


# How to migrate to innovate: Be AI-ready

Azure meets you where you are in your cloud journey



# Tackle pressing priorities or be AI-ready?

With migration to the cloud fueling incredible technological advances at an unprecedented pace, it can often feel like we're finding ourselves weighing two options:

Do we address our pressing priorities, such as managing rising costs, maintaining security and compliance, or controlling IT sprawl?

OR

Do we focus on innovating for the future and being AI-ready by embracing responsible, secure AI and cloud-native technologies?

It can often feel like a balancing act, much like it is for the two sides of our brain. The logical, analytical left brain is wired to address those pressing priorities. At the same time, the creative right brain is aspiring to innovate for the future. To truly thrive in this dynamic landscape, we need a strategy that allows us to do both.

In this e-book, we'll explore how migration to Microsoft Azure enables customers like you to be AI-ready, while addressing your largest pressing priorities.

## Pressing priorities



### Offset costs, outmaneuver recessions:

According to the 2023 Flexera State of the Cloud Report, controlling costs in the cloud continues to be the number one initiative.<sup>1</sup>

### Manage cybersecurity risk and compliance:

82 percent of security breaches occur due to preventable human error.<sup>3</sup>

### Control cloud sprawl and tool proliferation:

Organizations can have 100+ vendor relationships, adding to the complexity of their IT systems.<sup>5</sup>

## Being AI-ready



### Digital transformation:

Gartner® predicts that by 2026, 75% of organizations will adopt a digital transformation model predicated on cloud as the fundamental underlying platform.<sup>2</sup>

### AI:

By 2025, Global 2000 (G2000) organizations will allocate over 40% of their core IT spend to AI-related initiatives.<sup>4</sup>

# Address pressing priorities and be AI-ready by migrating to Azure

To thrive, grow, and expand your business in today's cloud environments, it's essential to define a cloud strategy that strikes a balance between addressing pressing priorities and fueling paths to creative and differentiated innovations. Finding that balance means meeting the following business outcomes:



## Be AI-ready

Achieve **284%** ROI with Azure AI services.<sup>6</sup>



## Secure from code to cloud

**72%** reduced likelihood of a breach.<sup>7</sup>



## Get maximum ROI and performance

Up to **80%** cost-savings<sup>8</sup> and **5x** faster than Amazon Web Services (AWS).<sup>9</sup>



## Get cloud agility anywhere

**206%** ROI with Azure Arc.<sup>14</sup>

## Azure delivers business outcomes across the breadth of your technology estate

Azure has the capabilities to accelerate innovation for your entire technology estate—from your Java and .NET web apps, enterprise apps like Epic, to your largest third-party workloads such as VMware Citrix SAP. Azure also provides solutions for all your databases and infrastructure—with deep and easily configurable security available out of the box. You can rely on the Azure team's dedication and vast partner network to see faster time to value in the cloud.

### Databases



### Applications and workloads



### Servers and containers



# Migrate to innovate: Be AI-ready

AI is unlocking new and exciting capabilities across all industries—but many organizations are struggling to be AI-ready. Some of the most common obstacles include:



**App latency:** Having an application and its APIs in separate datacenters or locations often leads to suboptimal performance.



**Disparate data systems:** The same problem is true for your databases; as AI leans heavily on large datasets, it's increasingly critical to avoid disparate data systems and data silos to ensure maximum performance.



**Infrastructure performance:** Finally, you need to have an optimized infrastructure to fully use AI at scale, which can be hard to achieve and maintain on-premises. This is especially true with the current pace of infrastructure and processor innovations.

**Migration to Azure provides a more secure and AI-ready foundation for you to accelerate innovation, all built on a powerful and high-performance infrastructure that can tackle today's most demanding workloads.**

# Azure takes a three-step approach to helping you become AI-ready

# 1

Colocate in the cloud for optimized performance

# 2

Infuse practical AI into every process

# 3

Ensure responsible and secure AI adoption

# Azure takes a three-step approach to helping you become AI-ready

## 1

### Colocate in the cloud for optimized performance

AI is only as good as the data it can use to model and train, the apps it can infuse into, and the infrastructure that powers AI processes. By colocating your apps, databases, infrastructure, and AI services in Azure, you're able to get optimized performance compared to having these workloads distributed or running on-premises. This performance is exponentially higher with our purpose-built AI supercomputing infrastructure, which powers leading AI services such as [Azure OpenAI Service](#).

## 2

### Infuse practical AI into every process

Once you've colocated in Azure, you're then able to easily infuse services such as Azure OpenAI, [Azure Machine Learning](#), and various [GitHub Copilot](#) integrations for better productivity and ultimately better experiences for your customers.

## 3

### Ensure responsible and secure AI adoption

You can trust the expert team at Azure to ensure secure and responsible AI principles are applied across your AI-adoption lifecycle. With built-in governance and compliance capabilities, Azure helps you monitor AI for drift and adapt as needed. Microsoft is fully committed to furthering AI safety in the world, and our responsible AI tools are a reflection of that commitment.

Azure offers up to

# 2x

faster throughput per graphics processing unit (GPU) compared to competitors.<sup>10</sup>

With Azure AI, you can see up to

# 150%

increase in work output.<sup>9</sup>

Azure has

# 100+

compliance certifications, more than any other cloud service provider today.<sup>11</sup>

# Migrate to innovate: Be secure

Any migration journey—whether from on-premises environments to the cloud, or from one cloud to another—has its risks. Azure can help you alleviate those fears and mitigate common security challenges associated with migration and operations in the cloud, such as:

**Multicloud compliance:** With businesses operating more globally, compliance requirements can be increasingly complex. Businesses need a cloud partner that can help them navigate compliance and industry regulatory factors in a simplified manner across any cloud environment.

**Infrastructure is code:** As the meaning of infrastructure continues to transform from physical, on-premises servers to code in the cloud, many of today's security breaches can be traced back to preventable misconfigurations, mismanagement, open-source code vulnerabilities, and exposed sensitive data in storage buckets.

**Security shouldn't slow down developers:** While security can introduce delays in development, it's essential for protecting systems and data from threats. Developers need a secure cloud-native platform that promotes speed without sacrificing security.

The Azure security approach begins from a strong foundation.

Microsoft has a team of over

# 10,000

security experts analyzing over 65 trillion global signals daily.

Microsoft plans to invest

# 20 billion

in security in the next five years to continue our commitment to a safe future.

With more than

# 100

compliance certifications for our platform, you can rest assured that you are operating securely.

# Our best-in-class cloud-native security solutions are built on that foundation.

Achieve

# 25%

savings by consolidating services to Microsoft Security.<sup>1</sup>



Azure is the only leading public cloud that offers a cloud-native application protection platform (CNAPP), which provides end-to-end protection across your application and infrastructure stack. Using [Microsoft Defender for Cloud](#), you can unify security posture management and workload protection across AWS and Google Cloud Platform (GCP) deployments as well.



[Microsoft Sentinel](#) is also the first public cloud solution to enable cloud-native system information and event management (SIEM) in its portal. Sentinel can help you collect security data across your enterprise, providing correlated insights powered by AI, so your security operations center (SOC) can respond to threats faster.



With [Azure confidential computing](#), we continue to be the cloud leader in helping organizations in highly regulated industries protect their most sensitive data, and with no code changes to their applications. We also work with other members of the confidential computing consortium such as AMD, Intel, and NVIDIA.



With [Microsoft Purview](#), you can safeguard all your data across platforms, apps, and clouds with a comprehensive solution for information protection, data governance, risk management, and compliance.



Today, infrastructure is code and businesses need to shift left. The earlier you identify a security issue, the easier it is to fix. By integrating with developer tools such as [GitHub repositories](#), you can spot security issues before they impact your production environment. Check out [GitHub on Azure](#) to learn more about the native integrations between Azure and the world's leading developer community.



# Migrate to innovate: Maximize ROI

Maximizing ROI for cloud investments continues to be a top concern for many organizations and business leaders. To get there, you should partner with a cloud provider that meets you where you are in your cloud journey.

## Common challenges include:

### Cost management and optimization:

Balancing the allocation of resources with cost management can be complex. Over-provisioning may lead to unnecessary expenses, while under-provisioning may impact performance and user experience. Organizations need to continually optimize their resource allocation to achieve the best ROI.

### Complexity of pricing models:

Cloud providers offer a variety of pricing models, including on-demand, reserved, and spot instances. Choosing the right pricing model for each workload can be challenging, and the complexity of pricing options can lead to suboptimal choices.

# Migrate to innovate: Maximize ROI



## Consolidate your solutions:

Simplify cloud vendor and tool management to optimize costs and resources—with fewer inputs and more impact. Utilize a single, comprehensive cloud for reduced complexity and costs; save more on time and costs by streamlining third-party tools and vendors to Azure. Consolidation to [Microsoft Security](#) solutions alone saved organizations an average of 25% in costs.<sup>7</sup>

## Access outstanding offers:

Get the most value for Windows Server and SQL Server workloads in the cloud with outstanding offers such as [Azure Hybrid Benefit](#) and free [Extended Security Updates](#). Save money with various consumption models such as reserved instances, [Azure Spot Virtual Machines](#), and [Azure Savings Plan](#). Use existing Microsoft 365 or Windows licenses when modernizing your virtual desktop workloads with [Azure Virtual Desktop](#).

Up to

# 40%

Lower cost of 3-year operations<sup>12</sup>

Up to

# 80%

Savings when running Windows Server and SQL Server workloads compared to AWS<sup>8</sup>

**Cloud on your terms:** Azure provides a flexible approach to migration—whether you're moving to Azure infrastructure as a service (IaaS) or platform as a service (PaaS) solutions, moving large VMware workloads to the [Azure VMware Solution](#) or extending Azure management and security to hybrid and multicloud environments through [Azure Arc](#).

# Migrate to innovate: Ensure unmatched performance and resilience

The most successful businesses of today operate on a global scale. Doing so means relying on an infrastructure that's not only globally available but also delivers highly performing services that are easily scalable and resilient. Predominantly operating with an on-premises infrastructure can lead to:

**Latency issues:** On-premises infrastructure often involves physical servers and datacenters located within an organization's premises. This proximity can lead to lower latency for certain applications but may result in higher latency for remote or geographically dispersed users, impacting user experience.

**Complexity of management:** Managing an on-premises infrastructure typically involves multiple tools and processes. Organizations need to oversee hardware provisioning, maintenance, software updates, security patches, and more. This complexity can increase the risk of errors and downtime.

**Scalability challenges:** As businesses grow, they often need to expand their infrastructure to accommodate increased demand. Scaling an on-premises infrastructure can be time-consuming and expensive, requiring the purchase of additional hardware and datacenter space.

# Migrate to innovate: Ensure unmatched performance and resilience



By partnering with Azure, you can improve your performance and resilience with nearly unlimited scalability for operations.

## Azure offers Scalability

**Purpose-built infrastructure:** Accelerate innovation velocity with powerful AI supercomputing infrastructure designed for enterprise-grade performance.

**Dynamic compute capacity:** Take advantage of dynamic compute capacity with up to 832 CPU threads, up to 24 TB of RAM, and 700+ virtual machine (VM) size options with Azure.

**Scalable storage:** Use storage with up to millions of input/output operations, double-digit gigabits per second, and single-digit millisecond latencies.

**More regions:** Azure offers more datacenter regions than any other cloud provider with 60+ regions around the world (and more on the way), so you can scale your operations globally with ease.

**87%** Faster to deploy IT resources<sup>12</sup>

## Azure offers Resiliency

**Ensure business continuity:** Azure provides a resilient infrastructure that ensures business continuity with real-time disaster-recovery options, such as a second instance in case of catastrophic failure.

**Protect applications:** Take advantage of built-in security for Azure resources and capabilities for self-service restoration of data if it's corrupted, deleted, or lost.

**Backup on-premises data to Azure:** Keep your applications running in case of outages with our reliable network infrastructure.

**80%** Reduced data recovery time<sup>13</sup>

# Migrate to innovate: Get cloud agility anywhere

An adaptive cloud approach: Azure provides a flexible approach to migration—whether you're moving to Azure infrastructure as a service (IaaS) or platform as a service (PaaS) solutions, moving large VMware workloads to the [Azure VMware Solution](#), or extending Azure management and security to hybrid and multicloud environments through [Azure Arc](#).

## Modernize to native Azure IaaS and PaaS

- Leverage Azure and cloud skills
- Modernize with flexible IaaS and PaaS services (e.g., Azure Virtual Desktop, Azure SQL Database)
- Shift to Azure compute, storage, and networking infrastructure
- No VMware licenses required

---

## Migrate VMware “as is” with Azure VMware Solution

- Retain VMware skills, familiar tooling
- Migrate quickly/datacenter exit, no application modifications required
- Use VMware technology stack on Azure for symmetry with on-premises
- VMware subscription licenses included, no on-prem license required

# Unify teams, sites, and systems

According to the recent 2023 Flexera State of the Cloud Report, 89% of companies have adopted multicloud strategies, while 80% of respondents are using hybrid cloud strategies<sup>1</sup>.

Companies are increasingly operating in hybrid, multicloud, and edge environments. Due to what are often complex integrations between these environments, management and visibility into operations across clouds can be limited. The Azure platform enables you to connect your on-premises, hybrid, multicloud, and edge environments with ease—all through a simplified, unified view.

Using Azure Arc, you can build applications and services through a consistent development, operations, and security model, while giving these cloud-native applications the flexibility to run across datacenters, at the edge, and in multicloud environments. You can also modernize your existing investments. Azure Arc runs on both new and existing hardware, virtualization and Kubernetes platforms, Internet of Things (IoT) devices, and integrated systems.

[Learn more about Azure Arc.](#)

Azure Arc provides a three-year

# 206%

ROI and net present value  
of USD2.19 million.<sup>14</sup>

# Summary of business outcomes

Migration to Azure provides your business with the best of both worlds— offering an optimized platform for fully embracing AI and cloud-native applications, while maximizing ROI and providing the performance and resilience you need. All of this is delivered with comprehensive code-to-cloud security.

## Customer success stories

Azure and our partners have helped thousands of businesses across the world achieve their goals. Visit [Microsoft Customer Success Stories](#) to learn more about their journeys.

<sup>1</sup>[Flexera. 2023 State of the Cloud Report.](#)

<sup>2</sup>[Gartner Forecasts Worldwide Public Cloud End-User Spending to Reach Nearly \\$600 Billion in 2023. April 2023.](#)

<sup>3</sup>[Verizon. 2023 Data Breach Investigations Report.](#)

<sup>4</sup>[IDC. Top 10 Worldwide IT Industry 2024 Predictions: Mastering AI Everywhere. November 2023.](#)

<sup>5</sup>[MIT Technology Review. Going lean: How vendor consolidation creates big gains. June 2020.](#)

<sup>6</sup>[The Total Economic Impact™ Of Microsoft Azure AI. A commissioned study conducted by Forrester Consulting. April 2023.](#)

<sup>7</sup>[The Total Economic Impact™ Of Microsoft Security. A commissioned study conducted by Forrester Consulting. February 2023.](#)

<sup>8</sup>[Microsoft Azure. Cost Savings: SQL Server and Windows Server.](#)

<sup>9</sup>[Microsoft Azure SQL Managed Instance benchmark vs. AWS RDS for SQL Server using Azure Hybrid Benefit pricing. May 2022.](#)

<sup>10</sup>[Microsoft Azure blog. Azure empowers easy-to-use, high-performance, and hyperscale model training using DeepSpeed. July 26, 2022.](#)

<sup>11</sup>[Microsoft Azure. Compliance in the trusted cloud.](#)

<sup>12</sup>[IDC white paper, sponsored by Microsoft. Business Value of Azure IDC Study. Doc #US49616022. September 2022.](#)

<sup>13</sup>[IDC white paper, sponsored by Microsoft. The Business Value of Microsoft Azure Site Recovery and Backup. Doc #US48616721. March 2022.](#)

<sup>14</sup>[The Total Economic Impact™ Of Microsoft Azure Arc for Security and Governance. A commissioned study conducted by Forrester Consulting. August 2022.](#)

# Best approaches to the cloud

In migrating to Azure, there are many options to choose from and not everyone's journey will be the same. The following programs can help accelerate your Azure migration across a broad range of requirements.

## Azure Migrate and Modernize:

Get technical training, resources for best practices, and support at every stage with a proven approach, unique cost-saving offers, and step-by-step cloud migration guidance from Azure engineers and expert Azure migration partners.

## Azure Innovate:

Address your advanced innovation needs, such as infusing AI into your apps and experiences, advanced analytics, and building custom cloud-native applications.

Check out the [Azure Migrate and Modernize](#) and [Azure Innovate partner programs](#) to learn more about our offerings.

## Both of these offerings address your end-to-end cloud journey on Azure with:

**Comprehensive resources in one place:** Get extensive guidance with assessments, proofs of concept (PoCs), pilots, tooling, and deployment assistance—ensuring a well-architected and optimized approach from start to finish.

**Proven technical frameworks:** Design optimized workloads from the start guided by the [Cloud Adoption Framework \(CAF\)](#) and [Well-Architected Framework \(WAF\)](#), which include security and cost recommendations.

**Free automated tooling:** Take advantage of discovery, assessment, business case analysis, planning, migration, and modernization capabilities with [Azure Migrate](#).

**Access to experts:** Get help from Microsoft experts or specialized partners at each step of your migration, including assessments, total cost of ownership (TCO) analysis, cloud adoption approaches, workshops, pilots, and even deployment.

**Microsoft-led delivery:** With Azure Migrate and Modernize, access not only specialized partners for more complex workloads, but also Microsoft-led delivery for rapid rehost migrations—increasing speed and lowering the cost of migration even further.

**Partner funding for specialized partners:** Take advantage of Microsoft's deepened investment in our partner ecosystem, which increases both capacity and capability across the Azure portfolio, so you can obtain expert help when you need it. Read more about [expanded investments in our partner ecosystem](#).

**Extensive coverage from migration to innovation:** Receive support across a wide range of your cloud adoption needs, including migrating or modernizing Windows Server and SQL Server, Linux, Oracle, SAP, high-performance computing, analytics, and AI.



# Let's build your future together

To get started on your migration to Azure, explore our product websites:



## AI and machine learning

[Azure AI services](#) [Azure Machine Learning](#)



## Security

[Microsoft Defender for Cloud](#)  
[Microsoft Sentinel](#)



## Cost savings

[Azure Hybrid Benefit](#)  
[Azure savings plan for compute](#)  
[Azure Reserved Virtual Machine Instances](#)



## Monitoring and management

[Azure Monitor](#) [Azure Automanage](#)  
[Azure Policy](#)  
[Azure Update Manager](#)



## Multicloud and hybrid

[Azure Arc](#)  
[Azure hybrid and multicloud tools](#)

Just getting started on your cloud journey?  
[Start a free Azure trial today](#)