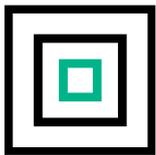




HYPERCONVERGED—A QUICK START TO SCALABILITY FOR DIGITAL TRANSFORMATION

Given their performance, scale, and flexibility, HPE servers and VMware vSAN™ provide a simple path from server virtualization to hyperconverged infrastructure (HCI) toward a fully modernized IT environment.





Organizations that purchase more storage than they actually need

67%

According to IDC, companies are estimated to spend up to \$6 trillion worldwide over the next four years on technology and services that speed their digital transformation efforts.¹

CEOs and lines of business are putting pressure on IT to support transformational initiatives, so, they can benefit from improved customer experience, enhanced worker productivity, and better revenue opportunities through data insights.

Yet, IT leaders are facing challenges such as lack of skillsets and complex, legacy IT systems that are slowing down their ability to support and deliver on digital transformation project deployments.

To overcome these obstacles, IT organizations must take a fresh look at their infrastructure investments—both cloud and on-premises—to find efficiencies that reduce staffing burdens and agility to support business demands.

DIGITAL TRANSFORMATION CAN CAUSE CLOUD RETHINK

Cloud adoption initially took off largely based on cost savings. Along the way, enterprises realized other benefits, including agility and scalability. That said a few factors are now causing some companies to rethink their cloud strategy:

- Public cloud on its own may not meet all business and IT needs. For example, it may not meet performance, security, or data sovereignty requirements for certain mission-critical workloads and applications.
- Public cloud is sometimes more costly than anticipated, especially at scale. Some workloads such as analytics apps, require significant compute and storage infrastructure, thus adding expense.

At the same time, as companies get digital transformation initiatives underway, they are struggling to reach the required speed and flexibility—with the same public cloud economics—from their on-premises data centers. That's often because of the legacy systems acquired over the years, or sometimes inherited from a merger and/or acquisition.

These complex environments create hassles when trying to accommodate IT capacity fluctuations. When extra storage is needed, for example, 67% of IT departments buy too much, according to Futurum Research.² They don't have the visibility into resources, nor the ability to effectively scale up and down.

Meanwhile, lines of business leaders often need solutions fast and if IT can't deliver, they may buy their own cloud-based services or solutions, creating shadow IT scenarios. CIOs and IT leaders need to think strategically about how this technology works together—efficiently, securely, and cost-effectively.

¹ Worldwide Semiannual Digital Transformation Spending Guide, IDC, April 2019

² [h20195.www2.hpe.com/v2/Getdocument.aspx?docname=a00079768enw](https://www2.hpe.com/v2/Getdocument.aspx?docname=a00079768enw)





Organizations planning to move to hybrid cloud within two years

80%

So, how can IT organizations best support its transformational goals and the fast pace that business demands while simplifying IT cost-effectively? A hybrid cloud approach that delivers a consistent operational model with elastic scale and service automation utilizing cloud and on-premises infrastructure is the answer.

ACHIEVING MAXIMUM VALUE WITH HYBRID CLOUD

Hybrid cloud enables businesses to keep some critical apps on-premises while shifting other workloads to the cloud. IDC reports that 80% of organizations are planning to move in this hybrid direction over the next two years.³

The reason for the uptake is that hybrid offers the best of both worlds. Companies still leverage the compute, bandwidth, and storage efficiencies of the public cloud while keeping sensitive data in their secured and controlled private cloud or data center.

However, to achieve these benefits, IT leaders must take a long-term view of their investments. Hybrid is not simply about putting workloads in location or the other. The ultimate goal should be a true hybrid architecture that achieves new levels of automation and efficiency, using software-defined intelligence.

The first step is moving toward HCI in the data center. For some companies, this is not a significant leap, given that they may be using virtualization to optimize workload placement for both cost- and compute-effectiveness.

Network World⁴ defines HCI as:

- An IT framework that combines storage, computing, and networking into a single system in an effort to reduce data center complexity and increase scalability.
- Hyperconvergence adds deeper levels of abstraction and greater levels of automation.

The integration of all functionalities into a single system reduces complexity and makes IT management simpler, thus easing the burden on IT staff. The scalability of HCI also reduces the total cost of ownership, saving on capital expenses for increased hardware needs and operational expenses for power and space in the data center.

Hyperconverged infrastructure provides the agility and simplicity of public cloud for on-premises data centers. It makes it more effective, for example, to run high-performance graphics, databases, and analytics workloads on-premises.

So, how can you get started? HPE and VMware® solutions provide the ideal hyperconverged infrastructure to help organizations push their digital transformation objectives forward while gaining IT efficiencies and value.

³ Cloud Repatriation Accelerates in a Multicloud World (Michelle Bailey, Matthew Eastwood), IDC, August 2018

⁴ networkworld.com/article/3207567/what-is-hyperconvergence.html



HPE and VMware—the power of partnership

During their 20-year partnership and a combined 75-year history, HPE and VMware have revolutionized infrastructure and services—from the data center to the cloud.

Together, they have a shared long-term vision to advance technology and future-proof their customers' investments. Their combined solutions are security conscious and carefully engineered, not siloed efforts that require deep integration.

A few facts:

- HPE and VMware have a shared customer base of 200,000+ with more than 100,000 global partners and more than 25,000 solution experts, they have global scale
- Selling more than 500,000 VMware licenses in the last seven years, HPE is a global leader in server virtualization solutions based on VMware technology
- HPE is the largest VMware Authorized Training Center™ provider with more than 90 training centers
- HPE and VMware share one of the largest joint-channel partner communities⁵

⁵ [vmware.com/content/dam/digitalmarketing/vmware/en/pdf/partners/vmware-hpe-and-vmware-sddc-overview.pdf](https://www.vmware.com/content/dam/digitalmarketing/vmware/en/pdf/partners/vmware-hpe-and-vmware-sddc-overview.pdf)

HPE AND VMWARE—TRUE INTEGRATION FOR HCI

Many companies have been using the VMware vSphere® virtualization platform on HPE ProLiant servers for decades. The next step toward the modern software-defined data center (SDDC) is a hyperconverged system using VMware vSAN for enterprise-class storage, VMware NSX® to manage virtualized network deployments, and HPE servers.

VMware vSAN is:

- **Hyperconverged**—Software-defined storage unites direct-attached storage devices across a vSphere cluster to create a distributed, shared datastore.
- **Integrated**—vSAN is native to the most-often deployed virtualization hypervisor (vSphere) as well as VMware vCenter Server®, a complete unified management solution. This integration delivers optimal, scalable, and secure resource utilization across workloads.
- **Powerful**—vSAN is capable of powering both traditional and cloud-native applications. For example, it helps IT seamlessly manage both virtual machines and container apps.
- **Automated and secure networking**—VMware NSX, as a part of the HCI solution, accelerates provisioning for networking and security via policies.

Because of this HPE and VMware's extensive relationship and commitment to help customers transition to a hybrid environment, it's a natural fit to run vSAN on HPE ProLiant servers.

HPE ProLiant is:

- **Best-in-class**—It is the standard for rack-optimized servers. They're versatile, resilient, and software-defined to manage the hardware and run diverse workloads.
- **Embedded with security**—The servers include a Silicon Root of Trust built right into the hardware.
- **Future-proof**—When you're ready for the next step toward a SDDC, HPE ProLiant servers can easily integrate with HPE Composable Fabric to customize compute, storage, and networking resources for greater efficiency.

Combined, vSAN and HPE ProLiant servers provide an HCI that significantly reduces storage costs versus traditional server and storage architectures. Given their performance, scale, and flexibility, vSAN and HPE servers provide a simple path—from server virtualization to HCI toward a fully modernized IT environment.



PATH TO RELIABLE HYBRID ARCHITECTURE

HCI environments pave the way for a modernized SDDC, one that uses composable infrastructure and software-defined storage. Especially, as companies delve deeper into enterprise-wide digital transformation, they will require a highly scalable, economical IT infrastructure that supports fluctuating business demand with agility.

A modern on-premises infrastructure provides a comprehensive user experience, where resources are logically pooled to prevent underutilization and wasted resources. Along with, software-defined intelligence, HCI optimizes application performance, servers, and storage that can be provisioned as needed to meet IT capacity demands.

HPE and VMware solutions offer these capabilities, helping to power organizations in their digital transformation and hybrid cloud journeys while simplifying the IT environment for greater efficiency.

THE BOTTOM LINE

As enterprises move through their digital transformation efforts, they must take a fresh look at how their IT environment is supporting and enhancing strategic business objectives. Essentially, IT infrastructure must become more agile and scalable while maintaining cost-efficiencies.

A hyperconverged infrastructure puts organizations on the path to a true hybrid architecture that provides the best of both public cloud and on-premises worlds. It helps companies move away from overbuying expensive hardware and accelerates business initiatives through software-defined intelligence and automation.

Hewlett Packard Enterprise and VMware can help customers seamlessly transition to this hybrid world, no matter where they are on that journey and push their digital transformation efforts toward the finish line.

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