5 Ways
Pure Storage
Transforms
Virtualization
in the Cloud

Unlocking Seamless Cloud Migration Without Complexity

PURESTORAGE®

Introduction

Migrating VMware workloads to the cloud unlocks new levels of agility and scalability, but it also introduces new challenges.

Architectural mismatches, unpredictable costs, and operational complexity can make the transition difficult. The right storage strategy removes migration roadblocks and eliminates costly inefficiencies for virtualized workloads in the cloud. In this guide, we'll explore five ways an optimized storage foundation helps organizations modernize VMware environments in the cloud—ensuring cost efficiency, operational simplicity, and adaptability every step of the way.

Why Cloud Virtualization Matters More Than Ever

Virtualization—the original breakthrough that transformed modern IT infrastructure strategy by abstracting workloads from physical hardware—is experiencing major disruption. As a critical component of virtually every IT infrastructure stack, recent changes in the virtualization landscape are making many organizations rethink their strategies. Pair with this the mounting pressure of infrastructure expanding to support AI workloads, and the need to ensure continuous security while controlling costs. What you'll see are IT leaders reimagining the fundamental way they architect applications on the ever-evolving quest towards infrastructure modernization.

The Power of Cloud-Managed Services for Virtualization

So how does cloud fit into this conversation? If your virtualization strategy defines how you architect applications, then your cloud strategy defines where you architect applications. Both are important components of your infrastructure and application modernization journey. There are many ways to modernize, and what's right for one organization may not work for another. If you haven't already, read our Buyer's Guide to Modern Virtualization to learn more about the options available.

Cloud is one pathway towards modernization. Let's dive into why organizations are looking to the cloud when rethinking virtualization. More and more enterprises are now turning to cloud-managed virtualization services as an alternative to on-premises virtualization (like Azure VMware Solution, AWS Elastic VMware Solution, and Google Cloud VMware Engine) for a few reasons:

- **Simplified migrations:** You can run virtualized workloads without any reconfiguration.
- **Streamlined management:** Managed services reduce operational burden and enable IT teams to focus on business innovation.
- **Leverage the latest cloud innovations:** Public cloud services are leading the charge in technology innovations, particularly with regards to AI and containers.
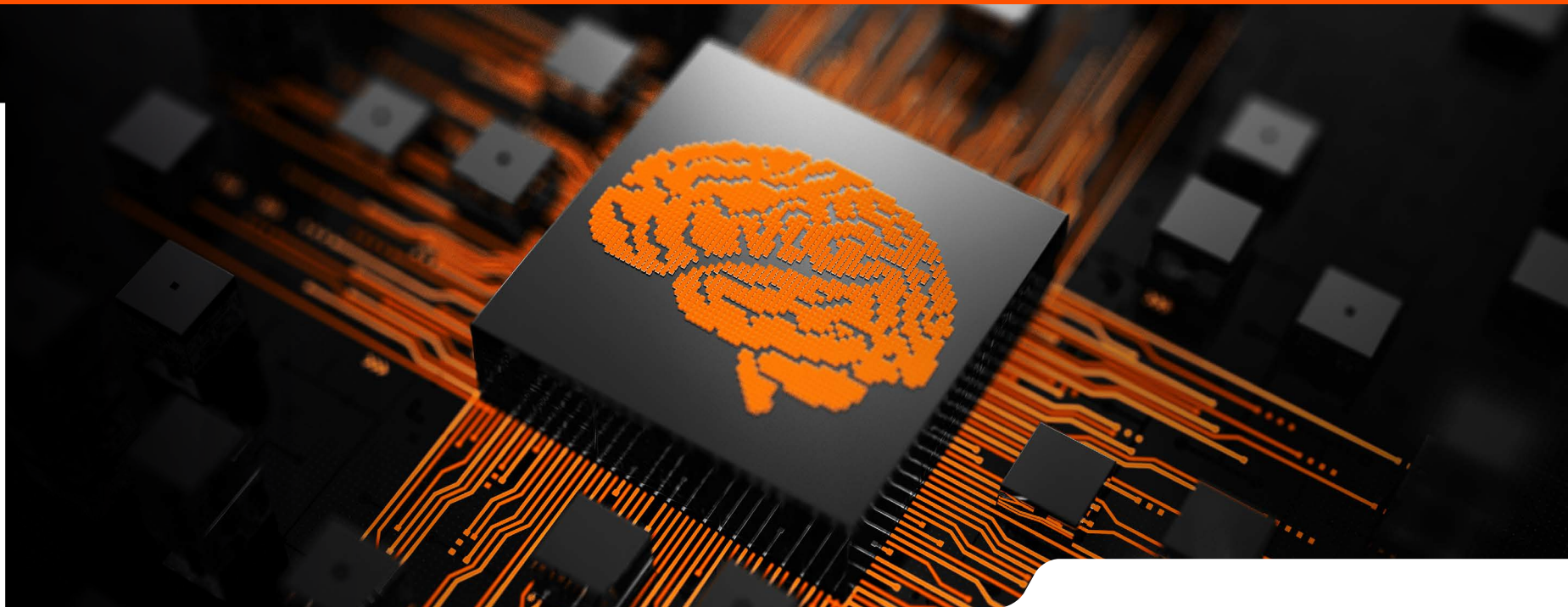
Challenges Moving Virtualized Workloads to the Cloud

Despite the benefits, transitioning virtualized workloads to the cloud presents challenges—especially when migrating enterprise-scale, storage-heavy workloads while maintaining cost efficiency. Existing cloud storage and compute models can create inefficiencies that restrict agility and inflate costs.

This is where Pure Storage® comes in. Our cloud storage solutions are designed to streamline cloud-based managed services virtualization with independent scaling, efficient resource usage, and simplified management. Organizations looking to migrate VMware workloads to the cloud while managing costs and enhancing security can rely on Pure Storage for an agile, efficient, scalable, and secure storage foundation to support their virtualization workloads in the cloud.

This ebook explores five key ways that Pure Storage transforms virtualization in the cloud.

Seamless Migration of VMware Workloads to the Cloud

Transition to the Cloud without Disruption

Migrating VMware workloads to the cloud can be complex, especially for storage-intensive applications. Many organizations are forced to refactor—adding time and complexity to the migration process. Pure Storage Cloud for Azure VMware Solution (AVS) simplifies this transition by enabling enterprises to move their VMware environments to Azure without any modification.

How It Works

Pure Storage Cloud provides external, enterprise-grade block storage fully integrated with AVS, mirroring the on-premises model that over 80% of VMware deployments rely on. It also provides a consistent storage experience from on-premises to the cloud. So organizations can migrate their virtualized workloads to the cloud without refactoring applications.

The Results

Organizations can migrate VMware workloads to the cloud without re-architecting their applications, maintaining high performance and data integrity while reducing migration complexity.

Independent Scaling of Storage and Compute Resources

Reduce Costs and Optimize Performance with Independent Scaling

One of the biggest challenges with cloud-managed VMware services is the tight coupling of storage and compute resources, leading to inefficiencies and unnecessary costs.

How It Works

With Pure Storage Cloud for AVS, storage is decoupled from compute, allowing organizations to scale resources independently based on their specific workload requirements. This prevents overprovisioning costly AVS compute nodes just to meet storage capacity needs. With a typical 3:1 storage-to-compute ratio, organizations can achieve up to 40% cost savings by only scaling what they need.

The Result

By avoiding compute overprovisioning, organizations using Pure Storage Cloud for AVS can achieve significant cost savings, improved efficiency, and a more predictable cloud budget— all while maintaining high availability and performance.

Simplified Management and Operations

Effortless Deployment and Seamless Integration

Fully-managed services like Azure VMware Solution are ideal choices for organizations looking to minimize operational overhead and management. So it's critical to ensure that any services added to your new VMware managed cloud service also follow this approach.

How It Works

Pure Storage Cloud for AVS is a fully managed service offered as an Azure Native ISV Service that can be deployed directly from the Azure Portal. No manual deployment or custom configuration needed. With built-in VMware workflow compatibility, administrators can manage storage operations without needing specialized expertise. The vSphere plugin enables VMware administrators to execute common storage management tasks directly within their familiar interface, reducing the learning curve and improving operational efficiency. Routine tasks, such as provisioning storage, managing snapshots, and scaling resources, can be handled effortlessly.

The Result

Organizations benefit from a simplified approach to storage management, reducing administrative overhead and allowing IT teams to focus on strategic initiatives rather than daily infrastructure maintenance.

Enterprise-grade Data Protection and Security

Secure, Reliable Storage to Safeguard Business-critical Data

Security and data protection are top concerns for every enterprise running virtualized workloads whether in the cloud or on-premises. Cyber threats, accidental data loss, and performance variability can jeopardize operations, making enterprise-grade protection a necessity.

How It Works

Pure Storage brings the same advanced data protection capabilities that enterprise customers expect today on-premises to the cloud. Immutable snapshots, replication, and always-on encryption ensure data integrity, availability, and rapid recovery in the event of failures or cyber threats.

The Result

With industry-leading resiliency features, businesses can confidently run mission-critical workloads in the cloud while ensuring compliance, mitigating risk, and minimizing downtime.

Deep Integration with VMware—Now in the Cloud

VMware-optimized Storage for a Seamless Hybrid Experience

Pure Storage has a long history of deep integration with VMware technologies, ensuring customers get the best possible storage experience for their virtualized workloads. Now, that same level of integration extends to the cloud, making it easier than ever to run VMware workloads in cloud environments.

How It Works

Pure Storage Cloud for AVS brings this deep integration to AVS with support for VMware vSphere Storage APIs for Array Integration (VAAI) and VMware vSphere Virtual Volumes (vVols). Relying on the same protocols across on-premises and cloud storage ensures optimized performance, management, and compatibility across environments.

The Result

Organizations can run VMware workloads in the cloud with the same reliability, performance, and simplicity they rely on in their on-premises environments, unlocking new levels of agility and scalability.

The Future of Cloud Virtualization with Pure Storage

The shift to cloud-based virtualization presents both challenges and opportunities. Pure Storage Cloud for AVS is purpose-built to address these challenges, providing customers with a unified storage platform that simplifies cloud migration, reduces operational overhead, optimizes costs, and enhances security.

For IT leaders evaluating their next move in virtualization, the key questions are:

- What path is right for my organization?
- How can I reduce migration complexity while managing costs?
- How do I ensure our storage strategy is scalable, secure, and cost-effective?
- How can rethinking my infrastructure strategy unlock opportunities to drive innovation?

Pure Storage Cloud for AVS delivers the answers—helping enterprises modernize their virtualized environments while unlocking the full potential of cloud infrastructure.

Ready to learn more? Watch our on-demand TechTalk, Cloud-Bound: Easy VMware Migration without Rebuilding, and learn how to move to the cloud effortlessly—without refactoring your VMware applications.

Watch Now

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