Serve more customers **6x** as many orders per minute*

A faster experience with **85%** lower application latency*

Support more customers and get them from landing page to checkout faster by upgrading to a Dell EMC PowerEdge R740xd running Microsoft SQL Server 2017 Standard on Red Hat Enterprise Linux 7.5*

If the hardware and software solution you've been using to power your business has been chugging along with few problems, investing in a new solution may be the last thing on your mind. But computing is one area where the adage "If it ain't broke, don't fix it" should not apply. By hanging onto older solutions, you could be missing out on serving more customer requests and giving those customers the responsive experience they deserve.

We compared a legacy solution (a Dell EMC™ PowerEdge™ R720xd running Microsoft® Windows Server® 2012 R2 with SQL Server® 2008 R2) to an updated PowerEdge R740xd solution running Microsoft SQL Server 2017 Standard on Red Hat® Enterprise Linux® 7.5. The contest wasn't even close: The new Dell EMC + Microsoft + Red Hat solution handled six times as many requests as the legacy solution and it did so more quickly, which means customers will appreciate a snappier user experience.

Don't wait for your systems to start breaking down, because they could already be costing you. By upgrading to a new Dell EMC PowerEdge R740xd running Microsoft SQL Server 2017 on Red Hat Enterprise Linux 7.5, you can serve more customer requests and help those customers get from website landing page to purchase completion in less time.

*when running a database workload, compared to a legacy solution consisting of a 12th generation Dell EMC PowerEdge R720xd running Microsoft SQL Server 2008 R2 on Microsoft Windows Server 2012 R2

Outdated servers could be hurting your business

Many businesses take a reactive approach to their datacenter, only making purchases or upgrades when a server is fried or when a software vendor no longer offers support for a certain release. What managers don't realize is that investing in new technology can deliver untold benefits for your organization and solve problems that you didn't even realize you were having. By being proactive and investing in the latest technology, you gain the benefits of new features, can support more customers, and can complete work more quickly.

A 2016 IDC study reported that "IT organizations can lose up to 39 percent of peak performance and add up to 40 percent in application management costs and up to 148 percent in server administration costs"[1] when they hold onto outdated gear. A sluggish datacenter may be driving customers away from your lagging retail website without you even realizing it. Upgrading your hardware and software is a straightforward way to handle more customer orders and help those customers make purchases more quickly, while setting your business up for future growth.

New feature alert:

Microsoft SQL Server 2017 now supports Red Hat Enterprise Linux

Long-time Linux users now have more options when choosing a database platform. While previous Microsoft SQL Server releases required a Windows Server operating system (OS), Red Hat Enterprise Linux 7.5 can now support SQL Server 2017. This compatibility gives you one more way to run your datacenter exactly how you want.

About the new solution

The Dell EMC PowerEdge R740xd

The 14th generation Dell EMC PowerEdge R740xd offers strong database performance with a variety of storage configuration options. It can support up to 24 NVMe drives (we tested with two SAS HDDs and 12 SATA SSDs) and is powered by Intel® Xeon® Scalable processors.[2]

Red Hat Enterprise Linux 7.5

According to Red Hat, the 7.5 release of the open-source OS offers improvements "including enhanced security and compliance, usability at scale, continued integration with Windows infrastructure on-premise and in Microsoft Azure, and new functionality for storage cost controls."[3]

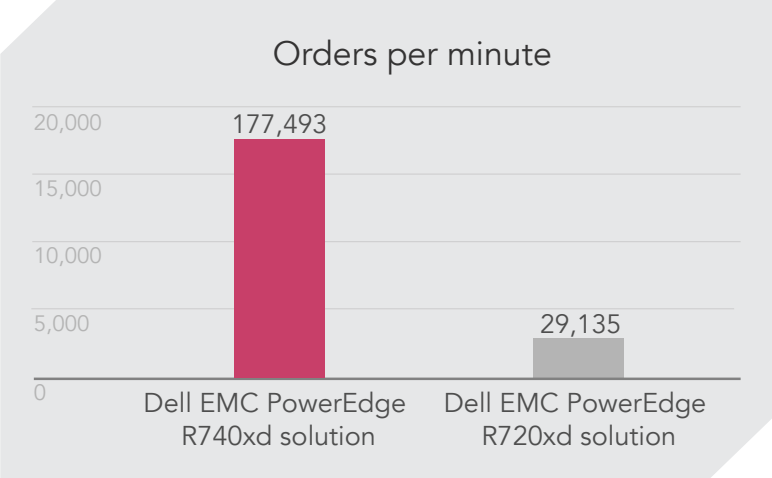
SQL Server 2017 Standard on Linux

According to Microsoft, SQL Server 2017 Standard on Linux helps users "find rich programming capabilities, security innovations, and fast performance for mid-tier applications and data marts" with features like end-to-end database security, enhanced in-memory performance, basic reporting and analytics, and hybrid scenarios.[4]

The new Dell EMC + Microsoft + Red Hat solution handled more orders and reduced wait times

Our tests demonstrated that upgrading to a new solution based on the latest technology from Dell EMC, Microsoft, and Red Hat could have you processing a significant number more database orders and doing so more quickly.

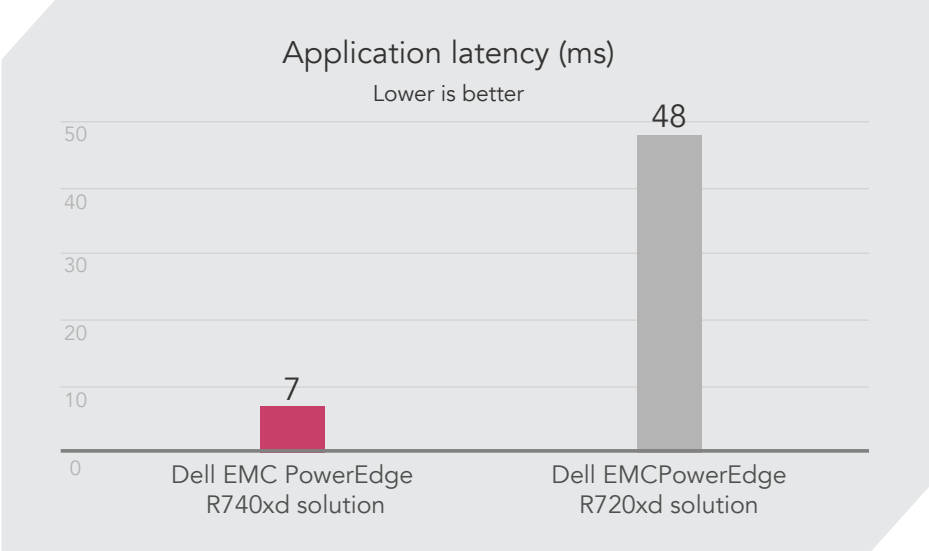
In fact, our new solution did the work of over six legacy servers running older software versions. This means that if you replace your older servers with new ones, you could set up your business for significant future growth.



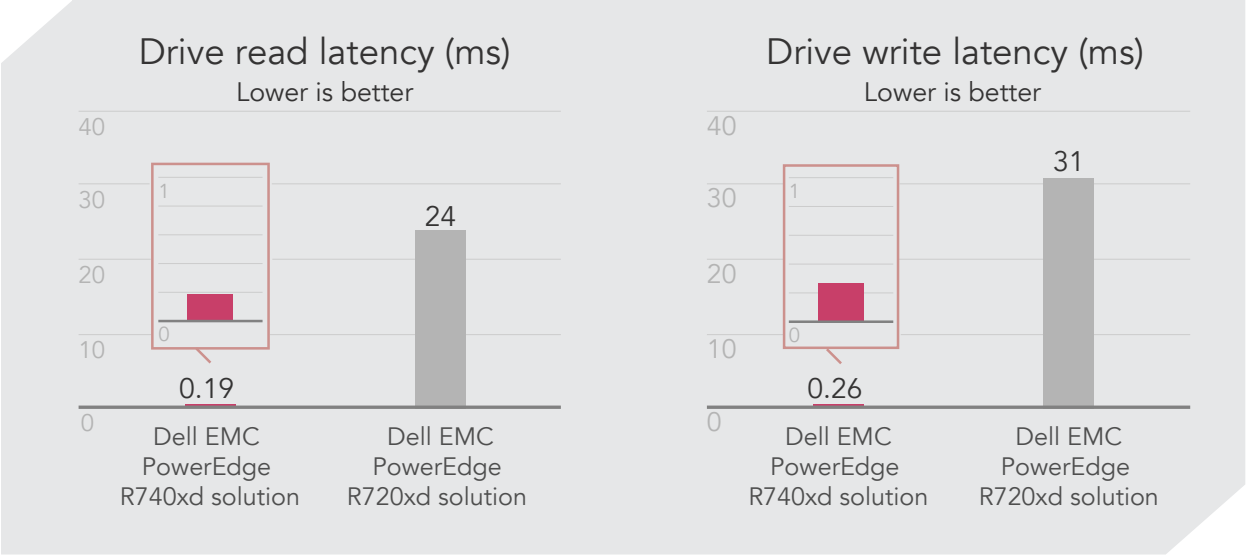
About the DVD Store 2 benchmark

DVD Store 2 (DS2) models an online DVD store, where customers log in, search for movies, and make purchases. DS2 reports the number of customer actions the system can handle as orders per minute (OPM), to show what kind of performance you could expect for your customers. The DS2 workload also performs other actions, such as adding new customers, to exercise the wide range of database functions you would need to run your ecommerce environment. For more information about the DS2 tool, see https://github.com/dvdstore/ds21.

We also looked at two kinds of latency to see how the upgraded Dell EMC + Microsoft + Red Hat solution could deliver a more responsive experience for additional users. As the chart shows, the new 14th generation solution reduced application latency by 85 percent, which means that end users could access your database faster.



Drive read latency and drive write latency also shrank on the new Dell EMC + Microsoft + Red Hat solution, which is another view into how upgraded tech can make database work go faster. With lowered latency, the system takes less time to respond to requests, helping give customers a smoother experience.



Keep customers coming back: Serve more requests, faster with the 14th generation Dell EMC + Microsoft + Red Hat solution

Your previous server and software investment provided a platform for you to run your business for the last several years. But now, it's time to make another investment in your business's future. Upgrading to the latest hardware and software can help you serve more customers and keep them happy with a responsive experience.

As we found in our tests, a new Dell EMC PowerEdge R740xd server running Red Hat Enterprise Linux 7.5 with Microsoft SQL Server 2017 Standard did dramatically more work than a legacy server solution running older software versions. By doing more work and cutting wait times to almost nothing, the new Dell EMC + Microsoft + Red Hat solution could keep customers coming back.

1 IDC, "Why Upgrade Your Server Infrastructure Now?" accessed May 8, 2018, https://www.emc.com/collateral/analyst-reports/idc-why-upgrade-server-infrastructure.pdf
2 Dell EMC, "Dell EMC R740xd spec sheet," accessed May 8, 2018, http://i.dell.com/sites/doccontent/shared-content/data-sheets/en/Documents/poweredge-r740xd-spec-sheet.pdf?newtab=true
3 Red Hat, "Red Hat Enterprise Linux 7.5 released," acccessed May 8, 2018, https://access.redhat.com/announcements/3405871
4 Microsoft SQL Server datasheet, accessed May 8, 2018, https://www.microsoft.com/en-us/sql-server/sql-server-2017-editions

Read the science behind this report at http://facts.pt/gqxydd ▶

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