SOLUTION BRIEF

The Path to Hyperconverged Infrastructure (HCI) Adoption with Hardware Nation

Business Challenges

As businesses increasingly rely on technology to streamline their operations to stay competitive, IT teams are facing a host of new challenges. Some of these challenges include managing complexity, handling vast amounts of data, and reducing costs associated with traditional IT infrastructure. Hypeconverged infrastructure (HCI) is a solution that aims to address these challenges by offering a simplified integrated model of compute, storage, and networking in a single management pane. With HCI, organizations can reduce CapEx and OpEx while maintaining security and scalability by eliminating IT siloes and enabling management through a single tool. Because of its simplicity and value, HCI is becoming a rapidly-growing choice for organizations of all sizes looking to modernize their data infrastructure.

HCI Key Benefits

HCI presents numerous advantages to organizations, including streamlined deployments and management, improved reliability and scalability, and better data protection and resource utilization, making it a valuable addition to data center or edge environments for the right workloads, ultimately simplifying IT and reducing costs. Below are some of the key benefits of HCI:

Reduced Complexity and Management Costs

HCI offers cost reduction by simplifying deployments, provisioning, and management, breaking down IT siloes, and increasing stack visibility, resulting in more efficient resource utilization and lower operational expenses

Better Performance and Agility

HCI provides improved performance and agility by accommodating various workload types with a combination of SSDs and HDDs, software-defined storage, and proximity storage and processing, resulting in lower latency, increased flexibility, and scalability. It allows businesses to quickly and efficiently meet changing requirements and fluctuating workloads, move workloads between clusters or data centers, and automate workload deployments and other operations.

Greater Reliability and Scalability

HCI offers the benefits of scalability and reliability, making it a flexible and highly available system that can easily adjust to changing business requirements. The preconfigured and self-contained building blocks, known as nodes, allow for quick and seamless addition or removal from the cluster without any integration issues. The multi-node architecture of an HCI platform provides fault tolerance and disaster recovery, as well as self-healing capabilities that can automatically identify and address issues. This makes it possible for admins to add or replace nodes without incurring any downtime or workload disruptions, ensuring continuous operations and high availability

Lower TCO and Greater Flexibility

Lower total cost of ownership (TCO) is achieved with HCI by minimizing the overall hardware footprint, utilizing cost-effective commodity hardware, decreasing software licensing expenses, streamlining vendor management, and reducing the time spent on system maintenance and management. Additionally, organizations using HCI have more flexibility than those using legacy solutions, which typically result in underutilized resources from the start of the 3 to 5-year product lifecycles.

The Path to HCI

When embarking on a path to HCI adoption, choosing a technology partner with diverse expertise in the entire IT stack and years of experience in real-world implementations is critical to success. There are several important steps that organizations should take to ensure a smooth implementation:

1 **Determine if HCI is the Right Solution for Your Use Case**

Before investing in an HCI solution, organizations should evaluate their current infrastructure and workloads to determine if HCI is the right solution for their use case. This is where having a technology partner becomes crucial. An experienced technology partner with real-world implementations can help assess an organization's environment and provide recommendations on whether or not HCI is a good fit

2 **Choose the Right Partner and Vendor**

Choosing the right technology partner and HCI vendor is critical when adopting HCI. A partner like Hardware Nation, with years of expertise and diverse knowledge in the entire IT stack, can help organizations navigate the complexities of HCI adoption. A vendor-agnostic partner is ideal, as they can recommend the best solutions for an organization's specific needs.

3 **Plan for the Transition**

Moving to an HCI environment can be a major shift for organizations. Planning for the transition is essential to ensure a smooth migration. This includes assessing current workloads, planning for data migration, and ensuring that the organization's team is trained on the new environment.

4 **Continuously Monitor and Optimize**

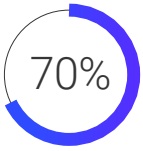
Once an organization has made a move to HCI, it is important to continuously monitor and optimize the environment. This includes monitoring performance, identifying and addressing issues, and ensuring that the environment is running at peak efficiency. Having an impartial technology partner with expertise in HCI, in addition to an HCI vendor that offers excellent support, can be invaluable for organizations as they monitor and optimize their HCI solution.

What to Look for When Choosing an HCI Vendor

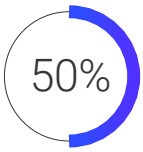
When choosing an HCI vendor, organizations should look for a provider that offers excellent support to ensure that any issues can be resolved quickly and efficiently. The HCI platform should also be easy to use, with a user-friendly interface and intuitive management tools. Scalability is another important factor, as the organization's needs may change over time, requiring additional nodes to be added to the cluster. Additionally, it is important to consider the hybrid cloud functionality of the HCI platform, as many organizations are adopting a hybrid cloud strategy to take advantage of the benefits of both public and private clouds.

HCI Business Outcomes

Maximized Uptime Beyond 99%:[1]
HCI delivers high availability and redundancy through its distributed architecture that enables clusters to self-heal in the event of a failure. This ensures that critical workloads remain available and accessible to end-users, maximizing uptime beyond 99%.



Reduced Total Costs by 70% Over Traditional SAN Architecture:[1]
HCI eliminates the need for separate storage and compute infrastructures, reducing hardware and maintenance costs by 70%.



Improved Operational Efficiency by 50%:[1]
HCI reduces operational overheads and enables IT staff to manage their infrastructure with fewer resources, improving operational efficiency by 50%.

Why Hardware Nation for HCI?

Our team of experts can offer guidance and assess whether an HCI model is appropriate for your organization's unique needs. We are partnered with industry-leading HCI vendors, and our years of real-world experience implementing these solutions enables us to identify the best approach based on prior use cases. We take a vendor-agnostic approach and guide customers through every stage of the implementation process, from discovery to consultation, roadmap creation, adoption, implementation, and management. Our experts, with their diverse backgrounds in cloud, security, networking, and other key areas, help determine the most effective approach to implementing HCI.

Learn More

hci.hardwarenation.com | hardwarenation.com

Sources:
[1] Scalecomputing.com.