



Executive summary



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



Transform raw data into insights **48,391 IOPS** and **4,857 MB/s throughput**



Process multiple workloads **48 separate 300GB** database query sets in **46 minutes**



Keep orders moving **14,049 online transactions** per second

Meet growing online transaction demands and make smarter business decisions

Increase the scope of your efforts through quick order processing or in-depth data analysis with Dell EMC Microsoft Storage Spaces Direct Ready Nodes

For workloads ranging from transactional applications to big data analysis, a system that doesn't adequately support your customer demands or enable smart decision-making strategies can threaten your company's success. A hyper-converged infrastructure solution could be the right answer for many businesses with growing application and data storage requirements.

Dell EMC™ Microsoft® Storage Spaces Direct Ready Nodes are suitable for database workloads and come preconfigured as a complete hardware and software solution. At Principled Technologies, we set up a four-server Microsoft Storage Spaces Direct (S2D) cluster environment based on the Dell EMC PowerEdge™ R740xd servers and explored how well this solution handled both online transactional processing (OLTP) workloads and online analytical processing (OLAP) data warehouse queries. Dell EMC Microsoft Storage Spaces Direct Ready Nodes delivered the strong performance a company with growing application and data storage requirements needs—so you can give users the service they demand, quickly and confidently.

These scenarios are hypothetical, but the decisions the characters face are real. At Principled Technologies, we tested the performance of Dell EMC Microsoft Storage Spaces Direct Ready Nodes. Read on to see how they can help you implement smart data-based strategies quickly.

The basis of any good software-defined storage solution is good hardware

Choosing Dell EMC Microsoft Storage Spaces Direct Nodes as your software-defined storage solution not only eliminates the hassle of designing, configuring, and testing hardware yourself; it also provides the storage density and compute power necessary to provide quick and in-depth data analysis in a small form factor.



Support account management

Daniel is the database admin for a startup, and has limited datacenter space to fit a storage solution that meets both the increasing OLTP demands of their clientele and the heavy-hitting OLAP databases they need to improve working capital and increase orders. Our testing shows that if Daniel adopted Dell EMC Microsoft Storage Spaces Direct Ready Nodes, he could fit everything he needs in one rack. Maintaining two similar clusters in one small space means lower CAPEX as well as less money spent on power and admin time.



Improve quality of service

LaVonda is the Director of Health and Services at a large metropolitan hospital, and wants to use data from many departments to improve the quality of health care services for the patients she serves. Our testing shows that if her IT department deployed Dell EMC Microsoft Storage Spaces Direct Ready Nodes, LaVonda and her team could analyze 48 separate 300GB database query sets in 46 minutes. Thanks to the shorter analysis times, LaVonda's team can increase the scope of their research and help more patients.

Consolidate your datacenter



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

Process multiple workloads



48 separate 300GB database query sets in **46 minutes**



Optimize your marketing budget

Isobel works on successful digital marketing campaigns for an international clothing retailer and is constantly analyzing data on fashion trends to find the next big thing. Our testing shows that if Isobel's retailer invested in Dell EMC Microsoft Storage Spaces Direct Ready Nodes, the solution could meet her needs and still handle additional OLAP warehouse queries if other departments followed her lead with customized criteria of their own.



Build better customer relationships

Frank belongs to a small credit union and does all his banking online. His credit union doesn't want to move everything to the cloud because they want the data security that comes with direct management of mission-critical IT assets. Our testing shows that if his credit union used Dell EMC Microsoft Storage Spaces Direct Ready Nodes, Frank and other customers could simultaneously conduct business without a hiccup.

Transform raw data into insights



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Keep orders moving



14,049 online transactions per second

Read the report at <http://facts.pt/x42bHF>



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This project was commissioned by Dell Technologies.