

White Paper

# HPE ProLiant DX Appliances Powered by Nutanix

## Embracing Freedom of Choice with Turnkey Appliances

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## Overview

To be successful in today's fast-paced business environment, organizations must constantly strive to innovate and speed digital transformation. But the journey to digital transformation can be frustrating—even daunting. IT is still complex, operations can be inefficient, and many companies continue to look at increasing numbers of data-driven initiatives as burdens—rather than vital programs capable of providing improved insights to strengthen the business. Working with legacy infrastructure, processes, and procedures can present assorted challenges (e.g., overextended IT operations personnel, rising licensing and operating expenses, looming concerns about vendor lock-in, etc.). What's more, end-users have become increasingly demanding, expecting their organizations to continuously support their real-time needs.

To that end, companies must modernize their infrastructures to reap the benefits of increased business agility, improved performance, enhanced productivity, reduced costs, and faster time to market. And as of late, the emergence of hyperconverged infrastructure (HCI) has served as both a foundation of data center modernization initiatives and a launching pad for digital transformation.

## HCI Solving the IT Complexity Challenge

Companies across industries continue to deal with the complexity of IT. While most (if not all) companies aspire to move forward on the digital transformation path, they still encounter a number of obstacles that slow transformation—proliferating endpoint devices and applications; skyrocketing data and data sources, along with inadequate data management; and ever-rising numbers of end-users, to name but a few. Based on ESG research, relative to two years ago, IT environments are still complex, with nearly half (45%) of respondents indicating that they believe them to be more complex, 27% stating they're equally complex, and 21% saying they're significantly more complex.<sup>1</sup> While increased growth of devices, data, and applications top the list of cited reasons for this increased complexity, digital transformation and data-driven initiatives also add to that complexity.

Organizational skills shortages contribute significantly to the complexity. According to ESG research, 38% of organizations have a problematic shortage of existing skills in IT architecture/planning, with 33% indicating a problematic shortage in IT orchestration and automation. Moreover, even if organizations consider themselves mature regarding their digital transformation efforts, they are significantly more likely to cite a problematic shortage of skills in IT architecture, orchestration, and automation.

## Contrasting Perspectives Regarding IT

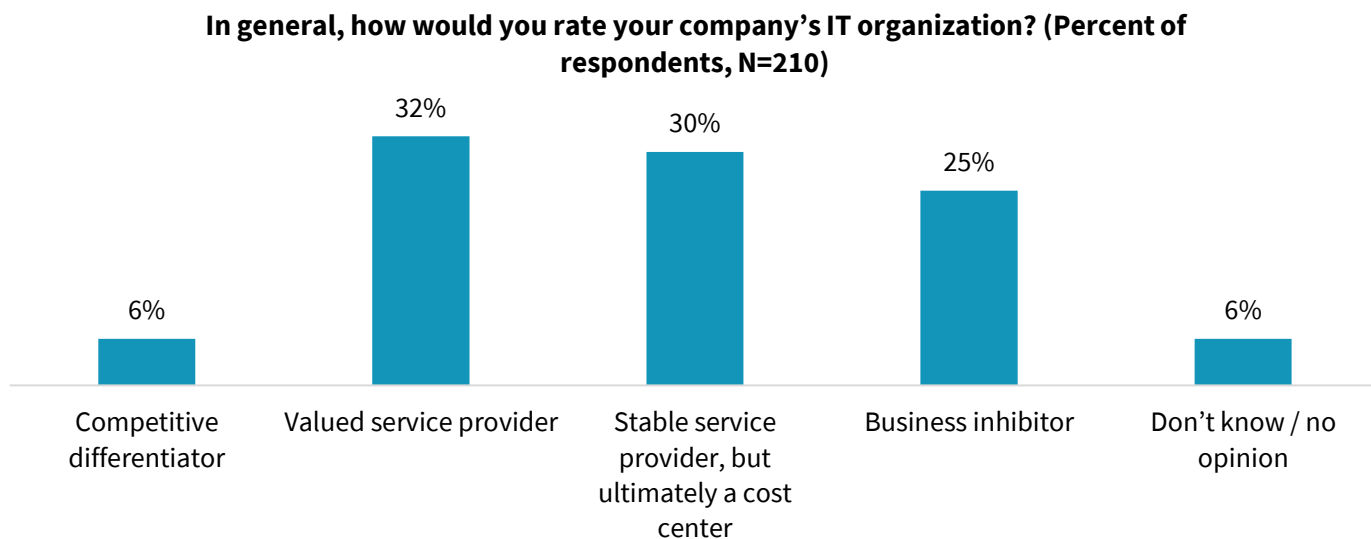
Between the complexities of infrastructure and the skills shortages, many employees throughout organizations hold a negative impression of IT, rather than a positive one. The situation is further aggravated since IT must work to leverage traditional/legacy infrastructures that were not built to support the real-time requirements of the business, or next-generation applications.

In fact, when ESG asked business decision makers (BDMs) how line-of-business stakeholders view the IT organization, 32% view IT as a valued service provider, 30% ultimately view IT as a cost center, and 25% go as far to say IT is a business inhibitor. Only 6% of BDMs viewed IT as a competitive differentiator (see Figure 1).

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<sup>1</sup> Source: ESG Master Survey Results, [2019 Technology Spending Intentions Survey](#), March 2019. All ESG research references and charts in this white paper have been taken from this set of master survey results, unless otherwise noted.

**Figure 1. Line-of-business Stakeholders' View of the IT Organization**



Source: Enterprise Strategy Group

## HCI to the Rescue

To alleviate the IT complexity problems, skills shortages, and misalignment of IT and the business, more and more organizations are turning to HCI. By consolidating compute and storage in a scale-out, virtualized building block, organizations have achieved improved scalability, improved total cost of ownership (TCO), easier deployments, simplified management, and increased agility. So how are organizations deploying the technology? With goals of simplicity, operational efficiency, and achieving that fastest time to value possible, 49% of organizations look to adopt HCI by procuring the technology as a fully integrated appliance (i.e., the integration process occurs at the technology vendor's facility and is delivered as a combined solution).<sup>2</sup>

So where is the HCI market headed? The expectation is up, up, up. In fact, ESG recently asked organizations which areas of data center modernization will have the most significant investment in 2019 months and 37% of organizations cited deploying converged and/or hyperconverged infrastructure platforms, making it the most-cited response.

## Nutanix Enterprise Cloud Platform

The Nutanix Enterprise Cloud Platform delivers a complete IT infrastructure with the agility, scalability, and simplicity of the cloud and the security, performance, and cost predictability of a traditional on-premises infrastructure. The architecture is a scale-out virtual computing platform leveraging web-scale engineering principles innovated by leading cloud companies such as Google, Facebook, and Amazon. And organizations have trusted Nutanix for more than ten years to satisfy their application workloads, from end-user computing environments with VDI, to mission-critical database applications that serve as the backbone of the business. The highly distributed architecture creates a fully integrated compute, virtualization, and storage environment that is 100% software-defined. This integration eliminates the complexity of traditional SAN and NAS environments as well as their reliance on costly, special-purpose hardware that commonly requires IT personnel with specialized skill sets.

With its fully distributed approach, Nutanix spreads all data and processes across the entire cluster, improving resource utilization, scalability, and performance predictability. Active data tiering automatically places frequently requested data in

<sup>2</sup> Source: ESG Master Survey Results, [Converged and Hyperconverged Infrastructure Trends](#), October 2017.

the highest performance storage tier. Additionally, data locality ensures that data is always proximate to the application—serving data directly from direct attached storage and minimizing expensive network latency.

## Partnering with HPE for a World-class Experience

Choice is a key differentiator for Nutanix—choice of hypervisors, hardware platforms, and consumption models. Nutanix prides itself on giving its customers freedom of choice. As a well-known leader in hyperconverged infrastructure solutions and cloud computing, Nutanix has long supported leading hypervisor brands (including, Nutanix AHV, of course) and partnered with recognized names in servers, though one of the world’s largest server vendors (HPE) had not been among them.

But that situation has been remedied—officially. Nutanix and HPE recognized the value of and need for working together to assist enterprises in transforming their data centers across two key areas: first, a portfolio of appliances consisting of HPE servers running the Nutanix software stack; and second, expanding HPE GreenLake to run the Nutanix Enterprise Cloud as-a-service to support enterprise demands.

These two global leaders are focused on prioritizing organizational agility and providing customers with flexibility and reliability as they continue their hybrid cloud journeys, whether leveraging a turnkey appliance or an as-a-service solution, or embracing modern applications technology, such as AI and IoT at the edge.

## The HPE ProLiant Advantage

HPE ProLiant servers are designed to enable organizations to reach cloud economics and agility with the security of an on-premises data center. The servers are designed to simplify hybrid cloud anchored by a modern infrastructure, reduce risk with robust security to provide peace of mind, and set organizations on path to quickly and easily leverage next-generation technology when ready.

With built-in intelligence, HPE ProLiant servers simplify and automate management tasks. That foundational intelligence extends from basic management to advanced monitoring and operations. Organizations can gain insight into optimized configurations, workload placement, and cost models, enabling better business outcomes faster than ever before. Embedded in HPE ProLiant, iLO 5 is the HPE-exclusive core intelligence that monitors server status, providing the means for reporting, ongoing management, service alerting, and local or remote management to quickly identify and resolve issues. HPE iLO uses a fully Redfish-conformant RESTful application programming interface (API) to provide simple and secure management for today’s cloud- and web-based infrastructures across a wide variety of operations and orchestration tools from HPE and others.

Security is at its core, with HPE ProLiant providing secure intelligence from initial manufacturing through decommissioning. During manufacturing of a server, auditing the integrity of every component—hardware and firmware—provides assurance that the server begins its lifecycle uncompromised. Silicon root of trust anchors the essential firmware of HPE ProLiant to an HPE-exclusive ASIC even before the server is built, creating an immutable fingerprint that must be exactly matched before the server will boot. This ensures malicious code is contained and healthy servers are protected. And that’s just the start. A single security dashboard, Server Configuration Lock, CNSA security modes, system restore through HPE iLO, and One Button Secure Erase combine to place HPE ProLiant in the echelon of most secure servers.

## HPE ProLiant DX Appliances Running Nutanix Enterprise Cloud

Out of this noteworthy partnership comes a combination of on-premises and cloud computing environments: the HPE ProLiant DX Series, Nutanix Enterprise Cloud software-integrated appliances built on HPE server technologies found in HPE ProLiant and Apollo server platforms. This enables both companies to embrace a turnkey appliance by seamlessly running the Nutanix Enterprise Cloud with HPE servers.

Mission-critical customers will reap the benefits of alternative supported hybrid cloud solutions from both vendors, consuming certified HPE hardware within their existing Nutanix environments. And new and prospective customers will now be able to take advantage of a fully integrated solution. And joint Nutanix/HPE partners will be able to directly sell the new HPE ProLiant DX series of appliances, which combines HPE ProLiant server technologies and Apollo platforms with factory-installed Nutanix Enterprise Cloud operating system software. The offering will be globally available in the second half of 2019.

The DX series allows customers to run any type of workload at any scale, and rapidly provision a private or hybrid cloud. DX appliances are certified by both Nutanix and HPE to run business-critical applications at scale on Nutanix Acropolis, AHV, Prism, Calm, and Flow software, with fully supported deployments for both hardware (HPE) and software (Nutanix), from installation and upgrades, to scaling and troubleshooting.

Lifecycle management is a key aspect that Nutanix and HPE are looking to simplify for their customers. Customers will benefit from the Nutanix Prism-based user experience, extending the simplified and automated management to HPE server infrastructure. Organizations will be able to inventory their infrastructure in minutes, identify what needs to be updated, and reliably upgrade both Nutanix and HPE components accordingly. Directly through Prism, Nutanix LCM will provide one-click firmware upgrades for the HPE ProLiant DX platforms, including HPE iLO, BIOS, Disks, host bus adapters (HBAs) such as the HPE Smart Array controller, and networking interface cards (NICs). Organizations will be able to self-heal from drive and server failures, and benefit from a highly available infrastructure with non-disruptive updates and seamless lifecycle management and support processes with three-year next-business-day hardware support. An optional five-year next-business-day hardware support offering is available, too.

Additional benefits include:

- Reduced infrastructure footprint by converging compute, storage, and virtualization.
- Decreased infrastructure, power, space, and cooling expenditures by combining application infrastructure silos.
- Rapid deployments and quick storage additions due to factory preinstalled Nutanix Acropolis OS software and AHV software on DX appliances.
- Configure-to-order ProLiant DX appliance options (processors, memory, storage types, and capacities).
- Predictable performance for a wide range of workloads (including financial services, healthcare, and manufacturing) due to advanced industry x86 processors and dense flash storage combined with Nutanix web-scale design.
- A range of HPE ProLiant DX Gen10 appliances are available, including 1U and 2U form factors with 1-, 2-, and 4-node models. The portfolio will be extended to more models over the coming months to offer even more choice. Customers may select from preinstalled Nutanix AHV or an onsite conversion to VMware ESXi or Microsoft Hyper-V.

## The Bigger Truth

While organizations recognize the existing complexities of IT, they continue to embrace technologies that enable them to better align to the business. Modernizing infrastructure is vital, as it enables organizations to create a robust infrastructure foundation to support their next-generation data-centric culture, and HCI has been and will continue to be a go-to for organizations that are in need of help or ready to transition to an agile platform that can properly align to future business goals.

Organizations want to embrace hybrid cloud infrastructure. IT wants to cost-effectively and reliably respond to the business. They want to be a business-enabler, a strategic organization within the business. To get there, IT needs an

infrastructure that can scale, perform, and simplify. IT organizations want the flexibility to choose what they want and how they want it, so they are set up for success. Nutanix and HPE recognize the need to turn IT into the champions of the business, and their new partnership shows just that. That was the motivating factor behind the strategic partnership between these two technology leaders and innovators. And while HPE and Nutanix may have been fierce competitors in the past, their latest partnership highlights what is most important to both: their customers. And customer-centricity will continue to be a driving force behind the partnership for years to come

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