

Scale Your Infrastructure and Simplify Operations

Boost efficiency with VMware vSAN 7 Update 2 on Dell EMC PowerEdge servers.



Technology is advancing faster than ever before. As businesses try to keep up, and new apps and workloads put greater demand on today's infrastructures, it has become clear that evolving to a modern, more agile and efficient infrastructure can help you address what's to come.

Many organizations have already discovered the value of software-defined storage and hyperconverged infrastructure (HCI). The demand for efficient, scalable storage and compute continues to grow. And VMware® vSAN™ remains the undisputed leader in the hyperconverged space with nearly 40% of the share.¹ Likewise, Dell EMC is the leader in servers and HCI.^{1,2}

Running your solution on proven Dell EMC PowerEdge servers or Dell EMC vSAN Ready Nodes, both validated and certified for VMware, will put you in a position to move forward with greater success.

Storage that's efficient, easy to scale and simple to manage

vSAN, VMware's software-defined storage solution, is built from the ground up for vSphere® virtual machines (VMs). It abstracts and aggregates locally attached disks in a vSphere cluster to create a storage solution that can be provisioned and managed from vCenter® and the vSphere Web Client.

vSAN is hypervisor-converged, meaning storage and compute for VMs are delivered from your Dell EMC PowerEdge server. vSAN integrates with the entire VMware stack and includes features like vMotion®, High Availability (HA) and Distributed Resource Scheduler™ (DRS). VM storage provisioning and day-to-day management of storage SLAs are all be controlled through VM-level policies that can be set and modified on-the-fly. Close integration between VMware and Dell Technologies optimizes your vSAN solution on PowerEdge, enabling you to take advantage of vSAN's enterprise-class features, scale and performance.

¹ IDC, [WW Quarterly Converged Systems Tracker](#), 4Q2020, Vendor Revenue, March 18, 2021.

² IDC, [WW Quarterly x86 Server Tracker](#), 4Q2020 Unit Shipments, March 2021.



Scalability



Security



Simplicity

vSAN 7 Update 2 — What's new?

VMware is continually making improvements to vSAN. In this latest release, those improvements take scalability, security and simplicity to the next level. Feature highlights include:

- **HCI Mesh enhancements:** Use your existing infrastructure much more efficiently by disaggregating compute and storage resources and enabling connection between HCI and non-HCI clusters.
- **Stretched cluster enhancements:** Increase scale from 15 nodes to 20 nodes, and bring DRS awareness to stretched clusters.
- **vSAN File Services:** File Services can now be used for stretched cluster deployments.
- **Native KMS support in vSAN:** Built-in Key Management Server (KMS) with vSphere Native Key Provider makes it easier to improve the security posture of traditional VMs.
- **FIPS 140-2 validation for data-in-transit:** Meet strict government requirements and regulations more easily.
- **vSphere Lifecycle Manager (vLCM) enhancements:** Make updates to vSphere with Tanzu™ with NSX-T networking.
- **Monitoring and troubleshooting enhancements:** More tools are available to analyze your environment, rapidly identifying root causes and remediating issues.
- **ESXi™ suspend to memory:** Experience less downtime by eliminating the need to migrate VMs prior to maintenance mode.
- **Data durability:** Data durability is extended to include unplanned failures.

Integration that benefits you

vLCM with the Dell Technologies plug-in, OpenManage Integration for VMware vCenter (OMIVV), saves administrators valuable time. For example, you can check hardware compatibility on a single node with **87% less hands-on time** and **85% fewer steps**.³

New use cases enabled by HCI Mesh

- Deploy a vSAN cluster that is dedicated to serve as a **storage-only cluster** and not host any local workloads.
- Remotely utilize **vSAN storage capacity for your blade servers** as an alternative to external storage solutions.
- With **storage tiering** across different cluster types, HCI Mesh allows administrators to use the right storage exactly where it's needed.

Discover new capabilities, uses for vSAN.

vSAN 7 U2 improvements support a number of different vSAN use cases, whether you're using them for core storage, stretched clusters, modern apps or remote/branch office (ROBO) deployments.

HCI Mesh impacts **core storage** by allowing you to scale precisely based on application needs. Preserve capital and operating expenses with more efficient use. vSAN 7 U2 also enables higher performance and reliability for mission-critical workloads with tools that enable faster troubleshooting and remediation. Availability enhancements, such as enhanced data durability for unplanned failures, API integration for file backup, and proactive HA support also increase the reliability of vSAN.

Stretched clusters benefit from vSAN 7 U2 enhancements because HA is extended to files. You'll also see more consistent performance in failback scenarios. Larger customers will appreciate that vSAN now supports up to 20/20/1 configurations for stretched clusters (20 nodes primary / 20 nodes secondary / 1 witness).

³ Principled Technologies report commissioned by Dell Technologies, "New VMware vSphere 7.0 features reduced the time and complexity of routine update and hardware compliance tasks," August 2020.

Modern apps get a boost in terms of improved performance for cloud-native workloads, more protection and simplified lifecycle management. NVMe support for vSAN Direct Configuration lets you run stateful apps with high-performance requirements on VMware HCI. And vLCM integration with vSphere with Tanzu radically simplifies lifecycle management for vSphere with Tanzu.

ROBO environments also benefit with better security, lower costs and workload support. vSAN supports the vSphere native KMS, extending encryption to data-in-transit. You'll also gain support for more workloads as vSAN File Services are enabled for stretched and 2-node clusters.

Build agility for today and tomorrow.

Advancements across the board are testing the true agility and flexibility of your underlying infrastructure. Being able to switch gears and adapt to any situation — even if that means finding innovative ways to do more with what you already have — will determine your level of success moving forward. Running VMware vSAN on Dell EMC PowerEdge technology — including servers in rack, tower and modular form factors and Dell EMC vSAN Ready Nodes — is the first step toward creating a modern, evolving data center that can effectively accommodate change.

Why Dell Technologies and VMware?

For over 20 years, VMware and Dell Technologies have simplified the technology experience for our joint customers. We innovate, refine, and evolve technology in ways that help you meet your needs at any given moment. Our solutions are pre-tested and certified to work better together. And we add value beyond the technology with easy, unified support. Over 1,800 VMware-certified Dell Technologies support professionals are on hand to help you. Virtually all calls are handled by Dell Technologies without escalation to VMware.⁴ So you only make one phone call to address all of your hardware and software needs.

⁴ Based on internal Dell EMC services data.



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