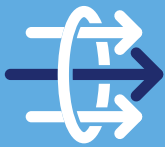




Executive summary

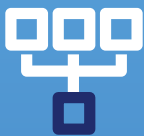


Support the user experience
14,049 online transactions per second



Draw insights from information

- Process **48 separate 300GB** database query sets in **46 minutes**
- **48,391 IOPS** and **4,857 MB/s** throughput



Use datacenter space efficiently

with a cluster that can handle **8 VMs** doing heavy OLAP analytics or **12 VMs** processing robust OLTP requests

Give your business the benefits of online transaction processing and data analytics with less hassle and delay

Dell EMC Ready Solutions for Microsoft SQL is a streamlined solution for your database applications

For many companies, database applications are the backbone of business. E-commerce relies on online transaction processing (OLTP), and informed decision-making requires analyzing the rich troves of data your business collects. For such critical operations, a robust solution is a must.

Dell EMC™ Ready Solutions for Microsoft® SQL is a solution that comes pre-configured to meet these business needs. At Principled Technologies, we set up Dell EMC Ready Solutions for Microsoft SQL that included four Dell EMC PowerEdge™ R740xd servers in a Microsoft Storage Spaces Direct (S2D) cluster environment running SQL Server® 2017. We put this solution through its paces—first running an online transactional processing workload and then performing online analytical processing (OLAP) data warehouse queries.

On both database applications, the Dell EMC Ready Solutions for Microsoft SQL achieved levels of performance that could serve a company with growing database requirements well—either by delivering a strong user experience or providing valuable data analysis.

The question: To buy a preconfigured solution or assemble one?

Our report presents our test results through the eyes of Juan, a hypothetical IT manager at a lumber wholesaler. Until recently, his primary concern has been keeping the company's ordering system databases running well to support their sales staff. Now he needs to add a data analytics solution to help improve company decision-making.

The additional workload will require investing in a new, more robust server-and-storage solution. Juan doesn't have time to build a solution from the ground up, so he's looking at Dell EMC Ready Solutions for Microsoft SQL, a pre-configured solution that includes all the hardware and software the company's database applications need.

The business need:

How Dell EMC Ready Solutions for Microsoft SQL meets that need:



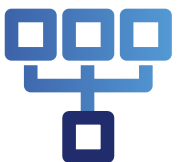
Strong online transaction processing performance to help the sales team respond to customers in real time

In our testing, a Dell EMC Ready Solutions for Microsoft SQL cluster handled 14,049 OLTP transactions per second, which will help keep the sales team at the top of their game.



Strong online analytical processing performance to give the company leaders insight

In our testing, a Dell EMC Ready Solutions for Microsoft SQL cluster processed 48 separate 300GB data warehouse query sets in 46 minutes. The solution also delivered 48,391 IOPS with 4,857 MB/s throughput on a data analysis workload. That will help the management team at Juan's company make data-driven decisions!



A database server-and-storage solution that packs a great deal of compute power into a small package

In our testing, a cluster could handle either 8 VMs doing heavy OLAP analytics or 12 VMs processing robust OLTP requests. With two clusters in one rack, Juan can devote 12 VMs to the ordering system and other OLTP applications and 8 VMs to analytical databases. Maintaining two similar clusters in one small space will also help keep operational costs down.

As our study found, Dell EMC Ready Solutions for Microsoft SQL give managers like Juan the storage density and compute power necessary to provide users the service they demand and to support better-informed decision-making. They start reaping these business benefits quickly by eliminating the time and worries of designing, configuring, and testing hardware themselves.

Read the full report at <http://facts.pt/0zt00k> ▶



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This project was commissioned by Dell Technologies.