Dell EMC Microsoft Storage Spaces Direct Ready Nodes

Software-defined storage building blocks that provide the confidence, convenience and customer support businesses demand

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In a software-defined world, hardware matters more than ever

Organizations are drowning in data. To keep up with storage requirements, IT is challenged to find new storage solutions that are simpler, more streamlined and cost-effective than traditional approaches. Microsoft® is answering this need with Storage Spaces Direct, which allows you to use industry-standard Dell EMC PowerEdge servers with local-attached drives to create highly available, highly scalable storage at a fraction of the cost of traditional arrays. Features like caching, storage tiers and erasure coding, together with support for the latest hardware innovations, like RDMA networking and NVMe drives, deliver unrivaled efficiency and performance. And best of all, Storage Spaces Direct is included with Microsoft Windows Server® 2016 Datacenter.

But just because the storage is software-defined, doesn't mean the hardware doesn't matter. In fact, the opposite is true. The performance and reliability of the software depend heavily on the performance and reliability of the hardware. And not all hardware is created equal. You need a partner you can trust to deliver reliable infrastructure in easily purchased and deployed building blocks with a customer support experience that keeps you up and running.

Invest in the hardware that's designed just for Microsoft Storage Spaces Direct

Dell EMC Microsoft Storage Spaces Direct Ready Nodes are pre-configured with certified components and validated building blocks that simplify ordering and reduce deployment risks while providing a superb customer support experience. Dell EMC Microsoft Storage Spaces Direct Ready Nodes are built on Dell EMC PowerEdge R730xd Servers, which provide the storage density and compute power to maximize the benefits of Storage Spaces Direct and the advanced feature sets in Windows Server 2016. And you'll get a single point of contact for sales and technical support for the entire solution.

Confidence

Dell EMC Microsoft Storage Spaces Direct Ready Nodes are pre-configured with certified components, tested and certified by Dell EMC and Microsoft to take the guesswork out of building Storage Spaces Direct clusters.

Convenience

Pre-configured Dell EMC Ready Nodes make adoption very convenient. And they reduce administrative work with fewer interfaces, fewer steps and less need for specialized knowledge.

Customer support

You can enjoy the simplicity of a solution that's supported globally by a single vendor — Dell EMC — providing streamlined, collaborative support from the first call.

Confidence
Convenience
Customer support

Windows Server Software Defined (WSSD) solutions use Microsoft validated designs and follow engineering best practices for seamless deployment and a steady-state operational experience.

Testing beyond Microsoft Windows Server Software-Defined (WSSD) certification requirements so you get a high-quality offering that minimizes downtime

Are you facing any of these challenges?

Designing and configuring new infrastructure for Storage Spaces Direct is complex
Dell EMC Microsoft Storage Spaces Direct Ready Nodes are pre-configured with certified components, tuned and optimized to run Storage Spaces Direct. They have been validated and tested to ensure that all components follow Dell EMC approved manufacturers' lists (AMLs) for firmware and BIOS versions. And they can be delivered with the complex configuration steps completed and tested in a known good configuration — including hardware compatibility list lookup and driver downloads.

It takes a long time to design, configure, test and validate hardware for Storage Spaces Direct
Each Dell EMC Ready Node includes just the right amount of CPU, memory, network I/O controllers, hard disk drives (HDDs) and solid-state drives (SDDs) that are best suited to Microsoft Storage Spaces Direct, making them incredibly convenient to procure and deploy. Dell EMC publishes a deployment guide that covers multiple scenarios to make deployment even easier. And Dell EMC tests beyond Microsoft Windows Server Software-Defined (WSSD) certification requirements so you get a high-quality offering that minimizes downtime.

With virtualization, it's hard to locate the source of a problem, making it hard to know whom to call for help
When you have an issue, there's no time to stop and figure out if the source is related to hardware or software. With Dell EMC Microsoft Storage Spaces Direct Ready Nodes, you won't have to worry about that because you can get support for the entire solution from Dell EMC. If you do call in with an issue, you'll benefit from the simplicity of a solution that's supported globally by Dell EMC, providing streamlined, collaborative support from the first call.

Dell EMC Microsoft Storage Spaces Direct Ready Nodes configuration options

Not all workloads have the same requirements, so Dell EMC provides a variety of ready-to-order configurations based on different requirements.

	Hybrid capacity configuration	Hybrid balanced with OS RAID configuration	All-flash OS RAID configuration
Server	PowerEdge R730xd	PowerEdge R730xd — 3.5" Chassis	PowerEdge R730xd — 2.5" Chassis
Chassis configuration	12 x 3.5" front facing + 4 x 3.5" mid bay + 2 x 2.5" flex bay	12 x 3.5" front facing + 2 x 2.5" flex bay	20 x 2.5" front facing + 4 x 2.5" PCIe SSD + 2 x 2.5" flex bay
Processors	Choice of: 2 x Intel® Xeon® E5-2640 v4 2 x Intel Xeon E5-2650 v4 2 x Intel Xeon E5-2660 v4	Choice of: 2 x Intel Xeon E5-2640 v4 2 x Intel Xeon E5-2650 v4 2 x Intel Xeon E5-2660 v4 2 x Intel Xeon E5-2680 v4 2 x Intel Xeon E5-2695 v4	Choice of: 2 x Intel Xeon E5-2660 v4 2 x Intel Xeon E5-2667 v4 2 x Intel Xeon E5-2680 v4 2 x Intel Xeon E5-2695 v4 2 x Intel Xeon E5-2699 v4
Memory	Choice of: 256GB (8 x 32GB RDIMM, 2400 Mhz) 384GB (8 x 32GB + 8 x 16GB RDIMM, 2400 Mhz) 512GB (16 x 32GB RDIMM, 2400 Mhz)		
Storage controller	Internal HBA330		
		Enablement of hardware-based RAID controller to mirror operating system (OS) boot drives	
Storage: OS boot	Flex bay 1 x mixed use SATA SSD	Flex bay 2 x mixed use SATA SSD with RAID-1	
Storage: cache	4–6x write intensive or mixed use SATA SSD	4x write intensive or mixed use SATA SSD	2–4x mixed use PCIe SSD (NVMe)
Storage: capacity	10–12 x 3.5" SATA 6Gbps HDD	8 x 3.5" SATA 6Gbps HDD	8–20x mixed use SATA SSD
Network cards	Add-in: Mellanox® ConnectX® Pro 3 DP (10GbE SFP+) Network Daughter Card (NDC): Intel i350 QP 1GbE (default)		
Power supply	Redundant 1,100 watts		
System software	integrated Dell Remote Access Controller (iDRAC) 8, OpenManage Essentials		
Trusted platform module (TPM)	Dell EMC TPM 2.0		

Why Dell EMC?

The combination of Dell and EMC brings together two industry-leading companies with strong reputations for value and innovation. Dell EMC holds leadership positions in some of the biggest and largest-growth categories in the IT infrastructure business, and that means you can confidently source all your IT needs from one provider — Dell EMC.

- #1 converged infrastructure[1]
- #1 in traditional and all-flash storage[2]
- #1 virtualized data center infrastructure[3]
- #1 cloud IT infrastructure[4]
- #1 server virtualization and cloud systems management software[5]
- #1 in data protection[6]
- #1 in software-defined storage[7]

Services and financing

Dell EMC Professional Services

Solutions customized for your needs

Leverage onsite integration or application implementation with Dell EMC Professional Services.

Support is always on for you

Enjoy unlimited access to 24x7 chat, email and phone support services with how-to assistance and disaster recovery from Dell EMC ProSupport.

Deployment assistance when you need it

You can trust Dell EMC to deploy the racked configuration in your data center, including network cabling, operating system, firmware and hypervisor with Dell EMC ProDeploy.

Dell EMC Financial Services

- Full-service leasing and financing solutions are located throughout the US, Canada and Europe.
- Dell EMC Financial Services can finance the total technology solution.
- Efficient electronic quoting and online contracts offer the best customer experience.

Learn more about Dell EMC Financial Services.

Get a handle on data growth right away

Don't wait to find out more about how you can get the confidence, convenience and customer support you require to adopt Microsoft Storage Spaces Direct. Contact your Dell EMC sales representative, or visit the Dell EMC Microsoft Storage Spaces Direct Ready Nodes page to learn more.

[1] IDC WW Quarterly Converged Systems Tracker, June 2016, Vendor Revenue — EMC FY 2015.

[2] IDC WW Quarterly Enterprise Storage Systems Tracker, June 2016, Vendor Revenue — EMC CY 2015.

[3] Dell EMC Annual Report, 2015.

[4] IDC WW Quarterly Cloud IT Infrastructure Tracker, Q1 June 2016, Vendor Revenue — EMC FY 2015.

[5] VMware®; IDC WW Virtual Machine and Cloud System Market Shares 2015, July 2016.

[6] Dell EMC Pulse, Gartner Recognizes EMC as a Leader in the 2016 Data Center Backup and Recovery Software Magic Quadrant, June 2016.

[7] IDC white paper, "Software Defined Storage: A Pervasive Approach to IT Transformation Driven by the 3rd Platform," November 2015.

Contact us

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