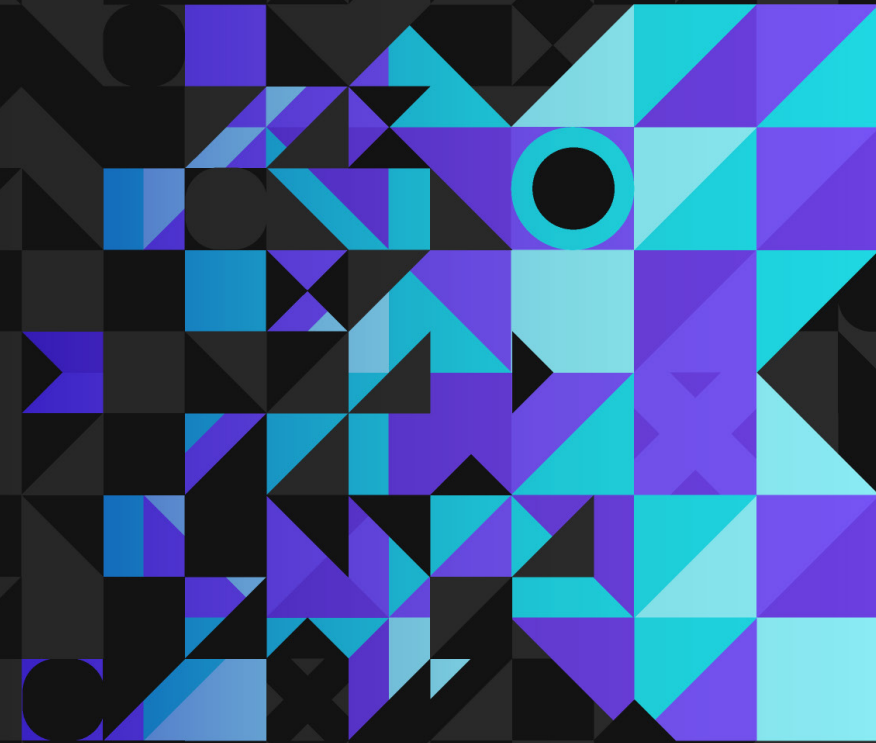


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The Enterprise Guide to AI-Ready Infrastructure

From Insight to Action:
Your Guide to AI-Driven Modernization

NUTANIX

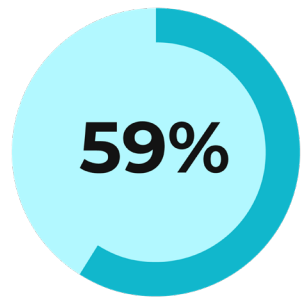


The AI Era Demands an Infrastructure Revolution

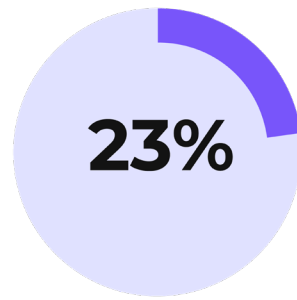
Artificial intelligence is transitioning from an experimental capability to a mission-critical necessity. As organizations race to harness the power of generative AI (GenAI) and prepare for the next wave of agentic AI, legacy infrastructure has become an inhibitor to innovation.

According to the [8th annual Nutanix Enterprise Cloud Index](#), almost two-thirds (**59%**) of executives anticipate their organization will have more than five AI-enabled applications within three years. Nearly a quarter (**23%**) expect to have more than ten.

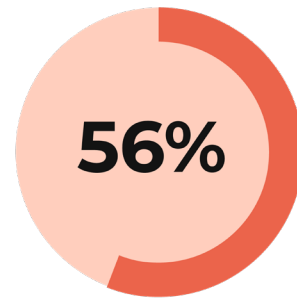
And more than half of organizations (**56%**) plan to adopt agentic AI to further transform business processes, enhance customer experiences, and generate new revenue streams. As the pressure to deliver real business value from AI mounts, enterprises must re-think modernization timetables.



Expect to have more than 5 AI-enabled applications within 3 years



Expect to have more than 10 AI-enabled applications within 3 years



Plan to adopt agentic AI

Source: Nutanix 2026 Enterprise Cloud Index

But the path from insight to action is fraught with hurdles. IT leaders must navigate four critical infrastructure challenges:

- **Accelerate container adoption** to support modern AI workloads.
- **Deploy AI everywhere**—datacenters, clouds, and the edge—without spiraling costs.
- **Avoid silos and prevent shadow AI** to mitigate organizational risks.
- **Protect data sovereignty** in an increasingly regulated global landscape.

This guide explores these challenges through the lens of the latest data and explains how Nutanix addresses each of these challenges with infrastructure solutions that help enterprises transform obstacles into opportunities.

Accelerate Container Adoption

Containers have become the de facto standard for modern AI applications, providing the portability and agility required for rapid development and deployment. The [2026 Nutanix Enterprise Cloud Index](#) confirms the shift is well underway: **85%** of executives believe AI is accelerating their adoption of containers.

However, the transition is rarely a clean break from the past. More than two-thirds of organizations (**71%**) are running AI-enabled applications on a mix of traditional applications in virtual machines (VMs) and modern apps in containers on VMs. Managing these distinct environments often creates operational friction, requiring different teams, tools, and skill sets.



Believe AI is accelerating their container adoption



Run AI app on a mix of traditional apps in VMs and modern apps in containers on VMs

Source: Nutanix 2026 Enterprise Cloud Index

A do-it-yourself (DIY) approach to Kubernetes can lead to paralysis due to the overwhelming number of open-source options and configuration requirements, leading many enterprises to prefer an [enterprise Kubernetes platform](#).

The Nutanix Advantage

Nutanix aims to eliminate the operational divide between traditional and modern applications. Running our [Nutanix Kubernetes Platform](#) (NKP) framework in a full-stack deployment with the [Nutanix Cloud Infrastructure](#) (NCI) solution provides a complete, unified platform for managing VMs, containers, and data.

As an enterprise-grade Kubernetes platform, NKP has been flexibly designed to run everywhere—not just on Nutanix infrastructure—so you can deploy the same easy-to-manage Kubernetes stack in the datacenter, in the public cloud, and at the edge.



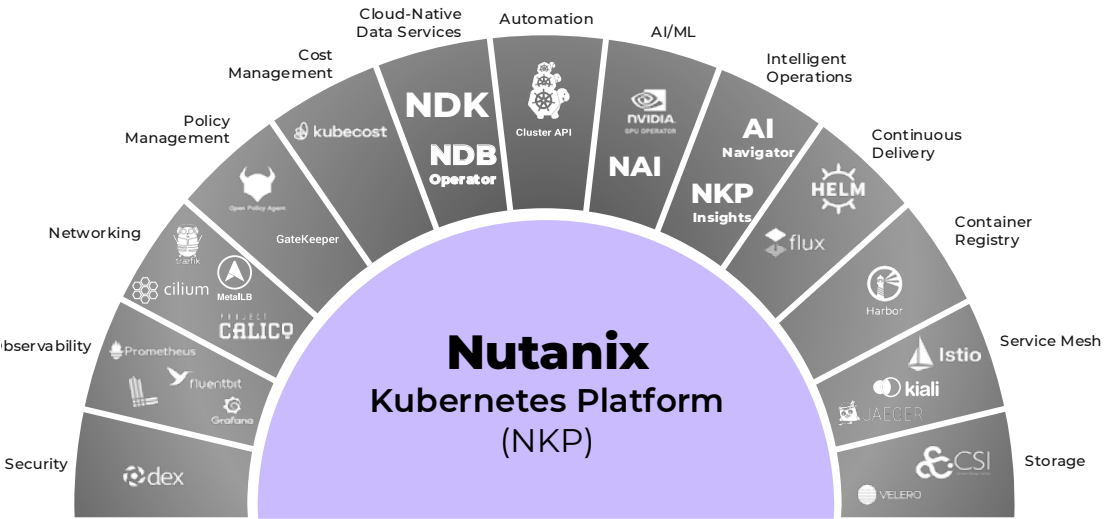
Unparalleled Support for Containers *and* VMs

Nutanix Kubernetes Platform (NKP)	Nutanix Cloud Infrastructure (NCI)
A complete, open enterprise Kubernetes platform that runs everywhere, including on bare metal clusters	Virtualized compute, storage, and networking, providing full support for VMs and hyperconverged operations
The combination of NKP and NCI provides a complete, full-stack environment that can be deployed rapidly to support VMs, containers—and AI.	

Integrated Data Services Streamline Deployment

Nutanix Data Services for Kubernetes (NDK)	Nutanix Unified Storage (NUS)	Nutanix Database Service (NDB)
Simplify Kubernetes data management with enterprise-grade data services	Leverage integrated storage including advanced, high-performance file and object storage	Provision, operate, and scale SQL, NoSQL, or vector database services with minimal operational overhead
Data management for containerized applications can be a significant pain point. By integrating data management with NKP and NCI, Nutanix makes it easier to address diverse data needs.		

Consolidate and Master Your Cloud Native Operations:
Enterprise-Ready Cloud Native Stack at Scale



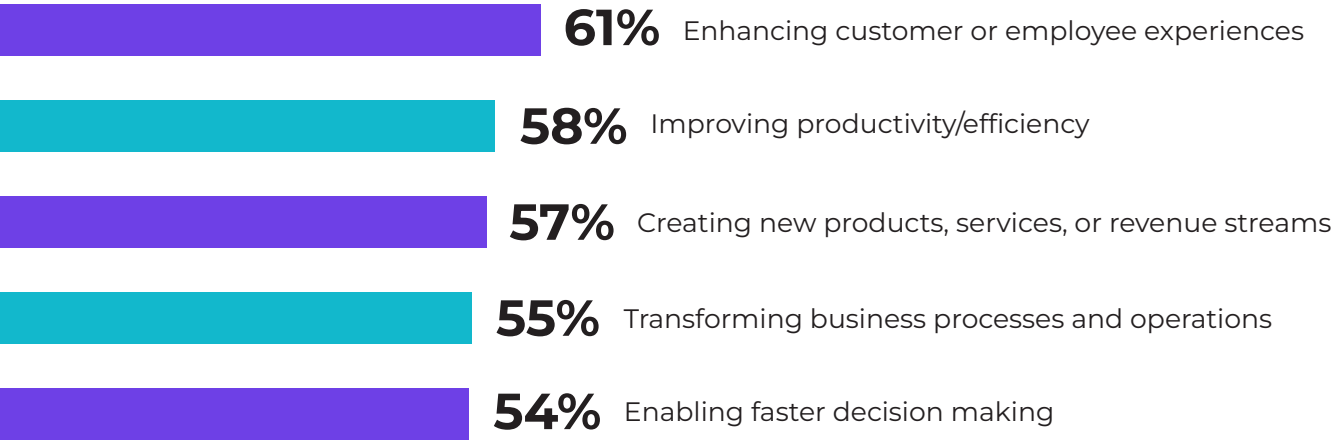
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Deploy AI Everywhere

The future of AI is distributed. According to the [2026 Nutanix Enterprise Cloud Index](#), deployed AI applications are split fairly evenly between managed service providers (57%), public clouds (53%), and on-premises or private clouds (52%).

Enterprise AI operations will only become more distributed with the rise of agentic AI. Agentic systems don't just analyze data; they reason and act across distributed environments. For an AI agent running in sales to trigger actions in manufacturing or finance, infrastructure must provide standardized, real-time data pipelines between environments. Yet, many enterprises struggle with fragmented tools and infrastructure that make deploying and managing distributed AI workloads costly and complex.



The Nutanix Advantage

Nutanix provides a consistent operating model that spans today's distributed hybrid multicloud environments, enabling organizations to run AI training workloads in the public cloud or datacenter, and AI inference workloads across diverse cloud, datacenter and edge locations, using the same standardized tools.

For organizations seeking a turnkey entry point for on-premises deployment, Nutanix offers a full-stack AI solution that integrates the necessary AI infrastructure, software, and storage capabilities, allowing teams to go from concept to inference at the speed of modern business.

Nutanix AI solutions take full advantage of the advanced container and data management capabilities described above. (See *Accelerate Container Adoption*.)



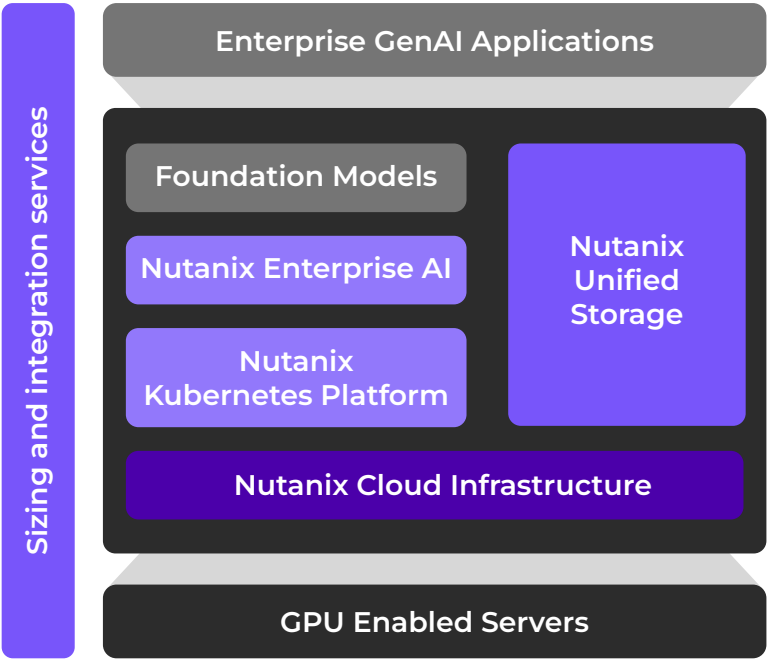
Advanced AI Solutions

Nutanix Enterprise AI (NAI)	Nutanix Full Stack AI
Streamline and standardize the deployment of generative AI applications across Kubernetes environments everywhere	The combination of Nutanix solutions— including NKP, NAI, NCI, and data services—results in a full stack, turnkey solution that simplifies on-premises AI deployment
Nutanix provides turnkey, resilient, secure, and scalable solutions for AI, giving enterprises the tools they need to get started quickly and deliver better results with less effort.	

AI-Ready Data Services

Nutanix Data Services for Kubernetes (NDK)	Nutanix Unified Storage (NUS)	Nutanix Database Service (NDB)
Brings application-aware DR, mobility, replication, and snapshots to production AI applications	Provides <u>proven high-performance data access</u> for AI models—no matter where they run—with unified file, object, and block storage	Provision, operate, and scale database services, including vector databases for retrieval augmented generation (RAG)
Nutanix helps you move from pilot to production with enterprise-grade data management for your AI applications.		

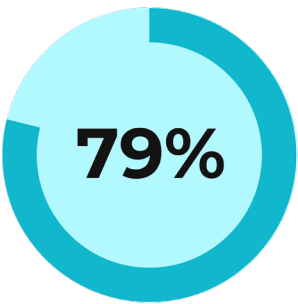
Nutanix Enterprise AI Full Stack



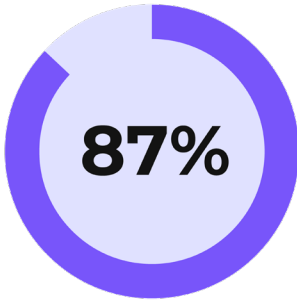
Avoid Silos and Prevent Shadow AI

The urgency to adopt AI has outpaced IT's ability to keep up, leading to a rapid increase in shadow AI—the deployment of AI tools by individuals and business units without IT oversight. According to the [2026 Nutanix Enterprise Cloud Index](#), more than three-quarters (**79%**) of IT executives surveyed have encountered AI applications implemented by non-IT employees, and **87%** believe use of AI without official oversight creates significant business risk.

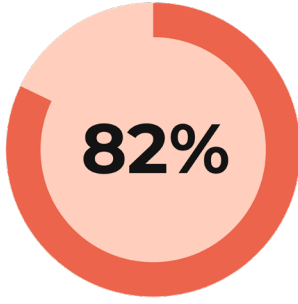
When IT doesn't move fast enough to support business needs, departments procure their own solutions, creating data privacy leaks, compliance violations, and fragmenting resource management. According to **82%** of executives, these silos make it more difficult to effectively execute technology initiatives.



Encounter AI applications or agents implemented by employees in non-IT functions



Believe Shadow AI increases business risk.



Believe AI silos make it difficult to effectively execute technology initiatives

Source: Nutanix 2026 Enterprise Cloud Index

The Nutanix Advantage

Nutanix makes it simple and cost effective to create a unified AI strategy capable of providing consistent AI infrastructure, software, tools, and applications everywhere, empowering IT leaders to deliver *AI-smart* innovation.

With Nutanix, your organization can turbocharge its platform engineering efforts and provide a self-service internal developer platform for all stakeholders. This gives business units the speed and autonomy they crave while providing centralized governance, security policy enforcement, and cost visibility. Infrastructure, data, and AI models are all governed using a single, centralized control plane.



Unified Solutions to Eliminate Silos

Nutanix Cloud Platform

Flexible infrastructure platform supports datacenter, edge, and cloud deployments, addressing diverse needs while centralizing resource management and governance

Nutanix Kubernetes Platform

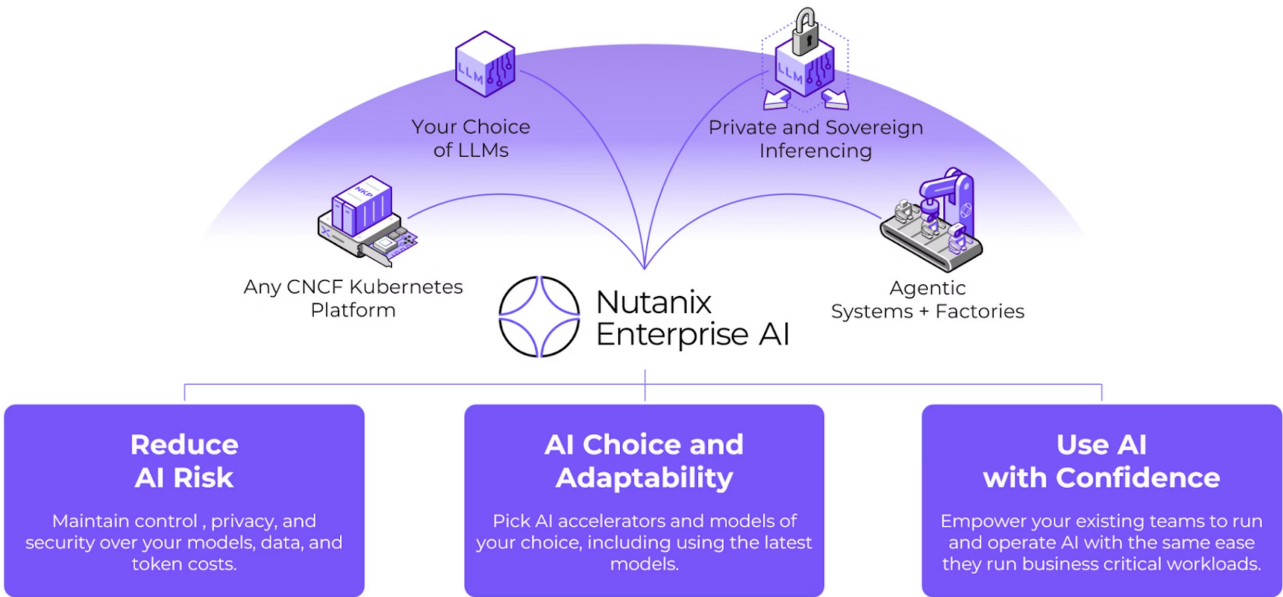
Enterprise-grade, multi-tenant Kubernetes platform addresses the needs of diverse stakeholders and IT; namespace-as-a-service delivers governance without friction

Nutanix AI Solutions

Streamline and standardize AI deployments for both training and inference across a diverse set of endpoints; align AI usage with privacy and security standards

Satisfy VM, container, and AI needs without siloed infrastructure or management. Nutanix lets you deploy everywhere to address IT, LOB, and other stakeholder needs, reducing shadow AI.

Nutanix Enterprise AI Delivers Key Benefits



Protect Data Sovereignty

As AI models consume vast amounts of proprietary and sensitive data, controlling access to that data has become paramount. “For the vast majority of executives (**80%**), data sovereignty is a high priority or a ‘must-include’ factor in infrastructure decisions,” [per this year’s Enterprise Cloud Index](#).

80% Data sovereignty is a high priority in infrastructure decisions



Source: Nutanix 2026 Enterprise Cloud Index

While migrating to on-premises infrastructure can address these needs, the complexity of AI often forces organizations into public cloud dependencies that can complicate adherence to sovereignty regulations.

Organizations in regulated industries are increasingly taking a distributed sovereign cloud approach—seeking solutions that offer the resilience, security, and global management capabilities necessary for sovereignty without creating unwieldy infrastructure silos.

The Nutanix Advantage

Nutanix is built on the principles of choice and control. By streamlining on-premises and edge deployments, Nutanix makes it dramatically simpler to process data locally where it is generated, keeping data within sovereign boundaries unless explicitly permitted.

Nutanix provides native platform hardening, encryption, and integrated network security that travels with each workload, helping support compliance efforts whether the data sits in a secure datacenter or at a remote edge site.

By streamlining and standardizing container and AI deployments and unifying management and governance, Nutanix makes it dramatically simpler to support your data sovereignty objectives as part of your broader governance strategy.



Comprehensive Management

Prism and Prism Central	Nutanix Central
Manage individual clusters or multiple clusters holistically from a centralized control plane	Centralized management, telemetry, and support services for global deployments with the ability to drill down seamlessly to Prism Central and Prism. Integrated marketplace provides one-click application deployment. Support for SaaS or on-premises deployment
Nutanix Cloud Infrastructure	Nutanix Cloud Manager
Virtualized compute, storage, and networking providing full support for VMs and hyperconverged operations, plus advanced capabilities that include flexible DR, microsegmentation, overlay networking, and lifecycle management	Build and manage multicloud deployments, automate routine tasks, enable self-service, and streamline security and cost governance
Manage your global IT environment with a single set of integrated tools from Nutanix.	

Effortless Data Control

Nutanix Data Services for Kubernetes (NDK)	Cloud Native AOS
Simplify Kubernetes data management with enterprise-grade data services	Extend the benefits of Nutanix persistent storage, data protection, DR, and data mobility to native public cloud infra
Nutanix Database Service (NDB)	Nutanix Unified Storage (NUS)
Provision, operate, and scale SQL, NoSQL, or vector database services with minimal operational overhead	Leverage integrated storage services including advanced, high-performance file and object storage that eliminates the need for separately managed storage
Nutanix lets you manage and protect all your data in one place, keeping sovereign boundaries respected and data fully protected.	

Getting Started

The [2026 Nutanix Enterprise Cloud Index](#) makes one thing clear—the era of AI experimentation is over. To thrive, enterprises must move beyond fragmented pilots and shadow AI toward a scalable, secure, and unified AI and cloud native strategy.

Nutanix offers one platform to run your apps and data anywhere. By unifying VMs and containers, simplifying AI deployment across distributed hybrid infrastructure, and embedding centralized management, security, and sovereignty as foundational infrastructure elements, Nutanix can help you modernize with confidence.

Ready to build your AI-enabled future? Take the next step in your modernization journey.

Take a Test Drive

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