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Creating a Future-Ready Platform

NUTANIX





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Are You Future-Ready?

When it comes to technology, enterprises are facing a future that holds significant uncertainty. What's the best strategy to deal with legacy infrastructure? Should they move to the cloud, embrace cloud native, or dive into AI and GenAI?

The recent changes in the virtualization landscape have complicated matters further, shaking the foundations of enterprise IT at an already challenging time. According to Gartner, "By 2027, **50%** of enterprises will initiate proofs of concept for alternative distributed hybrid infrastructure (DHI) products to replace their VMware-based deployments and embrace hybrid cloud infrastructure delivery, up from **10%** in 2024."¹

Given the importance of this transition, enterprises are considering their post-VMware options carefully. Some organizations are considering band-aid strategies, such as **revirtualization** and **devirtualization**:

- **Revirtualization** involves adopting a new hypervisor to replace VMware ESXi. This approach requires a lot of effort and doesn't really take you anywhere new. Without further changes to your software, applications and/or infrastructure, you'll be no more future-ready when you finish the revirtualization process than you are today.
- **Devirtualization**, on the other hand, involves transitioning from virtual infrastructure back to physical servers—an idea that may be even less practical than revirtualization. The most likely potential outcomes of devirtualization are an increase in maintenance costs and higher risk. Anyone around during the heyday of physical Hadoop clusters in the early 2010s can attest to the challenges.

It's Time to Modernize

While revirtualization and devirtualization may address some of your short-term VMware challenges, neither option leaves you better prepared for a digital future where AI plays a central role. For most enterprises, modernization is the better option. The core tenet behind modernization is evolving your IT operations to accommodate new applications and services critical to your company's future, without compromising and abandoning the apps and services running today.

Effective modernization must encompass:

- **Infrastructure modernization** to break free from the complexity and inflexibility of legacy infrastructure while avoiding vendor lock-in.
- **Hybrid multicloud capabilities** that enable operations to span on-premises, public cloud, and the edge with less friction.
- **Container-VM convergence** to accommodate today's virtualized apps and tomorrow's containerized workloads.
- **AI-readiness** so you can deploy GenAI and other AI models on infrastructure your team can operate efficiently.

This eBook explores these key elements of modernization and explains how Nutanix enables you to become "Future-Ready."

¹ Gartner: CIO's Guide to Distributed Hybrid Infrastructure for Cloud Services Anywhere, by Julia Palmer, Tony Harvey, and Mike Cisek, 9 Jan 2025



Modernize Infrastructure

Many enterprises still have datacenters full of traditional three-tier infrastructure with separate compute, storage, and networking—plus VMware to virtualize the compute layer. While familiar, this approach comes with a lot of complexity, making it difficult to manage, maintain, and scale.

Given the changes your operations may face over the next three to five years, you need infrastructure that is much more flexible, resilient, and performant and that doesn't require constant administrator attention.

Hyperconverged infrastructure (HCI) combines compute, storage, and networking, resulting in a server-based model that is fully virtualized—including software-defined storage and software-defined networking—and provides integrated security. HCI offers a simple, flexible approach to infrastructure that is better suited to address future challenges, including supporting the latest GenAI-based applications.

How Nutanix Helps You Modernize Infrastructure

Nutanix pioneered HCI and has become a global leader in hybrid multicloud software. Our software-defined architecture is designed to seamlessly adapt to the needs of datacenters, public clouds, and edge environments, ensuring consistent operations and data services everywhere.

The Nutanix Cloud Platform (NCP) solution empowers you to modernize your infrastructure to support cloud-native and AI workloads, while also unifying your operations. NCP accelerates app development and deployment, makes your operations more agile, and enables greater flexibility as your organizational needs evolve and your business grows.

Modernizing your infrastructure with Nutanix Cloud Platform provides a solid foundation for what comes next.



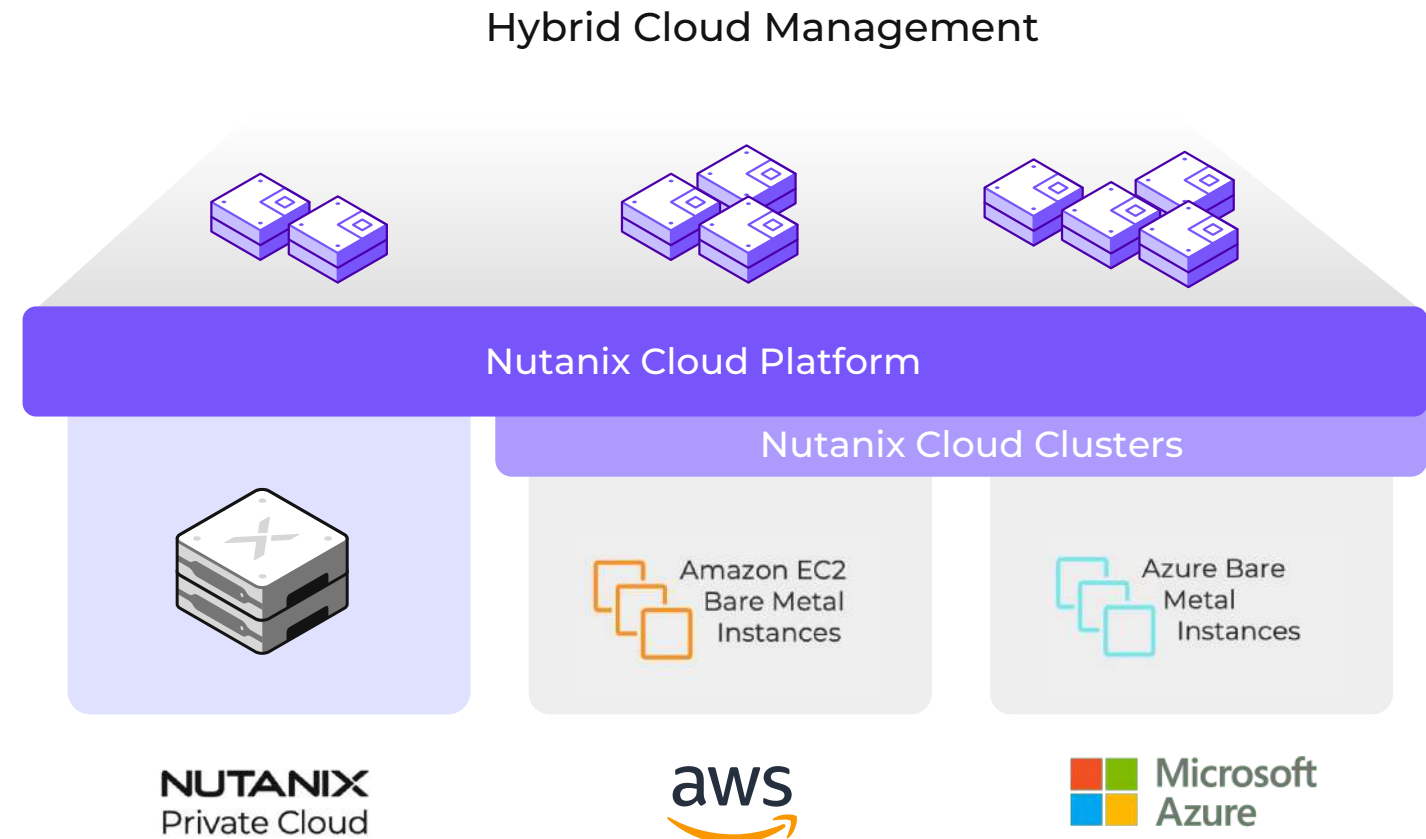
Achieve Cloud Leverage

Many enterprises utilize one or more of the major public clouds in addition to on-premises operations. However, cloud and datacenter environments often operate as separate silos, with separate teams responsible for each environment.

It can be time-consuming to move applications and data between the legacy infrastructure in your datacenters and any of the public clouds. There's no easy way to manage cloud and on-premises operations holistically, nor can you easily create distributed applications that span environments.

[With many IT organizations taking advantage of the hybrid IT mindset](#) by deploying applications where they will operate best, removing friction is essential. If you move to a server-based infrastructure model, such as HCI, you gain an opportunity to use the same operating software and run it in the datacenter, at the edge, and—because the public cloud is also server-based—in the cloud, eliminating silos and gaining much greater mobility.

By eliminating datacenter and cloud silos, Nutanix makes your operations more flexible, more efficient, and Future-Ready.



How Nutanix Helps You Maximize Cloud Benefits

With Nutanix, the same operating software runs on-premises, in the cloud, and at the edge. The Nutanix Cloud Clusters (NC2) solution provides the same software, tools, and management capabilities in the AWS and Azure clouds as our Nutanix Cloud Infrastructure (NCI) on-premises solutions. You can migrate apps and data easily between locations as needs change, and build distributed applications that span locations. And you can say goodbye to a need for separate teams—or unique skills—to manage different environments.

A unified cloud console lets you view and manage all Nutanix services deployed everywhere, providing global visibility, management, and governance across hybrid multicloud infrastructure.

Nutanix Named a Leader in 2024 Gartner® Magic Quadrant™ for Distributed Hybrid Infrastructure.

[Read more here.](#)

² The Register: AWS Promotes Itself as Alternative to Its Own VMware Service, by Simon Sharwood, 3 May 2024.

Worried about VMC?

With reports of VMware Cloud (VMC) on AWS impacts arising from changes implemented by Broadcom², it is worth considering whether your VMC workloads deserve a better home. Nutanix simplifies cloud migration from on-premises and VMC deployments.

NC2 is a compelling alternative for your existing VMC deployments. NC2 positions you to burst to the cloud for periods of peak demand, and opens the way to a cost effective DR-to-the-cloud strategy where snapshot data is replicated to the cloud but instances are only instantiated if an event affects on-prem operations.

Converge VMs and Containers

While your enterprise applications may be built on virtual machines today, the future is moving towards containers. According to Gartner, “By 2029, more than **95%** of global organizations will be running containerized applications in production, which is a significant increase from less than 50% in 2023.”³

According to the 2025 Nutanix Enterprise Cloud Index (ECI) report, [nearly 90% of organizations report that at least some of their applications are now containerized](#), and this number is expected to grow with the rapid adoption of new application workloads like GenAI.

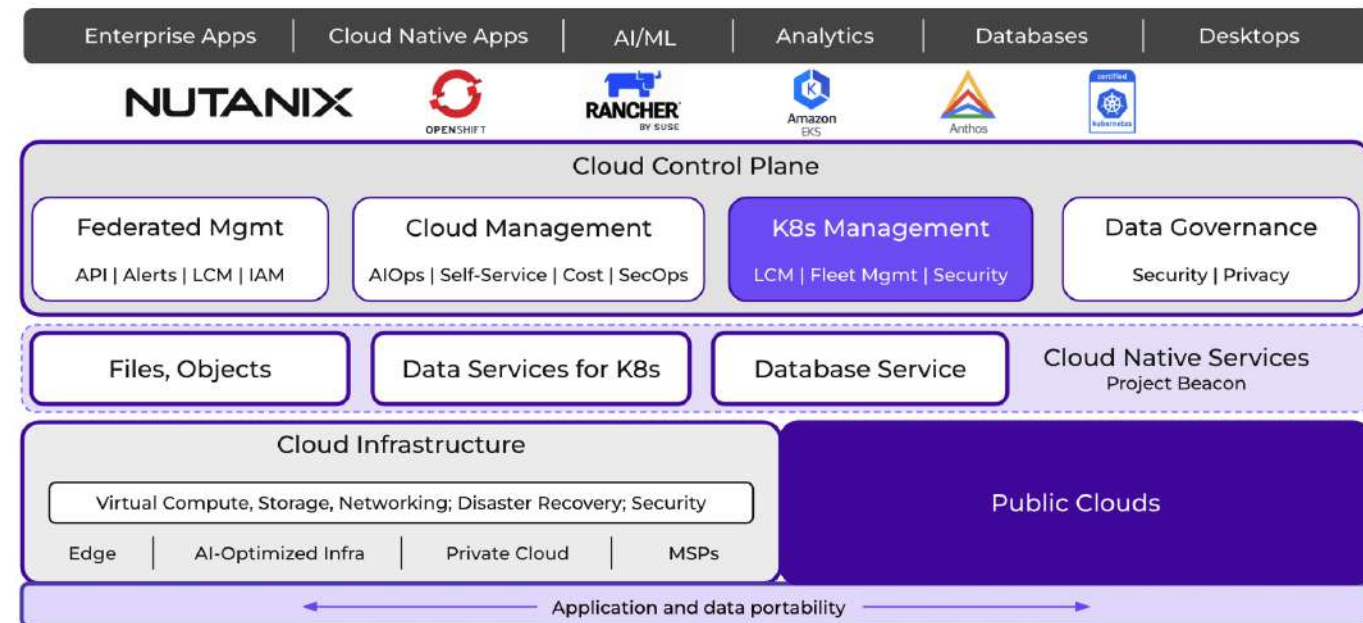
Containers may have been born in the public cloud, but now they are being deployed across on-premises, edge and public cloud environments, and you’ll need the right data storage—and data services like snapshots and replication—to support them.

Meeting the needs of containers can be cumbersome with legacy infrastructure. Survey data in the ECI report bears this out, as [80% of organizations feel their current IT infrastructure requires improvement to support cloud native applications and containers](#). With hyperconverged, server-based systems instead of legacy infrastructure, data storage and management capabilities are built in, making it simple to get started.

Nutanix simplifies management of virtual machines and containers.

³ Gartner, The CTO's Guide to Containers and Kubernetes: Top 10 FAQs, By Arun Chandrasekaran, Wataru Katsurashima, 22 January 2024.

The Nutanix Cloud Native Stack



How Nutanix Helps You Achieve Container-VM Convergence

Nutanix provides a complete, enterprise-ready cloud-native stack. The [Nutanix Kubernetes Platform](#) (NKP) solution allows you to manage Kubernetes® clusters across on-premises, hybrid, and multicloud environments. The [Nutanix Data Services for Kubernetes](#) (NDK) solution complements NKP with enterprise-class data services.

With Nutanix, you can run VMs and containers on the same platform, reducing complexity and simplifying management without compromising your operations.

**Japanese eCommerce Company
Builds Cloud Native European Bank
from Scratch with Nutanix**

[Read story here.](#)

As a key first step towards diversification into Europe, Japanese eCommerce company Rakuten was keen to build its own secure, scalable and agile banking infrastructure free from the constraints of legacy technologies. Cloud computing was the obvious choice but regulatory compliance meant it had to be private which, in turn, meant finding an on-premises solution able to deliver the same on-demand scalability and simple operational management benefits.

High availability with rock solid DR capabilities was another must-have in order to similarly comply with the regulations. Added to which the Bank would be developing its own applications using containers and other cloud native technologies and was keen to find an infrastructure that would facilitate this approach.

“As a new venture with no legacy technologies to worry about, we could build Rakuten Europe Bank using whatever platform and technology we wanted, but for compliance it had to be on-premises. Fortunately, by choosing Nutanix we were able to comply with the regulations while still pushing ahead with plans to build modern cloud-native applications.

Mohamed Dib
Head of Procurement, Rakuten Europe Bank

Become AI-Ready

Whether it's an intelligent chat application, fraud protection, transforming your business operations, or personalizing the customer experience, AI has the potential to help your business increase efficiency and move faster. According to Gartner, "CEOs expect GenAI to spur a productivity boon...Forty-nine percent of respondents indicated they have a workforce productivity plan that includes GenAI. Meanwhile, more than one-third of CEOs whose workforce productivity plan includes applying GenAI expect the technology to deliver a **greater-than-15%** increase in company productivity in the next two years."⁴

How Nutanix Helps You Become AI-Ready

Nutanix prepares your enterprise to be AI-ready by enabling you to get started quickly and seamlessly with a full-stack solution that includes excellent cloud-native support and a unified cloud operating model. In the recent ECI survey, more than **90%** of respondents agreed that [having one platform to run all applications across data centers, clouds and the edge would be valuable to achieve GenAI initiatives](#).

Integrate the newest GenAI models into the infrastructure you're already familiar with.

⁴ Gartner: How Your CEO Is Thinking About AI, by David Furlonger, 24 July, 2024.

Nutanix Enterprise AI Runs on Kubernetes, Everywhere



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Kubernetes Platform

Nutanix Enterprise AI

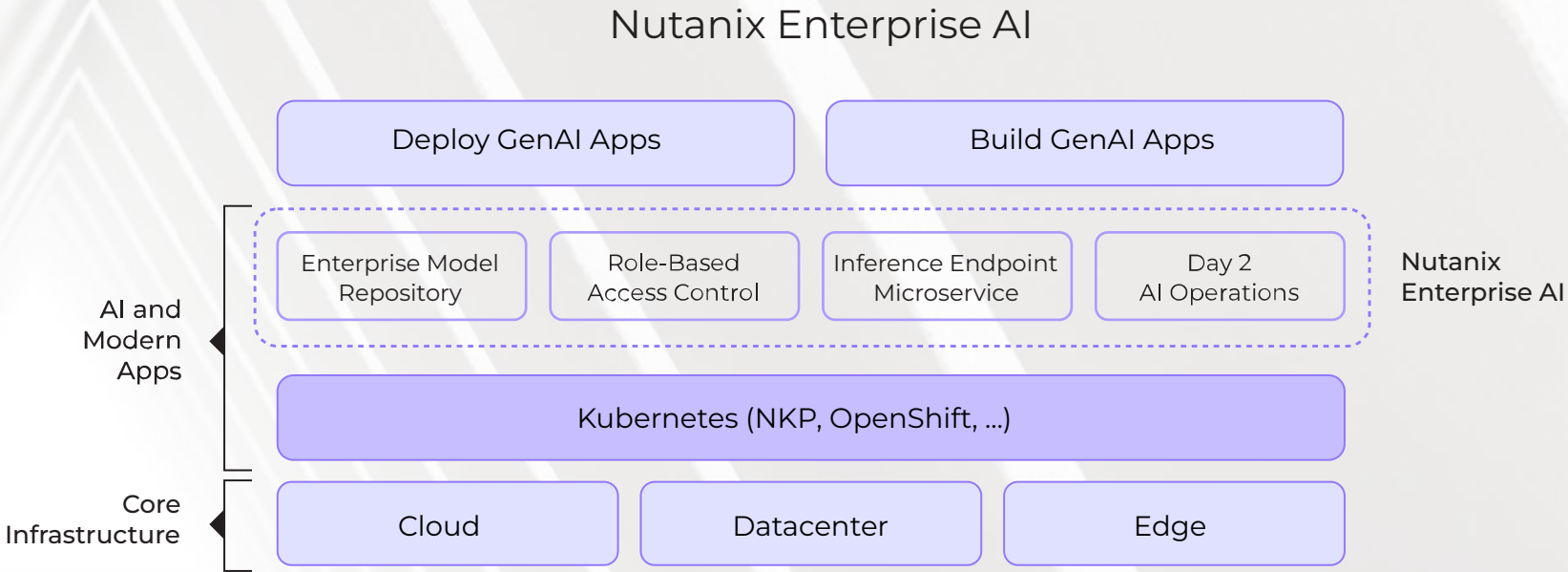
As you plan your AI strategy, it's important to keep in mind that protecting proprietary and confidential corporate data, apps and models is paramount. When you are ready to start deploying GenAI capabilities, you need a platform that provides outstanding control and visibility. The Nutanix Enterprise AI (NAI) solution is the answer.

No matter where you need to deploy GenAI — whether it's on-premises using NKP, OpenShift, or Rancher or in the public cloud on AWS EKS or Azure AKS—NAI can help to unify your AI strategy.

Nutanix Enterprise AI gives you the flexibility to deploy generative AI wherever it makes sense for your business. For instance, many organizations are doing rapid AI prototyping in the public cloud with the intention of bringing the results on-premises. However, you need the same AI tools and capabilities across environments to make that possible, and that's what Nutanix delivers. Nutanix Enterprise AI encompasses a key set of capabilities that logically layer on top of any CNCF-certified version of Kubernetes. NAI provides:

- **Enterprise Model Repository** that offers centralized command and control over AI models so that only approved models are allowed to run.
- **Granular Role-Based Access Control** so access to models can be controlled and access can be expired.
- **Inference Endpoint Microservice** enables access to running models for inference.
- **Day 2 AI Operations** capabilities that simplify management, monitoring, and troubleshooting.

Because NAI runs on any CNCF-certified Kubernetes, you can deploy it on the Nutanix Cloud Infrastructure platform running on-prem or on a cloud Kubernetes service and everything will work the same.



Because Nutanix Enterprise AI runs on any CNCF-certified Kubernetes distribution, you can run it in the datacenter, in the cloud and at the edge, ensuring easy deployment and AI portability.



Addressing VMware Challenges

From infrastructure modernization to clouds, containers, and AI, Nutanix is well-positioned to make your organization Future-Ready. Enterprises running VMware need to think carefully about how to manage challenges arising from Broadcom's acquisition of VMware. The best strategy to limit VMware risk is a three-pronged approach: Constrain, Construct, and Convert.

Constrain: Reduce VMware dependency by running new workloads and new instances of existing workloads on an enterprise-grade platform with multi-hypervisor support, software-defined storage, and integrated networking. This dual-vendor strategy lets you test, optimize, and grow at your own pace, gradually minimizing VMware reliance while centralizing visibility, streamlining management, and strengthening your security posture.

Construct: Build, deploy, and run cloud-native applications and AI workloads alongside virtualized workloads on a single, unified platform.

With comprehensive Kubernetes support, advanced data services, and zero-trust security, the Nutanix platform delivers the performance, scalability, and reliability needed for production-ready modern applications. By unifying management, Nutanix allows your IT staff to leverage their experience with legacy VMware systems for modern cloud-native and AI workloads with minimal retraining, jumpstarting your path to innovation.

Convert: When the time is right, migrate existing workloads off VMware to the Nutanix platform. [With tailored professional services, certified partners,](#) and robust migration tools like the Nutanix Move tool, Nutanix makes workload transitions seamless, with no refactoring required. Whether you migrate gradually or all at once, you can continue running some applications on VMware alongside Nutanix or fully transition to Nutanix. By unifying workloads on a single platform, you also gain the opportunity to standardize security and access control across your physical and virtual environments, whether on-premises or in the public cloud.

Nutanix Cloud Platform is the ideal choice to help enterprises seeking to minimize VMware risk today and prepare for the future.



What Does Future-Ready Mean to You?

Whether you're modernizing infrastructure, simplifying cloud operations, moving to containers and Kubernetes, or exploring GenAI, Nutanix Cloud Platform is the ideal choice. Our simple, yet sophisticated and flexible infrastructure solutions can help to solve your current challenges, making you Future-Ready to handle whatever comes next.

Nutanix has the technology and expertise to help you move from where you are today to where you're headed. If you're seeking to minimize VMware risk, Nutanix can help you create a strategy tailored to your business's needs.

For more information on infrastructure modernization and the best strategies moving forward, visit nutanix.com/vmware and experience our [FREE Test Drive](#) to see how easy it can be to migrate your VMs from on-premises or public cloud to Nutanix with minimal downtime.

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