Why Enterprises Are Embracing Hyper-Converged Infrastructure
Today’s enterprise leaders are looking for ways to make apps run faster, IT management cheaper, and provisioning easier. The advent of hyper-converged infrastructure has meant that organizations can now get much more out of their hardware than ever before. New data center options are emerging that save time, space, and money—creating an industry pivot and a focus on hyper-converged infrastructure (HCI).

Today’s IT Organizations Must Do More with Less

- **IT is key to business success**
  - Siloed infrastructure, purpose-built hardware, and fragmented management hamper IT’s ability to respond

- **IT spending is unsustainable**
  - Budgets are shrinking or static, even as demands increase

- **Technology continues to evolve**
  - New technologies, applications, and environments are always emerging
New Demands Require Evolving to a Next-Generation Data Center

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<th>Business wants...</th>
<th>IT wants...</th>
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<td>Apps to run faster</td>
<td>Simplicity</td>
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<td>Lower IT costs</td>
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<td>Simpler delivery</td>
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The Solution Is HCI

HCI revolutionizes the data center, bringing all the benefits of server virtualization to storage. It is composed of two essential elements: hyper-converged infrastructure software and industry-standard hardware. Together they provide the performance, flexibility, and efficiency that budget-conscious, resource-starved IT departments crave.

HCI powered by VMware vSAN™ offers a single software stack that seamlessly integrates management, compute, and storage onto industry-standard x86 hardware to deliver high performance and low cost.
Speed Digital Transformation with HCI Powered by VMware vSAN

VMware vSAN is a software-defined storage solution that powers industry-leading hyper-converged infrastructure (HCI) systems, forming the foundation of the modern data center. This all-in-one solution offers a vSphere-integrated architecture that allows you to virtualize any application and evolve your compute virtualization software to HCI software in just two clicks.

VMware HCI solutions provide a single software stack that provides common management for compute and storage to reduce OpEx and a broad choice of industry-standard hardware to reduce CapEx.

With HCI powered by vSAN, you can scale to tomorrow with a software-defined infrastructure designed to accommodate new hardware, applications, and cloud offerings.

VMware HCI Solutions
- VMware vCenter Server™: Unified Management
- VMware vSAN™: Software-defined, enterprise-class storage
- VMware vSphere®: Market-leading hypervisor

Industry-Standard Servers

Flexible deployment options
VMware vSphere, the industry-leading hypervisor, empowers businesses to virtualize any application with confidence, redefines availability, and optimizes the data center.

VMware vSAN is VMware’s software-defined storage solution for HCI. Seamlessly embedded in the hypervisor, vSAN delivers enterprise-ready, high-performance shared storage.

VMware vCenter Server provides a centralized platform with simplified deployment and automated control for managing your HCI environment.

Industry-standard servers eliminate the need for expensive, purpose-built hardware, and enable a building-block approach that provides the ultimate flexibility.
With HCI powered by VMware vSAN, you can:

**Evolve Without Risk**
- Seamlessly extend virtualization to storage and enjoy the best integration with vSphere features like DRS and vMotion
- Continue to leverage the large and proven ecosystem of VMware partners
- Protect current investments in storage infrastructure with policy-based management

**Reduce TCO**
- Lower total cost of ownership by 50% or more with CapEx and OpEx savings
- Accelerate responsiveness to traditionally time-consuming tasks with analytics and automation
- Achieve predictable performance and cost with grow-as-you-go scaling

**Scale to Tomorrow**
- Prepare for business in the multi-cloud era
- Support a wide range of traditional and next-gen apps
- Use a common storage platform as a steppingstone to the cloud

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1. VMware 2016 internal analysis for 20TB 4-node vSAN vs 20TB All Flash Array

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**Evolve Without Risk**

Adopting a new approach to infrastructure can sound like a risky move, but HCI powered by vSAN helps you make that transition with confidence.

With VMware HCI solutions, you can continue using the tools, skill sets, and data center solutions you already have in place. That means less disruption to your existing processes, improved efficiency among your team, and a higher chance of success. Why risk the alternative?

It also allows you to leverage your existing storage infrastructure investments through the use of policy-based management, which extends per-VM policies and automated provisioning to modern SAN and NAS storage systems.

When you choose VMware, you can eliminate hardware lock-in with a large partner ecosystem that offers 5x more hardware options than any other HCI vendor. You can even continue to use your preferred third-party software solutions for data protection, file services, and more.

And since VMware HCI solutions are fully integrated with vSphere, you can easily expand into the full SDDC and multi-cloud environments as your needs change.
Reduce TCO

Storage is a big expense. As data volumes continue to grow, it can wreak havoc on your budget. With HCI powered by vSAN, you can lower your total cost of ownership (TCO) by 50% or more with capital and operational savings!

Reduce CapEx with server-side economics that offer low-cost x86 server and storage components. VMware also lets you take advantage of the falling prices of all-flash storage, using this affordable technology to help eliminate time-consuming capacity planning and performance tuning tasks. VMware HCI solutions also help you avoid large capital expenses and grow-as-you-go instead, with on-demand, granular scaling of both compute and storage.

The savings don’t end with CapEx. HCI powered by vSAN reduces day-to-day operational costs by combining compute and storage under one easy-to-manage tool. Fast VM-level provisioning, automation, and monitoring simplify ongoing maintenance and free up your team to focus on other projects.

VMware HCI solutions also provide intelligent analytics and cloud-like automation that accelerate
responsiveness to labor-intensive tasks such as troubleshooting, performance tuning, and more.

It all adds up to a big difference on the bottom line.

**Scale to Tomorrow**

With HCI powered by vSAN, you no longer have to wait for the long refresh cycle of purpose-built hardware to take advantage of new technologies. You can upgrade without disruption to the latest flash and server technologies that meet your needs.

If your IT organization is like most, you’re juggling a mix of traditional and next-gen applications, and may be moving into cloud-native applications and containers. VMware HCI solutions make it simple to manage a variety of apps on a single platform, to reduce complexity and give you the flexibility to use the apps that help move your business forward.

HCI powered by vSAN also provides the foundation you need for cross-cloud environments, with a common enterprise storage platform that provides a consistent experience across on-premises deployments and the public cloud. And as you move toward the SDDC, VMware Cloud Foundation helps you get there faster by combining vSAN with VMware NSX.
It’s a Hyper-Converged World

Now that you’ve got a feel for what HCI is and what VMware vSAN can do, read the following customer stories to see how tomorrow’s data centers are enabling enterprises to extend virtualization to storage, save CapEx and OpEx, and prepare for the future.
Achieve More with a Solution from Two Market Leaders

Radically simplify your data center and deliver low-cost and high-performance hyper-converged infrastructure powered by VMware® and Intel® Xeon® processor-based servers, with Intel® Solid State Drives Data Center Family, and Intel® Ethernet Converged Network Adapters. The natively integrated software combines vSAN, vSphere, and vCenter with the broadest and deepest set of HCI deployment choices on industry-standard Intel Architectures.

MAKE THE SAVVY CHOICE

Learn more about HCI Powered by vSAN >
Test-Drive vSAN in a Hands-on Lab >

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