Research Brief:

Understanding VMware Alternatives

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UNDERSTANDING VMWARE ALTERNATIVES

Broadcom's acquisition of VMware has left a lasting impact on the enterprise IT landscape. Promising simplification, Broadcom's licensing and bundling changes have instead created confusion, increased costs, and led to widespread dissatisfaction among VMware customers. Many of these customers are actively exploring alternatives, driven by frustration and the need to future-proof their IT environments.

Far from being a simple migration, transitioning away from VMware presents an opportunity to embrace modern platforms and architectures that unlock greater efficiency, performance, and agility. Emerging technologies like hybrid multi-cloud, AI, edge computing, and cloud-native architectures highlight the limitations of traditional virtualization and the necessity of adopting next-generation solutions.

Navigating this transition requires understanding the available options — cloud migration, re-virtualizing with alternative platforms, or modernizing applications to embrace containerized and serverless technologies. Each approach has unique advantages and trade-offs, and success depends on aligning the chosen path with organizational goals and capabilities. Often, organizations will use a combination of approaches based on the needs of the workload. In these cases, a platform that easily supports multiple degrees of freedom is helpful.

Choosing the right partner is critical to overcoming migration challenges and ensuring long-term success. Nutanix emerges as a leader, offering hybrid-cloud-ready solutions, best-in-class hyperconverged infrastructure, and robust support for modern workloads. Nutanix provides a seamless transition from VMware and positions organizations to fully capitalize on the potential of their IT investments.

ONE YEAR IN: VMWARE CUSTOMERS CONTINUE TO STRUGGLE

It's been nearly a year since Broadcom finalized its acquisition of VMware, a move that promised simplified licensing and bundling options for IT buyers. However, instead of delivering a streamlined experience, these changes have introduced considerable disruption across the market. Customers have reported increased costs, reduced flexibility, and confusion over limited licensing options. AT&T's legal battle with Broadcom, citing "bullying tactics," epitomizes the frustrations of many enterprises.

The dissatisfaction is widespread, with surveys by Civo (September) and CloudBolt (June) suggesting that over 50% of VMware customers are considering moving to alternative technologies. However, translating this intent into action is more complex. The market is flooded with options, migration poses significant technical challenges, and internal systems often need

to be retooled. Adding to the complexity, short renewal cycles for VMware licenses limit the time IT organizations must plan and execute a transition.

For many customers, maintaining the status quo is no longer viable. The question is not whether to change but how to do so effectively. The business challenge lies in balancing current needs with a forward-looking strategy.

RE-FRAME THE CHALLENGE: DONE RIGHT, A MIGRATION AWAY FROM VMWARE IS A MOVE INTO THE FUTURE

The IT world has evolved beyond traditional virtualization, and it's past time for enterprises to modernize their application platforms. Transitioning away from VMware offers an opportunity to embrace technologies and architectures better suited to today's demands.

- **Platform Innovations**: Modern platforms offer advanced compute and storage efficiencies that are hard to achieve in VMware's legacy environment. Transitioning unlocks new levels of performance and cost-effectiveness.

- **Hybrid-Multi-Cloud Strategies**: Businesses require infrastructure designed to harness the best of hybrid and multi-cloud environments, where VMware's traditional models often fall short. Broadcom's preferred path is for customers to use virtual private clouds[1], which are separate, private, and unconnected.

- **Emerging Technologies**: The rapid adoption of AI, edge computing, and containerized workloads challenges VMware's virtualization-first approach, which is increasingly misaligned with these technologies.

- **Cloud-Native Architecture**: Just as virtualization was revolutionary in its time, cloud-native technologies now represent the future, offering flexibility, scalability, and efficiency that virtualization alone cannot match.

Rather than viewing migration as a challenge, IT organizations should see it as an opportunity to leapfrog into the next generation of enterprise IT.

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[1]Broadcom Blog, https://news.broadcom.com/app-dev/why-enterprise-leaders-are-embracing-their-private-cloud-strategy

Organizations looking to transition away from VMware face several potential paths, each with distinct implications:

- **Cloud Migration**: Moving workloads to public cloud platforms can simplify operations but may involve significant rearchitecting or lift-and-shift costs.

- **Re-Virtualizing**: Choosing an alternative hypervisor, such as Nutanix AHV or Microsoft Hyper-V, can reduce costs and maintain familiarity for IT teams.

- **Application Modernization**: Embracing cloud-native technologies, such as containers and Kubernetes, reduces dependence on VMs altogether.

Each approach has trade-offs, but when properly aligned with business goals, these strategies can position organizations to fully leverage their IT investments.

CHOOSING THE RIGHT PATH

Selecting the right alternative and the right technology partner is critical to the success of any IT transformation. A solution replacing VMware should provide:

- **Comprehensive Hybrid-Cloud Solutions**: Look for platforms seamlessly integrating on-premises and cloud resources.

- **Support for Modern Architectures**: A focus on virtualization, cloud-native workloads, AI, multi-cloud, and edge computing ensures long-term viability.

- **Operational Efficiency**: Simplified management tools, robust automation, and flexible deployment models reduce overhead.

There are five main alternatives for organizations looking to transition away from VMware:

- **Nutanix Cloud Infrastructure**: Closest to VMware's functionality, offering robust management tools, automated migration, and hybrid-cloud capabilities.

- **Public Cloud IaaS**: A viable alternative, particularly for lift-and-shift migrations or modernization, though costs and vendor lock-in vary.

- **Microsoft Azure Stack HCI**: Strong Azure integration but limited by underpowered storage and a lack of enterprise-scale deployments.

- **Microsoft Hyper-V**: Cost-effective for basic virtualization needs but lacks the comprehensive management features of VMware.

- **Red Hat OpenShift Virtualization**: Ideal for container-first environments but requires significant learning and lacks robust VM migration tools.

Let's look at each option in more depth.

Transitioning from VMware to public cloud providers such as Amazon Web Services (AWS), Microsoft Azure, or Google Cloud Platform (GCP) offers several advantages and considerations.

Pros	Cons
Global Reach: With data centers worldwide, public cloud providers enable organizations to deploy applications closer to end-users, reducing latency and improving performance.	**Migration Complexity:** Moving workloads from VMware to a public cloud can be complex, often requiring significant application redesign to align with cloud-native architectures.
Scalability and Flexibility: Public cloud providers offer on-demand resources, allowing organizations to scale infrastructure up or down based on current needs without the constraints of physical hardware.	**Vendor Lock-In:** Relying heavily on a single cloud provider can lead to vendor lock-in, making it challenging to switch providers or move workloads back on-premises without incurring significant costs and effort.
CapEx Cost Efficiency: Public clouds can reduce capital expenditures by eliminating the need for on-premises hardware and associated maintenance. Pay-as-you-go models enable organizations to pay only for the resources they use.	**Operational Changes:** Transitioning to a public cloud requires changes in operational processes and may necessitate retraining staff to manage and optimize cloud resources effectively.
	Unconstrained Costs: Given complex public cloud accounting and cost controls, managing spending can be challenging, with costs easily exceeding budgeted spending.

Utilizing public cloud providers as a VMware replacement offers scalability, CapEx cost efficiency, and access to advanced services. However, organizations must carefully consider migration complexities, security, and compliance requirements, potential vendor lock-in, and necessary operational changes to ensure a successful transition.

This hybrid cloud solution integrates Azure's public cloud capabilities with on-premises infrastructure managed through the Azure portal.

Pros	Cons
Seamless Azure Integration: Azure Stack HCI provides tight integration with Azure services, enabling hybrid cloud capabilities and unified management through the Azure portal.	**Hardware Compatibility:** Azure Stack HCI requires specific hardware configurations, which may necessitate new investments or limit the use of existing infrastructure.
Simplified Management: Utilizing Windows Admin Center and Azure Arc, Azure Stack HCI simplifies the management of both on-premises and cloud resources.	**Learning Curve:** Organizations may need to invest time and resources in training staff to manage and operate Azure Stack HCI effectively.
	Feature Parity: While Azure Stack HCI offers robust features, some advanced functionalities available in VMware may not be fully replicated, potentially impacting certain use cases
	Cost: Licensing and usage-based pricing can add complexity to budgeting.

Microsoft Azure Stack HCI provides a compelling alternative to VMware, particularly for organizations seeking deep integration with Azure services and a cost-effective licensing model. However, considerations regarding hardware requirements, learning curve, feature parity, and ecosystem maturity should be carefully evaluated to ensure alignment with organizational needs.

Hyper-V is a cost-effective virtualization solution that is part of the Windows Server ecosystem. It provides a lightweight alternative to VMware for organizations seeking basic functionality.

Pros	Cons
Integration with Microsoft Ecosystem: Seamless compatibility with Windows Server and Microsoft Azure to simplify management and enhance performance for organizations already utilizing Microsoft technologies.	**Limited Cross-Platform Support:** Hyper-V primarily supports Windows and certain Linux distributions, which may be restrictive for organizations running diverse operating systems.
Familiar Hypervisor: Uses Hyper-V, the second-most popular hypervisor, which many organizations already utilize.	**Feature Parity:** While Hyper-V offers essential virtualization features, it lacks many advanced capabilities in VMware and other competing solutions like Nutanix, such as extensive third-party integrations and more mature management tools.
Flexibility: Supports both hyperconverged and converged storage models.	**Storage Limitations**: Uses Storage Spaces Direct (S2D), which lacks advanced features like independent snapshots.
	Cost: Licensing and usage-based pricing can add complexity to budgeting.

Microsoft Hyper-V offers a cost-effective and well-integrated virtualization solution for organizations within the Microsoft ecosystem. However, considerations regarding cross-platform support, feature set, and ecosystem maturity should be carefully evaluated to ensure alignment with organizational needs.

Built on KubeVirt, Red Hat OpenShift Virtualization allows organizations to manage VMs alongside containerized workloads within a Kubernetes environment.

Pros	Cons
Unified Platform: OpenShift Virtualization enables the management of both VMs and containers within a single Kubernetes-based platform, streamlining operations and reducing the need for separate management tools.	**Learning Curve:** Transitioning to OpenShift Virtualization requires familiarity with Kubernetes and container orchestration concepts, which may necessitate training for IT staff accustomed to traditional virtualization platforms.
Hybrid Cloud Ready: OpenShift's robust support for hybrid and multi-cloud deployments allows for greater flexibility and scalability across diverse IT environments.	**Migration Complexity:** Migrating existing VMs from VMware to OpenShift Virtualization can be complex and may require specialized tools or custom scripts to ensure a smooth transition.
Cost: The OpenShift platform includes virtualization features without additional licensing fees, potentially reducing overall costs compared to VMware's licensing model.	**Feature Maturity:** While OpenShift Virtualization is evolving, some advanced features present in VMware may not yet be fully developed or available, potentially impacting certain use cases.
	Performance Considerations: Running VMs within a containerized environment may introduce performance overhead, which should be evaluated based on specific workload requirements.

Red Hat OpenShift Virtualization provides a unified platform for managing VMs and containers, supporting application modernization and hybrid cloud strategies. However, organizations should carefully assess the learning curve, migration complexities, feature maturity, and performance considerations to determine if they align with their needs and objectives.

Nutanix offers a comprehensive hyperconverged infrastructure (HCI) solution that competes directly with VMware by integrating compute, storage, and networking capabilities with robust management tools:

Pros	Cons
Migration Support: Built-in tools like Nutanix Move automate significant parts of the migration process from VMware.	**Hardware Compatibility**: Nutanix requires specific server configurations.
Ease of Use: Prism, Nutanix's management console, offers a unified and intuitive interface that VMware administrators find familiar and powerful, reducing the complexity of transition.	**Storage Limitations**: Limited native support for external controller-based storage. Nutanix has announced broader support for external storage will be available in 1H 2025, with Dell Technologies publicly committed to supporting the new technology[2].
Flexibility: Supports ESXi alongside its own AHV hypervisor, easing transitions for VMware customers. Nutanix also provides a single platform to support a mix of VMs, containers, and distributed hybrid cloud environments, giving customers the flexibility to manage options on a workload-by-workload basis.	
Scalability: NCI's hyperconverged architecture allows for seamless scaling by adding nodes, making it adaptable to changing business needs.	
Hybrid Cloud Capabilities: Strong integration with cloud environments like AWS and Azure.	

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[2] Dell Technologies Blog, https://www.dell.com/en-us/blog/streamline-hybrid-cloud-for-tomorrow-s-innovation/

Cost Efficiency: With a node-based licensing model, Nutanix can be more cost-effective, particularly for smaller organizations.	

Nutanix Cloud Infrastructure offers a streamlined, scalable, and potentially cost-effective alternative to VMware, especially for organizations seeking integrated solutions. However, considerations regarding ecosystem maturity, initial investment, and hardware compatibility should be carefully evaluated to ensure alignment with organizational needs.

STRATEGIC RECOMMENDATION

Nutanix emerges as a standout choice, offering a full-stack solution that balances innovation with ease of use. Its platform combines hyperconverged infrastructure with robust support for cloud-native technologies, making it an ideal partner for organizations navigating the complexities of IT modernization.

Among these alternatives, Nutanix Cloud Infrastructure stands out for its comprehensive feature set, ease of integration, and scalability. Its hyperconverged architecture simplifies management and reduces operational complexity, benefiting enterprises seeking to streamline their IT operations.

Including AHV as a built-in hypervisor eliminates additional licensing costs associated with third-party hypervisors. Furthermore, Nutanix's strong performance metrics and flexibility in supporting various workloads make it a versatile choice for various enterprise applications.

While each alternative presents unique advantages, Nutanix Cloud Infrastructure offers a balanced combination of performance, scalability, and cost-effectiveness, positioning it as a strong candidate for enterprises considering a transition from VMware.

SUMMARIZING: MOVING FORWARD IS A BUSINESS NECESSITY

VMware customers face unsustainable challenges today. Remaining with VMware means paying a premium for a legacy platform that limits growth and innovation. IT leaders must seize this moment to modernize their infrastructure, reduce technical debt, and unlock the full capabilities of next-generation IT.

The path forward is clear:

1. **Reassess Your Environment**: Identify the workloads and applications that will benefit most from modernization.

2. **Choose the Right Technology**: Decide whether cloud migration, application modernization, or re-virtualizing is best suited for your goals.

3. **Partner for Success**: Leverage Nutanix's proven solutions to ensure a smooth and efficient transition.

The future won't wait. Take the first step today—partner with Nutanix to drive your IT transformation and secure a competitive edge.

The time to act is now. Remaining on VMware comes at an increasing cost—both in financial terms and missed opportunities for innovation. By making strategic decisions and partnering with a trusted provider like Nutanix, IT organizations can address their current challenges and pave the way for a more agile, efficient, and future-ready enterprise IT environment.

While VMware remains a strong presence in enterprise IT, Broadcom's acquisition has triggered widespread reevaluation of its value proposition. Alternatives like Nutanix offer a compelling path toward modernization, but careful planning and alignment with business goals are essential. For many enterprises, the transition from VMware is not just an opportunity but a necessity for staying competitive. The choice of technology stack and partner is a critical decision.