

# Cloud Migration Simplified:

A Guide for Migrating Infrastructure,  
Databases, and Applications



## This image shows a full page of primary-ruled paper. It features ten sets of horizontal lines designed to help young learners write neatly. Each set consists of three lines: a top dotted line, a middle dashed line, and a bottom solid line. The sets are evenly spaced across the entire page, providing ample room for handwriting practice. There are no margins, text, or other markings on the paper.

Cloud computing allows organizations to reduce or eliminate expenses associated with data centers, including real estate, power, servers, storage, and networks. Migration to the cloud has rapidly accelerated in recent years, with more and more organizations seeking to take advantage of the many benefits that the cloud offers. Among these benefits are improved cost efficiency, scalability, and security.

The cloud also provides greater flexibility and scalability. Organizations can match utilization to business demands and pay only for the cloud resources they use. Additionally, the advanced security technologies in the public cloud help organizations protect themselves against continuously changing threats.

The cloud also enables you to use cutting-edge technologies and concepts to innovate and adapt to ever-changing business and technological landscapes. Technologies such as AI, PaaS-based services, and big data platforms provide additional value beyond cost savings and better security.

However, the migration journey can be involved, depending on the complexity of the customer environment. Sound guidance throughout the process contributes to success, from strategy definition and planning to governance and management. To perform a successful migration, organizations must determine how to:

- Define business justification and create the initial cloud migration plan.
- Assess the on-premises environment to understand what workloads and applications to migrate.
- Perform the migration with limited impact on the business.
- Govern and manage cloud resources after migration, making the most of the investment and securing it.

This e-book provides strategies and steps for planning and executing your cloud migration and introduces concepts from the Microsoft Cloud Adoption Framework for Azure. This proven method has helped many customers in their cloud adoption journey.



I really appreciate the scalability we've gained through Azure, but I'm also excited about our time to market. We can now deliver reporting faster for the business, and we have complete control with Azure."

Laurens Teuben

*IT Engineering Lead, ABN AMRO*

[Read the full story >](#)

A successful Azure migration is facilitated significantly by following organizational best practices to plan, build, and run secure, reliable, and cost-efficient workloads and environments. To help build your specific migration roadmap, Microsoft delivers proven guidance, tools, and frameworks to assist customers, from initial strategy, planning, readiness, and migration through to ongoing innovation, governance, management, and organizational alignment.

This roadmap guide provides a handy catalog of resources to assist both Unified Contract and Unmanaged Azure customers in their cloud migration and optimization efforts at any stage in their cloud adoption journey. This end-to-end migration roadmap is marked by three phases. Each phase involves multiple action steps. This roadmap references and includes all relevant resources and channels of support available for each step and phase of the journey. Some are self-serve while others are assisted by Microsoft and its partners.

Unmanaged customers can access Azure Customer Enablement Resources, a free library of online materials, tools, and resources designed to help customers get started, build, and deploy applications, and optimize their usage of Azure services. These resources are available to all Azure customers and include documentation, training videos, webinars, forums, and other self-paced learning materials.

In addition to Azure Customer Enablement Resources, Unified Contract customers also have access to Services Hub, a portal providing 24/7 access to on-demand learning and personalized recommendations. It also provides tools for assessing and managing IT health, customized reports and insights, and unlimited end-to-end managed support direct from Microsoft.

[Learn more about Microsoft Unified >](#)

At first glance, cloud migration might seem like a purely technical decision. However, at its core, it's all about business. The discussion centers around two key questions: what's driving your business to migrate to and/or modernize in the cloud, and why is now the right time?

There are many benefits to adopting the cloud, such as lower running costs, faster modernization capabilities, and heightened security. But there's usually a specific catalyst that sparks the migration conversation. Some of these include:

- **Lower expenses:** Optimize processes and reduce hardware support to save up to 30 percent on virtual machine (VM) resource configuration.
- **Faster time-to-market/release:** Reduce management overhead and reallocate budget to focus on software and solution development.
- **Urgent capacity needs:** Scale resources to provide more flexibility than traditional on-premises systems.
- **Datacenter and hardware costs:** Consider migrating to the cloud to eliminate costly leasing and hosting services.
- **Licensing renewal:** Pay-as-you-go options can help reduce annual licensing agreement costs.
- **Application innovation:** Increase the efficiency of developers and team productivity by up to 50 percent using a cloud platform for modern development.
- **Software end-of-support:** Migrate to Microsoft Azure for extended security updates up to three years after the product's end-of-support date.

By migrating to the cloud, businesses can reduce costs, improve efficiency, enhance security and reliability, and foster innovation. Azure can help save money and improve efficiency, leading your business to success.

In the next section, we'll discuss migrating with the Microsoft Cloud Adoption Framework, equipping you with knowledge for a seamless transition.

## Why Azure?

### Trust your cloud

Azure provides a secure foundation to protect your customers and organization with multilayered security and investment of over USD1 billion in research and development, backed by 3,500 security experts monitoring your data. You own your data with Azure's core privacy principle, which ensures your data is never used for marketing or advertising.

Azure leads the industry with over 90 compliance offerings to streamline compliance and protect your data.

### **Operate hybrid seamlessly**

Azure hybrid cloud solutions provide the flexibility to operate seamlessly across on-premises, multiple clouds, and the edge. You can simplify complex and distributed environments, run Azure services anywhere, and empower your employees to work from anywhere on any device. Plus, using your Windows Server and SQL Server on-premises licenses through the Azure Hybrid Benefit, you can bring cloud innovation to your workloads and save up to

40 percent on your existing license investments.

### **Build on your terms**

With Azure, you can build and deploy applications how and where you want. Build with the language and tools of your choice and take advantage of built-in support for Azure in popular development environments. Access machine learning models and tools for any skill level and build and scale without constraints using hyperscale relational and fast NoSQL databases with open APIs. Azure delivers resilient applications that adapt to your organization's needs over time, supported by industry-leading service level agreements.



## **Cloud migration triggers**

- End-of-support for existing software
- Need for increased scalability and flexibility
- Desire to reduce IT infrastructure costs
- Aging hardware and software systems
- Need for improved disaster recovery and business continuity capabilities
- Need for enhanced security and compliance

## **Common migration projects**

- Windows Server
- SQL Server
- Linux and open-source databases
- Dev and test
- Web apps
- SAP
- Specialized workloads
- Data science and machine learning

Organizations can achieve their cloud migration goals successfully by following a well-structured approach. This requires a cloud provider (and core partners) that can deliver comprehensive tools and methods to help simplify and accelerate migration and reduce overall risk. The Microsoft Cloud Adoption Framework provides proven guidance, best practices, tools, and templates to support your adoption journey through the different phases.

### **Strategize**

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Define business justification and expected adoption outcomes.

### **Plan**

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Align actionable adoption plans to business outcomes.

### **Ready**

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Prepare your cloud environment for planned changes.

### **Migrate**

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Migrate and modernize existing workloads.

### **Innovate**

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Develop new cloud-native or hybrid solutions.

### **Secure**

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Improve security over time.

### **Manage**

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Manage operations for cloud and hybrid solutions.

### **Govern**

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Govern your environment and workloads.

### **Organize**

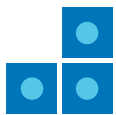
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Align the teams and roles supporting your organization's cloud adoption efforts.

The guidance covers strategy and planning and the ongoing governance, optimization, and management of the migrated workloads. With this proven approach, organizations can execute their migration projects with confidence.



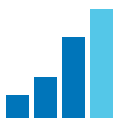
To successfully migrate to the cloud and reap its benefits, you should use tools like the Cloud Adoption Strategy Evaluator to assess your cloud strategy. A strong business case communicates the reasons for migration and builds executive and stakeholder alignment. Engaging with partners early in the strategy phase can also help you get the most out of your cloud migration project.



**Define and document your motivations:** Meet with key stakeholders and executives to establish the drivers of cloud adoption.



**Evaluate financial considerations:** Learn how to use the cloud to make your IT cost structure more flexible. Then, build a business case to adopt the cloud.



**Document business outcomes:** Engage motivated stakeholders and executives to document specific business outcomes.



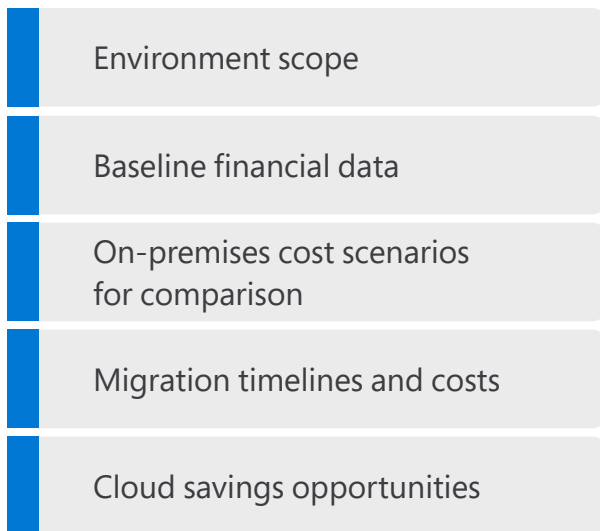
**Understand technical considerations:** Identify the efficiencies and capabilities that help you build a business case to adopt the cloud.

## Assess your cloud strategy

The [Microsoft Cloud Adoption Strategy Evaluator](#) can help you quickly and accurately identify your cloud strategy. It assesses key areas such as motivations, expected outcomes, and financial and technical considerations. Based on your responses, the assessment provides a personalized strategy score and guides you through the relevant areas. It also offers curated guidance, recommendations on specific tools and templates, and advice on cloud economics and organizational alignment principles.

## Create a business case

Crafting a compelling business case for cloud migration can help gain buy-in from the finance team and accelerate the project. Key components of a business case may include:



By carefully devising and planning a business case for cloud migration, you can optimize your Azure consumption plan and realize significant cost savings, which you can reinvest in new technology initiatives.

Use [Azure Migrate](#) and its business case feature to easily build your own business case using built-in guidance and calculators.

### **Understand cost management strategies**

Migrating to the cloud can save organizations money through flexible billing models. Organizations can optimize their costs further using savings opportunities offered by Microsoft Azure:

**Azure hybrid benefit** allows organizations to use on-premises licenses on Azure, reducing cloud costs.

**Spot virtual machines** offer deep discounts for workloads that can be interrupted.

**Reservations** provide discounts of up to 72 percent.

**Azure savings plan for compute** generates significant savings on pay-as-you-go prices for eligible compute services.

**Azure dev/test pricing** offers discounted rates for development and testing.

**Extended security updates** provide continued support for SQL Server 2008 and SQL Server 2008 R2 through Azure VM migration or purchasing extended security updates.

### **Build executive and stakeholder alignment**

Establish the root business case for migration, along with the urgency and timelines associated with it. Distinguishing between business, technical, and timeline drivers supports flexibility in migration approaches. To get commitment from leadership to pursue migration, spell out your migration drivers.

In getting buy-in from executive leadership, you should set a strategy to ensure success, consisting of the following:

- Guidance on why the organization is migrating.
- Assigning people and teams.
- Allocating budget (with the expectation to refine later).

Migration involves coordination between multiple functions, including leadership, lines of business, IT, security, and the application owners who will be affected.

Speaking in terms of business outcomes supports transparency and cross-functional partnerships.

To maintain application owners' support throughout the migration effort and avoid surprises, include them in early planning exercises and reinforce the benefits of Azure. IT infrastructure groups (networking, security, identity, etc.) should also be part of design and planning discussions.

[Azure Migrate](#) can also help to build a plan that is specific to your migration strategy and circumstances.

### Engage your partner

Smaller customers or those with less-complex environments can use [Azure Migrate](#) to guide them through the process in a self-service manner.

However, customers with complex environments or who don't have necessary cloud skills often require support from partners working together towards a common goal. Here are some steps to help remove roadblocks in later phases of the adoption lifecycle:

Start to understand support needs

Consider partnership options that fit your culture

Evaluate a shortlist of partner options

Review legal terms and contracting early

You are not alone in your cloud journey. Various partnership options can help develop needed skills, augment staffing requirements, or completely offload specific processes. Consider these options to support your team throughout your cloud adoption journey:

#### [Find a Cloud Solution Provider \(CSP\):](#)

Connect with a certified CSP to assess business goals, identify the right cloud solution, and become more agile and efficient in the cloud.

[Find a managed service partner:](#) Transition to Azure with guidance from an Azure managed service partner (MSP) who can help with consulting, migrations, and operations management.

[FastTrack for Azure:](#) Get direct assistance from Azure engineers who will guide you from setup, configuration, and development to production of Azure solutions.

[Azure Migrate and Modernize:](#) Receive technical skill building, step-by-step guidance, free migration tools, and potential offers.

[Solution assessments:](#) Get an in-depth understanding of opportunities available in your environment to improve productivity, reduce cost, and optimize investments by working with a Microsoft solutions assessment expert or qualified partner.

[Azure support:](#) Create a support request or get deep technical guidance by aligning with the best support plan for your needs.

Cloud adoption plans transform the ambitious objectives of a cloud adoption strategy into a practical, actionable roadmap. These plans enable your organization's cloud teams to coordinate their technical efforts while aligning them with your business strategy.

To document your organization's technology strategy, use the following exercises. These activities assist your cloud adoption endeavors by outlining prioritized tasks. Upon completion, your cloud adoption plan will align with the metrics and motivations specified in the strategy.

### **Discover and assess the digital estate**

A digital estate refers to the collection of owned IT assets, like virtual machines, servers, applications, and data that support business processes and operations. It plays a vital role in planning and executing digital transformation efforts, as it helps align business goals with technical plans.

Analyzing the digital estate guides cloud adoption activities and informs financial models, ultimately driving return on investment. This analysis involves choosing the right approach, taking inventory of current assets, organizing the digital estate, and aligning assets with cloud offerings to calculate pricing. This information allows financial models and migration plans to be adjusted accordingly.

- [Strategic Migration Assessment & Readiness Tool \(SMART\)](#) helps you understand your level of readiness across all dimensions of migration, from initial strategy to ongoing management.
- [Azure Migrate: Discovery and assessment tool](#) helps you through discovery, assessment, planning, and migration or modernization of infrastructure, databases, and on-premises applications. The business case feature can be used to create a proposal with TCO/ROI for both IaaS and PaaS before moving to Azure. Dependency analysis, readiness checks and right-sizing are some of the optimizations included in the proposal.
- [Data Migration Assistant](#) helps you upgrade to a modern data platform by detecting compatibility issues that can impact database functionality in your new version of SQL Server or Azure SQL Database.

### **Identify application and server dependencies**

After discovering your IT assets, mapping dependencies between servers and applications helps ensure all components of an app are migrated together. Many tools offer server dependency mapping, but application dependencies complete the picture.

## Analyze configuration

Analyzing configuration ensures workload compatibility with the cloud platform. Assessment tools provide metrics on readiness and guidelines for addressing potential issues or making necessary modifications.

## Plan costs

Planning costs involves collecting resource usage data, as on-premises virtual machines (VMs) are often over-provisioned but underused. Cost analysis tools can recommend the most suitable Azure VM series for your workloads by analyzing historical resource usage. Migrating Windows or SQL Server workloads to Azure can maximize benefits, and the assessment solution can identify suitable programs for budgeting and forecasting.

Evaluate potential cost savings by comparing the total cost of ownership (TCO) for Azure with that of a comparable on-premises deployment. Estimate migration project costs, including professional services, development, and training. Use the TCO estimate and business case to guide migration planning and refine them as needed throughout the process.

- [Build a business case](#) in [Azure Migrate](#)
- [Cost optimization](#) concepts in [Azure Migrate](#)
- Explore more [Azure cost planning tools](#)

## Migration plan

Organize your applications in a migration plan based on business priority and complexity. Assemble the core team responsible for migration and determine the best approach.

## Align migration team

Align the people responsible for executing the migration plan. Identify who will handle technical tasks, be accountable for team performance, manage protective governance mechanisms, and define governance controls. Consider other roles or individuals responsible for aspects of the migration plan.

## Define migration approach

After assessing your goals and requirements, choose the migration method that aligns with your business and IT needs. Your migration could involve parallel and iterative processes as you move apps and workloads to the cloud.

Migration strategies can be grouped into four categories.

- **Rehost:** “Lift and shift” your servers and VMs to the cloud without code changes. Benefits include cost savings, security, increased reliability, and lower TCO.
- **Refactor:** Optimize cost, reliability, and performance using additional cloud provider services. Enjoy lower costs, easier management, and compatibility with minor code/configuration changes.

- **Rearchitect:** Modernize applications by transforming their architecture for better scalability. Improve agility, bring new capabilities to existing apps, and cost-effectively meet scalability requirements.
- **Rebuild:** Revamp applications by adopting PaaS or SaaS architecture. Build new cloud-native applications, accelerate development, and use innovative technologies like AI, blockchain, and IoT.

## Migrate or modernize?

Each workload will require the decision of whether to migrate (rehost) or modernize (re-platform) your existing application. The answer will likely depend on the type of application or workload and your business goals for moving it to the cloud.

When you migrate your application, you move it to the cloud as-is (lift-and-shift) to take advantage of infrastructure as a service (IaaS) to reduce your data center footprint and achieve immediate cost savings.

With a modernization approach, the application is rebuilt and enhanced for the cloud, delivering better performance and cost-efficiency. This platform-as-a-service (PaaS) approach enables faster deployment, enhanced development productivity, and increased potential for innovation. You're not just moving the application but modernizing your databases and processes. A DevOps methodology accelerates your workload modernization efforts, and PaaS

solutions help you scale and reduce your management overhead.

It is generally faster and less expensive to migrate an existing application, but that adoption approach doesn't take advantage of opportunities to innovate in the cloud.

**Consider a migration approach if the source code is likely to remain stable and the workload currently supports business processes and will continue to do so.**

**Consider a modernization approach for workloads that drive market differentiation or where data can create new experiences or service offerings.**

## Migration decision tree

Use a migration decision tree to make choices based on your company's priorities. For example, if you don't plan to develop your business application further, choose the rehost strategy to move quickly to IaaS. If you aim to maximize cloud benefits and include future development with PaaS, consider refactor, rearchitect, or rebuild strategies.

## Define migration timelines

Create a clear timeline for your cloud migration project. Use project management tools like work breakdown structures (WBS) to outline dependent tasks and their completion times. Iteration duration will depend on technical effort, administrative overhead, and team preferences. For added flexibility, adopt agile and iterative methodologies, allowing you to adjust the project scope as needed.

Adopting the cloud offers a chance to rethink how you manage technological systems. Cloud operating models differ from traditional IT models as they shift focus from physical assets to digital ones, such as operating systems, applications, and data. This change affects success metrics, security, and the pace of managing changes.

A cloud operating model aims to ensure consistent operations while balancing architectural principles like cost optimization, operational excellence, performance efficiency, reliability, and security.

- [Compare cloud operating models](#)

### **Landing zones: an overview**

An Azure landing zone provides a scalable and modular environment to support application migration, modernization, and innovation in Azure. This code-based, pre-provisioned environment ensures consistency and efficiency, offering a comprehensive solution for both infrastructure as a service and platform as a service.

- [Azure setup guide](#) familiarizes you with the tools and approaches to create a landing zone
- [Microsoft Azure Well-Architected Framework](#) is a helpful reference for developers and architects who are deploying solutions within a landing zone

### **Azure resources**

Azure offers many services that provide a comprehensive solution for collecting, analyzing, and acting on telemetry from your applications and the Azure resources that support them.

- **Azure Monitor** provides a single unified hub for all monitoring and diagnostics data in Azure.
- **Azure Service Health** provides a personalized view of the health of the Azure services and regions you use.
- **Azure Advisor** is a free, personalized cloud consultant that helps you follow and implement best practices for Azure deployments.
- **Azure Security Center** can help you monitor the security of your machines, networks, storage, data services, and applications.



The Adopt methodology helps you navigate the cloud adoption journey by offering guidance on migration, modernization, innovation, and relocation of workloads in Azure. Each stage has unique objectives, solutions, and benefits.

## Migrate:

Transfer workloads to the cloud. The migration guidance helps you choose a strategy that aligns with your goals.

### Goals

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Meet business needs, transition away from on-premises environments, and adhere to Well-Architected Framework principles.

### Solutions

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Implement cloud solutions based on business requirements.

### Key benefits

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Enhance security, reliability, performance, and operations using managed solutions. Simplify integration of new solutions and design patterns and eliminate hardware management and security.

## Modernize:

Improve existing workloads for better operations, efficiency, developer productivity, and lower total cost of ownership. Typically, modernization involves adopting platform-as-a-service (PaaS) solutions for scalable business growth.

### Goals

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Minimize technical debt, update applications, and revamp data platforms.

### Solutions

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Integrate additional services and modify code to achieve business objectives.

### Key benefits

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Optimize cost, security, reliability, performance, and operations for higher productivity. Focus on core business without managing the underlying infrastructure.



## Innovate:

Adopt cloud-native technologies to develop customer-centric solutions that rapidly transform business outcomes.

### Goals

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Reposition your business and technical solutions and explore innovative data opportunities.

### Solutions

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Embrace data and application capabilities to foster adoption and create predictive tools.

### Key benefits

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Enhance predictive analytics, performance, and adaptability.

## Relocate:

Move Azure workloads to other regions within Azure. You can relocate a workload at any time after migration. Regularly evaluating relocation ensures your workload evolves along with your business needs.

### Goals

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Adapt to business changes, expand global reach, address data sovereignty and residency requirements, and reduce latency for end users.

### Solutions

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Use a new Azure region's location, services, and features.

### Key benefits

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Respond to business shifts, increase global presence, comply with data sovereignty and residency requirements, and provide lower latency to end users.

Adopting cloud technology is an ongoing journey with milestones and tangible business benefits. Cloud governance creates guardrails that ensure a safe path throughout this journey. The Cloud Adoption Framework provides governance guides based on real customer experiences to help navigate the process.

Envision an end state before starting the journey. The Cloud Adoption Framework governance model identifies Five Disciplines of Cloud Governance, which include:

#### **Cost management**

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Enabling cost efficiency and optimization in the cloud environment.

#### **Security baseline**

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Providing a baseline of security controls and ensuring compliance with industry regulations.

#### **Resource consistency**

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Implementing consistent policies and processes for resource deployment and management

#### **Identity baseline**

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Ensuring secure and constant access to resources for users and services.

#### **Deployment acceleration**

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Optimizing deployment processes to increase agility and reduce time to market.

### **Minimum Viable Product governance approach**

By adopting a minimum viable product (MVP) approach early and responding rapidly to changing risks, the cloud governance team can stay ahead of cloud adoption teams, plotting routes and quickly establishing guardrails to manage risks. This approach ensures that governance strategy remains one step ahead, allowing businesses to quickly and smoothly reap the benefits of cloud adoption.

- [Microsoft Cloud Adoption Framework Governance Benchmark Tool](#): Identifies gaps in your organization across the Five Disciplines of Cloud Governance.

Establishing good operational practices for your migrated workloads helps to avoid costly business disruptions and ensures your applications run optimally.

As with governance, management is an ongoing process. Well-defined guidance can help your organization expand its IT management and operations to use secure, cost-effective methods and modern, cloud-first tools for your cloud-based solutions.

The business and technical approaches you develop are key to cloud management. These approaches include establishing and expanding the management baseline by defining the criticality classifications, cloud management tools, and processes required to deliver your minimum commitment to operations management.

Define business commitments by documenting supported workloads and cloud management investments for each workload. Also, consider the advanced

operations for platforms or workloads with a higher level of business commitment. These workloads might require a deeper architecture review to deliver on resiliency and reliability commitments.

For simplified and optimal cloud management and operations, you should consider the following:

- **Business alignment efforts** aid in capturing the business impact and negotiating management costs. Alignment assures everyone you use the most appropriate operational management processes and tools.
- **Cloud operations disciplines** establish levels of operations management. These disciplines support workloads and business commitments such as inventory and visibility, operational compliance, and protection and recovery.

## Tools to manage

- [Azure Backup](#): Provides secure and cost-effective solutions to back up your data and recover it from the Azure cloud platform.
- [Azure Monitor](#): Provides visibility into your applications, infrastructure, and network.
- [Azure Well-Architected Review](#): Assesses your workloads concerning best practices and offers actionable next steps.
- [Azure Arc](#): Azure Arc simplifies governance and management by delivering a consistent multicloud and on-premises management platform.



## Cloud operations disciplines

### Management baseline

- **Inventory and visibility:** Create a list of assets across multiple clouds. Develop visibility into the run state of each asset.
- **Operational compliance:** Establish controls and processes to ensure each state is configured correctly and running in a well-governed environment.
- **Protect and recover:** Ensure all managed assets are protected and can be recovered using baseline management tooling.

### Enhanced baseline options:

Evaluate common additions to the baseline that might meet business needs.

### Platform operations:

Extend the management baseline with a well-defined service catalog and centrally managed platforms.

### Workload operations:

Extend the management baseline to focus on mission-critical workloads.

## Security frameworks to consider

Security is a complex organizational discipline that's difficult to define and map in detail. Aligning to widely accepted frameworks can simplify the process.

**Zero Trust:** Microsoft's security disciplines follow the Zero Trust principles of assume breach, verify explicitly, and use least privilege access, which underpin any sound security strategy.

**The Open Group:** Microsoft's security disciplines closely align with the Zero Trust components in The Open Group's core principles white paper, except for elevating DevSecOps to a top-level element.

**NIST cybersecurity framework:** Microsoft highlights where its security disciplines most closely align with the NIST framework, with modern access control and DevSecOps mapping broadly to the full framework spectrum.

## Security disciplines

As you adopt the cloud, different security disciplines require attention and investment. The following disciplines, ordered by their potential for quick wins, include:



**Access control:** Apply network and identity boundaries to reduce the impact and frequency of security breaches.



**Security operations:** Monitor IT operations to detect, respond, and recover from breaches and use data to reduce risk continuously.



**Asset protection:** Safeguard infrastructure, devices, data, applications, networks, and identities to minimize risk.



**Security governance:** Monitor decisions, configurations, and data to govern actions made throughout the environment and workloads.



**Innovation security:** Integrate security into DevSecOps processes by embedding expertise and resources into the fast-paced innovation cycle, empowering workload-focused teams.



## Focusing security efforts

Security activities should focus on two main areas:

- **Business enablement:** Align with the organization's objectives and risk framework.
- **Security assurances:** Apply Zero Trust principles, including:

### Assume breach

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Design security by considering the possibility that other resources within the organization are compromised, reducing the attacker's ability to expand access.

### Explicit verification

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Validate trust using all available data points instead of assuming trust, such as verifying user identity, location, device health, service or workload, data classification, and anomalies.

### Least-privileged access

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Minimize risk from compromised users or resources by providing just-in-time and just-enough access (JIT/JEA), risk-based adaptive policies, and data protection to help secure data and productivity.

Successful cloud adoption relies on skilled individuals working together to achieve clear business goals within a well-managed environment. To create an effective cloud operating model, establish proper organizational structures. This can be accomplished in four steps:

**Structure type:** Determine the organizational structure that best suits your operating model.

**Cloud functions:** Identify the necessary cloud functions for adoption and operation.

**Mature team structures:** Define the teams responsible for providing various cloud functions.

**RACI matrix:** Use a RACI matrix to assign roles to each team for the cloud operating model functions, including responsibility, accountability, consultation, and information roles.

## Organizational structure options

Organizational structures don't always need to be reflected in traditional org charts, as they are designed to capture role and responsibility alignment rather than strict command and control management structures. The first step in managing organizational alignment is to determine how the following structures will be fulfilled:

**Org chart alignment:** Align management hierarchies, manager responsibilities, and staff within organizational structures.

**Virtual teams:** Maintain existing management structures and org charts but create virtual teams responsible for the required functions.

**Mixed model:** In many cases, a combination of org chart alignment and virtual teams is best for achieving transformation goals.



## Driving organizational maturity

Organizational structures often follow a common maturity model, as outlined below:

### Cloud adoption team only

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A small, dedicated team responsible for initial cloud adoption tasks, typically lacking broader organizational integration.

### MVP best practice

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A recommended structure that establishes a minimum viable product (MVP) for best practices, fostering better cloud adoption success.

### Central IT team

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A central team that oversees cloud adoption and management, providing guidance and support for various business units.

### Strategic alignment

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An organization-wide alignment of cloud strategies with overall business objectives, ensuring a cohesive approach to cloud adoption.

### Operational alignment

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A seamless integration of cloud adoption and operations within existing business processes, enabling smooth functioning and innovation.

### Cloud center of excellence

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A dedicated team of experts focused on driving cloud best practices, innovation, and education across the organization.

Most companies start with just a cloud adoption team. Over time, aligning to the MVP best practice structure drives better cloud adoption outcomes.



# Summary

With the right tools and best practice guidance, you can migrate faster and with less friction. An optimal migration approach can reduce costs immediately and allow you to focus on future cloud modernization. Processes for assessment, optimization, security, and management can also help throughout your continuing adoption of cloud resources.

Ultimately, cloud migration allows organizations to accelerate their growth, improve efficiency, increase security, and advance development. Whether you're in the early stages of assessment or planning your approach, the Cloud Adoption Framework offers an easier method for migration. With free integrated services, programs, a strong partner ecosystem, and proven guidance from Microsoft, you can tread a well-forged path to minimize risk to your business.

Here are a few helpful starting points when diving into the Cloud Adoption Framework.

- [Get started with the Cloud Adoption Framework.](#)
- [Understand cloud operating models.](#)
- [Introduction to migration.](#)
- The [One Migrate approach](#) provides consistent guidelines and processes for migrating both Microsoft and third-party technologies.

## Take the next step

[Try Azure for free](#)



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# Additional resources

- [Azure Migrate](#) is Microsoft's end-to-end solution for migrating to Azure.
- Accelerate and automate your migration—visit the [Azure Migration and Modernization Center](#) for helpful migration tools.
- Find curated, step-by-step guidance from [Microsoft experts and specialized migration partners](#) based on the [Microsoft Cloud Adoption Framework for Azure](#).
- Get trained for your migration with foundational and role-specific [courses](#) to develop new Azure skills and long-term organizational readiness.
- Get best-practice guidance and direct access to Azure engineers, tools, and subsidized partner services by joining [Azure Migrate and Modernize](#).
- Get insights about when to modernize versus migrate in this [blog post](#).

## Assessments:

- Identify your cloud adoption path based on your needs with the [Cloud Journey Tracker](#).
- Assess your cloud adoption strategy and get recommendations on building or advancing your cloud business case with the [Cloud Adoption Strategy Evaluator](#).
- Prepare for a smooth migration that achieves key business benefits with the [Strategic Migration Assessment and Readiness Tool](#).
- Identify gaps in your organization's current state of governance with the [Governance Benchmark](#) assessment.
- Take the first step in modernizing your workloads using the [App and Data Modernization Readiness Tool](#).