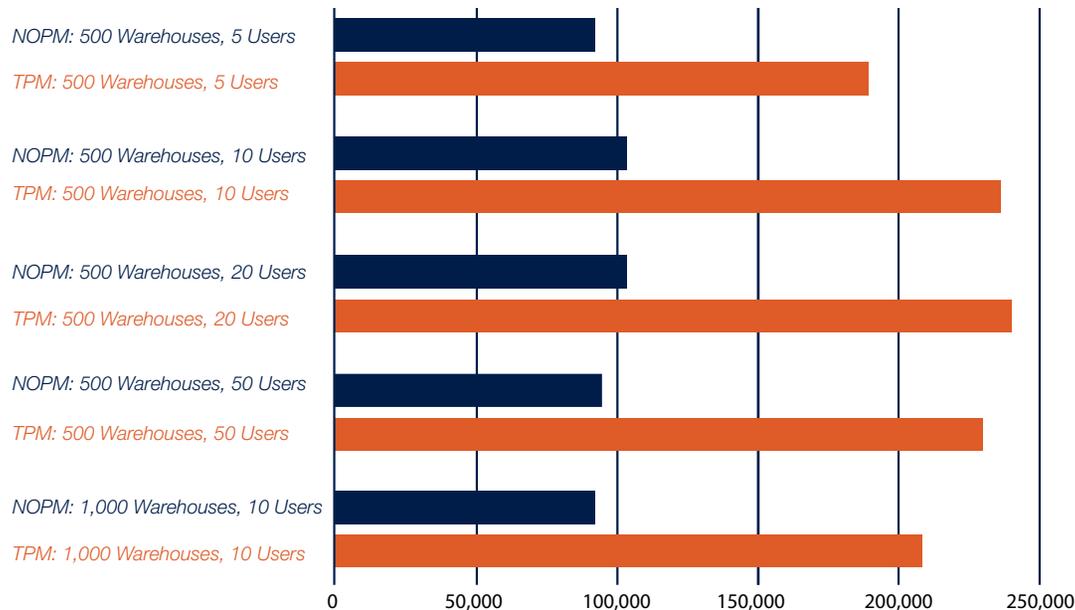
- A high-performance environment for SQL Server on Linux workloads
- The scalability to meet changing business demands
- Higher server utilization that improves hardware total cost of ownership (TCO)
- Comprehensive management tools for busy IT professionals

# Dell EMC™ PowerEdge™ Servers Accelerate SQL Server 2019 on Linux Running on VMware vSphere

Prowess Consulting built a testing environment to determine how SQL Server 2019 on Linux performs when running on PowerEdge servers with VMware vSphere. The environment consisted of two Dell EMC PowerEdge R740xd servers with the vSphere hypervisor (VMware ESXi™) installed. Each server contained two Intel® Xeon® Gold 6246 processors, 192 GB of DRAM, 512 GB of Intel® Optane™ persistent memory (PMem) configured in App Direct Mode, and eight 960 GB Intel® SSD DC S4610 drives.

Prowess engineers used HammerDB 3.3, an open-source database load testing and benchmarking tool that measures transaction rates against increasing levels of “users” and “warehouses.” Our tests showed that SQL Server 2019 on Linux running on Red Hat® Enterprise Linux 8 performs well in a VMware vSphere virtualized environment, obtaining nearly 240,000 transactions per minute (TPM) and 104,000 new orders per minute (NOPM) in a single-instance configuration.

## Microsoft® SQL Server® 2019 on Linux® Single Instance on VMware vSphere® 7



## Consolidated Licensing and Support

Dell Technologies offers a high-performance upgrade path for legacy SQL Server deployments running in a VMware vSphere environment, while also providing simplified OEM licensing and support. Organizations have one phone number to call with questions about their hardware and their VMware, Red Hat, and Microsoft software, which simplifies hardware and software support considerably.

Read the full report:

**"Need Help Upgrading Your Legacy Microsoft® SQL Server® Deployments?"**

To learn more, visit

[www.delltechnologies.com/microsoft](http://www.delltechnologies.com/microsoft).

The analysis in this document was done by Prowess Consulting and commissioned by Dell Technologies.

Results have been simulated and are provided for informational purposes only. Any difference in system hardware or software design or configuration may affect actual performance.

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<sup>1</sup>End-of-support date according to <https://support.microsoft.com/en-us/lifecycle/search>.