eBook

Definitive Guide to Modernizing Infrastructure and Operations While Preserving Enterprise Storage

Escaping Virtualization Lock-In and Maximizing Returns on Investments of Existing Storage Arrays



NUTANIX

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1. The Modernization Imperative

Recent shifts in virtualization licensing and renewal models from VMware by Broadcom[1] have led many organizations to re-evaluate their infrastructure strategy. According to Gartner 67% of IT leaders and CIOs are now actively or passively pursuing VMware alternatives[2].

Compounding this pressure is the looming October 2027 End of General Support date for vSphere 8 announced by Broadcom, which imposes a strict timeline for organizations to migrate or re-architect their environments or risk running without patches, updates, and support. These aggressive commercial shifts and support deadlines are driving many enterprises to explore exit strategies that restore long-term cost control and architectural autonomy. However, typical platform transitions require disruptive, costly ‘rip-and-replace’ hardware overhauls that force organizations to write off active, high-performing storage arrays long before the end of their operational lifecycle. Global supply chain friction and resource bottlenecks further compound these challenges.

Enterprise-grade storage arrays represent substantial capital investments designed for multi-year operational lifecycles. Organizations need an agile modernization path that avoids virtualization lock-in and high licensing costs without requiring premature write-offs of functional, high-performing storage hardware.

Nutanix Cloud Platform isn’t just a hypervisor; it is a full-stack, fully featured solution for your hybrid cloud infrastructure. Integrating Nutanix Cloud Platform (NCP) with your existing enterprise storage delivers a fully featured disaggregated, software-defined stack that decouples compute from tier-1 storage assets and breaks the deadlock of legacy vendor lock-in. By upgrading your compute and management layers to the Nutanix AHV hypervisor, you transition to an automated, secure platform that unifies security, networking, and disaster recovery workflows while preserving your current storage arrays. With validated integrations across key external storage partners, your organization gains a proven path to modernize IT infrastructure on your own schedule.

[1] Nutanix, Inc. is not affiliated with VMware by Broadcom or Broadcom.
[2] Gartner, 2026 Strategic Roadmap for VMware Modernization, https://www.nutanix.com/viewer/go/2026-gartner-strategic-roadmap-for-vmware-modernization



Nutanix Cloud Platform isn’t just a hypervisor; it is a full-stack, fully featured solution for your hybrid cloud infrastructure.

2. The Power of a Unified, Modular Platform

Modernizing on Nutanix Cloud Platform delivers a flexible, software-defined foundation engineered for the next generation of enterprise IT. Traditional IT environments often force a compromise between legacy virtual machines and modern cloud native applications. Nutanix resolves this friction by operating as a dual-native platform that treats enterprise VMs and Kubernetes containers as first-class citizens with equal performance and simplified management.

By decoupling compute scaling from underlying storage capacity, this modular architecture provides the scalable agility required for high-throughput, latency-sensitive workloads that make it an ideal foundation for next-generation agentic AI, advanced analytics, and data-intensive enterprise applications. Organizations can independently scale up high-density CPU and GPU resources to fuel demanding AI pipelines while maintaining their high-performance external storage arrays.

Supported Partner Storage Ecosystem

Nutanix collaborates with leading enterprise storage vendors to deliver validated joint solutions that enable you to modernize your compute layer without abandoning your preferred storage architecture. Explore how Nutanix integrates with your existing storage assets:

Dell Technologies

Integrate Nutanix certified compute nodes directly with Dell PowerStore (via high-speed NVMe/TCP) or Dell PowerFlex arrays over standard Ethernet networks. This validated deployment delivers extreme performance and sub-millisecond latency for mission-critical applications while streamlining Day 2 operational management.

NetApp

Attach NetApp ONTAP (AFF and FAS) storage systems over high-speed NFS to unify file and block workflows under a single operational model. Retain NetApp's enterprise data management capabilities while modernizing your compute and management layers to Nutanix AHV.

Everpure

Leverage validated NVMe/TCP integration for standalone Everpure FlashArray (//X, //XL, and //C) systems, as well as Cisco FlashStack integrated infrastructure featuring Everpure storage. Organizations can deploy Everpure storage directly with Nutanix compute nodes without requiring Cisco hardware, or opt for a Cisco FlashStack converged environment. Both approaches combine Everpure's industry-leading data reduction and high-density flash performance with Nutanix's single-pane-of-glass management and VM-centric policy control plane.

Lenovo

Connect Lenovo ThinkSystem DM and DE Series storage arrays directly to Nutanix certified compute nodes to establish a highly flexible, disaggregated architecture. This validated integration enables organizations to scale compute and storage independently while maintaining enterprise-grade redundancy and performance. Preserve your existing Lenovo storage investments while modernizing your compute and management layers to Nutanix AHV.

3. Key Benefits

1. Unshackle Your IT Stack from Vendor Lock-In

Upgrading your infrastructure shouldn't force you into rigid hardware refresh cycles or proprietary traps. By pairing Nutanix certified compute nodes directly with your active enterprise storage arrays, including systems from Dell, Everpure, NetApp, and Lenovo, you can establish a disaggregated, multi-vendor cloud stack that helps to minimize supply-chain delays and hardware lock-in.

For organizations seeking to escape risks of rising VMware costs, this model enables hypervisor migrations by transferring compute layers to Nutanix AHV while leaving mission-critical data intact on existing enterprise storage assets.

2. Modernize Storage Fabrics and Bridge Organizational Silos

Retiring complex Fibre Channel (FC) SAN fabrics in favor of high-speed Ethernet protocols like NVMe/TCP and NFS is a key pillar of data center modernization, but it requires addressing both financial realities and organizational dynamics. While upgrading IP transport to high-bandwidth 25GbE or 100GbE networks requires a targeted hardware investment in modern switches and network interface cards (NICs), this spend is easily justified. The transition offers rapid net savings by eliminating the need for expensive FC switch hardware renewals, proprietary optical transceivers, dedicated FC host bus adapters (HBAs), and specialized fabric licensing fees.

Beyond the financial case, modernizing transport protocols may introduce friction with storage administrators who have traditionally favored Fibre Channel for its isolated, deterministic control. There may even be non-technical intra-organizational issues at play. Nutanix Cloud Platform eliminates such organizational barriers by maintaining VM-centric policy management natively within Nutanix Prism. Storage teams retain granular control over storage provisioning, SLAs, and performance policies, while dedicated storage VLANs and Quality of Service (QoS) provide predictable, sub-millisecond latency.



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3. Minimize Hardware Spend via Targeted Compute

The requirement for new hardware often poses the largest CapEx barrier when evaluating a hypervisor migration. However, transitioning to Nutanix Cloud Platform frequently allows organizations to repurpose their existing compute nodes, avoiding new server purchases altogether. Leveraging Nutanix's extensive Hardware Compatibility List (HCL), which certifies a broad spectrum of enterprise x86 server platforms across major hardware vendors, organizations often can deploy Nutanix AHV directly onto their current compute fleet.

By combining server reuse with the retention of active enterprise storage array assets, enterprises can eliminate hardware friction and break legacy vendor lock-in. When capacity expansion is eventually required, organizations only need to add targeted, compute-dense nodes. This modest investment represents a small fraction of a full-stack forklift refresh, meanwhile delivering opportunity for rapid offset by immediate hypervisor licensing savings, potentially lower operational overhead, and deferred storage spend.

4. Simplify Day 2 Operations with Full-Stack Automation

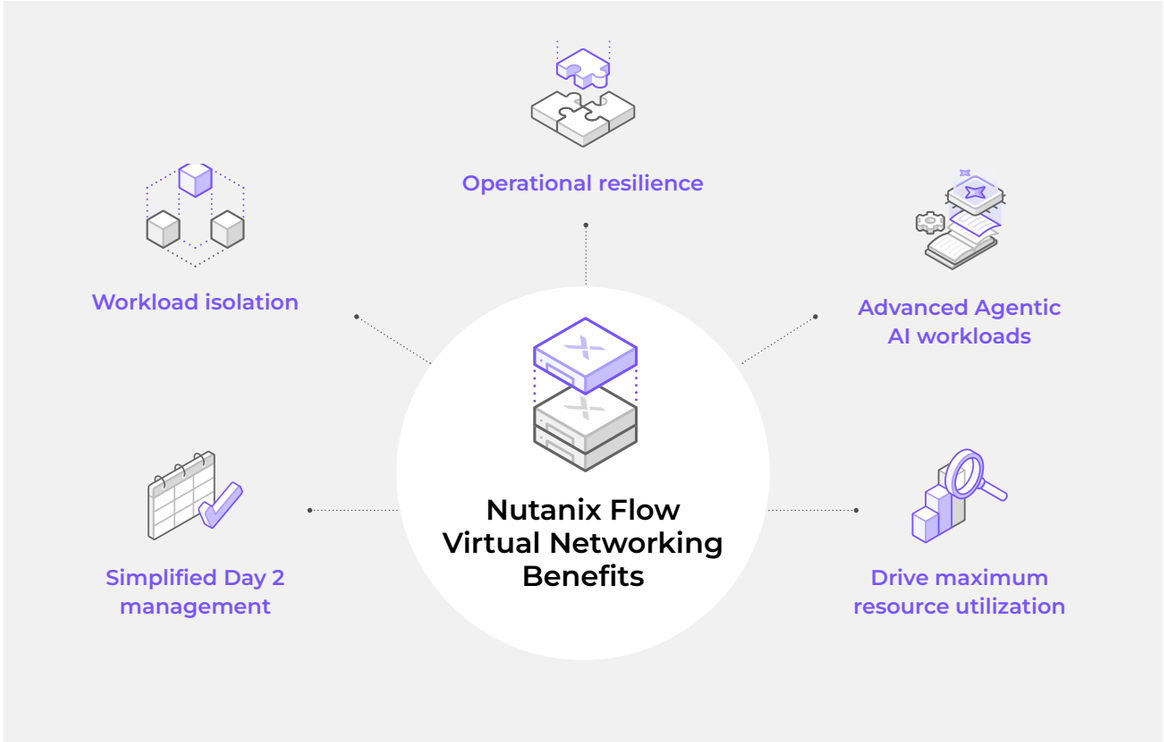
Consolidating fragmented security, networking, and storage management tools onto Nutanix Cloud Platform replaces manual processes with policy-driven automation, which Omdia estimated boosted IT operational efficiency by up to 24% for participating customers[3]. Rather than navigating complex SAN LUNs, administrators

apply storage policies at the precise VM level using Nutanix Prism as a single control plane. Infrastructure is hardened natively through platform controls such as data encryption, immutable snapshots, and automated configuration management. Network silos are avoided using Nutanix Flow Virtual Networking and Flow Network Security to enforce zero-trust microsegmentation directly within the hypervisor, while integrated VM-centric disaster recovery automates failover and testing to support continuous application availability.

5. Accelerate Next-Generation AI Workloads

To further accelerate modernization initiatives, the Nutanix AHV hypervisor is engineered with built-in optimizations specifically designed for AI infrastructure. Using NVIDIA topology-aware resource allocation, AHV automatically optimizes the assignment of physical resources to virtual machines on GPU-dense servers, maximizing overall compute performance.

Additionally, Nutanix Flow Virtual Networking enhances this architecture by offloading the network data plane to NVIDIA BlueField data processing units (DPUs), delivering high-performance networking while preserving valuable host CPU and memory. Ultimately, these capabilities bring the proven benefits of virtual machines, including workload isolation, operational resilience, and simplified Day 2 management, to advanced Agentic AI workloads, driving maximum resource utilization and helping organizations achieve a lower cost per token.



4. Economic Validation

Maximize Capital Efficiency and Financial Return

Preserving functional tier-1 storage assets yields immediate economic returns while protecting prior capital investments. Organizations eliminate the need to write off functional storage arrays or purchase local drives, deferring planned CapEx refreshes. This architecture is purpose-built for asymmetric scaling: enterprises managing high-throughput AI, analytics, or intensive computing workloads can scale compute-only nodes to expand CPU and GPU capacity independently. By right-sizing hardware and software licensing without paying for redundant storage, organizations can achieve sub-milliseconds latency in validated NVMe/TCP configurations while optimizing overall data center costs.

Independent quantitative analysis by Omdia confirmed substantial financial, operational, and performance advantages that participating organizations obtained when deploying Nutanix Cloud Platform with external storage reuse. By attaching Nutanix certified compute nodes directly to existing, active storage assets, Omdia estimated IT teams could modernize their virtual environment and avoid restrictive hypervisor lock-in. Moreover, there is opportunity for significant savings. Omida estimated that participating organizations realized a 171% ROI, 40% 3-year TCO, and less than 12 months payback without the capital disruption of ripping and replacing existing storage hardware[3]

171%
RETURN ON INVESTMENT[3]

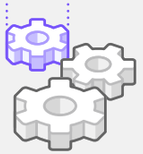
40%
3-YEAR TCO REDUCTION[3]

< 12 Mo
PAYBACK PERIOD[3]

Key Cost Advantage Drivers



Hardware Reuse & Cost Avoidance
Avoid costly forklift hardware refreshes and storage controller upgrades by retaining active Tier-1 storage assets.



Operational & Tooling Consolidation:
Replace fragmented third-party monitoring, orchestration, and standalone DR tools with native Nutanix Prism capabilities.

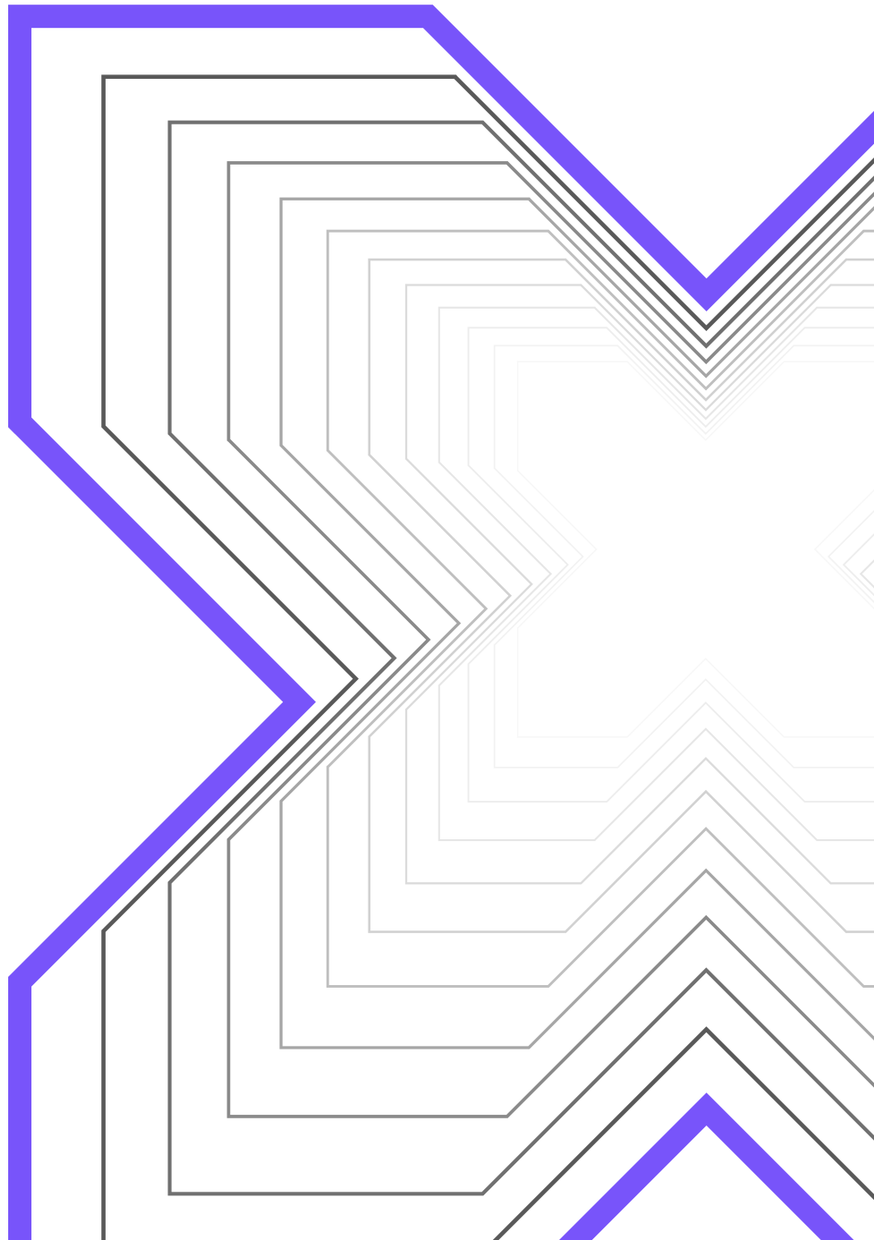
[3] Omdia, “The Economic Benefits of Nutanix Cloud Platform With External Storage”, https://www.nutanix.com/content/dam/nutanix/en/resources/white-papers/wp-omdia-economic-validation-nutanix-hci.pdf

5. Conclusion & Next Steps

Preserving your active enterprise storage arrays directly drives the economic and operational value delivered by Nutanix Cloud Platform. Maintaining these Tier-1 assets can avoid premature capital write-offs and costly forklift hardware refreshes, while maximizing the return on prior CapEx investments. Omida's study of actual customers validates the opportunity for significant ROI, reduced TCO, and rapid payback, all without the business risk of petabyte-scale data migrations [3].

Decoupling compute modernization from storage hardware lifecycles equips your organization with a unified, software-defined foundation that can break vendor lock-in, streamline daily operations, and accelerate your modernization initiatives.

To learn more or explore a proof of concept, visit nutanix.com/vmware or contact your Nutanix representative.



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