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Nutanix and Cisco

A Simpler Path to Hybrid Multicloud Starts With HCI

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Introduction

We are witnessing a rapid rise in the growth of data and applications, including AI workloads. This growth is fueling an urgent need for infrastructure modernization to remove complexity wherever possible. Additionally, any infrastructure design decision must take into account that contemporary IT is defined by hybrid and multicloud operations. For that reason, organizations need to modernize their on-premises environments to increase simplicity and reduce costs in regard to both data center and hybrid cloud operations. This step can help them achieve the goal of reducing IT administration burdens and freeing up talent to help achieve critical business outcomes.

The Cisco Compute Hyperconverged with Nutanix solution is designed to simplify the on-premises components of hybrid multicloud IT by creating a turnkey HCI solution. This co-engineered and validated solution reduces the IT operational burden by accelerating operations and freeing up personnel to work on mission-critical business objectives. According to Nutanix, this is a complete hyperconverged solution created by integrating and validating Cisco servers, storage, networking, and SaaS operations with the Nutanix Cloud Platform.

This combined solution is focused on reducing complexity everywhere, including procurement, operations, and support. By beginning with modernizing its infrastructure, an organization will also realize several unique, differentiated capabilities of Cisco Compute Hyperconverged with Nutanix, including the ability to enable an identical cloud operating model for private, public, and hybrid clouds; portable licensing to run data and apps on any of their cloud services without extra cost; and integrated networking and security. Delivering this seamless solution experience enables flexibility and choice to run data and apps anywhere.

The Role of HCI in On-premises Modernization

Research by TechTarget's Enterprise Strategy Group sheds light on the challenges of hybrid cloud IT and the subsequent importance of the Cisco Compute Hyperconverged with Nutanix solution. Given the speed with which companies must move to stay ahead of, or at least on pace with, their competition in an overwhelmingly digital business landscape, it is not surprising that a combined 91% of respondent organizations have had to accelerate their IT operations to some extent over the last three years, with 32% reporting that they are modernizing their data center infrastructures to consolidate and simplify operations as a key part of their acceleration strategy.[1]

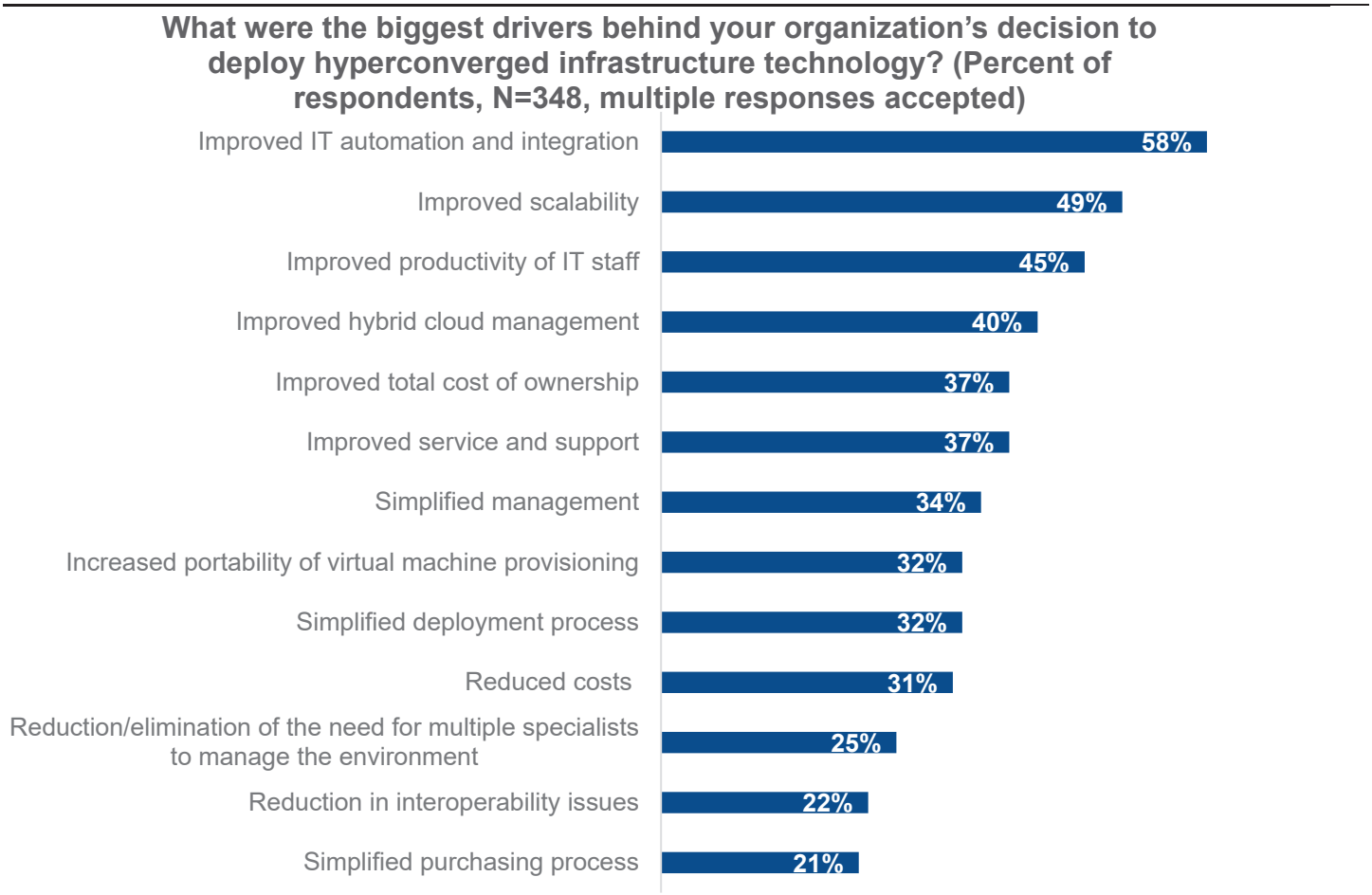
Operations across multiple public clouds are also prevalent now. Enterprise Strategy Group has found that 90% of organizations leverage multiple public cloud infrastructure providers, with 63% leveraging three or more public cloud services.[2] Notably, networking technology is an especially important consideration related to hybrid and multicloud operations. When Enterprise Strategy Group asked respondents to identify the most difficult challenges their organization faces as a result of using multiple cloud service providers, the most common answer was network interconnection—cited by 32%.[3]

Of course, the data center also plays a vital role in hybrid cloud operations. The average number of data centers is expected to increase, with the number of organizations operating six or more increasing from 32% to 50% in the next five years. When Enterprise Strategy Group asked organizations what is or likely will be part of their strategy for their on-premises data center environments over the next three years, 33% said they plan to invest in technologies that provide a cloud experience on premises. And when they were asked which technologies or approaches they believe are key to helping to create that cloud experience, 34% mentioned HCI.[4]

[1] Source: Enterprise Strategy Group Complete Survey Results, *Distributed Cloud Series: The State of Infrastructure Modernization Across the Distributed Cloud*, August 2023.
[2] Ibid.
[3] Ibid.
[4] Ibid.

A separate study of HCI users looked more deeply at the top drivers behind why organizations decide to adopt the technology. The findings revealed a common desire to leverage HCI to simplify IT operations via improved automation and integration. Incorporating HCI into the environment can simplify deployments and ongoing management, improve productivity, reduce total cost of ownership, reduce infrastructure costs, increase portability of VM provisioning, and reduce interoperability issues as well (see Figure 1).[5]

Figure 1. Top Drivers of Hyperconverged Infrastructure (HCI) Adoption



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Nutanix and Cisco Hyperconverged Infrastructure

The vast majority of the work that Nutanix and Cisco have done with this joint solution relates to removing complexity. The key elements of the strategic partnership and the offering these vendors have created together involve:

- **Strategy.** They have created a complete roadmap leveraging the strengths of both companies in service of their customers.
- **Engineering.** This is a solution built, managed, and supported holistically to provide a seamless, end-to-end experience.

[5] Source: Enterprise Strategy Group Research Report, *Hyperconverged Infrastructure Trends*, April 2022.

- **Go-to-market.** They have assembled combined, expert sales teams and established a buying process that is focused on simplifying the customer experience.
- **Support.** Organizations purchasing this solution will benefit from a joint augmented support model built for information sharing to ensure success.

Nutanix Cloud Platform Modernizes Infrastructure for Hybrid Cloud Operations

The result of the collaboration means Nutanix Cloud Platform is deployed on Cisco's SaaS-managed compute and networking infrastructure for a fully integrated and validated solution with a single support experience.

The Nutanix Cloud Platform is validated, certified, and integrated with Cisco's server infrastructure, Cisco Unified Computing System (UCS), and the Cisco Intersight infrastructure lifecycle management solution. Cisco Intersight provides adaptive, cloud-delivered infrastructure management with automation for agile IT delivery at scale. From an infrastructure perspective, Intersight is critical to seeing, controlling, and automating highly distributed environments.

Nutanix and Cisco offer multiple deployment options on the Cisco Compute infrastructure, including support for Cisco UCS servers. It is a joint ecosystem with both parties providing broader/extended solutions, including disaster recovery, colocation options, and more. An integrated network delivers high bandwidth and low latency for fast application response. As clusters scale, the network seamlessly scales with it to easily handle storage and production IP networking traffic.

Prior to the release of this solution, Nutanix technology was available on Cisco UCS via Nutanix's certification process. The current solution, however, is the outcome of a deeper collaboration in terms of design, validation, and support to provide a better integrated solution with full lifecycle support from Cisco Sales and the Cisco Technical Assistance Center (TAC).

A lot of work went into validating the stack together (encompassing server, component, and network testing), automating day 0 provisioning, and providing integrated upgrades and lifecycle management. Factory installation options are available to enable organizations to hit the ground running. As a result, they end up with a reliable infrastructure that is fully validated and simple to deploy and operate.

The Nutanix Cloud Platform is a single platform designed to support a wide variety of applications, hypervisors, Kubernetes distributions, VMs, and containers across on- and off-premises environments—all while consolidating the management of compute, networking, and storage. This consolidated compilation of multiple Nutanix innovations includes:

- **Nutanix Cloud Infrastructure.** NCI offers a single software stack that consolidates the management of compute, storage, and networking technology. Nutanix Cloud Infrastructure also integrates hypervisor and container orchestration technology options.
- **Nutanix Unified Storage.** With this feature, Nutanix is able to further consolidate storage environments by offering unstructured storage capacity for files and objects.
- **Nutanix Cloud Manager.** Nutanix offers a consolidated control plane designed to provide an interface for self-service, automation, cost control, and security governance to further bolster Cisco Intersight for total hybrid multicloud operations.
- **Nutanix Virtual Desktop Infrastructure.** With this component of the overall solution, Nutanix extends its consolidation capabilities to include end-user computing environments.

The Business Benefits of Cisco and Nutanix

As technology trends have shifted, businesses are more focused on placing data and applications where they need to be, not just where it's convenient. The Nutanix Enterprise Cloud Index survey for 2023 found that 99% of respondents have moved at least one application to a different IT infrastructure the course of the past year, with 86% also responding that moving applications can be complex. This challenge becomes even more apparent, as AI workloads using Kubernetes are beginning to be deployed with 97% of respondents using Kubernetes and 86% finding the deployment of ML/AI workloads challenging.

Cisco Compute with Nutanix Cloud Platform helps solve these business problems by:

- Simplifying and accelerating the delivery of infrastructure and workloads, with best-in-class cloud operating models, augmented support, unparalleled flexibility, and automated resiliency.
- Offering an integrated and validated solution that is sold, built, managed, and supported holistically for a seamless end-to-end experience, creating a consistent and identical cloud operating model.
- Automating and securing common infrastructure operations, enabling valuable dedicated resources and talent to be repurposed for business differentiating outcomes like AI integration or optimizing data and application workloads across clouds.
- Helping businesses realign and simplify initiatives around the exponential growth of new data and application deployments, security needs, and lifecycle management designs that must scale with less resources.
- Harnessing the power of sovereign AI modeling to develop new data insights, engage more closely with customers, and position their business as an industry leader.

Conclusion

Although the overall platform can be targeted to simplify on-premises operations, a significant portion of its value relates to its ability to enable organizations to deploy the same technology in public cloud services and in edge environments. For many organizations, the Nutanix and Cisco solution should be well positioned to become a key component of a hybrid, multicloud application environment that can support virtual machines and containers.

This is an impressive offering that should enable organizations to easily deploy and operate infrastructure and applications at a global scale. It is an end-to-end solution holistically built and supported by Nutanix and Cisco together, featuring a best-in-class cloud operating model.

Organizations leveraging the platform will likely be better able to adapt to dynamically changing business and application requirements. And they'll gain flexibility by having their choice of Cisco servers; the latest accelerator, network, and storage technologies; SaaS innovations; and the freedom to connect to multiple clouds.

About Enterprise Strategy Group
TechTarget's Enterprise Strategy Group provides focused and actionable market intelligence, demand-side research, analyst advisory services, GTM strategy guidance, solution validations, and custom content supporting enterprise technology buying and selling.

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