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# AN INTELLIGENT CHOICE FOR SOFTWARE-DEFINED STORAGE

HPE vSAN ReadyNodes intelligently simplify the digital transformation journey

#### A FLEXIBLE APPROACH TO STORAGE

A digital transformation is revolutionizing modern business and creating new value and experiences in a hyper-connected world where almost everyone and everything generates and shares data—at a pace unimagined just a few years ago.

Keeping pace with the data explosion means businesses must forgo the traditional, rigidly siloed model for storage in favor of a flexible, software-defined approach that simplifies provisioning, enables granular scaling, and provides extensible management without sacrificing performance or security.

#### **IN SIMPLE TERMS**

A software-defined storage (SDS) approach essentially pools the direct-attached storage of a server (or cluster of servers) under a virtual data plane, making storage provisioning and management independent of the underlying hardware.

While certainly an advantaged and efficient use of resources, the growing use of SDS has created the misconception that server hardware no longer matters when the environment is software defined. Such is hardly the case.

### SIMPLIFIED DEPLOYMENT

HPE offers certified, preconfigured, and easy-to-order HPE vSAN ReadyNodes to provide the fastest path to optimized workloads—delivered on platforms that provide broad scalability and flexibility for each unique environment. To accelerate your journey to hybrid cloud, these SDS building blocks, certified under their respective VMware vSAN™ profile specifications, are built on the HPE ProLiant platform. HPE has expanded its HPE vSAN ReadyNode solution to cover all seven vSAN profiles on the HPE ProLiant DL325 Gen10, the HPE ProLiant DL360, and the HPE ProLiant DL380. In HPE's commitment to offer the best options for its customers, HPE now offers factory installation of VMware vSphere®, which is required for vSAN. Factory integration of vSphere helps balance the need for both better business outcomes and IT savings.

Additionally, customers now have the option to preinstall VMware vSphere 6.7u3 or vSphere 7.0 including relevant HPE certified drivers and firmware. If VMware vSphere 7.0 is chosen, HPE also provides the vSphere Lifecycle Manager (vLCM) plug-in.

#### SIMPLIFIED MANAGEMENT

HPE vSAN ReadyNodes set aside traditional, manually driven processes and technologies, shifting to an automated, secure approach that extends optimization beyond workloads to include a tightly coupled integration of physical and virtual management.

vSphere 7.0 offers vSphere Lifecycle Manager (vLCM), a unified lifecycle management tool for day two operations, replacing VMware vSphere® Update Manager™ (VUM) functionality. vLCM delivers a single lifecycle workflow for the full HCI server stack, reducing time-to-completion for update tasks. It accomplishes this by increasing reliability and moving to a desired state model, which will monitor drift compliance and remediate.

Automated, infrastructure-aware updates and patches managed through a familiar VMware<sup>®</sup> console keeps the server operating at peak efficiency. Each HPE vSAN ReadyNode running VMware vSAN virtualizes the local physical storage of <u>HPE ProLiant</u> <u>servers</u>. It turns them into pools of storage that can be divided and assigned to virtual machines and applications according to performance, capacity, or quality of service requirements.

Each server in the cluster provides at least one cache device for temporary storage plus one or more capacity devices for persistent storage.

A comprehensive set of curated options is available for each HPE vSAN ReadyNode to enhance configurations without violating VMware vSAN certification specifications.



FIGURE 2. HPE ProLiant DL325 Gen10 vSAN ReadyNode



FIGURE 3. HPE ProLiant DL360 Gen10 vSAN ReadyNode



**FIGURE 4.** HPE ProLiant DL380 Gen10—8 SFF vSAN ReadyNode



FIGURE 5. HPE ProLiant DL380 Gen10—24 SFF vSAN ReadyNode



FIGURE 1. A standard HPE vSAN ReadyNode cluster can scale up to 64 nodes

#### HPE VSAN READYNODES

#### Certified configurations that can be optimized for any workload

TABLE 1. HPE vSAN ReadyNode configurations (minimum requirements)

VMware vSAN Profile	CPU (minimum)	Memory (minimum)	Storage Capacity (minimum)	Storage Cache (minimum)
Hybrid 2 (HY-2)	6 core	32 GB	2 TB	1x200 GB
Hybrid 4 (HY-4)	16 core	128 GB	4 TB	1x200 GB
Hybrid 6 (HY-6)	20 core	256 GB	8 TB	2x200 GB
Hybrid 8 (HY-8)	24 core	384 GB	12 TB	2x400 GB
All Flash 4 (AF-4)	20 core	128 GB	4 TB	1x200 GB
All Flash 6 (AF-6)	24 core	256 GB	8 TB	2x200 GB
All Flash 8 (AF-8)	24 core	384 GB	12 TB	2x400 GB

#### **360 DEGREE SECURITY**

HPE ProLiant provides an enhanced holistic, 360-degree view to security that begins in the manufacturing supply chain and concludes with a safeguarded, end-of-life decommissioning.

- Holistic, 360-degree security begins with the corruption-free manufacture of the server, auditing the integrity of every component in the server, and locking the server configuration to ensure secure transit
- Rapid detection of a security-compromised server, even to the point of not allowing it to boot, ensures malicious code is contained and healthy servers are protected
- Automated recovery from a security event, including restoration of validated firmware, and facilitating recovery of operating system, application and data connections, providing the fastest path to bring a server back online and into normal operations
- Simple, safeguarded removal of passwords, configuration settings and data from a server being repurposed or retired prevents inadvertent access to previously secured information

#### SIMPLIFY THE DIGITAL TRANSFORMATION JOURNEY

For nearly two decades, HPE and VMware have collaborated on defining, designing, and delivering the broadest portfolio of tightly integrated virtualization and <u>software-defined</u> <u>solutions</u>. HPE vSAN ReadyNodes deliver the performance, reliability, agility, scalability, industry-leading security, and economics required to intelligently simplify the digital transformation journey and support the future of your business.

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