Nutanix Cloud Infrastructure

The Hyperconverged Foundation for Your IT Transformation

NUTANIX CLOUD INFRASTRUCTURE DELIVERS SIMPLIFIED SAN-LIKE CAPABILITIES

- Scale-out architecture with consistent increase in performance, ease of operations, and life-cycle management
- Integrated low-overhead snapshots and replication
- Consistent high performance for databases
- Cyber-resilient architecture with built-in encryption for data-in-flight and data-at-rest, key management, security automation, and recovery

APPLICATIONS ARE REDEFINING TRADITIONAL INFRASTRUCTURE

Application development and delivery are continuing to accelerate and transform. Organizations of all types are increasingly developing their own software, placing new demands on IT services and infrastructure. Traditional IT organizations are equipped to support business-critical commercial off-the-shelf (COTS) software, which requires resilient infrastructure capable of delivering consistent high-performance with well-defined cost profiles.

Software developers have different requirements. They need to be able to deploy applications quickly and predictably, scale seamlessly, and react quickly to changing requirements over time. Therefore, developers often gravitate to public cloud services – they can quickly deploy their applications on-demand without the need to engage in extensive IT planning cycles.

Complicating matters further, the amount of data being collected and processed at the edge is increasing exponentially, necessitating small scale yet powerful edge infrastructure to enable efficient distributed operations. Combining all these requirements have traditionally required different infrastructure solutions, creating organizational silos, limiting cost efficiency, and most importantly slowing down business initiatives. What if there was a software solution that enabled organizations to manage these different use cases in a comprehensive manner?

HYPERCONVERGED INFRASTRUCTURE IS THE NEXT WAVE

Hyperconverged infrastructure has been around for over a decade and is the answer for modernizing IT and unifying the datacenter. Early HCI adopters found success in uses cases such as end-user compute (EUC) and virtual desktop infrastructure (VDI) environments due to the scale-out nature and simplified management delivered through HCI. Nutanix Cloud Infrastructure (NCI) delivers hyperconverged infrastructure in new ways. NCI delivers the power of simplicity and allows IT to manage applications, data, and security across your entire datacenter and multicloud environments.

NUTANIX™
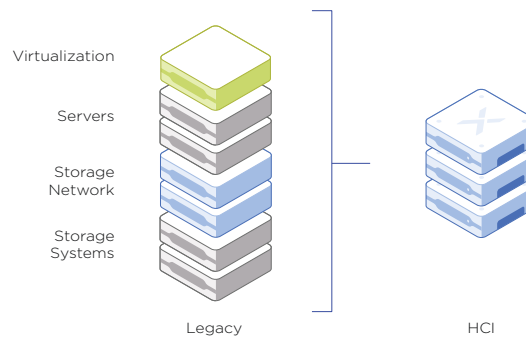
Hyperconverged infrastructure combines common datacenter hardware using locally attached storage resources. Intelligent software creates flexible building blocks that replace legacy infrastructure consisting of separate servers, storage networks, and storage arrays.

NUTANIX CLOUD INFRASTRUCTURE DELIVERS FULL STACK HCI

Nutanix Cloud Infrastructure (NCI) converges the entire datacenter stack, including compute, storage, storage networking, and virtualization and is at the core of creating a hyperconverged infrastructure environment. Complex and expensive legacy infrastructure is replaced by NCI, running on industry-standard servers loaded with the latest hardware technologies. This allows enterprises to deploy what you need for the short term, and scale on-demand as infrastructure needs increase over time. Each server, often referred to as a node in the context of HCI, is an x86 platform with direct-attached storage drives. NCI software runs on each node, distributing all operating functions across the cluster for superior performance and resilience, and enabling seamless scalability.

NCI delivers a complete set of enterprise and cloud features enabling customers to replace traditional infrastructure and extend to the cloud. Depending on their use case, customers can choose from Starter, Pro and Ultimate editions. NCI Starter includes the core feature-set for basic deployments, NCI Pro includes powerful features suited to most workloads, and NCI Ultimate includes the full suite of Nutanix HCI Software capabilities.

Nutanix Cloud Infrastructure Features and Benefits:

• **Enterprise-grade Data Services** deliver the enterprise features you leverage in your traditional SAN environment, including high performance, data reduction, data protection, storage level snapshots, resilience, and much more. The distributed software architecture enables advanced new features like rapid self-healing, simple and predictable scalability, and data locality.

• **Consolidated Storage Services** unify storage across block, file, and objects, simplifying management and control of enterprise data no matter where it is consumed or resides — across applications, storage, and geographies

NUTANIX

- **Data Protection and Disaster Recovery** offer natively integrated data protection and continuous availability at the VM level with a range of options available to meet recovery point objectives (RPO) and recovery time objectives (RTO) for different applications.

- **Integrated Security** delivers a true defence-in-depth model using the principle of least privilege and custom security baseline that exceeds the requirements of the U.S. Department of Defense.

- **Virtualization** supports multiple industry standard hypervisor solutions, allowing customers to choose the ideal solution for their environment, whether on-prem or in the cloud, or both. It includes full support for VMware® vSphere and Microsoft® Hyper-V in addition to the Nutanix hypervisor - AHV, which provides a comprehensive set of capabilities with the most stringent security requirements included.

- **Virtual Networking** supports application security, traffic visibility, service insertion, and network automation with partner solutions. Security features include micro-segmentation to secure virtual machines (VM), allowing admins to easily manage network isolation and enforce granular VM and application-level network policy.

- **Management and Analytics** are streamlined through a unified control plane combining multiple aspects of HCI management into a single pane of glass that lets IT admins manage infrastructure and virtualization, access operational insights, and fix problems, all with just a few clicks. Admins can manage Nutanix environments end-to-end through Nutanix Cloud Manager (NCM) and Prism.

THE ONLY HCI THAT CAN REPLACE YOUR SAN FOR ALL HIGH-PERFORMANCE APPS AND DATABASES

Nutanix Cloud Infrastructure is designed to deliver hyperconverged performance at scale, across a wide and varied application environment. This means the architecture brings the highest performance and similar SAN features that you use daily. Database certification with SAP HANA and Oracle RAC have proven that NCI is suitable for the highest performing databases.

Organizations with business critical databases require high performance. This becomes more difficult when infrastructure is growing year over year and uptime needs to be 24x7. Storage area networks with separate compute, have been the usual choice to meet those requirements in the past. By eliminating legacy siloed architectures in your datacenter, NCI empowers IT organizations to manage operations with less effort and more speed while getting the same performance or better.

Application I/O performance, latency, transactions per second, and data services are now at the levels that a typical SAN might deliver. NCI capabilities that are unique to the industry and similar to SAN include:

- Deterministic read performance with data locality design and tiering ensures reads are delivered for consistent low latency.

- VM snapshot and restore delivers policy based low overhead copies per for granular data protection and quick restore.

TO LEARN MORE

visit: https://www.nutanix.com/nci
or try it for yourself at
https://www.nutanix.com/one-platform

- VM integrated replication delivers policy based low overhead replication per VM for synchronous and asynchronous protection and quick restore.

- Open hypervisor architecture and single management plane for vSphere, Hyper-V and Nutanix AHV,

TAKEAWAY

Enterprise performance capabilities combined with the simplification and reduced TCO that NCI brings to the datacenter, provides a superior platform for your IT transformation. NCI is uniquely suited to meet your company's needs because it eliminates complexity, provides consistent performance, and improves data protection to enable an environment that is more agile, more scalable, and—ultimately—more effective.

NUTANIX.

T. 855.NUTANIX (855.688.2649) | F. 408.916.4039
info@nutanix.com | www.nutanix.com | @nutanix