Pure Storage with Nutanix

Unlocking new levels of performance and scale for Nutanix Cloud Platform with Pure Storage

Nutanix has long led the industry for hyperconverged infrastructure (HCI) by leveraging virtualized workloads with distributed enterprise storage across nodes in a cluster.

For storage-intense workloads, today's enterprise organizations require exceptional flexibility and agility in how they leverage and finance virtualization. Pure Storage and Nutanix have co-engineered a solution that now enables the Nutanix Cloud Platform (NCP), including Nutanix AHV hypervisor, to address these workloads by extending its storage provisioning to Pure Storage FlashArray™. This partnership provides customers with a high-performance and efficient full-stack infrastructure to power their business-critical workloads.

The solution also allows customers to extend their existing Pure Storage FlashArray investments and complement them with the NCP solution. Likewise, it allows existing Nutanix customers leveraging the NCP software stack to augment their Nutanix HCI-based storage with the Pure Storage best-in-class, all-flash data storage platform.

The Nutanix Cloud Platform

In the joint Nutanix and Pure Storage solution, Nutanix Cloud Infrastructure (NCI) powers a disaggregated architecture where compute is performed by Nutanix AHV and storage is delivered by Pure Storage FlashArray via NVMe over TCP. This architecture allows customers to leverage the storage and data services of Pure Storage while benefiting from the robust compute virtualization, security, disaster recovery, and operational simplicity of Nutanix. Additional benefits include:

- **Effortless operations:** Nutanix Prism provides a unified, VM-centric interface that streamlines Day 0 through Day 2 operations. Executives gain faster insights and control with simplified workflows, intelligent automation, and integrated monitoring, all from a single pane of glass.
- **Built-in virtualization with AHV:** Nutanix AHV hypervisor eliminates the complexity and cost of third-party virtualization. It's deeply integrated into the platform, delivering enterprise-grade performance, security, and scalability without the licensing overhead.
- **Integrated network security:** Nutanix Flow delivers microsegmentation and virtual networking that's policy-driven and application-aware. This ensures granular control over east–west traffic, helping reduce risk and meet compliance requirements without adding operational burden.
- **VM-centric architecture for agility:** Nutanix is designed around VMs, not legacy infrastructure. This enables faster provisioning, easier scaling, and more responsive performance for business-critical applications.

Scaling

Scale compute and storage separately.

Trusted partners

Leverage Nutanix and Pure Storage FlashArray together.

Accessibility

Use Nutanix compute clusters to access FlashArray volumes via NVMe-oF/TCP.

All-flash storage for modern, on-premises virtual workloads

FlashArray is designed to address the needs of the modern data center with its ease of management, reliability, flexibility, and predictable performance. It is purpose-built from the ground up to natively leverage the performance, density, reliability, and efficiency of flash storage. There are redundant components to provide resilience in the event of an issue.

The hardware, combined with the Pure Storage Purity operating system, delivers maximum performance to ensure you can run different workloads and avoid noisy neighbor issues. With microsecond latency, FlashArray delivers faster, more consistent, and more predictable throughput than conventional solid-state drives in legacy storage. FlashArray is available in a wide range of configurations for different performance needs, with the top-tier FlashArray//XL™ models capable of 150µs latency and 45GB/s throughput.

- **Data reduction**: Tackle storage footprint with always-on global deduplication and compression, plus exceptional storage density and low power consumption. Compared to legacy disk and many all-flash alternatives, Pure Storage delivers up to 85% less energy consumption and five times greater storage density.
- **Storage resilience**: FlashArray hardware promotes reliability while the Purity operating system protects against concurrent dual-drive failures. Purity also treats performance variability as a failure and uses parity to work around bottlenecks to deliver consistent latency.
- **Cybersecurity protection**: The encrypt-everything approach of FlashArray and always-on encryption of Purity provide built-in, enterprise-grade data security without user intervention or complicated key management.
- **Ease of deployment, configuration, and administration**: Administrators do not need an advanced storage certification and do not face a steep learning curve to perform tasks with FlashArray. From its management interface to the platform's Purity operating system, FlashArray has been optimized to be simple yet robust. Additionally, DevOps is possible with Pure Storage APIs to administer FlashArray storage using code and scripts.
- **Storage insights with Pure1 AIOps**: Pure1 enhances the FlashArray management console by providing AI-enhanced analysis and insight for your array or array fleet. Additionally, it can act as a singular point for array software upgrades, provide insight into intelligent workload placement, and quickly analyze and easily move data where it most cost-effectively meets service level agreements—between both physical and virtual hosts or between on-premises and the cloud—to satisfy your customers.
- **Evergreen® storage**: Deploy it once and then enjoy a subscription to continuous innovation as you expand and improve performance, capacity, density, and/or features for 10 years or more—all without downtime, performance impact, or data migrations.

A high-level view of our integrated solution

The integration between Pure Storage and Nutanix products is engineered to minimize workflow disruption by bridging internal and external storage resources via the Nutanix compute cluster, which is connected to the FlashArray via NVMe over TCP. Once deployed, system administrators working through the Nutanix Prism management console have the option to deploy new AHV-based VM vDisks to the datastore on the FlashArray system.

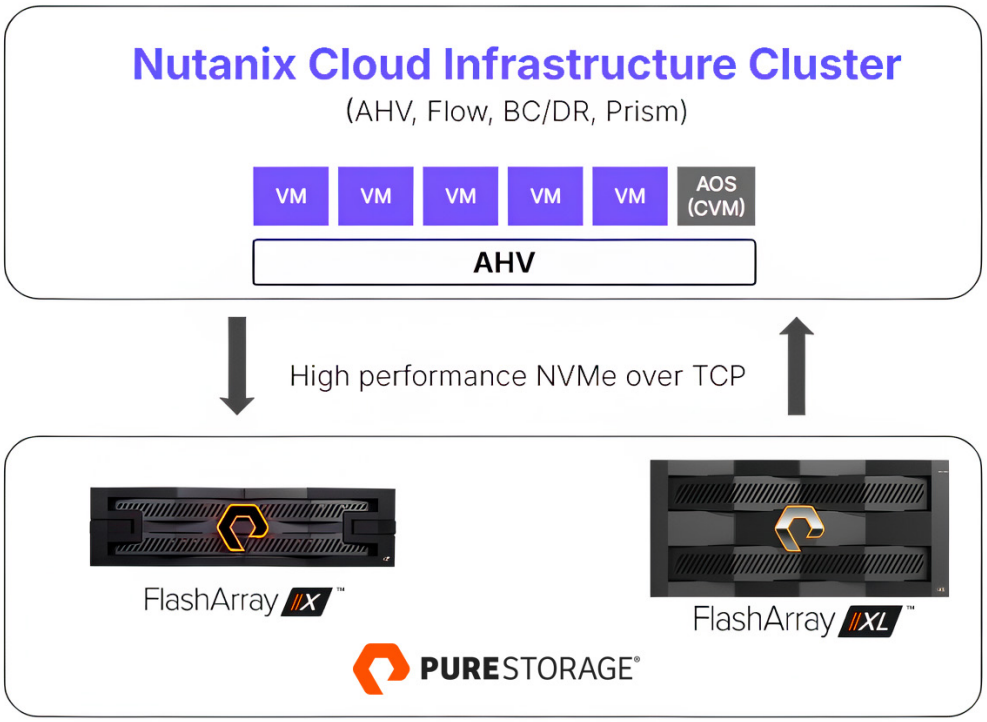

FIGURE 1 Pure Storage and Nutanix integration

The Nutanix compute cluster supports industry-standard servers from major server vendors, offering customers the choice to use servers from their preferred vendor. While Nutanix Prism offers deployment tools and full lifecycle management for the Nutanix AHV and AOS software on those servers, customers can continue to use their server vendor tools for administration, including lifecycle management for firmware and BIOS.

Learn more

Contact your Pure Storage or Nutanix account team today to learn more about how Nutanix and Pure Storage are working together to modernize workloads with all-flash enterprise storage.

Additional resources

- Read more about Pure Storage FlashArray.
- Explore Nutanix AHV.

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