



Azure Essentials resource kit

Technical methodologies and tools, derived from real-world customer experiences.

July 2025

Accelerate business outcomes - Azure Essentials resource kit

In this resource kit, you'll discover Microsoft's best practices for approaching key business priorities from AI to resiliency with methodology to help you maximize your business value with confidence

This kit provides step-by-step guidance for you to enhance your cloud and AI investments across common scenarios to help you:

- Successfully adopt AI and build new AI-infused apps.
- Migrate and modernize your workloads, infrastructure, and databases.
- Unify your data platform and empower your developers.
- Proactively keep critical workloads reliable and secure.

Empower your cloud and AI journey

Azure Essentials provides technical methodologies and tools to accelerate your cloud and AI adoption journey

Gain an edge when getting started

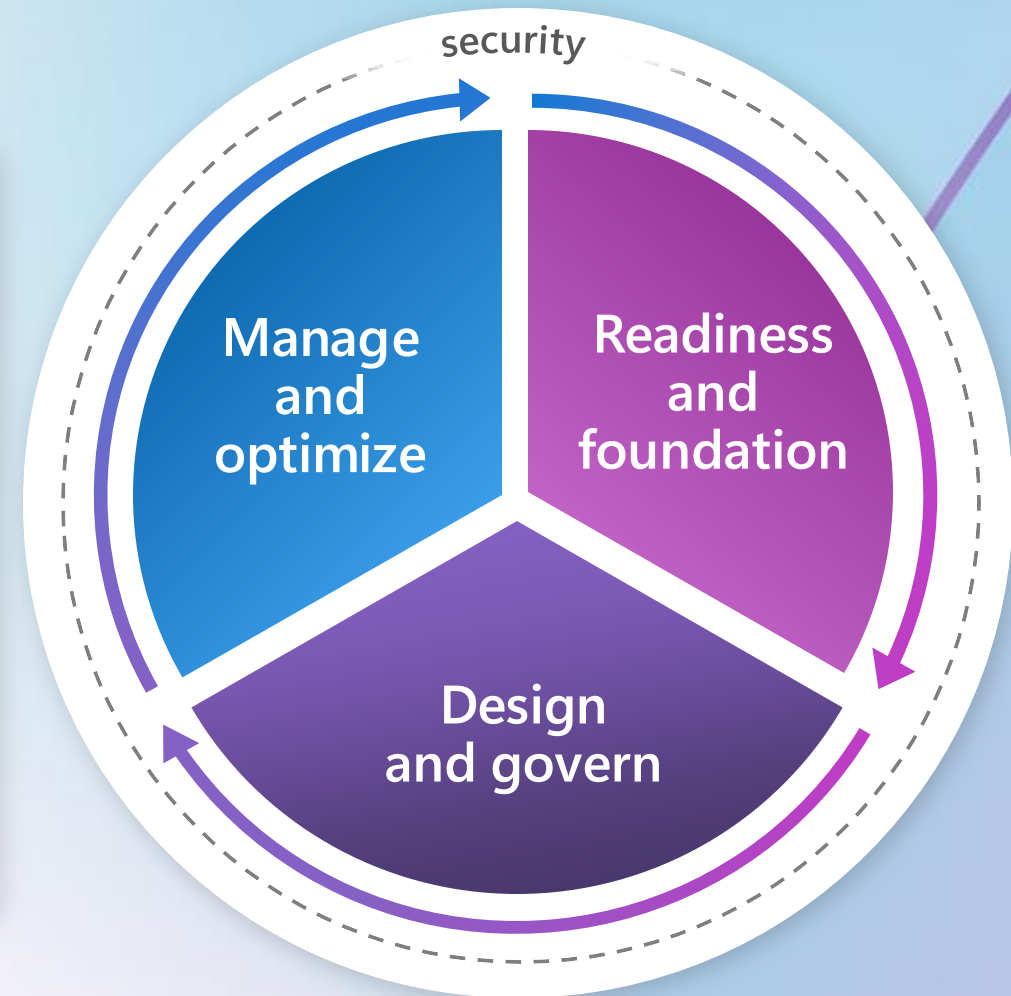
- Establish **a foundation** at the start of every project for successful cloud and AI adoption.

Achieve architectural excellence

- Implement with the latest **design and governance** to achieve reliable, secure and sustainable projects.

Enable continuous improvement

- **Manage and optimize** every project to deliver business and IT objectives



Common scenarios for new Azure projects

From transforming your stance on Azure to cloud management, **choose the scenario** that best matches your needs:



Innovate with
Azure AI Apps
and Agents



Migrate and
Modernize your
Estate



Unify your Data
Platform

Proactive Resiliency for **existing Azure projects**

Building and managing resilient workloads is key to success in the cloud.



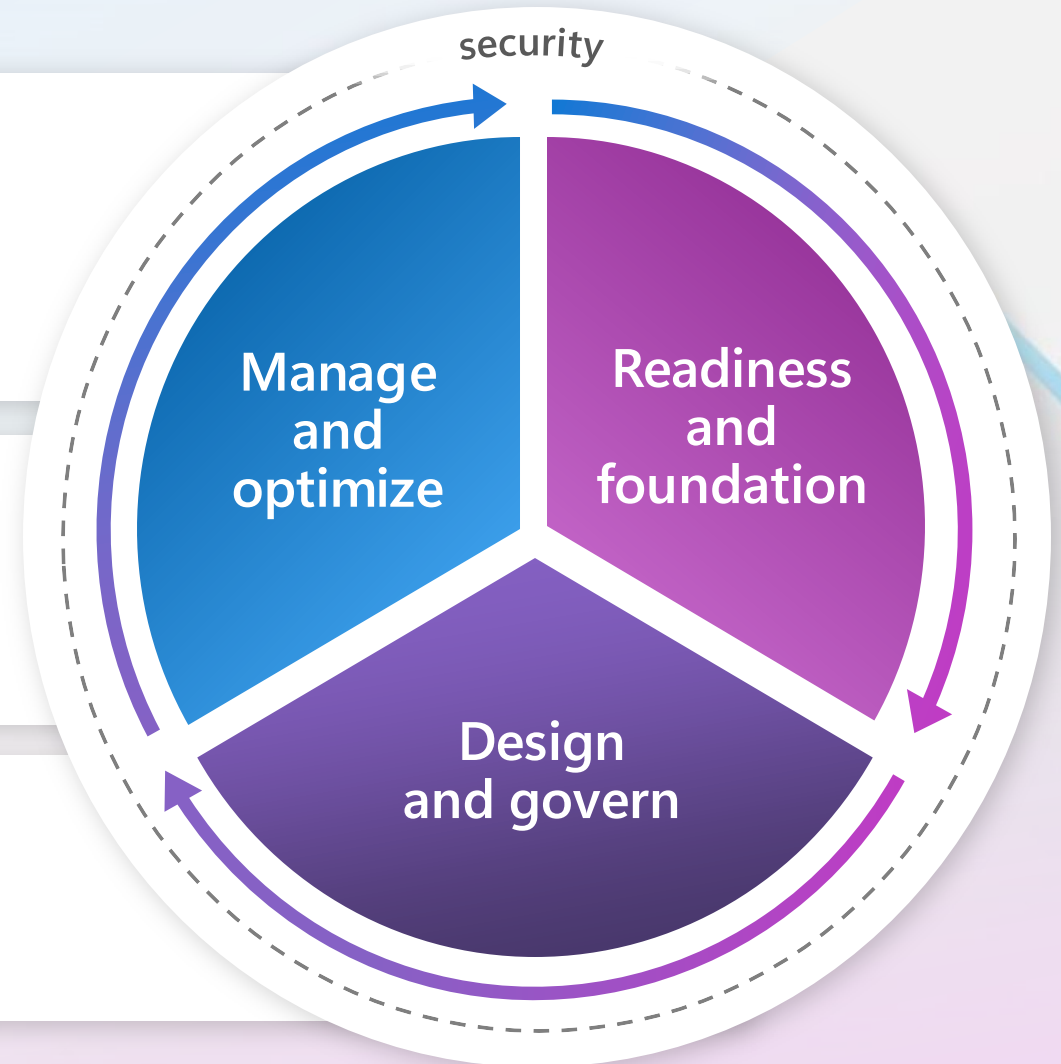
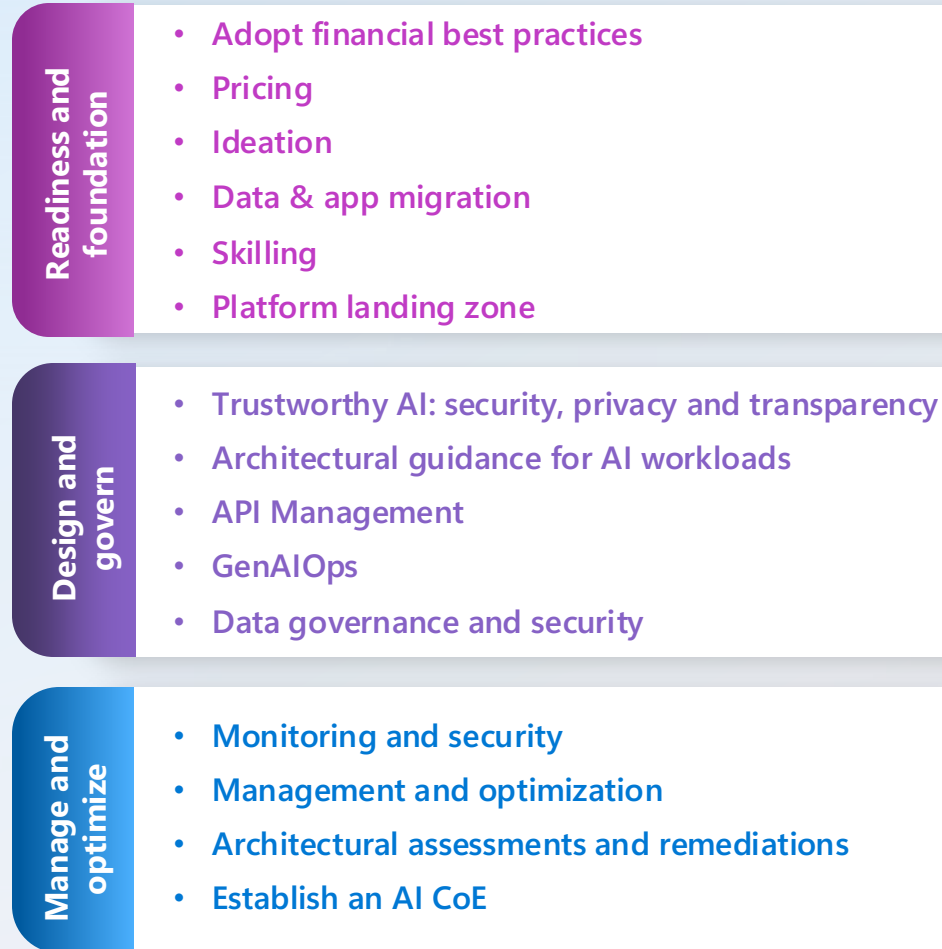
[Azure Proactive
Resiliency](#)



Innovate with AI apps and agents

Innovate with AI apps and agents

Essentials for getting AI ready



Resources for Readiness and Foundation

Adopt financial best practices



- [Cost optimization of AI workloads](#)
- [How to forecast AI services costs in cloud](#)
- [FinOps Framework](#)
- [Assessments | FinOps Review](#)

Pricing



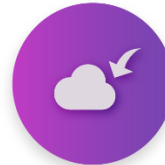
- [Azure pricing calculator](#)
- [Azure OpenAI capacity calculator](#)
- [PTU Reservations Blog](#)
- [PTU MS Learn Page](#)
- [Pricing Blog](#)

Skilling



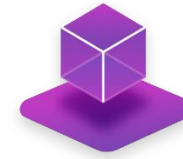
- [Azure AI Fundamentals](#)
- [Azure AI Engineer Associate](#)
- [Azure Data Scientist Associate](#)
- [Transform your business with Microsoft AI](#)

Data collocation



- [Build a business case](#)
- [Azure Migrate Overview](#)
- [Migration tools](#)
- [Migration FAQ](#)

AI CoE



- [GenAI CoE ebook](#)
- [CAF AI CoE guidance](#)
- [Cloud Center of Excellence functions](#)

Platform Landing Zone



- [Landing Zone deployment options](#)
- [ISV considerations](#)
- [Get landing zone help](#)
- [Landing zone FAQ](#)
- [What is Zero Trust?](#)
- [Security in landing zones](#)

Resources for Design and Govern

Responsible AI principles



- [Azure Confidential Computing](#)
- [Responsible AI Tools and Practices](#)
- [Responsible AI Impact Assessment](#)

Azure AI Content Safety



- [Azure AI Content Safety](#)
- [Learn how to build responsible AI](#)
- [Azure AI Content Safety – Pricing](#)
- [Azure AI Content Safety – videos](#)

Data governance, security, privacy and compliance



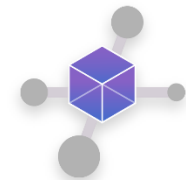
- [Introducing modern data governance for the era of AI](#)
- [Best practice for data and AI governance](#)
- [Unpacking AI governance to shape digital transformation](#)

Architectural Guidance



- [Baseline OpenAI end-to-end chat reference architecture](#)
- [Access Azure OpenAI and other language models through a gateway](#)
- [Azure OpenAI chat baseline architecture in an Azure landing zone](#)

GenAIOps



- [Assessment](#)
- [GenAIOps with prompt flow and GitHub](#)
- [Designing and developing a RAG solution](#)
- [Prompt flow in Azure AI Foundry](#)
- [Build apps with LLM Workshop](#)

Resources for Manage and Optimize

Monitoring



- [Model monitoring for generative AI applications](#)
- [Inference data collection from models in production](#)
- [Shared Responsibility AI](#)

Management and optimization



- [Azure OpenAI Studio](#)
- [Service Benchmarking tool](#)
- [Resource utilization and efficiency](#)
- [Understand and optimize costs w/ the Cost optimization workbook](#)
- [Azure carbon optimization](#)
- [Optimize spend with savings plan and reserved instance](#)

Proactive resiliency & security



- [Azure Advisor](#)
- [Well-Architected Review - MLOps](#)
- [Groundedness tests](#)
- [GovViz Tool](#)

AI CoE



- [GenAI CoE eBook](#)
- [GenAI CoE blog](#)
- [GenAI CoE training](#)
- [CAF AI CoE guidance](#)
- [Cloud Center of Excellence functions](#)
- [Learn AI CoE](#)

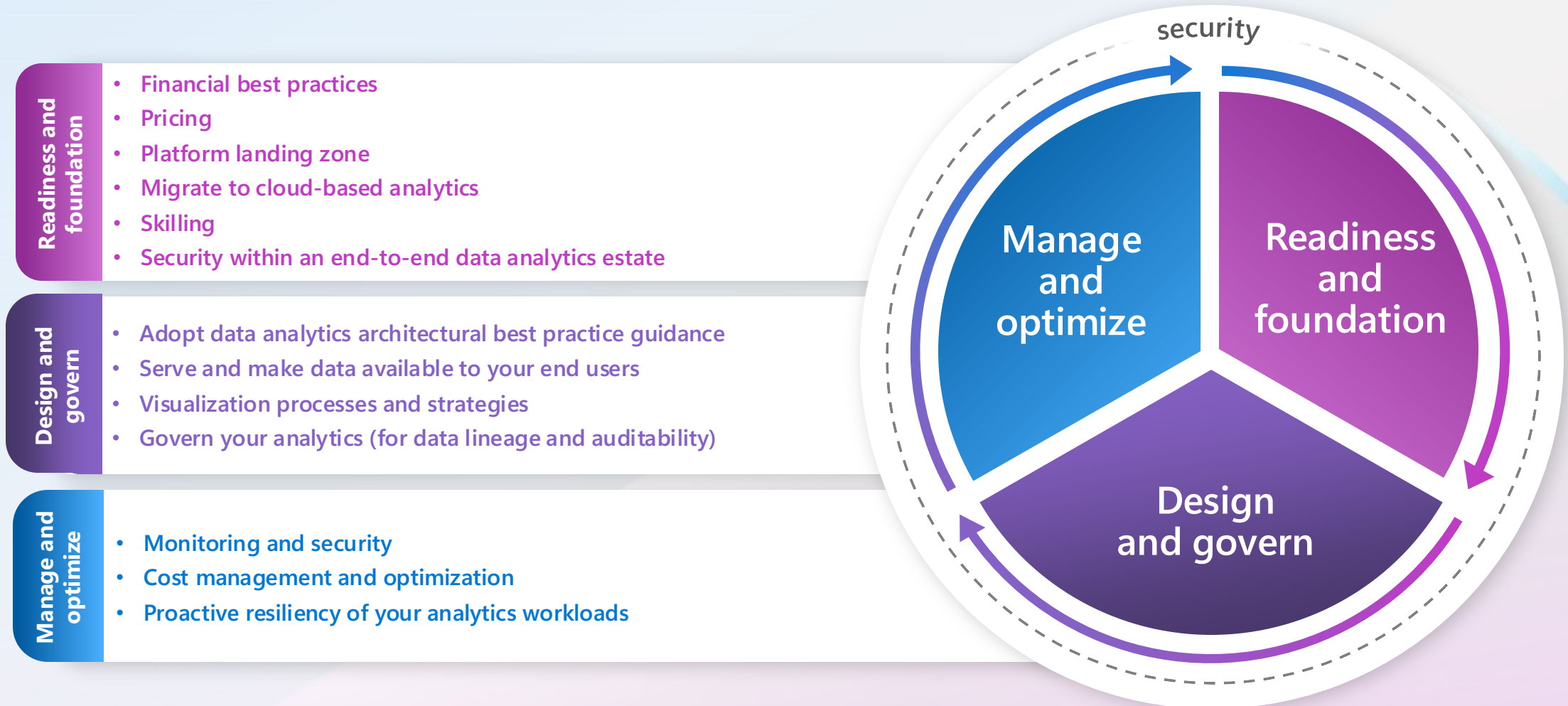


Unify your data platform

Adopting analytics solutions on Azure

Essentials for a successful adoption

Unify your
data
platform



Resources for Readiness and Foundation

Start here: [Analytics Portal on Learn](#)

Adopt financial best practices



- [FinOps on Azure](#)
- [Cost optimization training](#)

Pricing



- [Fabric pricing calculator](#)
- [Azure pricing calculator](#)
- [Understanding the Total Cost of Ownership Blog](#)
- [Pricing Blog](#)

Platform Landing Zone



- [Landing Zone deployment options](#)
- [ISV considerations](#)
- [Get landing zone help](#)
- [Landing zone FAQ](#)
- [What is infrastructure as code \(IaC\)?](#)
- [Azure Verified Modules](#)

Teams and Skilling



- [Learn modules for data roles](#)
- [AZ-204: Implement secure Azure solutions](#)
- [AZ-500: Secure compute, storage, and databases](#)

Security



- [Data Management Fundamentals](#)
- [DP-203: Data Engineering on Microsoft Azure](#)
- [Azure Databricks Learning Paths](#)
- [LinkedIn Learning: Azure Spark Databricks Essential Training](#)

Resources for Design and Govern

Start here: [Analytics Portal on Learn](#)

Data governance and compliance



- [Getting started w/ data governance](#)
- [Deploy a data governance solution](#)
- [Microsoft Purview domains and collections architecture and best practices](#)
- [Microsoft Purview data governance best practices for security](#)

Privacy



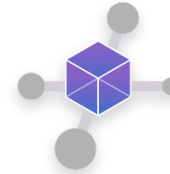
- [Data Security and Encryption Best Practices](#)
- [Security Best Practices and Patterns](#)
- [Data security and encryption best practices](#)
- [Best practices in keeping secrets](#)
- [Azure Key Vault RBAC guide](#)

Data security



- [Securing PaaS databases in Azure](#)
- [Azure data security and encryption best practices](#)
- [Azure identity management and access control security best practices](#)
- [Azure Service Fabric security best practices](#)

DataOps



- [Top 5 security items to consider before pushing to production](#)
- [DataOps for the modern data warehouse](#)
- [DataOps Best Practices: Enhancing Data Quality, Management and Operations](#)

Architectural Guidance



- [Architecture best practices for Azure Databricks](#)
- [Architecture best practices for Azure Event Hubs](#)
- [Architecture best practices for Log Analytics](#)

Resources for Manage and Optimize

Start here: [Analytics Portal on Learn](#)

Monitoring & security



- [Model monitoring for generative AI applications](#)
- [Inference data collection from models in production](#)
- [Shared Responsibility AI](#)

Management & optimization



- [Resource utilization and efficiency](#)
- [Understand and optimize costs w/ the Cost optimization workbook](#)
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- [Optimize spend with savings plan and reserved instance](#)

Proactive resiliency for analytics workloads



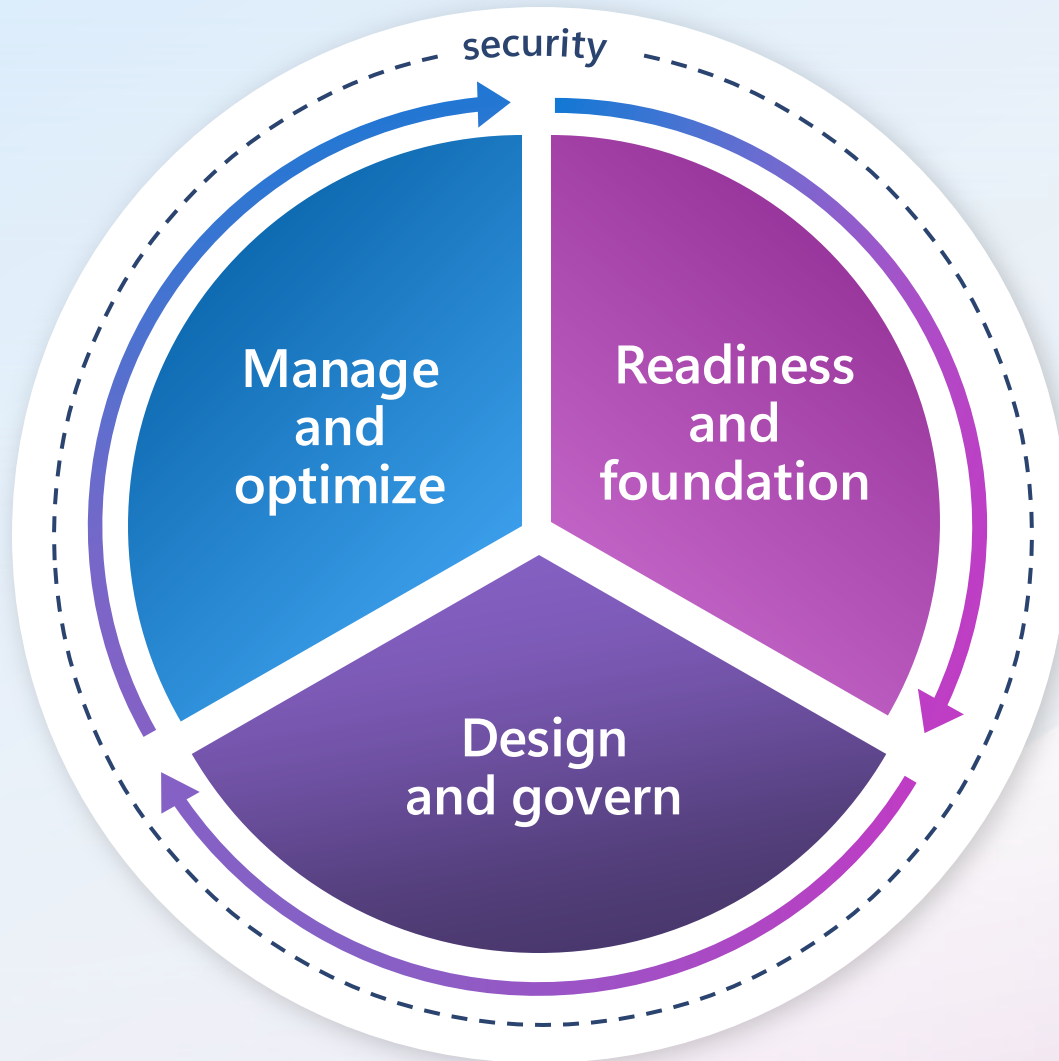
- [Azure Advisor](#)
- [Azure Chaos Studio](#)
- [Groundedness tests](#)
- [GovViz Tool](#)



**Migrate and modernize
your estate**

Migrate and Modernize your Estate

Use the concepts in each phase to ensure successful migration and modernization



Readiness and foundation

- Migration and modernization strategy
- Security and compliance training
- Platform landing zone
- Pricing and financial best practices
- Skilling

Design and govern

- Architectural guidance
- Assess, test, and deploy workloads
- Cloud governance
- AI-ready migration and modernization
- DevOps and Platform engineering readiness

Manage and optimize

- Proactive resiliency
- Monitoring
- Cost Efficiency
- Workload improvement

Resources for Readiness and Foundation

Migrate &
Modernize
your Estate

Migration and modernization strategy



- [Migrate overview - Cloud Adoption Framework](#)
- [Azure Migrate](#)
- [Add migration tools in Azure Migrate](#)
- [Azure Site Recovery](#)
- [Azure Database Migration Service for SQL Server migrations](#)
- [Microsoft Azure Migration Hub](#)
- [App Modernization Guidance for Azure](#)
- [Roadmap for application modernization](#)

Security and compliance training



- [Security overview - Cloud Adoption Framework](#)
- [Define a security strategy](#)
- [Migrating servers from Microsoft Defender for Endpoint to Microsoft Defender for Cloud](#)
- [Plan your migration to Microsoft Sentinel](#)

Platform landing zone



- [Prepare your landing zone for migration](#)
- [Landing zone deployment options](#)
- [ISV considerations](#)
- [Get landing zone help](#)
- [Landing zone FAQ](#)
- [What is Zero Trust?](#)
- [Security in landing zones](#)

Pricing and financial best practices



- [Cloud Migration Guide for Financial Leaders](#)
- [FinOps Framework](#)
- [FinOps Review](#)
- [Get started with FinOps](#)
- [Azure pricing overview](#)
- [Azure Hybrid Benefit cost calculator](#)
- [Investment: Allocate budget and demonstrate ROI](#)

Skilling



- [Azure Fundamentals](#)
- [Migrate Windows Server and VMware workloads on Azure to be AI-Ready](#)
- [Migrate and Secure a Windows Server Workload on Azure](#)
- [Migrate Linux & PostgreSQL workloads on Azure](#)
- [Virtual Training Days](#)
- [Azure Credentials](#)

Resources for Design and Govern

Migrate &
Modernize
your Estate

Architectural guidance



- [Design workload architecture before migration](#)
- [Design migration to Azure](#)
- [Deploy Azure SQL Database](#)
- [Azure database and analytics services](#)
- [Azure Cosmos DB](#)
- [Azure Database for PostgreSQL](#)
- [Azure Database for MySQL](#)
- [SQL Server on Azure VMs](#)
- [Run a Linux VM on Azure](#)
- [Expand and optimize application modernization](#)
- [Rebuild monolithic applications using microservices](#)
- [Rebuild using serverless platforms](#)
- [Modernize applications using an API wrapper](#)
- [Replatform data during application modernization](#)

Assess, test, and deploy workloads



- [Migration assessment checklist](#)
- [Migration deployment checklist](#)
- [Assess your application modernization needs](#)
- [Make an inventory and collect data](#)
- [Are you ready for application and data modernization?](#)
- [Launch your application modernization strategy](#)
- [Build a proof of concept](#)
- [Lay the foundation for application modernization](#)
- [Maximize value in your application modernization plan](#)
- [Plan an application modernization strategy](#)
- [The 6 Rs of application modernization](#)

Cloud governance



- [Cloud Adoption Framework governance overview](#)
- [Migration release checklist](#)
- [Identity, security, and compliance best practices](#)
- [Evaluate strategies through the 6 Rs](#)
- [Governance](#)

AI-ready migration and modernization



- [Microsoft's Responsible AI principle](#)
- [Azure AI Content Safety](#)
- [Azure AI Content Safety – Pricing](#)
- [Azure AI Content Safety – videos](#)
- [Innovate and automate using AI](#)
- [Innovation best practices](#)

DevOps and Platform engineering readiness



- [Platform engineering guide](#)
- [What is platform engineering?](#)
- [Platform engineering principles](#)
- [Use the Platform Engineering Capability Model](#)
- [Case Studies: Three customer platform engineering implementations](#)
- [DevOps resource center](#)
- [Platform Engineering | AKS LABS](#)
- [Hello from AKS LABS | AKS LABS](#)

Resources for Manage and Optimize

Migrate &
Modernize
your Estate

Proactive resiliency



- [Azure Advisor](#)
- [Azure Well-Architected Review](#)
- [Strategic Migration Assessment and Readiness Tool](#)
- [Proactive resiliency: Reduce risk for reliable workloads](#)
- [Azure Discovery Workshop – Proactive Resiliency](#)
- [Proactively design and build resilient workloads on Azure](#)
- [Azure Monitor cost optimization using Azure Advisor](#)
- [Azure Advisor - Azure Database for PostgreSQL flexible server](#)
- [Azure Kubernetes Service \(AKS\) cost recommendations in Azure Advisor](#)

Monitoring



- [What is Microsoft Defender for Cloud?](#)
- [Azure Defender for Servers](#)
- [Confidential computing](#)
- [Microsoft Purview](#)
- [Azure Monitor](#)
- [Azure Backup Site Recovery](#)
- [Azure security baseline for Azure Migrate](#)
- [Secure your hybrid and multicloud machines by using Azure Arc-enabled servers](#)

Cost efficiency



- [Resource utilization and efficiency](#)
- [Cost optimization workbook](#)
- [Azure carbon optimization](#)
- [Optimize costs with Azure pricing](#)
- [FinOps interactive guides](#)
- [FinOps Framework](#)
- [FinOps Review](#)

Workload improvement



- [Databases: Azure service guidance mapped to Azure Well-Architected Framework](#)
- [What's new in the Azure Well-Architected Framework](#)
- [Optimize and scale application modernization](#)
- [Rebuild applications for scalability, performance, and reliability](#)
- [Measurements and feedback](#)



Azure proactive resiliency

Azure proactive resiliency



Infrastructure resiliency

1

Identify and document

- Identify a business-critical workload that you would like to assess for its resiliency.
- Understand the [Business critically in cloud management](#).

2

Assess and recommend

- The [Well-Architected Reliability Assessment](#) offers technical analysis of all Azure services in critical workloads, including shared services. It covers high availability, backup and recovery, disaster recovery, monitoring, alerting, maintenance control, outage history, performance, and security. The results are shared via Azure Advisor and support needs are documented for regular follow-up.
- [Define the workload](#) to be assessed.
- Use the Azure Proactive Resilience Library ([APRL](#)) to discover deficiencies.
- Load recommendations into [Azure Advisor](#) for monitoring status.
- Learn about the [overview and usage of APRL Scripts](#) in the APRL v2.

3

Plan for remediation and execute

- Communicate findings and discuss potential remediation with all relevant stakeholders.
- Focus on highest risk areas, select services aligned to the remediation recommendations.
- Execute recommendations to reduce gaps.
- Explore how to use the [Reports Generator PowerShell script](#).

Key gaps to address

Single availability-zone deployments:

Multi-zonal deployment of services can prevent customer impact during outages, ExpressRoute Gateways should be deployed across multiple availability zones.

Azure Accelerate

Fueling cloud transformation with experts, investments and resources.

Access trusted experts

- Tap into the expertise of Azure's specialized partner ecosystem
- Engage with Microsoft's Cloud Accelerate Factory for zero-cost deployment assistance
- Available across all industries, customers, and project sizes.

Unlock Microsoft investments

- Access funding for all project types and phases to deliver faster business outcomes.
- Lower initial costs with Azure credits while advancing cloud adoption.
- Upskill internal teams with free, on-demand content or customized training.

Leverage comprehensive resources

- Utilize assessments and AI enhanced tools to simplify your move to the cloud.
- Get coverage for all project stages—POCs, pilots, and full deployments.
- Support for all scenarios across migrations, databases, analytics, apps, and AI.

Backed by the proven methodologies and tools in Azure Essentials

[Get the help you need](#)