Microsoft Azure

Better on Azure

Optimizing Windows Server, SQL Server, and .NET workloads



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Enterprise IT under pressure

With market and competitive landscapes in a state of constant flux, IT teams have little margin for error with their IT estates. The expectation is they'll keep critical systems running while introducing new capabilities to accelerate their business. Rising costs, shrinking budgets, and aging infrastructure, however, are straining IT resources.

Because existing on-premises systems demand a lot of maintenance and manual effort, they take time away from strategic initiatives. Lengthy procurement and provisioning cycles limit the ability to quickly build new features and lines of business. Meanwhile, increasingly sophisticated cyberattacks expose gaps in technology and expertise.

As pressures mount, IT teams are focusing on decisions that deliver measurable value quickly. A focal point of their decision making is adding AI-powered capabilities as a strategic driver and delivering AI-enhanced experiences as an effective way to address changing customer needs. To optimize for AI requires adopting data platforms that align decision processes to AI agents, and standardizing on containerized apps to speed delivery and free IT capacity for higher-value work.

Modernizing means more than AI-powered solutions though. You need a modern cloud platform that offers scalability.

Optimize your IT estate with Azure

With Azure, you can modernize applications, data, and infrastructure on your own terms—across cloud, hybrid, and multicloud environments. IT leaders can extend existing systems to boost resiliency while introducing new resources for workloads both on-premises and in the cloud.

You can migrate core workloads such as Windows Server, SQL Server, and .NET apps to keep them running securely and move mission-critical systems like Oracle Exadata and SAP. You can rehost workloads on VMware without refactoring and move them seamlessly between on-premises and Azure VMware environments—all while building a foundation for AI innovation.

Modernize on your terms

With Azure, IT teams can choose how and when to modernize applications, data, and infrastructure while building, deploying, managing, and securing enterprise-grade solutions. Here are four ways you can create impact:

1. **Increase agility across the estate** to execute business changes, launch new apps, and quickly bring them to market.
2. **Protect apps, data, and infrastructure** from code to cloud with end-to-end security and built-in regional and industry compliance.
3. **Improve data visibility and speed time to insight** with a unified data estate that reduces silos and accelerates data movement.
4. **Optimize cost and performance** with flexible consumption models, Windows Server and SQL Server license reallocation, and infrastructure that scales on demand.

Advantage #1

Increase business agility across the IT estate

Leading organizations focus on agility while controlling costs and adopting AI securely. Outdated processes and legacy environments drain resources and reduce productivity, making it harder to adapt to change. At the same time, organizations must manage rising security concerns while modernizing in phases to minimize disruption. By moving workloads to Azure with proven migration frameworks, IT leaders can optimize spend, strengthen security, and increase agility. The result is faster execution, user-centered experiences, and measurable return on investment (ROI) from modernization investments.

To help IT teams get the most out of existing investments and skillsets while setting a foundation for AI innovation, Azure offers a trusted, scalable platform built for AI transformation.

Choose your path to the cloud

Based on the unique requirements of each workload, you can choose from multiple migration approaches, including rehost, replatform, or refactor. As you assess workloads, you can take advantage of the Azure Accelerate program, which provides expert guidance, tools, and partner support.

You can modernize in Azure with solutions that align to enterprise priorities:

- To streamline operations and boost DevOps agility, replatform .NET and Java applications to fully managed Azure App Service and manage containerized workloads by using Azure Kubernetes Service (AKS).
- To modernize databases, reduce administrative overhead, and accelerate release cycles, move to Azure SQL Managed Instance or Azure SQL Database.
- Customers with workloads on VMware seeking a fast, low-risk path to the cloud can rehost those workloads by using Azure VMware Solution, with no refactoring required.

AI-powered tooling in Azure helps you accelerate migration and modernization by embedding intelligence directly into the development lifecycle. You can reduce technical debt while maintaining architectural control and meeting governance requirements. With GitHub Copilot, your developers can modernize .NET and Java apps faster, automate code remediation, and connect directly to Azure services like App Service, AKS, and SQL.

To increase agility at scale, you can standardize networking, identity, security, and cost controls with Azure landing zones based on the Microsoft Cloud Adoption Framework. Consistent governance reduces overhead and speeds delivery by making controls built in, auditable, and repeatable.

Sometimes, migrating an app to the cloud isn't practical. You can keep certain apps in place and choose the right time to move while still improving agility by containerizing and managing them consistently. Built-in governance and access controls help keep your organization secure and compliant as you modernize on your own schedule.

With more of your workloads in Azure, you can deploy new applications rapidly, scale services up or down based on demand, and experiment with new ideas as business needs change, without heavy upfront investments.

Why choose Azure?

344% ROI over three years

69% more time to focus on business innovation

78% faster time to execute business changes

Read the 2025 IDC study, commissioned by Microsoft.

Hybrid by design with multicloud flexibility

With Azure hybrid capabilities, you extend the life and value of your on-premises investments while enabling a phased approach to modernization. You retain control over timing and scope, reducing risk and ensuring business continuity.

But hybrid operations also create complexity. As you transition to Azure, there are ways to keep your operating model consistent across your environment. If your organization wants to use automation, governance, and security capabilities across on-premises and multicloud environments, use Azure Arc.

Treating your resources like native assets, Azure Arc easily onboards non-Azure servers, such as Windows Server and SQL Server instances, and Kubernetes clusters. You can assign configurations and monitor compliance to enforce policies and enable threat detection and vulnerability management on non-Azure machines. In addition, you can build apps and services with the flexibility to run across multiple environments.

The end result simplifies governance and management across your environment and streamlines maintenance, monitoring, and upgrade processes.

Azure is recognized as a Leader in the 2024 Gartner Magic Quadrant for Distributed Hybrid Infrastructure for the second consecutive year. Learn more

Advantage #2

Unify data as a foundation for AI innovation

Volume, velocity, and variety define today's data. Traditional systems built for structured, batch-processed data struggle to keep pace. As complexity grows, organizations face fragmented systems, multiple copies of data, and latency when information moves across environments and geographies. When sources, transformation engines, and analytics tools live in different regions or clouds, every query adds delays. The result is data that quickly becomes stale compared to the system of record.

Bringing workloads together on Azure helps you overcome these challenges. By unifying applications, data, and compute in the same environment or region, you can reduce latency and improve performance. At the same time, you maintain governance, strengthen data security, and build a foundation for scalable, secure AI innovation.

To fully realize the benefits of AI, you need more than co-located workloads. A unified data lake and a managed data platform must work together. AI models perform best on large, diverse, and accessible datasets, which is why enterprises are moving to data lake solutions that unify structured and unstructured data. At the same time, managed data platforms provide built-in scalability, automated maintenance, and advanced security controls so your teams can focus on extracting value rather than maintaining infrastructure. Together, these platforms give you a single, open foundation for AI.

58% lower total cost of operations with Azure SQL Managed Instance

Read Enterprise Strategy Group's 2025 study, commissioned by Microsoft and Intel.

Accelerate innovation

Choose from several fully managed databases on Azure. For business-critical databases, near-complete compatibility with on-premises SQL Server, and automatic patching and backups, take a look at Azure SQL Managed Instance, a managed, always-up-to-date SQL instance in the cloud. You can keep using familiar tools and SQL Server features like cross-database queries, linked server, and support for Windows authentication with an entire SQL Server instance within a managed service.

Azure SQL Database, another managed option, provides high availability, disaster recovery, automated maintenance, elastic scaling (including serverless and Hyperscale), and deep integration with security and governance.

Both Azure SQL options support near real-time analytics using change data capture (CDC)-driven pipelines instead of periodic batch copies. This capability helps shorten time to insight and improve decision making. CDC pipelines keep analytics current and simplify data architecture. Choose from several Azure services that serve as data lakes and provide a foundation for analytics and AI innovation. These services enable you to store and govern structured and unstructured data at scale, integrate with advanced analytics tools, and ground AI models in rich, contextual data.

Oracle Exadata customers, many of whom also use Azure services, can now co-locate in Azure by moving to Oracle Database@Azure. The solution integrates Oracle's high-performance database engine, hosted directly in Azure datacenters, with native Azure services.

Using platforms like Azure SQL Database or Oracle Database@Azure as your system of record ensures accurate, accessible, and governed data, which is essential for training AI models and building intelligent applications. Improved data visibility and reduced time to insight helps accelerate innovation, open new revenue streams, and reduce costs.

Generative AI delivers the most value when it's fueled by high-quality, well-governed data. On Azure, you can unify and prepare your data so it's ready for AI, then use approaches like retrieval augmented generation (RAG) to amplify insight. Data from Azure SQL can be streamed, embedded, and indexed with Azure AI Search to ground responses in your own information. Security and governance features—including private networking, managed identities, customer-managed keys, and policy controls—ensure your data stays protected and trusted as the foundation for AI innovation.

By consolidating data on a fully managed platform like Azure SQL, you can reduce overhead. Integrating with a unified data lake and Azure AI services enables accurate, timely insights, accelerating the journey from AI experimentation to production—securely and reliably.

NBA boosts AI innovation

The NBA migrated its entire IT estate to Azure to deliver personalized, AI-powered content, transforming how fans around the world connect and interact with the game they love.

Read the story.

"The impact of using Azure for our global audience has been tremendous, as we now engage with fans in 60 languages in more than 200 countries."

Jon Hurwitz
Director of Product, Basketball Data, Search & AI at the NBA

Advantage #3

Secure from code to cloud

As organizations adopt multicloud and hybrid environments, IT estates grow more complex. This complexity introduces broader attack surfaces, potential blind spots, fragmented tools, and misconfigured workloads that attackers can exploit.

To help address these challenges with unmatched expertise and intelligence, consider Azure, the only public cloud operated by a leading global security vendor. Backed by more than 30,000 Microsoft security professionals, Microsoft analyzes 84 trillion threat signals daily, detects more than 600 million identity attacks, and tracks more than 1,500 unique threat groups.

Unified security across the full cloud app lifecycle

To help protect you from code to cloud, including across hybrid and multicloud environments, Azure provides Microsoft Defender for Cloud. Unlike bolt-on tools, Defender for Cloud embeds security into Azure and CI/CD pipelines, strengthening DevOps practices and reducing complexity. With continuous monitoring and alert correlation across compute, databases, and cloud services, you can respond to threats in near real-time across Azure, AWS, and Google Cloud.

Stay ahead of threats with Microsoft Defender for Cloud

- **Agentless native integration** with native security controls and recommendations tailored to Azure.
- **A consistent posture management and threat protection experience** for a wide range of workloads including those running in Azure, hybrid or multicloud.
- **Fast detection, investigation, and response** across hybrid environments through integrated threat protection with Microsoft Defender XDR.
- **Multicloud protection** across your entire estate with purpose-built tools for Azure.
- **Accelerated threat detection and response** with native integration with Microsoft Defender XDR and Microsoft Sentinel.
- **App protection** from vulnerabilities such as jailbreak attacks, credential theft, and wallet abuse with Azure AI Content Safety.

To detect and stop cyberthreats across your enterprise using intelligent security analytics, Microsoft offers Microsoft Sentinel, a cloud-native security information and event management (SIEM) solution that delivers intelligent security analytics at scale. Built-in data connectors unify logs from users, devices, apps, and infrastructure across on-premises, hybrid, and multicloud environments.

For compliance and regulatory obligations, Azure leads the industry with more than 100 compliance certifications. For real-time cloud compliance at scale with consistent resource governance there's Azure Policy. In addition to managing policies in a single unified location and tracking compliance status, Azure Policy lets you dig into specific changes that make resources noncompliant. You can also enforce policies on your resources by setting guardrails.

Mounting regulatory pressures and data sovereignty needs make data control an important issue. To empower you with greater choice, more control over your data privacy, and where and how data gets managed, Microsoft offers its most robust digital resilience to date: Microsoft Sovereign Cloud.

As one of the founding members of Confidential Computing Consortium (CCC), Microsoft uniquely helps customers prevent unauthorized access to data in use. Protection includes cryptographic keys and the cloud operator, delivered by processing data in a hardware-based and attested Trusted Execution Environment (TEE). To encrypt keys and small secrets like passwords that use keys stored in hardware security modules (HSMs), Azure offers Azure Vault.

For identity and access management protection, Azure provides Microsoft Entra ID. Entra ID quickly detects and resolves issues that could otherwise be exploited by providing a unified view of identity-related risks and potential vulnerabilities. To encrypt keys and small secrets like passwords that use keys stored in hardware security modules (HSMs), Azure offers Azure Vault.

117% ROI using Microsoft Defender for Cloud

Read the 2025 Forrester TEI study, commissioned by Microsoft.

To dynamically secure data throughout its lifecycle, Microsoft Purview offers dynamic data protection, compliance management, and governance. Discover, classify, and manage data for analytics and AI while meeting corporate and regional regulations.

To ensure governance and compliance, Azure offers services like RBAC. Implementing Zero Trust principles means continually validating each access request, even from within your company's network.



Hexure uplevels efficiency

By migrating its insurance sales platform to Azure SQL Managed Instance, Hexure has cut processing time for some tasks up to 97% and data migration time by 83%.

Read the story.

"I like that the team can use the skills gained on-premises with SQL Server, but in a more secure way in the cloud."

Warren Perlman
CTO, Hexure

Advantage #4

Optimize cost and performance

Companies want to contain costs so they can redirect scarce IT budgets to parts of the business that need investment and take advantage of new technologies. At the same time they don't want to sacrifice performance.

On-premises infrastructure ties up capital, strains IT budgets, and slows down apps and data. By moving to Azure, you gain high performance and scalability for a wide range of workloads, with a pay-as-you-go model that reduces upfront costs and helps control spending.

36%

average savings compared to the leading cloud providers when you migrate Windows Server.

28%

average savings compared to the leading cloud providers when you migrate SQL Server.

*Legal disclaimer: These savings are based on comparisons with AWS equivalent VM types and prices plans, when applying Windows Server and SQL Server with Azure Hybrid Benefit and free Extended Security Updates. They are calculated using sample VMs such as StandardB2ms, StandardD2sv3, and StandardD4s_v3 across various regions, including US West (Oregon), Frankfurt, and Paris. The savings are based on on-demand pricing and include License and Software Assurance, and Extended Security Update costs. Actual savings may vary depending on the region, instance size, compute family, and customer agreement. Prices are as of September 2024 and are subject to change.

Maximum cost efficiencies

With Azure Hybrid Benefit, you can apply eligible licenses to cloud-hosted resources for significant savings compared to standard pay-as-you-go rates. This savings provide another reason to modernize with services like Azure SQL Database and Azure SQL Managed Instance. For .NET apps, Azure helps prevent over-provisioning with intelligent services that keep costs optimized.

To maximize ROI and maintain predictable costs, Azure provides built-in optimization tools and flexible purchasing options. You can right-size resources, optimize workloads, and implement effective purchasing strategies using Azure Reservations, Savings Plans, Cost Management + Billing, and Azure Advisor. To help manage OpEx and align cloud spending with business objectives, Azure also offers showback and chargeback capabilities, giving you clear visibility and accountability.

If you commit to a certain level of Azure spend over a set period (typically one to three years), you can gain significant discounts and qualify for added incentives, such as free support and Azure credits as part of an Azure Consumption Commitment.

If you need more time to migrate and modernize without exposing your business to unnecessary risk, Azure provides three years of free Extended Security Updates for out-of-support Windows Server and SQL Server, helping you manage timing and maintain security during your transition.

Accelerate performance

Running performance-intensive and latency-sensitive file workloads in the cloud comes with a variety of potential issues. To migrate and run complex, file-based apps with no code change, Azure offers Azure NetApp Files. Three performance tiers can be provisioned with a simple click, giving you the flexibility to choose a tier that's aligned with your workload requirements and optimizes spending.

Azure offers over 65 regions, more than any other cloud provider. You can also maximize existing partnerships with preferred vendors like VMware, Red Hat, NetApp, Oracle, and SAP to cost effectively migrate your most demanding workloads to Azure.

Migrating your Windows Server and SQL Server on-premises platforms to Azure helps in other practical ways. On-premises workloads such as SQL Server instances can be scaled up or down based on demand. You reduce the time spent on network setup, upgrades, and management tasks, so your IT teams can focus on other business tasks, including innovation with machine learning and AI.

Fujifilm reduces cost of ownership

Fujifilm Software migrated its on-premises scale-out storage to Azure NetApp Files, reducing its total cost of ownership (TCO) by 55% over five years, while gaining the flexibility to align storage performance with actual usage.

Read the story.

"We wanted the ability to change performance dynamically. Azure NetApp Files makes this easy."

Nobukazu Fujimura

Research Manager, Network Solution Group, Software Development Division, Fujifilm Software

To fit your needs, Azure virtual machines offer a wide range of sizes and configurations, including compute-optimized options for machine learning and AI.

Automated code analysis in GitHub Copilot helps you understand key dependencies and issues, remediating issues to keep existing apps up to date, improving performance and reducing license costs.

Get more value from IT investments

Migrating and modernizing your Microsoft workloads in Azure is an investment in the future of your business. You can extend the value of existing investments in Windows Server, SQL Server, and .NET workloads while taking advantage of cloud services. By unifying data, streamlining operations, and enabling AI-driven innovation, you accelerate development, strengthen security, reduce costs, and give your teams the agility to respond to change. You keep the value of your current investments and skillsets while unlocking the full potential of the cloud to move faster, innovate more freely, and operate with greater resilience.

You also have flexible migration and modernization options that align with your business goals without disrupting operations. From built-in cost optimization and advanced security to AI-powered development and seamless integration, you gain the tools and services to deliver measurable business impact today while preparing for the opportunities of tomorrow.

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