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GET STARTED

Why Forward-Thinking Organizations Are Making the Move to HCI

App Modernization Today

As the global pandemic of 2020 stretches into 2021, digital transformation has taken center stage as the top priority for enterprises worldwide. While many organizations found themselves unprepared, even those with blueprints in place have accelerated their plans to adapt to the rapidly changing business environment. In this evolving digital landscape, the infrastructure required to build and run modern applications at the speed of business requires a new approach.

What hasn't changed is that IT organizations are still being asked to do more with less: They continue to seek ways to reduce costs in an effort to invest in new technologies. One such technology is hyperconverged infrastructure (HCI), a software-defined, unified system that combines all the elements of a traditional data center: storage, compute, networking and management.

VMware recently commissioned a study of over 600 organizations currently deploying an HCI solution to understand HCI trends: the applications types, deployment types and environments both in use now and those planned for the future. Gathering info from IT decision makers and influencers, the researchers found that businesses have moved beyond the original virtual desktop infrastructure (VDI) use case, seizing an opportunity to modernize their infrastructure to create a hybrid cloud environment, and to build and run traditional and modern applications on the same high-performance, general-purpose infrastructure.[1] These organizations have come to trust HCI with their most critical applications in a time when digital transformation is an imperative.

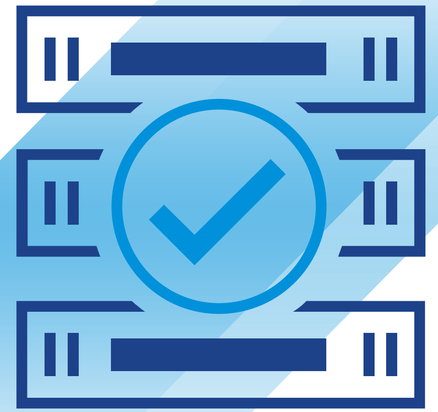
Read on to learn more about the exponential growth of HCI use cases and why more organizations are making the switch to HCI.

1. Compass Partners, LLC. "VMware HCI Applications Study." September 21, 2020.

Why Organizations Are Making the Switch from Traditional 3-Tier Architecture to HCI

In looking at what IT decision makers and influencers cite as their key drivers for moving from traditional 3-tier architecture to HCI, two things stand out: hybrid cloud and agility. First, organizations want to leverage the flexibility of HCI to achieve true hybrid cloud—the consistent infrastructure and operations to manage both virtual machine and container-based applications deployed across a mix of private data center, public and edge environments.

They also want to be able to take advantage of the latest technologies that provide the agility to increase app performance while getting the most out of their existing infrastructure investments. HCI meets the performance benchmarks for demanding applications, and on-premises deployments meet the security and compliance requirements of many organizations.



Top Five Reasons Organizations Are Making the Switch from Traditional Architecture to HCI

1

Hybrid Cloud

Need for consistent infrastructure and operations across clouds.

2

Greater Agility

Increase performance without making major infrastructure changes.

3

Lower Costs

Reduce OpEx with a tightly integrated hardware and software solution.

Lower CapEx by using a scale-up/scale-out architecture with industry-standard x86 servers.

4

Simplified Operations

HCI speeds setup, deployment and ongoing maintenance with simple workflows and a high degree of automation.

5

Unified Platform

Consolidate traditional VMs on the same platform with microservices and container-based apps.

Organizations Rely on HCI for the Use Cases of Today, and Tomorrow

Virtual desktop infrastructure (VDI) was the first compelling HCI use case that saw widespread adoption. IT organizations quickly found VDI and HCI were a great fit for each other. With HCI's high-performance storage and scale-out capabilities, it quickly became the VDI standard.

As HCI adoption grew, organizations learned that this low-cost, scalable, simple-to-operate modern infrastructure could serve a wide variety of workloads, from traditional to complex, mission-critical business applications.

With the "proof of concept" firmly established, the diversity of applications deployed on HCI has increased dramatically in a short period of time. The prolific growth is most strikingly observed in the areas of hybrid cloud, business intelligence, Tier 1 production and business-critical applications, ML/AI, and the development of containerized apps orchestrated by Kubernetes.

HCI provides the performance, availability and security required to run the most demanding business-critical apps in production environments while also future-proofing organizations for the evolving business demands of hybrid cloud and modern applications.

86% of organizations currently using an HCI solution plan to either make it the standard for all or a majority of their new deployments.

APP SPOTLIGHT

Comparing current app deployments with survey data from 2017 reveals that enterprises are not only deploying more types of apps on HCI, they're also relying on HCI for an increasing number of mission-critical apps.[2]

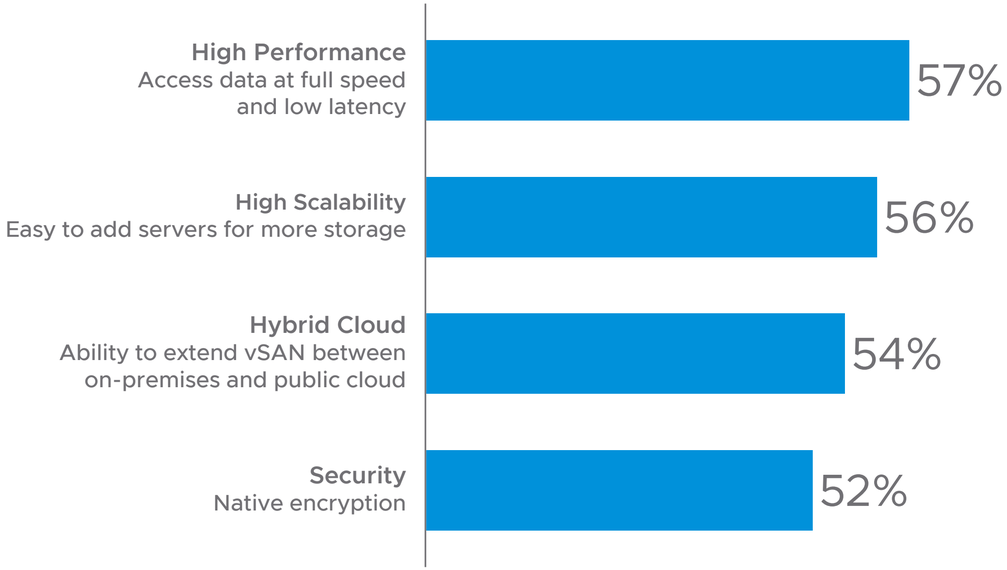
	Then	Now
App types running on HCI	5	14
NoSQL / Non-traditional DB	9%	19%
Big Data	3%	51%
Container Management	<1%	21%
AI/ML	<1%	47%

2. Source: TechValidate survey of 316 users of VMware vSAN compared with vSAN data from Compass Partners 2020 VMware HCI Applications Study.

VMware vSAN

VMware vSAN™ is an enterprise-class, storage virtualization software solution that, when combined with VMware vSphere®, enables you to manage compute and storage with a single platform. With vSAN, you can reduce the cost and complexity of traditional storage and take the easiest path to future ready HCI and hybrid cloud to improve business agility and streamline operations.

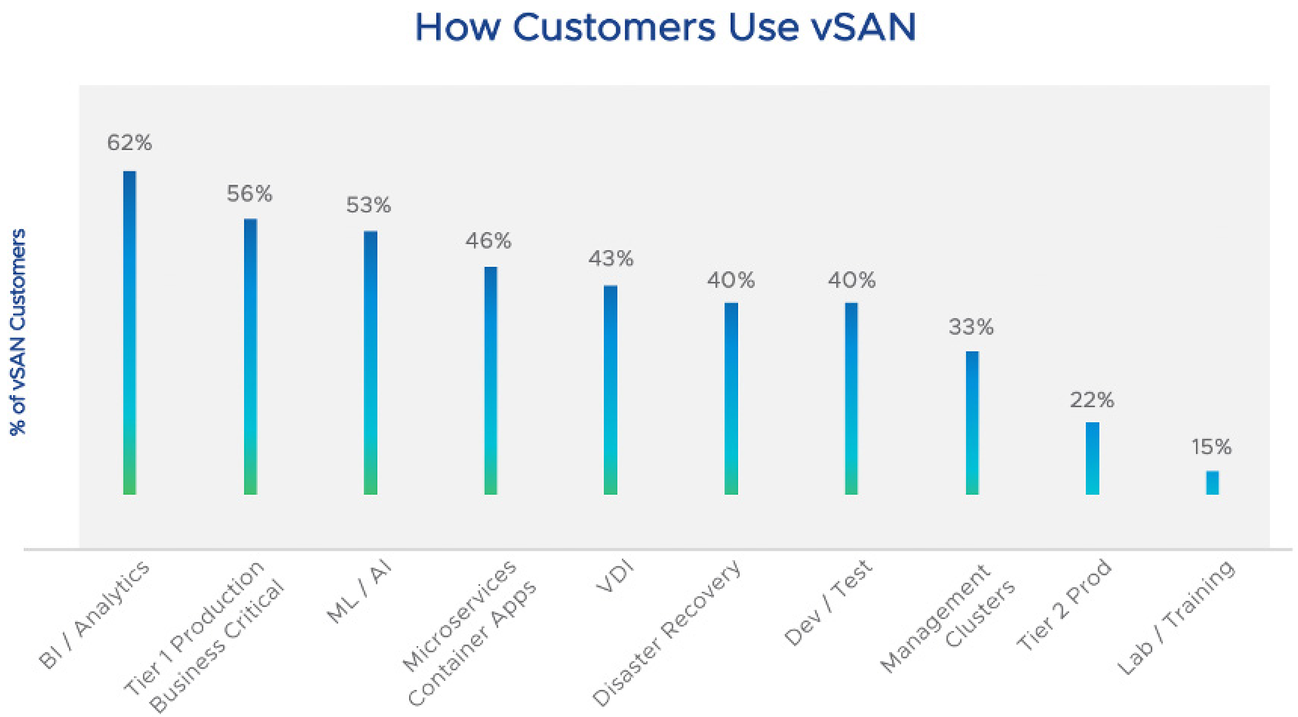
Customers deploying vSAN report a wide range of benefits including high performance, scalability, hybrid cloud and security.



"It's the only enterprise-proven, full HCI stack that puts you on the path to hybrid cloud. Easy to deploy, implement and integrate."

Organizations of All Sizes Trust vSAN with Business-Critical Apps

VMware vSAN is in widespread use (more than the industry average) across organizations for a broad spectrum of mission-critical apps including the application types shown below.



Business Intelligence / Big Data / Analytics
Microsoft BI, Oracle BI, SAP BI, IBM Congos, Splunk, Hadoop, MongoDB, Cassandra

Tier 1 Business-Critical Apps in Production
Oracle, Microsoft SQL Server, SAP HANA, IBM DB2, SAS Analytics, PostgreSQL, Microsoft Office, Microsoft SharePoint, Microsoft Exchange

ML / AI
Python, TensorFlow, DataBricks, SparkML, DataRobot, PyTorchm SciKit Learn

Microservices Container Apps
Docker, OpenShift, Pivotal, Anthos

Disaster Recovery

Dev/Test

Management Clusters

VDI

Take the Next Step

Today's business demands show no signs of slowing down. To keep up with these demands and support innovation, forward-looking organizations across all industries are already ditching their sprawling, siloed and complex traditional infrastructures in favor of solutions such as HCI.

Organizations across a variety of industries—from small- and medium-sized to global enterprises—have successfully deployed hyperconverged infrastructure to run a proliferating variety of use cases and applications. They are migrating more and more mission-critical workloads of increasing complexity to HCI, making it clear that HCI will be the de facto standard storage in the future.

VMware customers have proven that HCI can handle even the most challenging workloads, while simplifying operations, increasing agility, and lowering costs. They rely on VMware vSAN—the market-leading hyperconverged infrastructure software—to deliver a consistent operating experience and all-flash performance, and to provide a key building block of their hybrid cloud strategy.

To find out how you can accelerate your digital transformation journey with HCI, visit *www.vmware.com/products/vsan* or contact your local VMware representative or partner.

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