







Fast, secure desktop and application virtualization

Wipro VirtuaDesk on HPE and Nutanix Hyperconverged Infrastructure Brochure Page 2

Key benefits

Accelerate deployment

- · Reduce implementation time
- Deploy virtual desktops and applications instantly to authorized users
- Provision Microsoft Windows 10 and other desktop images quickly

Business agility and peak uptime

- Provide users remote access to applications and data
- Simplify application provisioning through self-service
- Build on an easily scalable platform

Manage risk and security

- Enforce role-based access with menu-driven ease
- Centralize applications and data in a secure data center
- Maintain high availability during disaster recovery scenarios

Hewlett Packard Enterprise, Nutanix, and Wipro join forces for desktop virtualization

Desktop virtualization transforms end-user computing by instantly delivering desktops and applications to any device. End users can be mobile and more productive. IT gets simplified administration. However, implementation can be challenging.

Wipro VirtuaDeskTM, running on HPE and Nutanix Hyperconverged Infrastructure, eliminates these challenges by providing a complete desktop virtualization offering. VirtuaDesk on HPE and Nutanix enables you to more easily secure and provision applications and data for a collaborative and mobile workforce.

Implementation challenges in desktop virtualization

Desktop virtualization is frequently characterized by technical complexities. There may also be long deployment cycles and performance problems. Such implementation challenges can carry over into production, becoming operational support issues that drive up costs, negatively affect end-user experiences, and inhibit IT response time to other business concerns.

HPE, Nutanix, and Wipro VirtuaDesk solution

HPE, Nutanix, and Wipro have come together to solve desktop virtualization implementation challenges. VirtuaDesk leverages the Nutanix web-scale architecture to deliver high-performance desktops at an optimal cost. VirtuaDesk powered by HPE and Nutanix supports both Citrix® and VMware® desktop virtualization platforms.

Solution reference architecture

The reference architecture for virtual desktop infrastructure (VDI) includes HPE DL380 Gen10 Servers, Nutanix AOS, Prism, and choice of hypervisors including native Acropolis Hypervisor (AHV) for VirtuaDesk Hyperconverged Deployment Model. The standardization of the reference architecture helps automate deployment and faster go to market.

Fast and flexible implementation

VirtuaDesk on HPE and Nutanix is a comprehensive packaged service designed to provide an efficient and easy-to-use, "turnkey" solution. It reduces implementation time by enabling instant deployment of virtual desktops and applications to authorized users. IT can quickly provision Microsoft® Windows® 10 and other desktop images on the solution.

Table 1. VirtuaDesk on HPE turnkey solution

Software	Citrix and Microsoft	Industry-standard technology from Citrix and Microsoft provides a rich graphics protocol and comprehensive management toolset enabling easy upgradability.
	Self-service	A self-service environment includes an application store for end users and administrative portal that helps authorized users improve productivity.
	Automation platform	Automated configuration tasks for instant provisioning and simplify implementation and deployment.
	Appliance clustering	Support for appliance clustering enables large-scale and multi-geography deployments, high availability, and disaster recovery.
	Nutanix Acropolis	Nutanix Acropolis provides data services with three foundational components: distributed storage fabric (DSF), app mobility fabric (AMF), and AHV. Prism furnishes one-click infrastructure management for virtual environments running on Acropolis, which is hypervisor agnostic, supporting three third-party hypervisors—Microsoft Hyper-V, Citrix Hypervisor, and VMware ESXi™—in addition to the native Nutanix hypervisor, AHV.
	Nutanix Enterprise Cloud OS	An industry-leading completely software-based hyperconverged stack delivering storage, virtualization, and networking with self-healing and linear scaling.

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Table 1. VirtuaDesk on HPE turnkey solution (continued)

Hardware	Storage	VirtuaDesk utilizes Nutanix's software-defined storage architecture in which all storage management is VM-centric and I/O is optimized at the VM virtual disk level. The software solution runs on nodes from a variety of manufacturers that are either all-flash for optimal performance, or a combination of SSD and HDD to provide performance and high capacity. DSF automatically tiers data across the cluster to different classes of storage devices using intelligent data placement algorithms. For top performance, algorithms make sure the most frequently used data is available in memory or in flash on the node local to VM.
	VDI and application virtualization	A versatile hardware architecture delivers high performance for application virtualization and VDI workloads.
	Image management	An intelligent and optimized, desktop-image management approach enhances performance and reduces required storage capacity.
	High availability	Built-in redundancy for key hardware components enables high availability.
Services	Implementation services	A well-defined methodology and toolset facilitates fast, optimized appliance installation, configuration, and integration with your organization's infrastructure.
	User onboarding services	Automated user profiling and application assessment and seamless migration of users from physical to virtual using user personas and right-sized desktops and applications.
	Customer support	Proactive maintenance, predictive analytics, and 24x7 monitoring helps achieve best-in-class desktop and application user experience. Skilled customer support and a self-help knowledgebase and operating procedures, based on best practices, provide the right level of support.
	Production operations	VirtuaDesk includes production operation services that evergreen hardware and software, which includes fixes, updates, and upgrades, achieving optimal performance.

Risk management capabilities

The combination of Wipro VirtuaDesk, along with HPE and Nutanix Hyperconverged Infrastructure enhances risk management and cybersecurity policy compliance. The solution facilitates the enforcement of role-based access controls, but keeps security operations workloads light with intuitive menus. IT administrators can centralize applications and data on VirtuaDesk in a secure data center, if that is the preferred security policy. The solution architecture makes it possible to maintain high availability (HA) during disaster recovery scenarios.

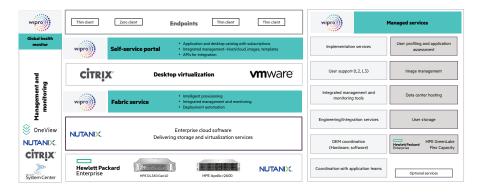


Figure 1. VirtuaDesk, Hewlett Packard Enterprise, and Nutanix super stack

Deployment method

VirtuaDesk is available as an on-premises or off-site private cloud deployment. For on-premises deployments, organizations receive VirtuaDesk through a cost-effective, pre-configured stack that comes with fully integrated hardware, software, and other toolsets. For hosted offerings, VirtuaDesk delivers desktops, applications, and data as a private cloud. All deployments include implementation and ongoing operations support.

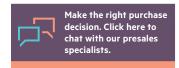
With Nutanix Enterprise Cloud software delivered via HPE GreenLake, customers benefit from:

- Faster time to market—less concern on capacity or overprovisioning.
- Lower TCO as a result of the HPE GreenLake consumption model, Nutanix's free AHV hypervisor, and Nutanix Enterprise Cloud software.
- Increased productivity for IT organizations, allowing them to focus on innovation and accelerate time-to-value.
- Greater choice in virtualization technology

According to Nutanix, customers gain tremendous savings in licensing and support costs by moving to the built-in, no-cost Nutanix AHV hypervisor.

Compared to infrastructure running on incumbent virtualization, customers deploying Nutanix software-based appliances experience a 43% on average lower cost per VM in their IT infrastructure deployments.²

- ¹ The Total Economic Impact of HPE GreenLake Flex Capacity, Forrester, May 2018.
- Nutanix analysis using customer provided data during discovery workshops.









VirtuaDesk hyperconverged model: An on-premises appliance for regional and distributed deployments, including headquarters, remote office/branch office (ROBO), and partner sites. It features the HPE ProLiant DL380 Gen10 Server with Nutanix Enterprise Cloud software platform. The advantages of this approach include excellent desktop performance, with more desktops on less hardware.

Business benefits

Wipro VirtuaDesk running on HPE and Nutanix Hyperconverged Infrastructure offers a number of business benefits:

- End users can be more productive in the office and on the go with remote access to applications and data; they can also own self-service app provisioning
- Flexible and scalable platform
- Reduces CAPEX and OPEX

Extending our HPE GreenLake as-a-services portfolio

HPE provides an HPE GreenLake offering built on the Nutanix AHV hypervisor. HPE and Nutanix announced a global partnership to deliver an integrated hybrid cloud as-a-service solution. This offering leverages the Nutanix's AHV and Nutanix Enterprise Cloud software, delivered through HPE GreenLake, to provide customers with a fully managed solution that dramatically lowers total cost of ownership and accelerates operational productivity.

As part of the agreement, Nutanix will enable its channel partners to directly sell HPE ProLiant and HPE Apollo servers combined with Nutanix's Enterprise Cloud OS software, so that customers can purchase an integrated, turnkey appliance with built-in intelligence and security.

The HPE and Nutanix partnership expands the choice to customers for each company's offering with Nutanix AHV hypervisor offered via HPE GreenLake as-a-service solution, which lowers TCO for a wide range of workloads including VDI.

HPE GreenLake delivers a broad set of as-a-service offerings, which include HPE SimpliVity, HPE Synergy, and HPE Nimble Storage with HPE ProLiant. It also includes solutions from public cloud providers, such as Amazon Web Services, Microsoft, and Google $^{\text{TM}}$, along with private cloud solutions based on VMware, Microsoft, and Red Hat $^{\text{O}}$. Other popular software solutions include Veeam, SAP $^{\text{O}}$, Hadoop, Commvault, Scality, and now Nutanix.

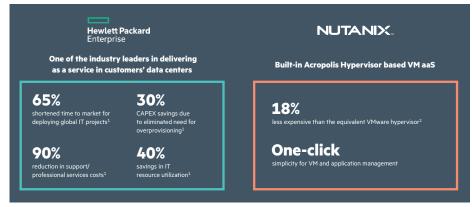


Figure 2. Delivering lower TCO for VMs as a service

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