NUTANIX
Your Enterprise Cloud Platform

Customer Competitive Brief

HPE Simplivity 3.7.4

What Differentiates Nutanix Technology?

Enterprise Cloud Platform

The Nutanix Enterprise Cloud combines the agility and simplicity of the public cloud, with the security and control you need in a private cloud. Built on the industry's leading hyperconverged infrastructure (HCI) technology, it integrates compute, storage, native virtualization and networking in a full-stack solution that runs nearly any application. While other vendors are just low value infrastructure providers, Nutanix is a trusted partner that can accelerate your organizations digital transformation.

Freedom and Choice

Nutanix Enterprise Cloud OS software empowers IT teams to use best -of-breed technology without being locked into a single vendor. Nutanix supports all popular hypervisors and runs on a wide variety of hardware platforms so that IT can manage their datacenters using the platforms and tools of their choice. Nutanix melds private and public cloud operations for powerful hybrid clouds with your choice of public cloud provider.

Modern Webscale Engineering Design

Other HCI vendors have taken a backward looking approach with a focus on replicating legacy SAN capabilities in a new software defined model on top of commodity servers. This carries forward legacy design principles and the issues caused by it. Nutanix employs a forward looking modern approach that enables massively scalable, software defined, operationally efficient, self healing systems similar to technologies pioneered by webscale cloud providers such as Google, Amazon, and Facebook.

Power Any Workload

The Nutanix Enterprise Cloud provides the performance, resilience and scalability to power all workloads – virtualized, container-based and bare metal. IT managers and application teams can improve operational efficiency and reduce the number of point solutions with built-in services, including native file and object services, block storage capabilities, integrated application marketplace, and more. Some of the worlds largest companies are running their mission critical apps on the Nutanix Enterprise Cloud.

Native Integration & Seamless Experience

Other HCI vendors have created full stack solutions by bundling existing products and tools and/or bolting on new acquisitions resulting in complex and fragmented experiences. The Nutanix Enterprise Cloud delivers natively integrated features and capabilities that remove complexity by design and enable a fundamentally different simple and seamless user experience.

Industry Leading Quality

Nutanix delivers industry leading product quality and has consistently maintained a metric of less than 2% customer found defects and less than 0.5% unique customer found defects over time. This is the result of a rigorous closed loop product quality system which allows automated and intelligent feedback for our developers, allowing them to develop new features while focusing on continuous product improvement. The result is a platform that 'just works'

Simple By Design

Other vendors claim simplicity, but can't deliver because they haven't taken a new approach where simple is by design. Nutanix delivers true operational simplicity. Prism provides a simple, yet comprehensive, consumer-grade 1-click management experience and eliminates the need for specialized IT teams, allowing IT to be a business enabler, rather than a cost center.

World Class Support

You'll love the Nutanix support experience, with a 90+ Net Promoter Score (NPS), a 97% Customer Satisfaction rating and winner of 4 Omega NorthFace Scoreboard Awards. We use a different organizational approach based on the Site Reliability Engineering principles developed by Google. Experts answer the first call and see most issues through to completion without handoff enabling a highly efficient path to issue resolution and a delightful support experience.

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Nutanix Key Differentiators vs Simplivity

Digital Transformation Platform

HPE Simplivity is just an HCI solution and is narrowly focused on solving a few infrastructure centric issues in the data center (complex storage, 3rd party backups, deduplication). HPE maintains a hardware centric vision and has struggled to provide software value up the stack. Nutanix uses the best HCI solution as a foundation for the Enterprise Cloud… a natively integrated full stack solution offering extended capabilities including: machine learning driven operational insights; app centric networking and security; application automation, orchestration, and self service provisioning; application portability across clouds and the intelligent distributed edge; and cost analysis driven application placement in a multicloud world. Nutanix not only provides a full platform for your digital transformation journey, but can help accelerate it giving you a competitive advantage in your industry.

True Distributed Architecture

HPE Simplivity is HA at the VM level. It uses features within the hypervisor, vSphere host / VM pairing rules, to accomplish RF2 resiliency. VM copies will exist on just (2) nodes in the cluster. This can create a few concerns: they don't use the power of the cluster to maintain resiliency in the event of failure events, not all VM's grow at the same rate creating the potential for consumption imbalances and finally, the placement rules can create compute imbalances that may require Support engagements to resolve. Compare that to Nutanix, where the power of the cluster is used for all workload and recovery needs.

Enterprise Scalability

Simplivity only supports a maximum of 8 storage nodes in a cluster (max 2 nodes for hyper-v deployments) and there is no benefit to larger cluster sizes. Simplivity then forms a federation to allow management of up to 32 nodes. Nutanix highly efficient webscale design supports 100s of nodes in a single cluster allowing larger customers to grow without the proliferation of silos.

Modern Self Healing Design

Simplivity carries forward legacy hardware RAID which wasn't built for efficient recovery of todays larger drive sizes. A drive failure results in a write performance hit, and requires someone to replace the drive to initiate recovery. During recovery, the write performance penalty remains. Recover time is inconsistent and not predictable as it's dependent on system load. By carrying forward legacy technology, Simplivity hasn't changed the experience around drive failure handling. Nutanix takes a modern approach which enables automatic self healing capabilities. Nutanix keys in on the S.M.A.R.T. reporting from each drive. If a drive shows signs that it might fail, we proactively offline the disk, and the data is rebuilt throughout the cluster. Data recovery often starts before the administrator even knows that a drive has failed. Because we use the full power of the distributed system and all nodes participate, we can do this very quickly with minimal impact to performance. In fact, as the cluster grows we actually get more efficient, and with larger cluster sizes we can recover larger 4TB and 6TB HDDs in less than an hour. There is no firedrill or urgency to replace the failed drive. When a drive is replaced, there is no recovery event, we simply re-add that capacity back to the pool and rebalance as a background process.

Configuration and Platform Choice

Simplivity is only available in XS, S, M, L configurations with the primary differentiation being storage capacity. They take a dependency on a full height PCIe 'OAC' card which prevents them from using anything but the DL380. Nutanix has a wide variety of models, form factors, and configurations across every major server vendor offering customer choice and freedom from lock-in.

Software driven approach

HPE Simplivity is still a very hardware centric solution utilizing an FPGA card and hardware RAID. Nutanix took a modern approach, realizes the true power of a solution is in software. This approach allows us to be free of constraints and limited hardware choices.

Who is the best long term technology partner to accelerate your digital transformation?

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What HPE Will Tell You...

Simplivity Has Built-in Backup

HPE tells customers that Simplivity has built in backup allowing you to throw away your 3rd party backup solution. Simplivity's backups are called full logical backups. However, they differ from traditional backups because they don't create an off cluster copy of the data that can be recovered in the event the primary data is lost, corrupt, etc. Instead they use a pointer based backup, or what most of the industry refers to as a snapshot. So when you take a full logical backup, the Simplivity system creates a new VM metadata object and pointers to the original blocks used by the primary VM. A restore simply starts the new VM. There is no additional data recovered. HPE Hyperguarantees that they can 'recover' (or start) this VM in 60 secs. The only way to get an off cluster copy is to replicate it to another cluster. Simplivity backups are only crash consistent. If you want application consistent backups then you need to use VMware vSphere or a 3rd party VSS provider. If exclusively using pointer based backups meets your requirements then you can do the same thing with Nutanix native snapshots, and ours are also app consistent.

Simplivity Has Built-In WAN Optimization

HPE claims that Simplivity has built-in WAN optimization. They will even demo moving a 20TB VM from Sydney to London to New York in just a few seconds. The reality is… all the Simplivity system is doing is checking to see if the blocks reside on the remote site, if they do, they aren't copied over the wire again, the VM metadata is copied and pointers adjusted to the local data. Nutanix also checks to see if data exists in the remote site before copying it. In fact most modern systems and a few legacy ones also do this so there's really nothing special here and HPE Simplivity isn't putting any WAN optimization appliance vendors out of business anytime soon.

Simplivity is Hyperconvergence 3.0

HPE will explain other HCI products didn't go far enough to simplify the data center. Simplivity can consolidate non traditional HCI components like backup appliances, cloud gateways, WAN optimization, etc, As referenced earlier, these solutions are not being replaced. We suggest that you ask HPE to explain how they will replace all of these?

Simplivity Customers Average 40:1

HPE claims that Simplivity customers average 40:1 data efficiency. While there are some individual workloads/ datasets that can achieve this level of data efficiency, the rest of the industry typically averages 3:1 over a broad set of workloads. So ask yourself if its realistic for the 'magic' Omnicube Accelerator Card to achieve 40:1 or higher. This is really just marketing smoke and mirrors where Simplivity counts each VM backup as if it had to store the full VM size to disk. Because each backup is just pointing to the original blocks there is very little new data created. Taking and retaining 100s of backups of every VM and counting each as the full logical size allows them to grow the data efficiency number to whatever they want. We are happy to demo this for you. Also the HPE Hyperguarantee delivers 90% data efficiency. This is based on the same counting of backups described above. In the fine print, you must take and retain a pointer based backup of each VM, each day, for 30 days and the net new data on your system can't exceed 5% of the total capacity. The math guarantees SVT a calculated 96% data efficiency. We suggest that you ask HPE to guarantee 90% or even 3:1 without taking any full logical backups and see how good their guarantee is then.

Nutanix Isn't Supported on HPE

HPE sales reps will often tell you that HPE doesn't support Nutanix on its Proliant Servers. When you purchase a HPE server, they can't dictate what software you run on it. So you are totally fine to run SQL, Oracle, Exchange, or Nutanix. The only reason they say this is because they see Nutanix as a threat and obviously competitive to their Simplivity HCI offering. When running Nutanix on HPE, Nutanix is always your primary contact for support. If the issue is requires replacement of a failed hardware component, then HPE will replace it as part of your hardware support agreement with them. In addition, both HPE and Nutanix are part of TSANet, an industry standard independent organization that facilitates issue resolution between vendors.

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Feature and Capability Comparison

Enterprise Storage, Clustering and Scalability	NUTANIX	simplivity
Max Cluster Size	Unlimited	8 nodes
Min 1-Node Configuration	✓	✓
Min 2-Node Configuration	✓	✓
Mix Different Capacity Nodes in Cluster	✓	✗
Mix Different CPU Chipsets in Cluster	✓	✓
Mix Hybrid / All-Flash Nodes in Cluster	✓	✗
VM-centric Snapshots and Clones	✓	✓
Shadow Clones	✓	✗
Deduplication	✓	✓
Compression	✓	✓
Erasure Coding	✓	✗
File Storage Services	✓	✗
Block Storage Services	✓	✓
Object Storage Services	**Upcoming Release**	✗
Intelligent Tiering in Software	✓	✗
Database Copy Data Management	✓	✗
Pin VM To Flash Tier	✓	✗
Automatic Cluster Storage Rebalance	✓	✓
1-Click Node Addition/Removal	✓	✓

Did you know?

Simplivity metadata design limits them to small cluster sizes and without a distributed architecture there is no benefit to larger clusters for efficient drive failure recovery, global dedupelication, etc.

Did you know?

Even though Simplivity has a card that offloads CPU overhead for data efficiency features , they require 100GB of system RAM (3x NX) and all flash systems still need 6 vCPUs (vs 8 for NX).

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Resiliency, Data Protection and Disaster Recovery	NUTANIX	simplivity
Automatic Disk Failure Recovery	✓	✗
Recovery Efficiency Scales With Cluster Size	✓	✗
Replication Factor 2 and 3	✓	✗
1-Click RF2 to RF3 Conversion	✓	✗
Crash Consistent Snapshots	✓	✓
Native VSS Provider	✓	✗
Async Replication & DR	✓	✓
Near-Sync Replication & DR (1 min RPO)	✓	✗
Synchronous Replication & DR (Metro Availability)	✓	✓
Multiple Site DR (many to many)	✓	✓
DR Runbook Automation and Workfows	✓	✗
DRaaS (Xi)	✓	✗
Backup to Public Cloud	✓	✓
Cross Hypervisor Backup and DR	✓	✗
Self Service Restore	✓	✓
Virtualization		
Native Built-in Virtualization (AHV)	✓	✗
vSphere ESXi	✓	✓
Hyper-V	✓	✓
Xen Server	✓	✗
1-Click Hypervisor Conversion	✓	✗

Did you know?

Simplivity uses legacy hard-ware RAID which is not built to handle recovery of large drive failures efficiently.

Did you know?

Nutanix enables you to seamlessly use ESXi in a primary site and AHV in a DR site eliminating vtax for DR scenarios.

Did you know?

Nutanix enables you to convert from ESXi to AHV and back in a single click.

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NUTANIX simplivity

Networking and Security		
Network Visualization	✓	X
Network Automation	✓	X
Service Insertion and Chaining	✓	X
Microsegmentation	✓	X
Self Encrypting Drives	✓	✓
Native Software Encryption	✓	X
Native Key Management	✓	X
STIGs with Auto Self Healing Baseline	✓	X
Industry Standard Security Certs	✓	✓
2-Factor Auth and RBAC	✓	✓
Application Automation, Orchestration, and Governance		
Customizable Blueprints	✓	X
Application Lifecycle Management	✓	X
Cross Cloud Deployment Target	✓	X
Self Service Provisioning / Marketplace	✓	X
1-Click Oracle and Postgres SQL Install	✓	X
1-Click DB Clone/Restore/Refresh	✓	X
Cloud Cost Analytics and Optimization	✓	X
Intelligent Consumption Planning	✓	X
1-Click Compliance Remediation	✓	X

Did you know?

Nutanix FLOW (NEW!) enables virtual networking, microsegmentation, and service insertion.

Did you know?

Nutanix ERA (NEW!) enables 1-click DB deployment, cloning, and lifecycle management.

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	NUTANIX	simplivity
Management and Operations		
Built-in Management (no mgmt. cluster)	✓	✗
Local Cluster Management	✓	✓
Multi-Cluster Management	✓	✓
Multi-Hypervisor Management	✓	✗
1-Click Storage OS Updates	✓	✓
1-Click Hypervisor Updates	✓	✗
1-Click Hardware Firmware Updates	✓	✗
1-Click Centralized Multi-Cluster Up-grades	✓	✗
1-Click Capacity Planning	✓	✗
Just In Time Forcasting	✓	✗
1-Click VM Right Sizing	✓	✗
1-Click Performance Monitoring	✓	✗
1-Click Operational Insights	✓	✗
Customizable Dashboard	✓	✗
Google Like Search	✓	✗
Scheduled Reporting	✓	✗
Rest API	✓	✓
Support		
Customer Satisfaction over 95%	✓	✗
Net Promoter Score over 90	✓	✗

Did you know?

HPE fired Simplivity's support staff land left an inexperienced hardware centric team to handle Simplivity support issues.