Microsoft Azure

Preparing for Your Cloud Journey with Microsoft

Peter Mogaka
Cloud Solution Architect - 2023

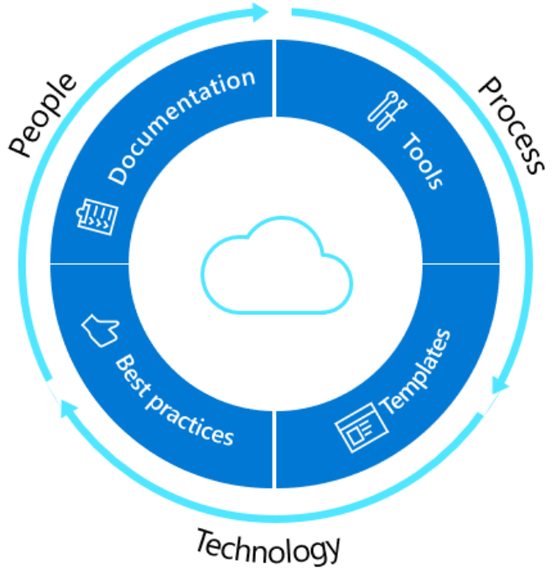
Agenda

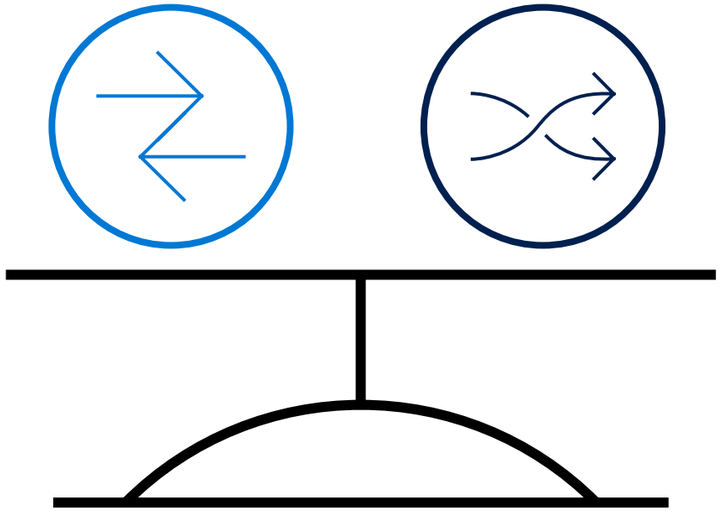
- CAF overview
- Programs / co-selling
- Q&A

Going from Jernbanetorget to Ekebergparken

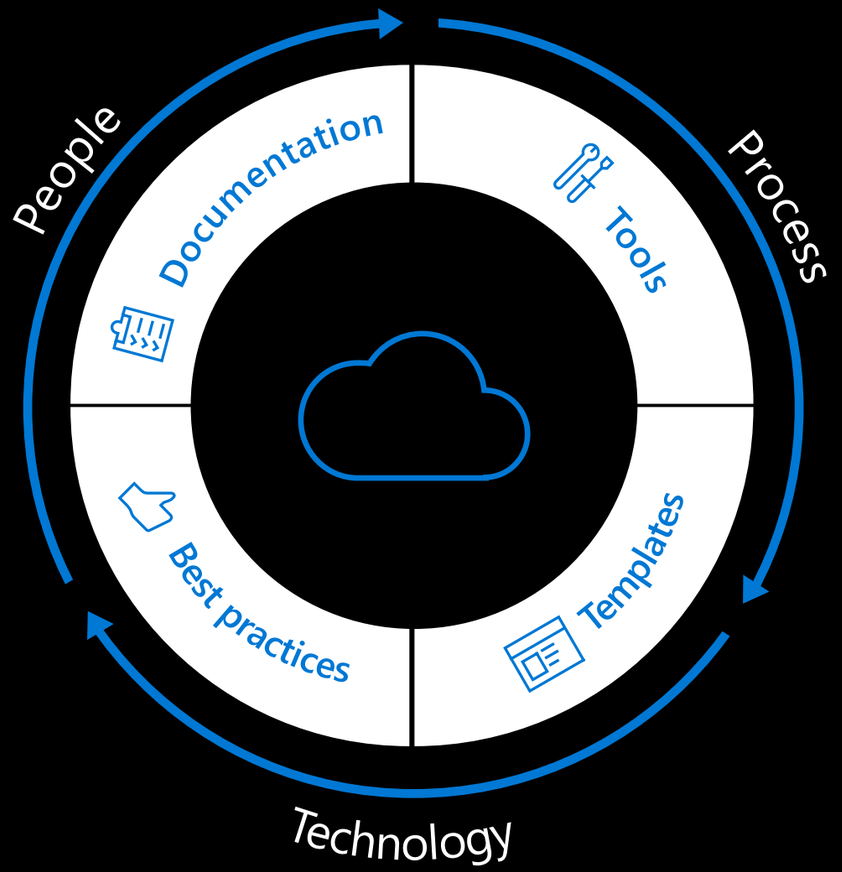
Why was Cloud Adoption Framework (CAF) created?

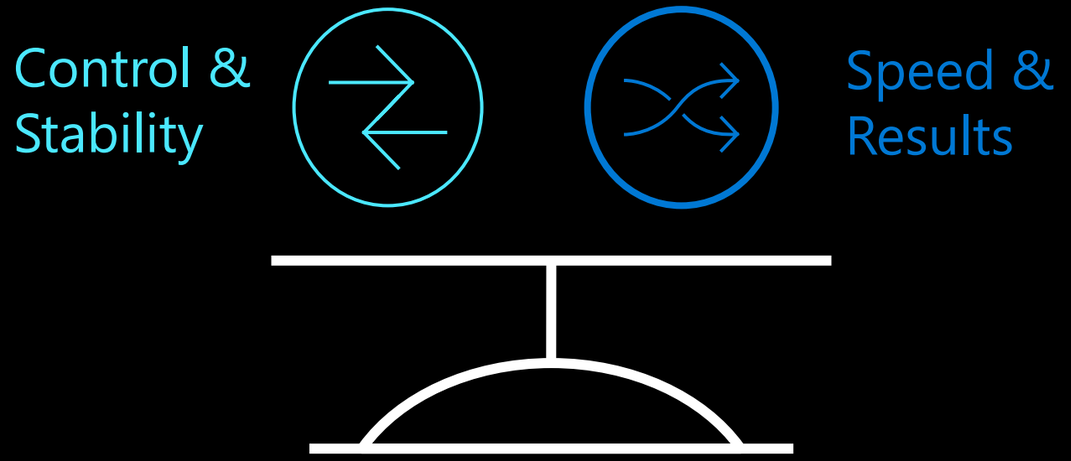
- The goal of CAF is to provide unified One Microsoft customer guidance for Azure adoption aligned to their motivations and expected outcomes.
- CAF is a framework which is designed to span the customer's entire cloud adoption lifecycle. The framework contains multiple methodologies and processes.





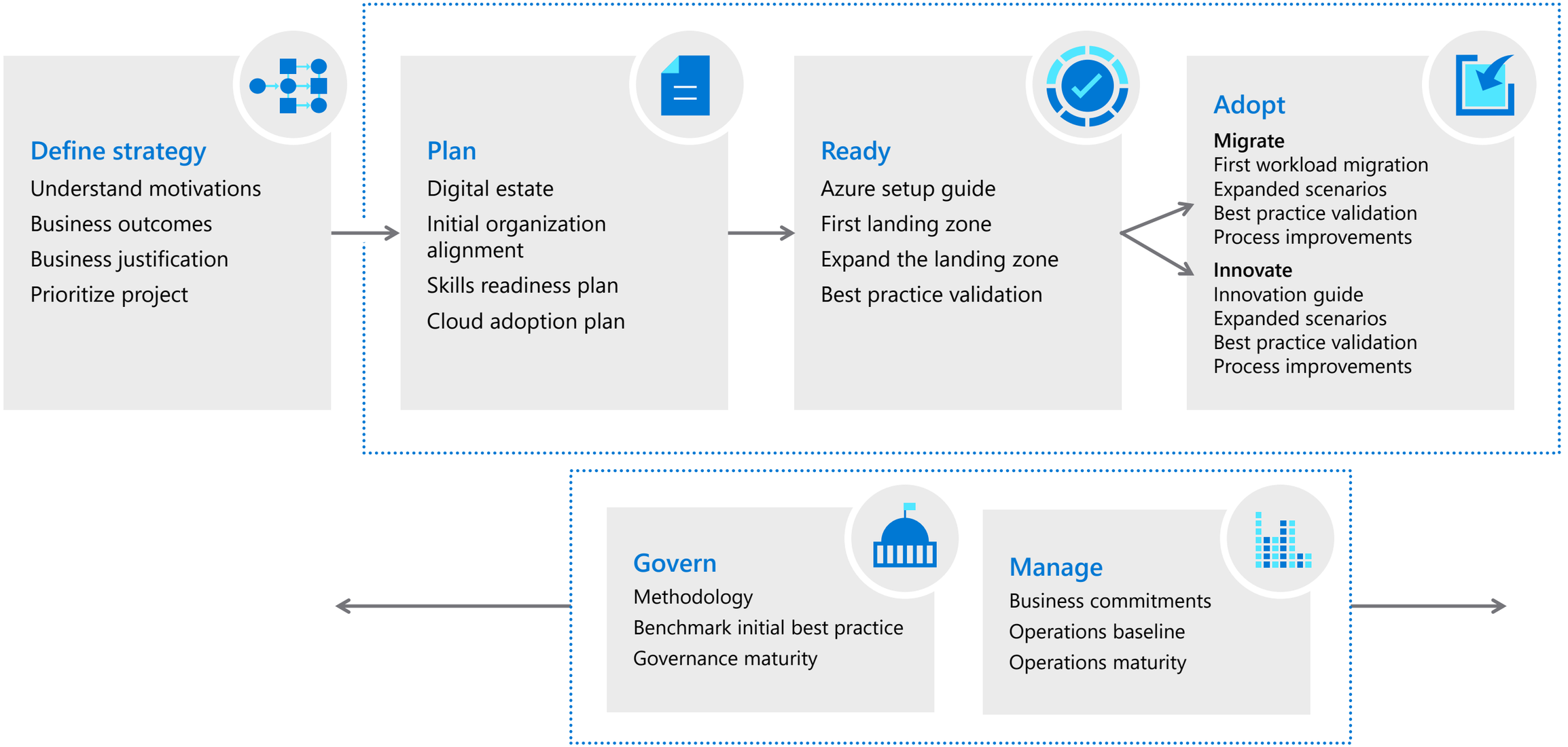
Achieve balance. Deliver modernization





Align—business, people and technology strategy.
Achieve—business goals with actionable, efficient, and comprehensive guidance.
Deliver—fast results with control and stability.

Microsoft Cloud Adoption Framework for Azure



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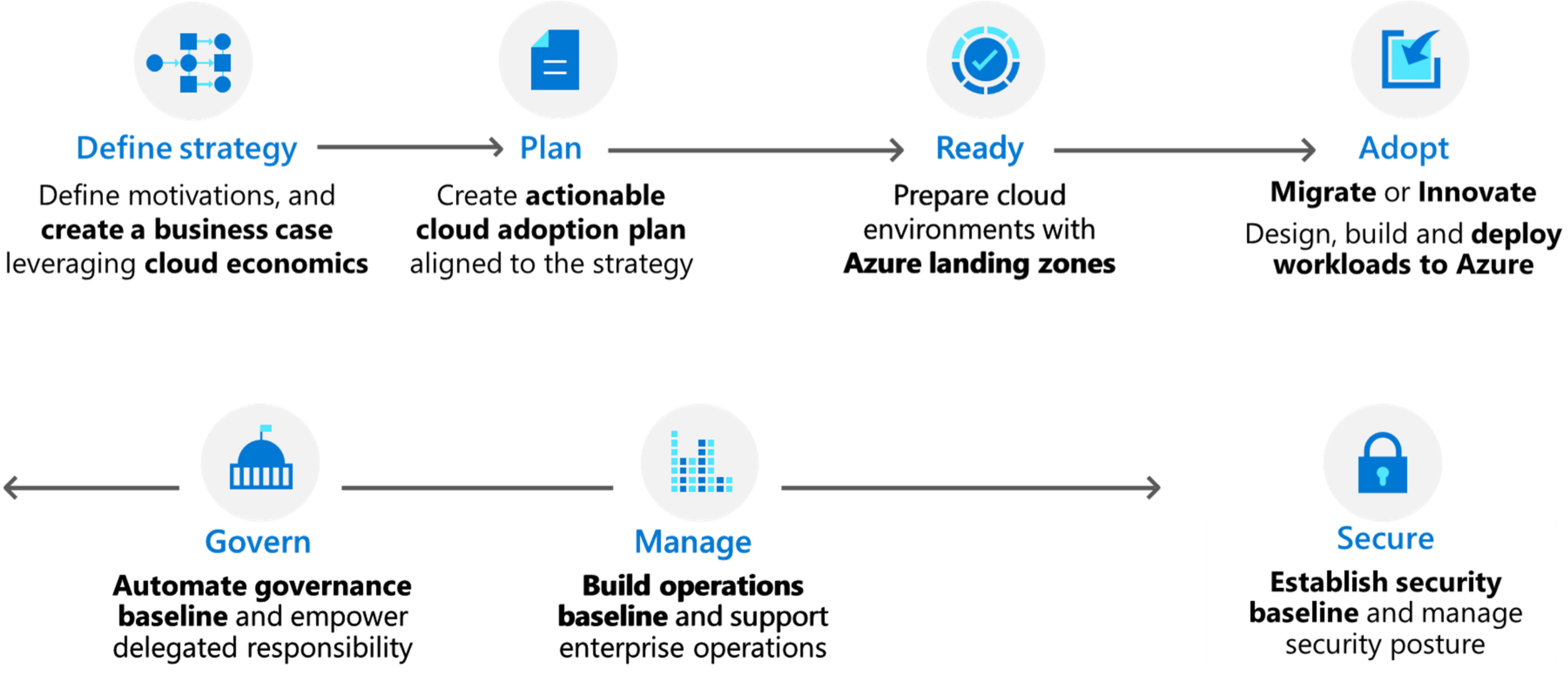
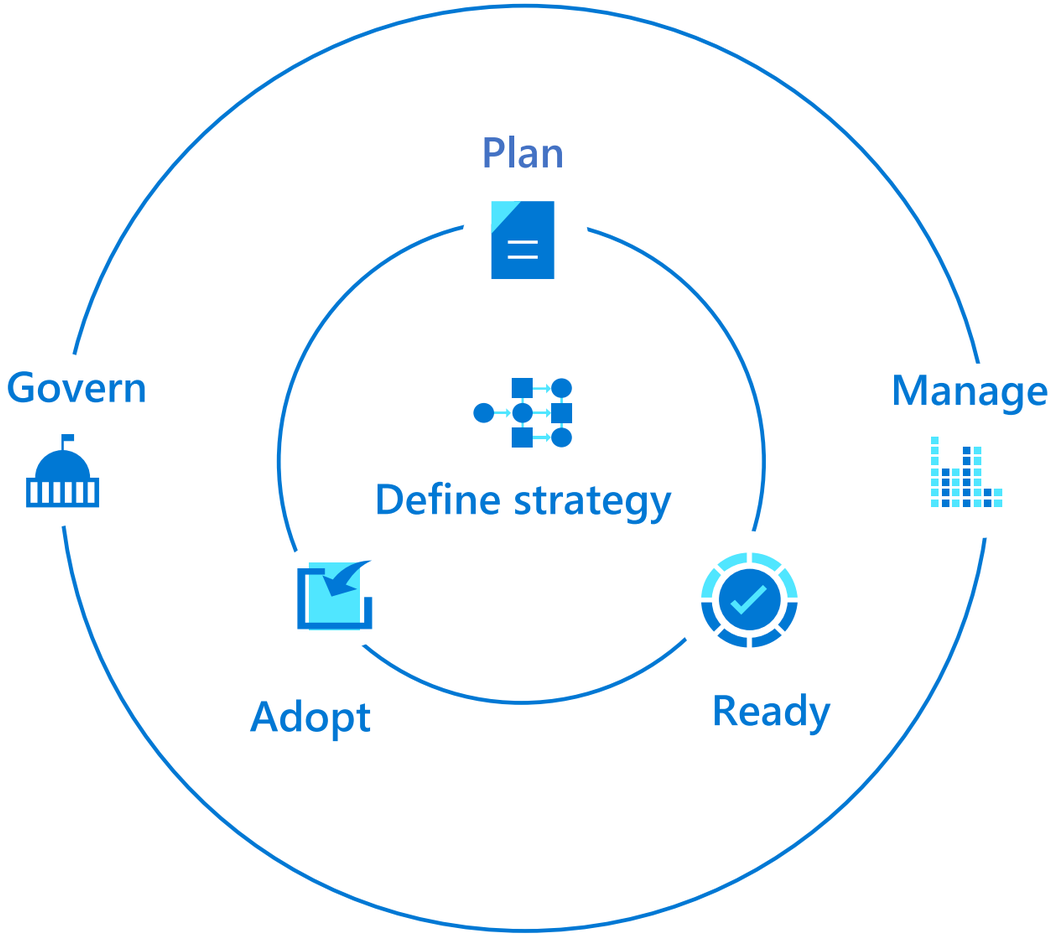


An iterative process that supports your business … as it evolves



Strategy

The cloud journey starts with defining the strategy by understanding motivations, identifying the business outcomes, evaluating the financial and technical considerations, and creating a business case for moving to the cloud. This stage is about understanding the 'why' behind your cloud adoption journey.

Define motivations for moving to the cloud

Identify and document business outcomes

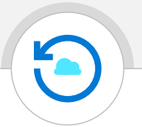
Evaluate financial & technical considerations

Create a business case

Plan

This stage is about understanding 'who' in your organization will be leading the efforts, developing the right organizational structure, including a Cloud Center of Excellence and other readiness teams. This is also where you define the backlog of work including what workloads are going to move in the short, medium and long term and build that into an actionable cloud adoption plan.

Rationalize digital estate



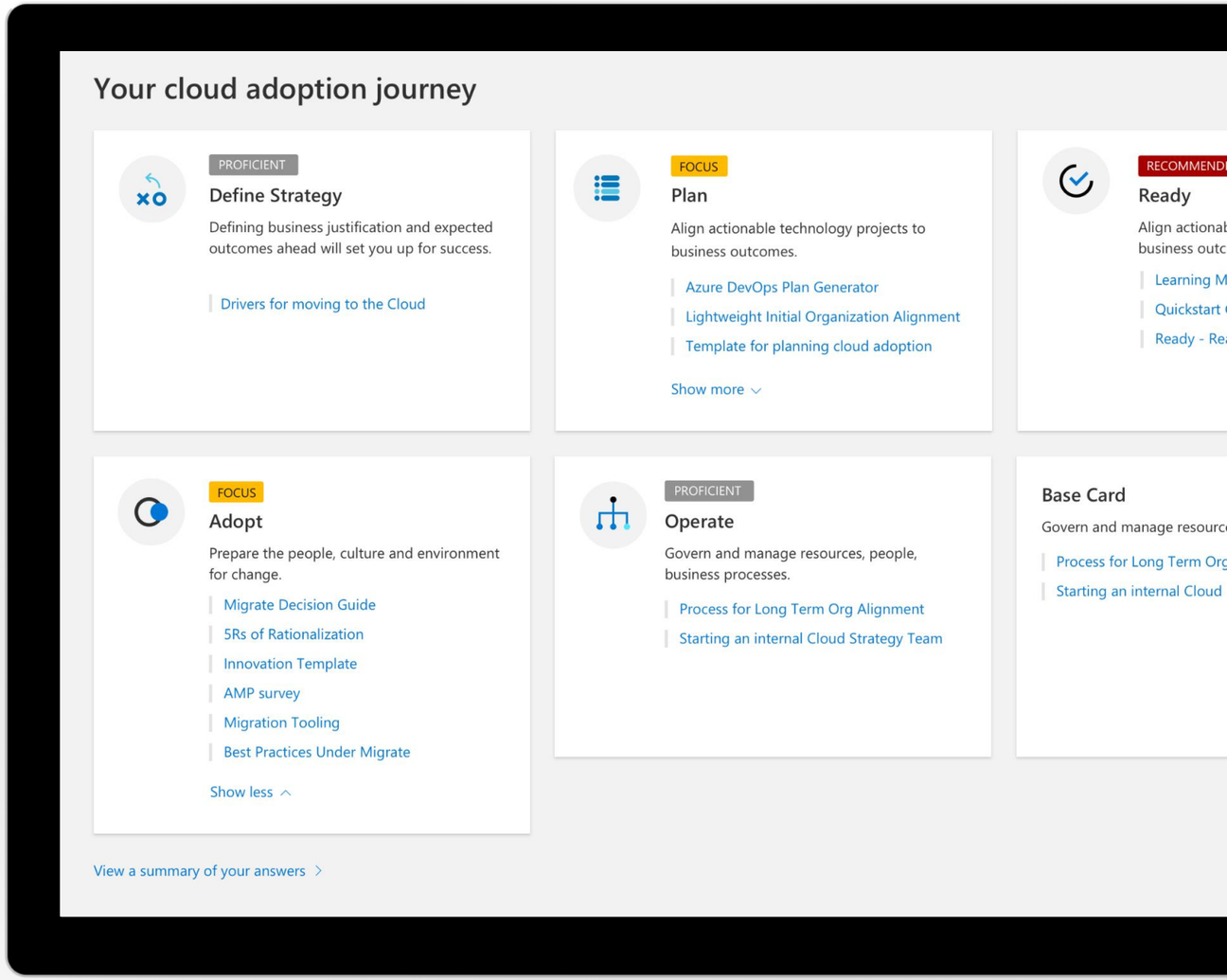
Initial Organization Alignment

Identify skills gap and define readiness plan

Define cloud adoption plan

Before you begin…..

Let’s take a few minutes to capture the current state of your cloud adoption using the “Cloud Journey Tracker”



Define Strategy

Document your cloud strategy to help stakeholders understand the business outcomes the organization is pursuing by adopting the cloud

1 **Motivations**
Understand motivations to move to cloud

2 **Business Outcomes**
Engage stakeholders to document specific business outcomes

3 **Business Justification**
Develop a business justification that supports your motivations and outcomes

4 **Identify First Project**
Leverage business and technical criteria to choose your first project

Cloud Adoption Motivations

Engage stakeholders across business and technology to understand your motivations for cloud adoption

Critical Business Events

- Data center exit
- Mergers, acquisition or divestiture
- Reductions in capital expenses
- End of support for mission critical technologies
- Regulatory compliance, data sovereignty requirements
- Reduce disruptions and improve IT stability

Migration Motivations

- Cost Savings
- Reduction in vendor or technical complexity
- Optimization of internal operations
- Increase business agility
- Prepare for new technical capabilities
- Scale to meet market demands
- Scale to meet geographic demands

Innovation Motivations

- Prepare for new technical capabilities
- Build new technical capabilities
- Scale to meet market demands
- Scale to meet geographic demands
- Improve customer experiences / engagements
- Transform products or services
- Disrupt the market with new products or services

Prioritize project

Choose the first project by using a clearly defined criteria and business outcomes to achieve

First Project Criteria

- Should align with your motivations for cloud adoption
- Should demonstrate progress towards a defined business outcome

First Project Expectations

- Project is a source of learning.
- It might result in production deployments, but it will probably require additional effort first.
- The output of this project is a set of clear requirements to provide a longer-term production solution.

First Project Examples

for each motivation category

- **Critical business events:** Use Azure free HA/DR benefits of SQL Server Software Assurance to stand up a DR location in Azure.
- **Migration motivations:** Start with a noncritical workload and use Azure readiness guide and the Azure migration guide for guidance
- **Innovation motivations:** Creation of a targeted dev/test environment can be a great first project.

Microsoft Azure

Demo – Cloud Journey Tracker

Microsoft Azure

Putting together your plan

Plan

Cloud adoption plans convert the aspirational goals of the cloud adoption strategy into actions. It will help guide technical efforts, in alignment with the business strategy.

1. ## Rationalize Digital estate
Rationalize your digital estate to determine best approach to cloud adoption

2. ## Initial org alignment
Align governance and cloud adoption to mitigate risks

3. ## Skills readiness plan
Get your people ready by identifying skills gap and plan

4. ## Cloud adoption plan
Create an actionable cloud adoption plan that aligns to your business strategy

Rationalize digital estate

Cloud rationalization is the process of evaluating assets to determine the best approach to hosting them in the cloud (public or hybrid).

Rehost

Moves a current state asset to the chosen cloud provider, with minimal change to overall architecture, aka lift and shift

Refactor

Modernize to platform-as-a-service, creating significant savings in application and data management and administration

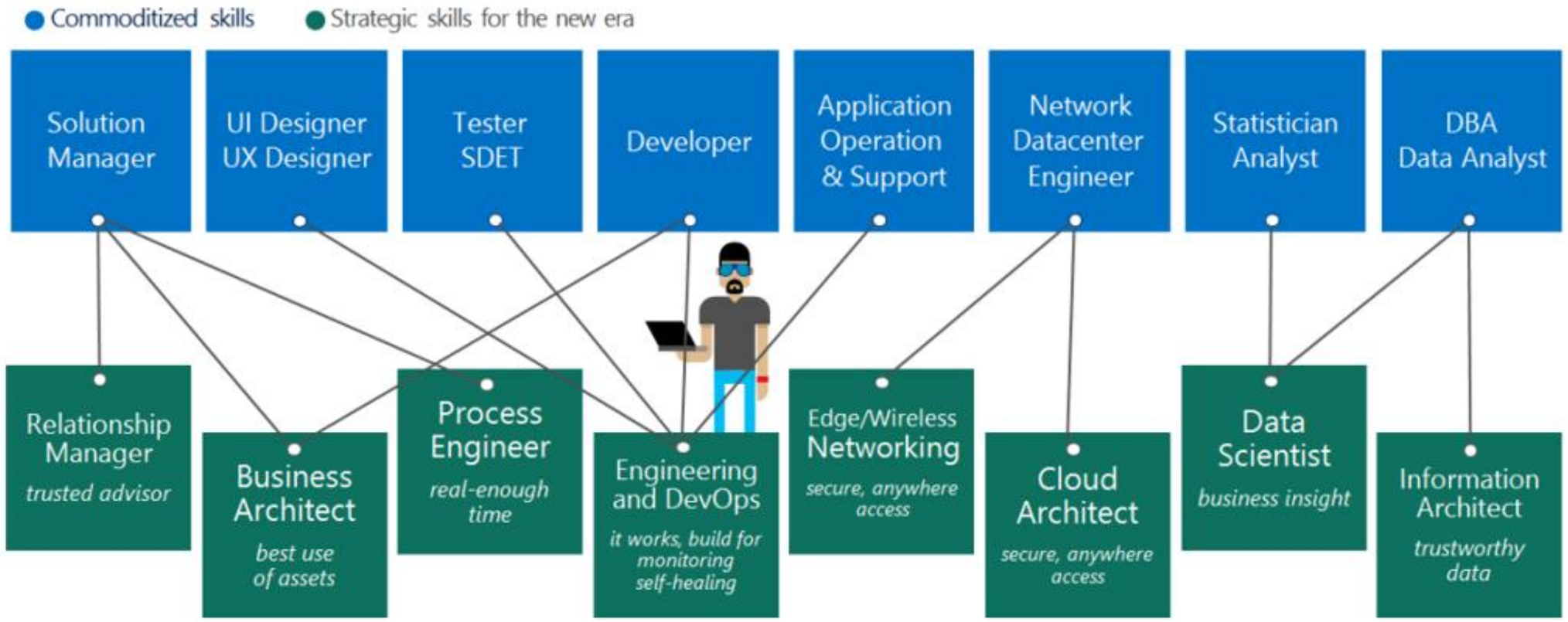
Retire

Retiring assets can produce significant savings in annual operating costs and up-front migration efforts

- **High level rationalization** simplifies decision making to answer the key question about an asset – to rehost, refactor or retire? More detailed rationalization with 5R(s) happens in the 'Adopt' phase
- While cloud adoption team executes first workload migration, the cloud strategy team uses the **Incremental approach** or 'Power of 10' where they select the first 10 applications to migrate

Plan | Skills Readiness Plan

Cloud computing is a technology shift and a new set of skills are required to support cloud solutions



1. Identify the gaps
2. Look across teams
3. Create an org-wide learning plan

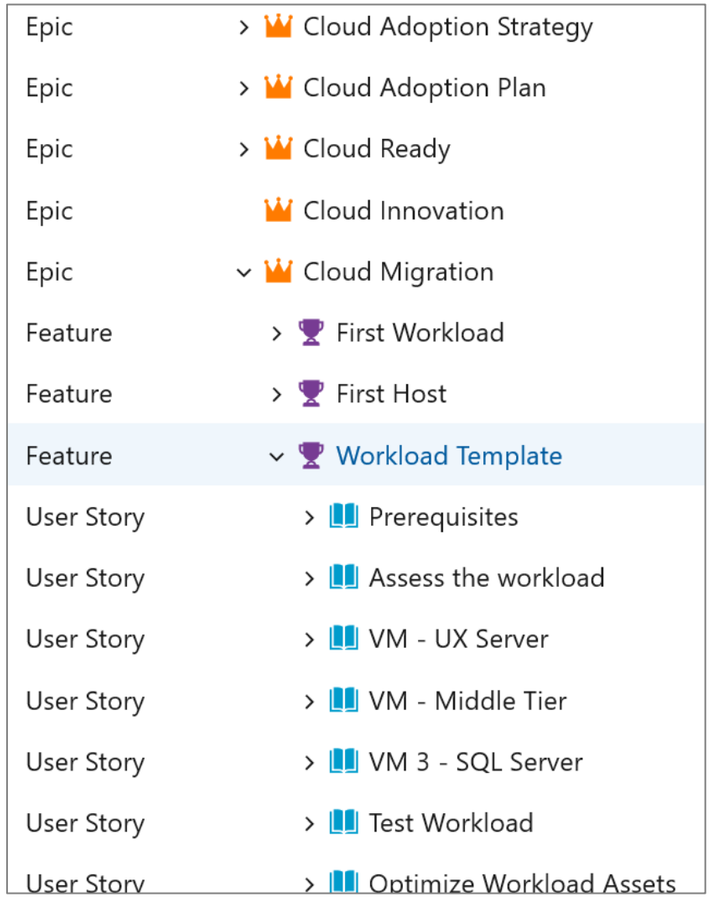
Plan | Cloud Adoption Plan

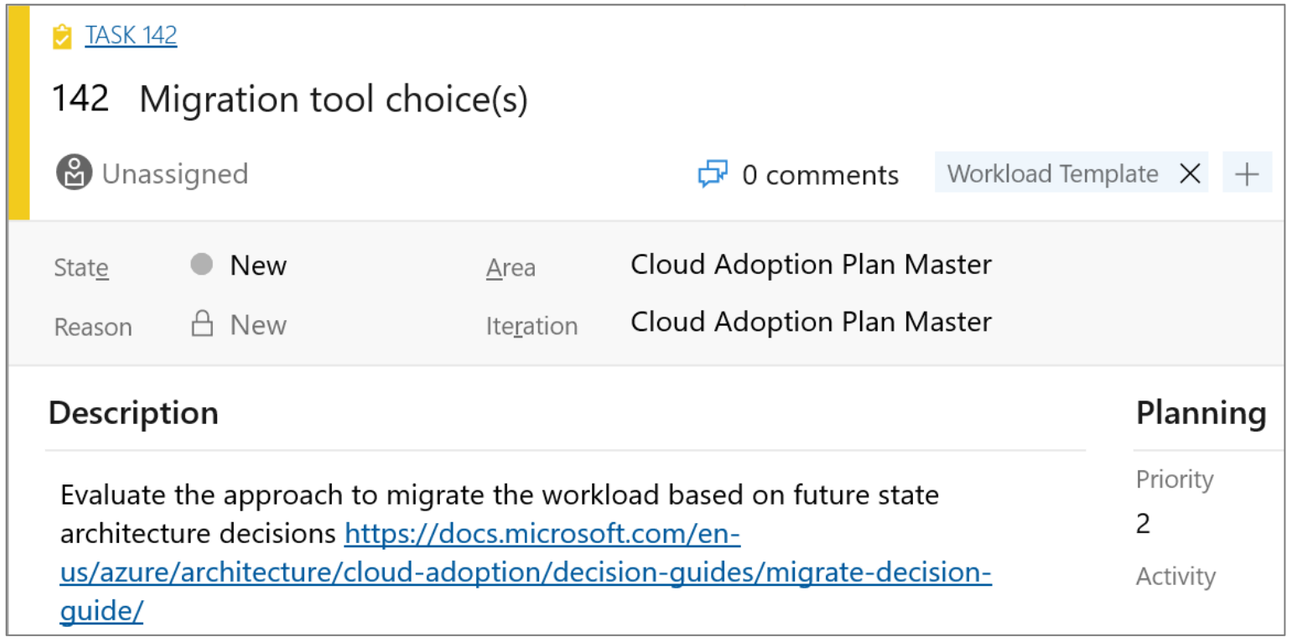
Translate strategy and effort into an actionable cloud adoption plan

- **Prerequisites**: Confirm that all prerequisite steps have been completed before you create your plan.
- **Define and prioritize workloads**: Prioritize your first 10 workloads to establish an initial adoption backlog.
- **Align assets:** Identify which assets (proposed or existing) are required to support the prioritized workloads.
- **Review rationalization:** Review rationalization decisions to refine adoption-path decisions: Migrate or Innovate.
- **Define iterations and releases:** Iterations are the time blocks allocated to do work. Releases are the definition of the work to be done before triggering a change to production processes.
- **Estimate timelines**: Establish rough timelines for release planning purposes, based on initial estimates.

Azure DevOps Cloud Adoption Plan Generator

Leverage Azure DevOps to log and track your cloud adoption plan
https://azuredevopsdemogenerator.azurewebsites.net/





Strategy & Plan Workshop Flow

Session 1:
Suggested time: 2-4 hours

Define your cloud strategy

- Introduction to Cloud Adoption Framework
- Deep Dive on Strategy
    - Assess current state with Cloud Journey Tracker
    - Understand motivations & business outcomes
    - Evaluate financial & technical considerations
    - Define a business case

Output:

- Documented cloud strategy including
    - Prioritized motivations & objectives
    - Key applications/workloads identified for cloud adoption

Suggested Participants

- Strategy Team
- IT and Business Leadership
- Cloud Center of Excellence / Central IT

Tools and Assessments:

- Cloud Journey Tracker
- Strategy and Plan Template

Session 2:
Suggested time: 2-4 hours

Define the cloud adoption plan

- Recap of session 1
- Deep dive on Plan
    - Rationalize digital estate
    - Stakeholder alignment
    - Readiness & Skills
    - Build & operationalize a cloud adoption plan through DevOps

Output:

- Completed strategy and plan document capturing:
    - Prioritized workloads
    - Skills readiness plans
- Documented Cloud adoption plan

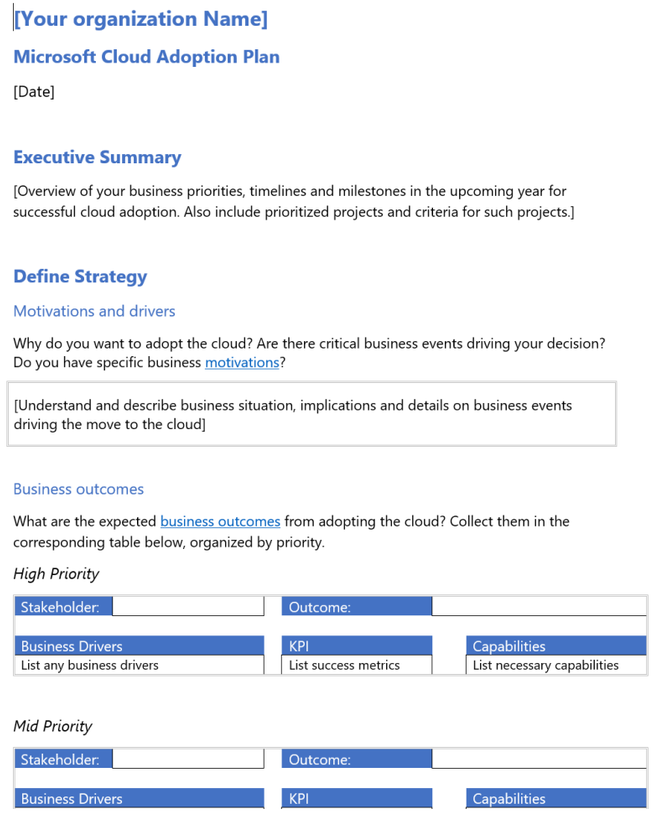
Suggested Participants

- Strategy Team
- IT and Business Leadership
- Cloud Center of Excellence / Central IT

Tools and Assessments:

- Strategic Migration Assessment & Readiness tool
- Azure DevOps plan generator

Final Outcome:
Actionable Strategy & Plan Document



[Your organization Name]

Microsoft Cloud Adoption Plan

[Date]

Executive Summary

[Overview of your business priorities, timelines and milestones in the upcoming year for successful cloud adoption. Also include prioritized projects and criteria for such projects.]

Define Strategy

Motivations and drivers

Why do you want to adopt the cloud? Are there critical business events driving your decision? Do you have specific business motivations?

[Understand and describe business situation, implications and details on business events driving the move to the cloud]

Business outcomes

What are the expected business outcomes from adopting the cloud? Collect them in the corresponding table below, organized by priority.

High Priority

Stakeholder:	Outcome:	
Business Drivers	KPI	Capabilities
List any business drivers	List success metrics	List necessary capabilities

Mid Priority

Stakeholder:	Outcome:	
Business Drivers	KPI	Capabilities

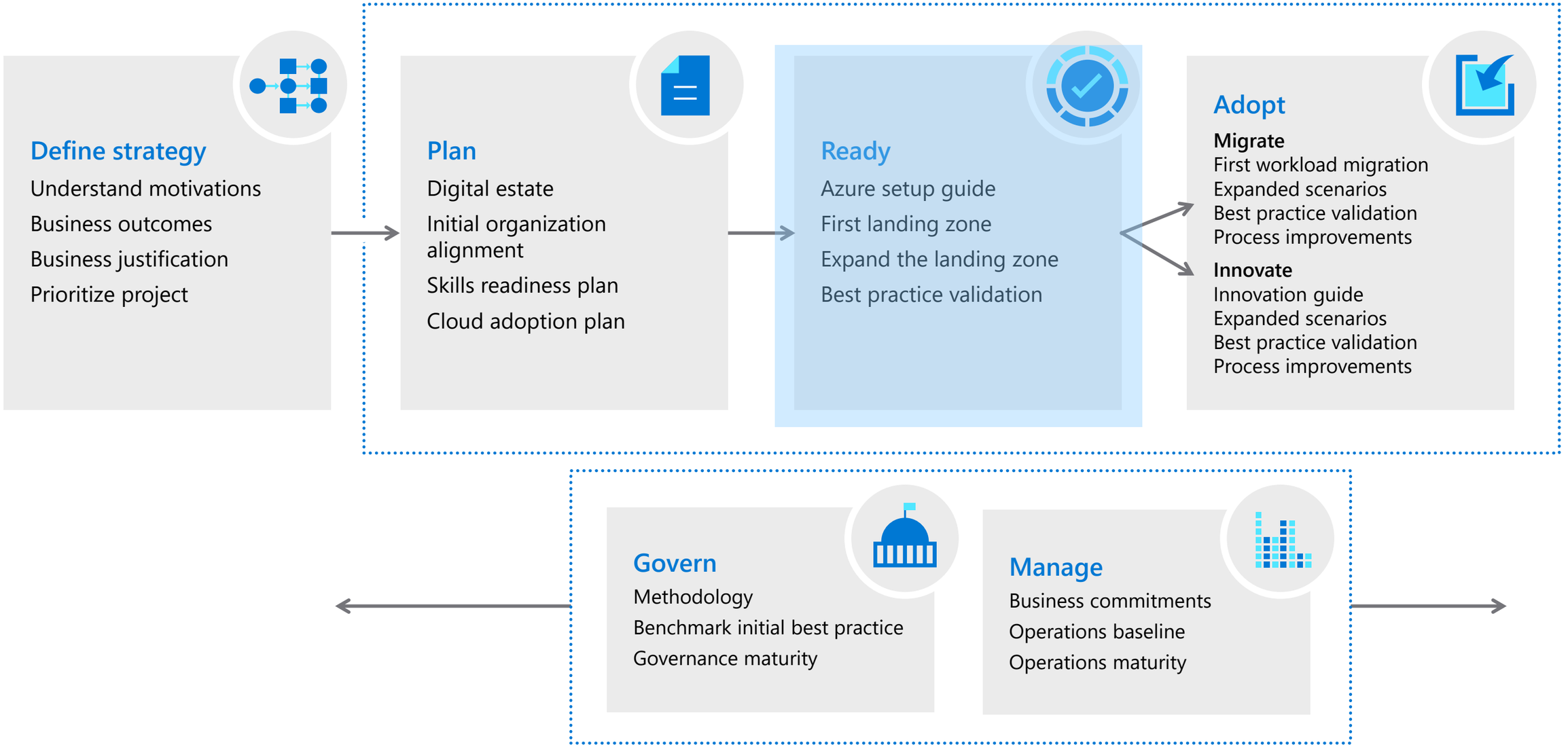
Or, Deployable Azure DevOps plan templates

**This workshop excludes solution architecture related discussions and is focused primarily on business and strategy*

Microsoft Azure

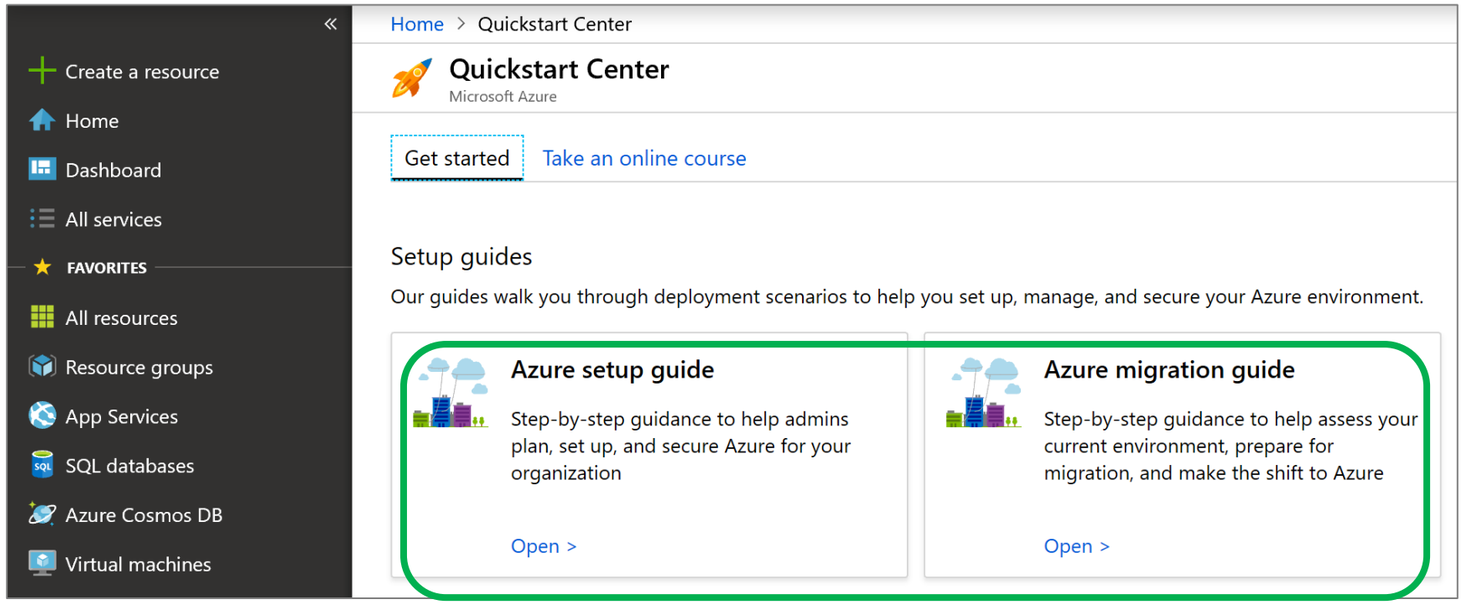
Demo – ADO plan

Microsoft Cloud Adoption Framework for Azure



Ready | Azure Setup Guide

- Prepare the cloud environment before building and deploying solutions using Azure services
- The Azure Setup Guide provides guidance on how to organize resources, control costs, and secure and manage your organization helping you create your landing zone in Azure

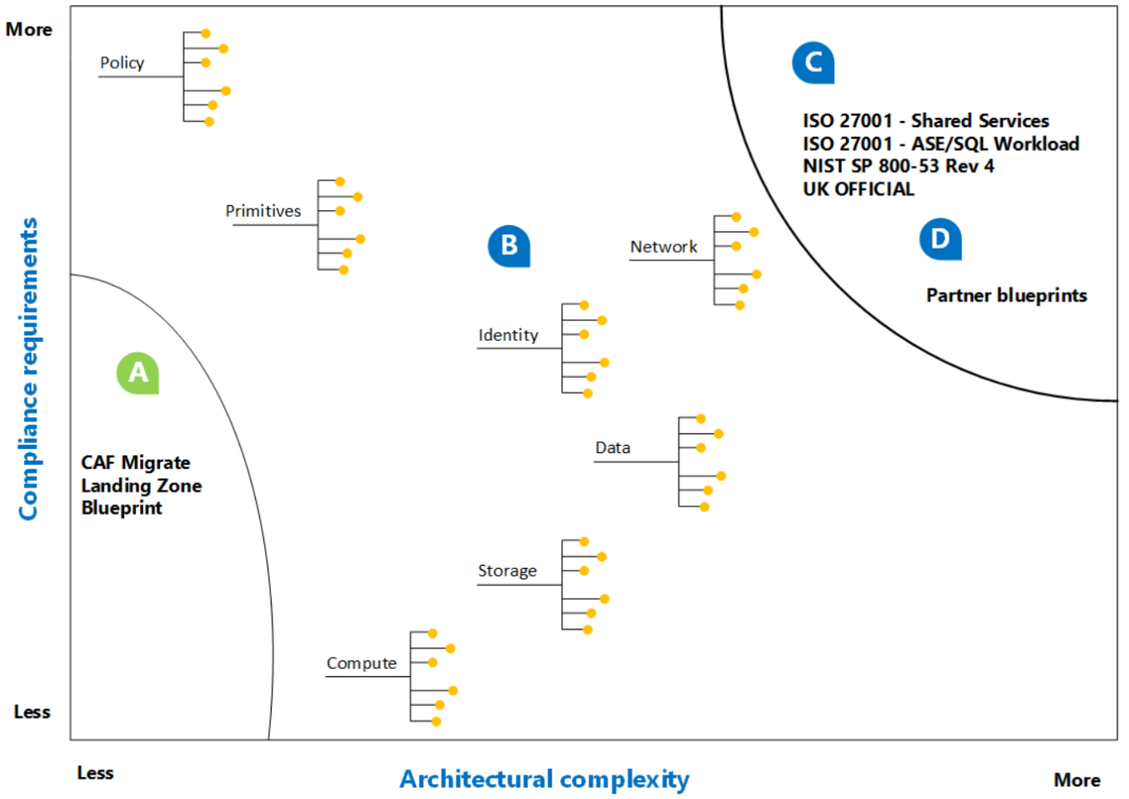


The guide is also published in the **Azure Quickstart Center** **Aka.ms/aqc** within the Azure Portal

Prepare first landing zone

Landing zone is the environment that is provisioned to host workloads being migrated from an on-premises environment into Azure.

- The Cloud Adoption Framework migrate landing zone blueprint creates a base landing zone which can be customized to meet your specific needs.
- Or your own **Landing Zone** IP
- **2 approaches:**
  - Start small and expand
  - Enterprise scale
- **Start VS Align VS Enhance**
- Various landing zone accelerators available for use.



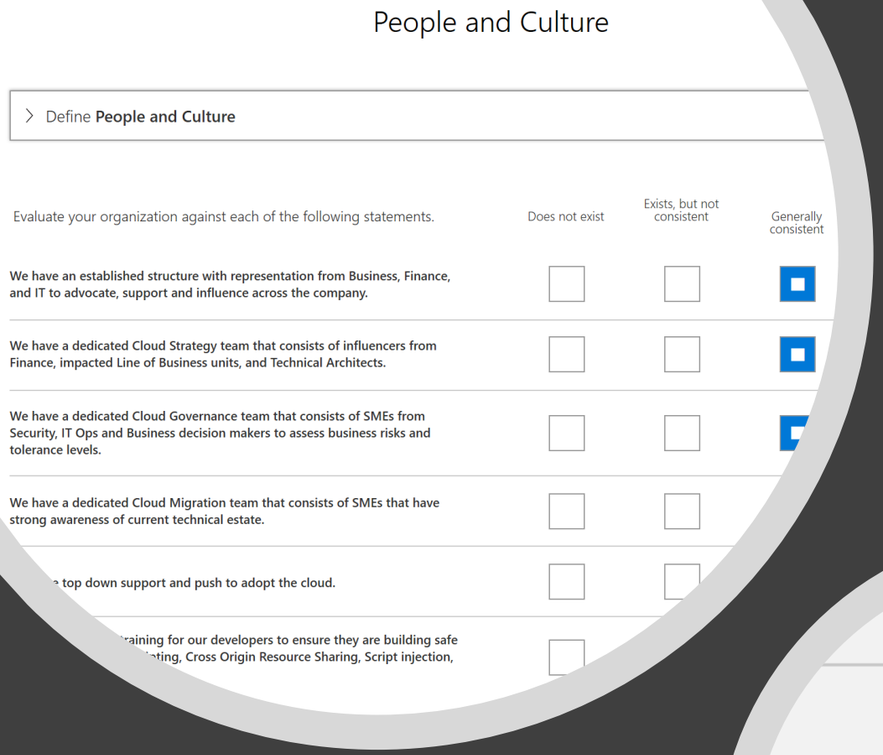
Ready | Recommended Practices

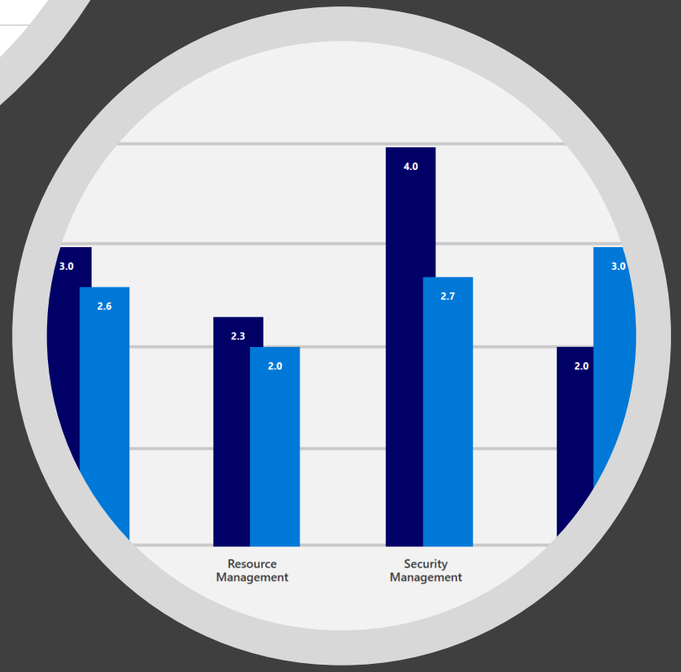
Leverage best practices in Cloud Adoption Framework to help your teams establish and prepare the Azure environment. These include guidance in the areas of:

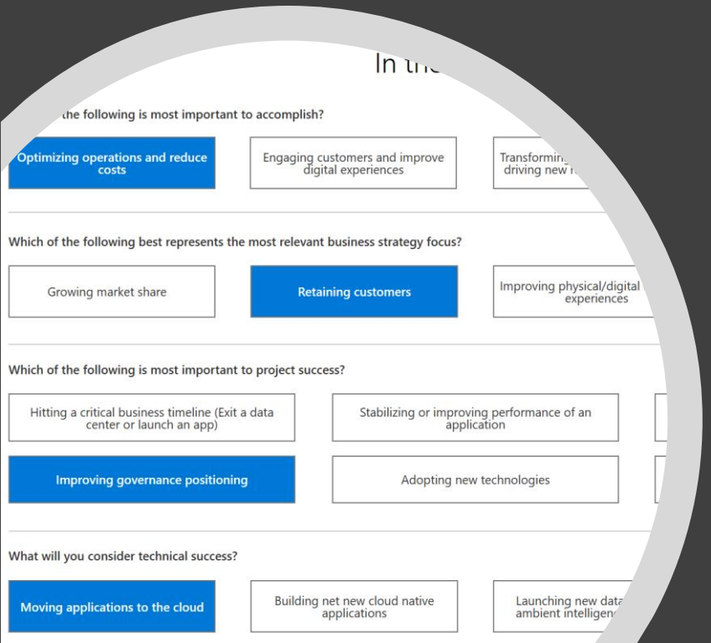
- Azure fundamentals
- Networking
- Identity and Access Control
- Storage
- Databases
- Cost Management

Microsoft Azure

Governance





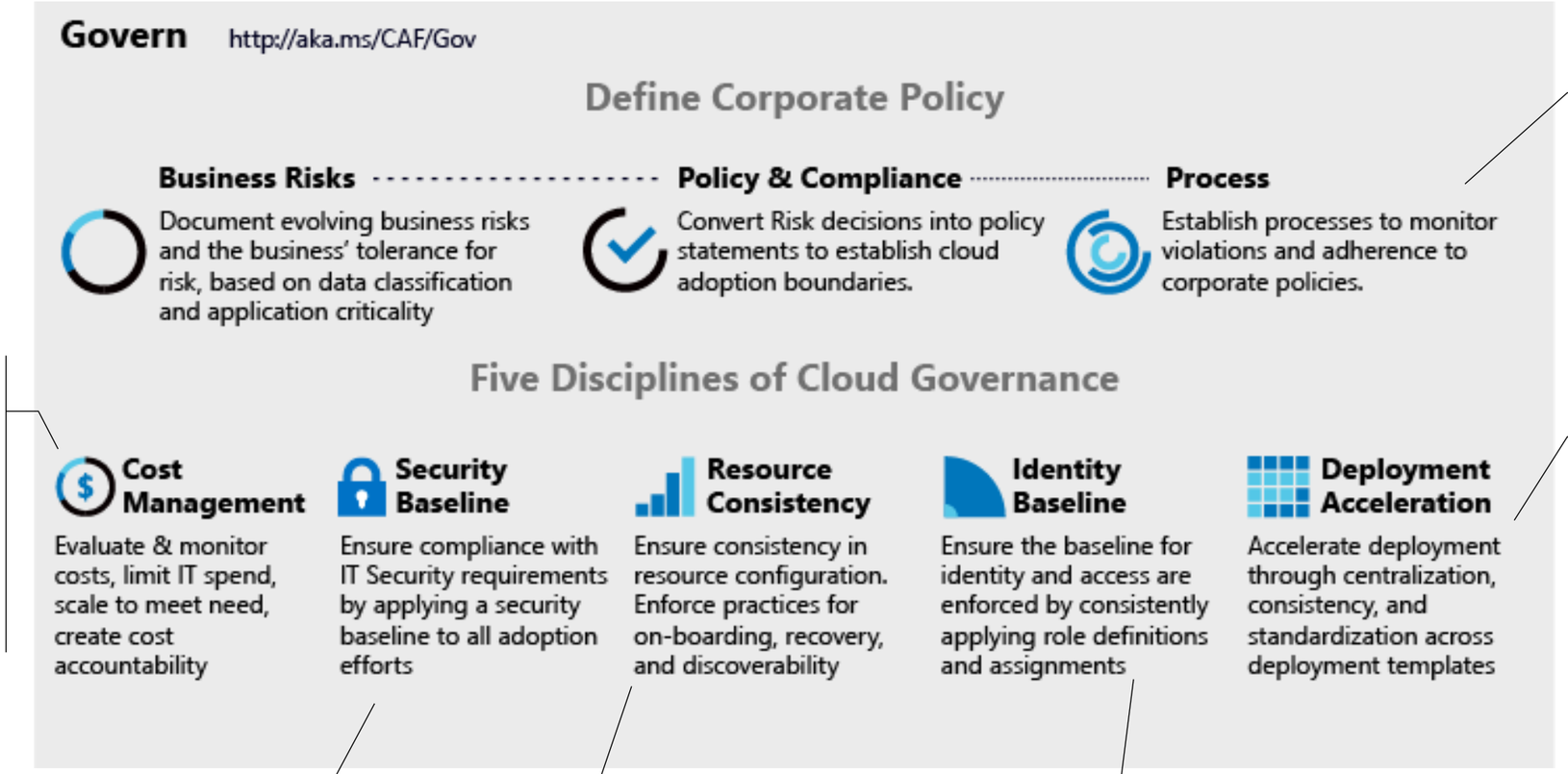


Assess your current state of governance

Use the Governance Benchmark

http://aka.ms/adopt/gov/assess

Making Governance Actionable with Native Tools



Azure Monitor

- **Azure Blueprints**
- **Azure Policy**
- ***Azure Cost Management***
- ***Azure Advisor***
- Azure Portal
- Azure EA Content Pack

- **Azure Blueprint**
- **Azure Policy**
- **Resource Grouping & Tagging**
- **Resource Manager Templates**
- ***Azure Advisor***
- Azure DevOps
- Azure Site Recovery
- Azure Backup
- Azure Automation

- **Azure Blueprints**
- **Azure Policy**
- ***Azure Security Center***
- ***Azure Sentinel***
- Subscription Design
- Encryption
- Hybrid Identity
- Azure Networking
- Azure Automation

- **Azure Blueprints**
- **Azure Policy**
- ***Azure Monitor***
- ***Azure Advisor***
- Resource Manager Templates
- Resource Graph
- Management Groups

- **Azure Blueprints**
- ***RBAC***
- Azure AD
- Azure AD B2B
- Azure AD B2C
- Directory Federation
- Directory Replication

Governance MVP Considerations

Resource Organization

Build only what you need, add as the requirements are needed.

Management Group Hierarchy

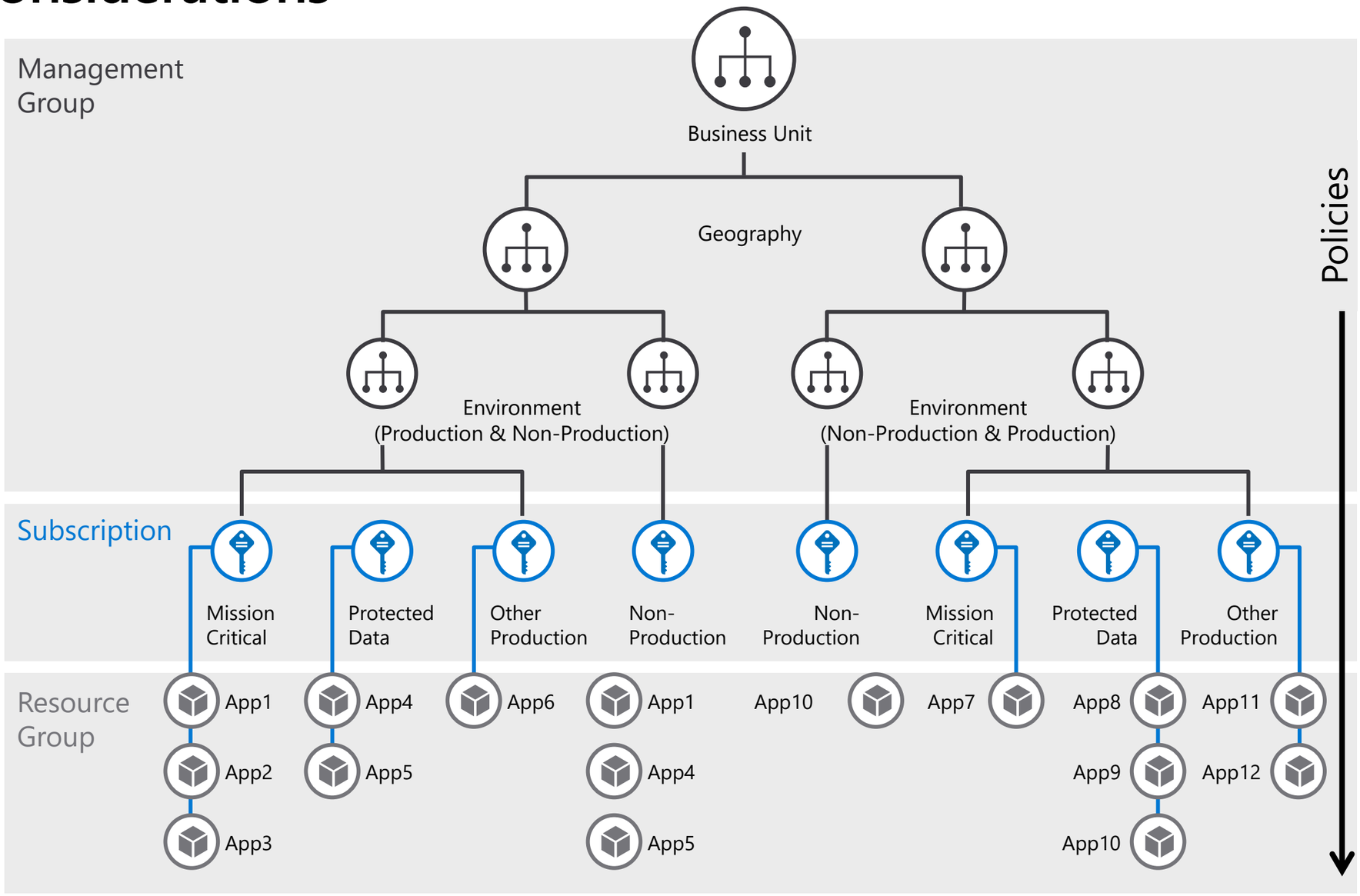
- Business Unit
- Geography
- Environment

Subscription

- Per Application Category
- Pre-production
- Dev environments
- Production

Resource Groups

- Per Application



Ready & Govern Workshop Flow

Session 1:
Suggested time: 3-4 hours

Design and implement your landing zones

Introduction to Cloud Adoption Framework

Deep Dive on 'Ready':

- Understand Operation models
- Azure landing zones overview
- Review design areas
- Evaluate implementation options:
    - Azure landing zones accelerator
    - Other implementation options - Start small approach, Partner offers for landing zones

Output:

- Azure landing zones MVP

Suggested Participants

- Cloud Architects
- Risk and compliance teams
- Security team
- Identity team
- Operations team
- Cloud adoption team

Tools and Assessments:

- Azure landing zones accelerator

Session 2:
Suggested time: 3-4 hours

Define Governance MVP

Deep Dive on 'Govern'

Recap of session 1

- Deep dive on Resource Consistency
- Deep dive on Cost Management
- Deep dive on Identity Baseline
- Deep dive on Security Baseline
- Build Deployment Acceleration to operationalize governance

Output:

- Cloud Governance MVP

Suggested Participants

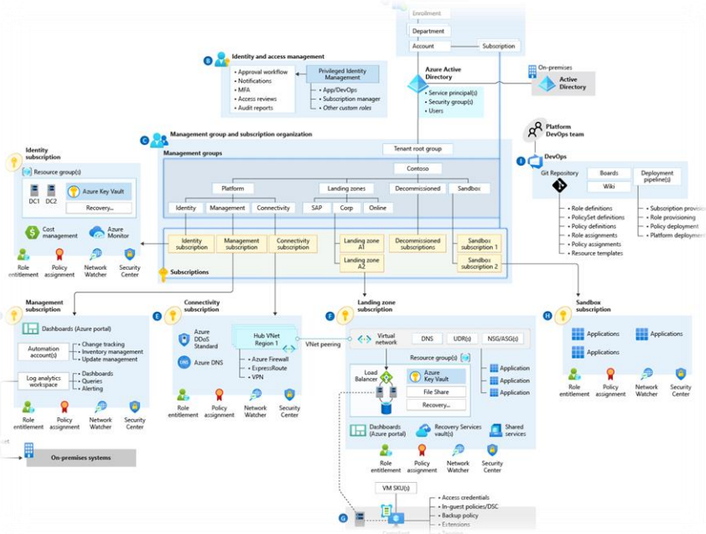
- Strategy Team
- IT and Business Leadership
- Cloud adoption team
- Governance Teams
- Operations Lead
- Finance

Tools and Assessments:

- Governance Benchmark

Final Outcome:

Azure environment that accounts for scale, security, governance, networking, and identity and enables application migration, modernization and innovation at scale in Azure.

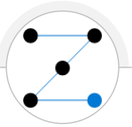


**There may be additional deep dive sessions needed on networking, security, identity depending on customer need*

Adopt

This methodology of the Cloud Adoption Framework provides guidance on an iterative process of *assessing* workloads, *deploying* workloads and *releasing* workloads to production. It also covers specific tools and approaches for migrating Microsoft and third-party technologies such as SAP, Java apps, PHP apps, Linux and open-source databases and more.

Migration guide to understand Azure migration tools.



Tools and approaches to act on specific migration scenarios.

Address common migration needs with best practices.

Architect workloads using Well-Architected

Manage

The manage methodology provides guidance on setting up an operations management baseline in alignment with business commitments. It also includes advanced operations and design principles for platforms or workloads that may require a deeper architecture review to deliver on resiliency and reliability commitments.

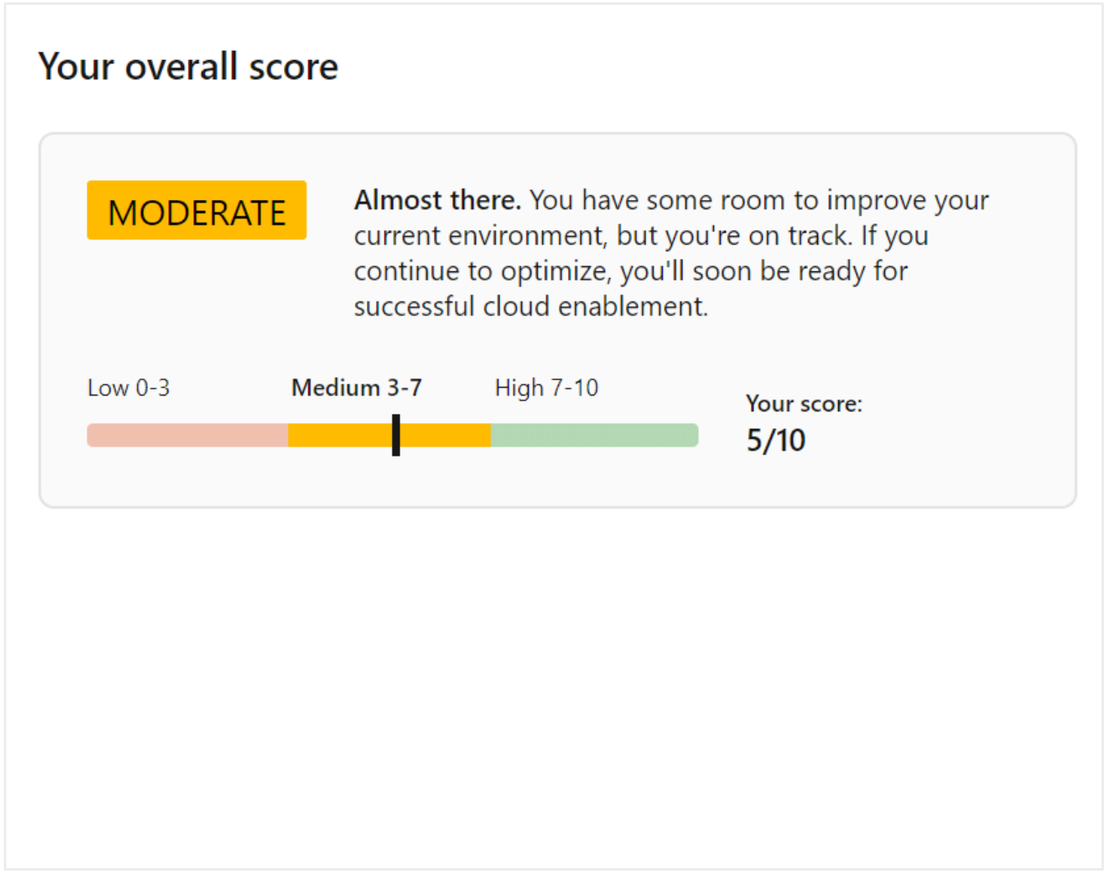
Define business commitments

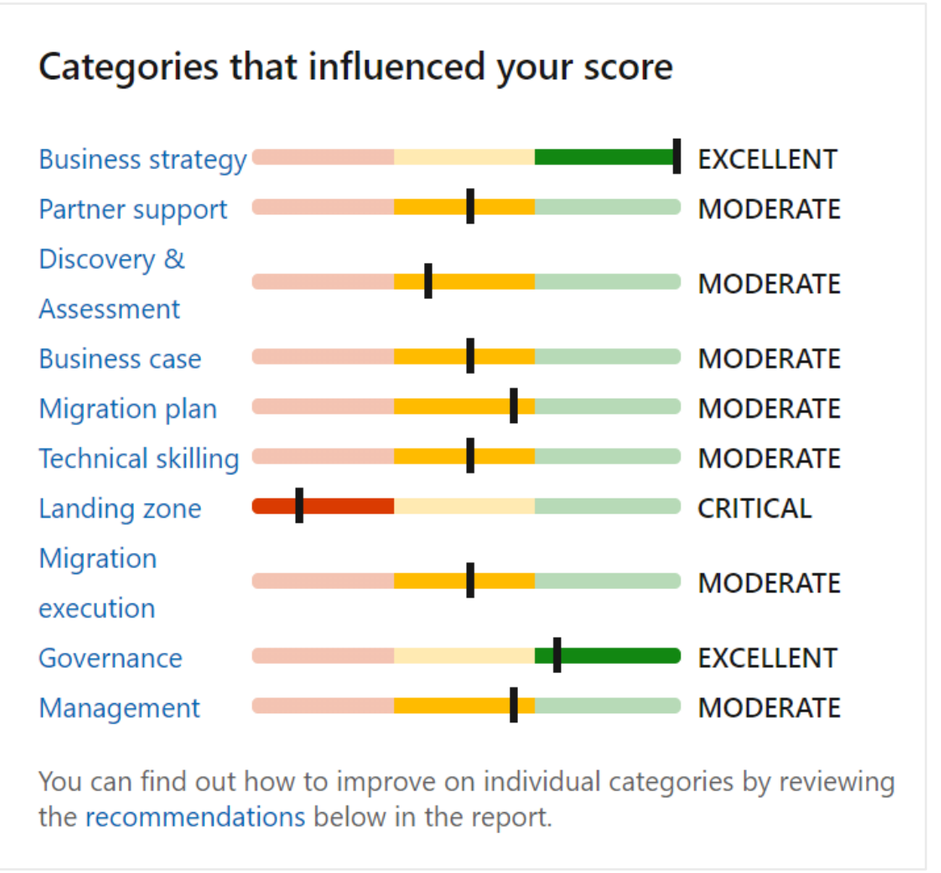
Establish management baseline

Expand management baseline

Advanced operations with Well-Architected

Assess your migration readiness

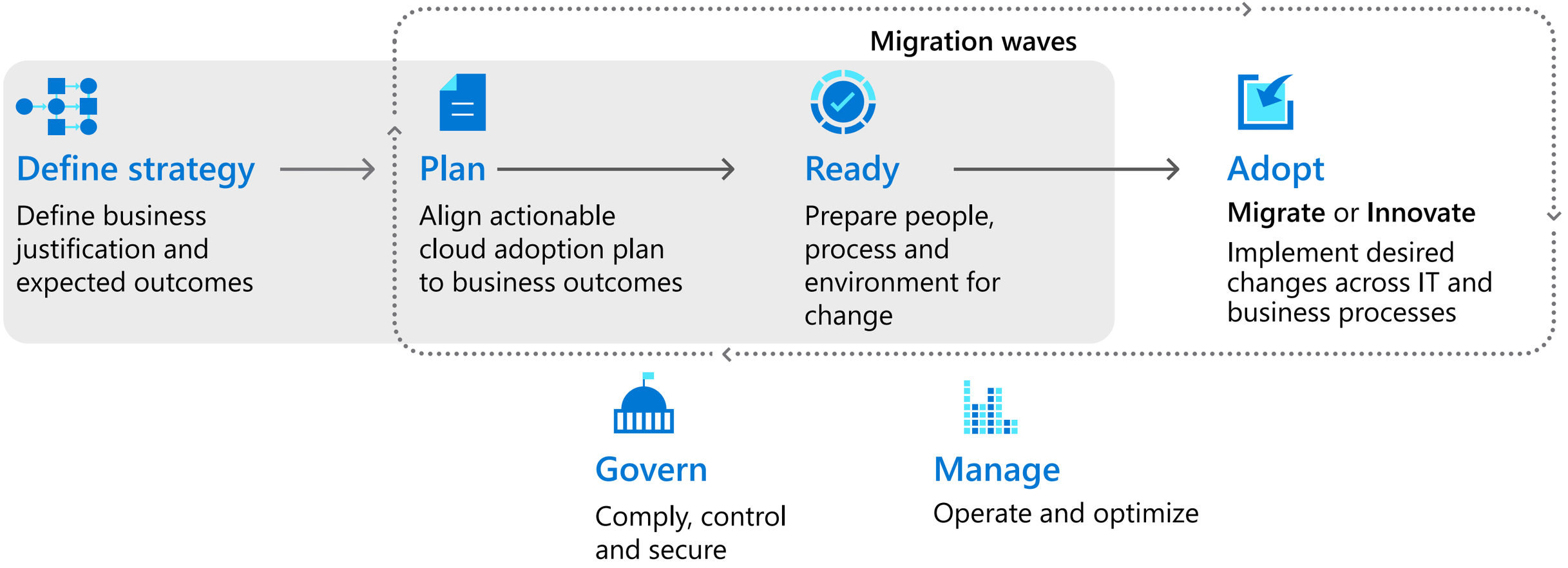




Use the Strategy Migration Assessment and Readiness tool across 10 readiness areas: aka.ms/smarttool

Migration: pre-requisite steps

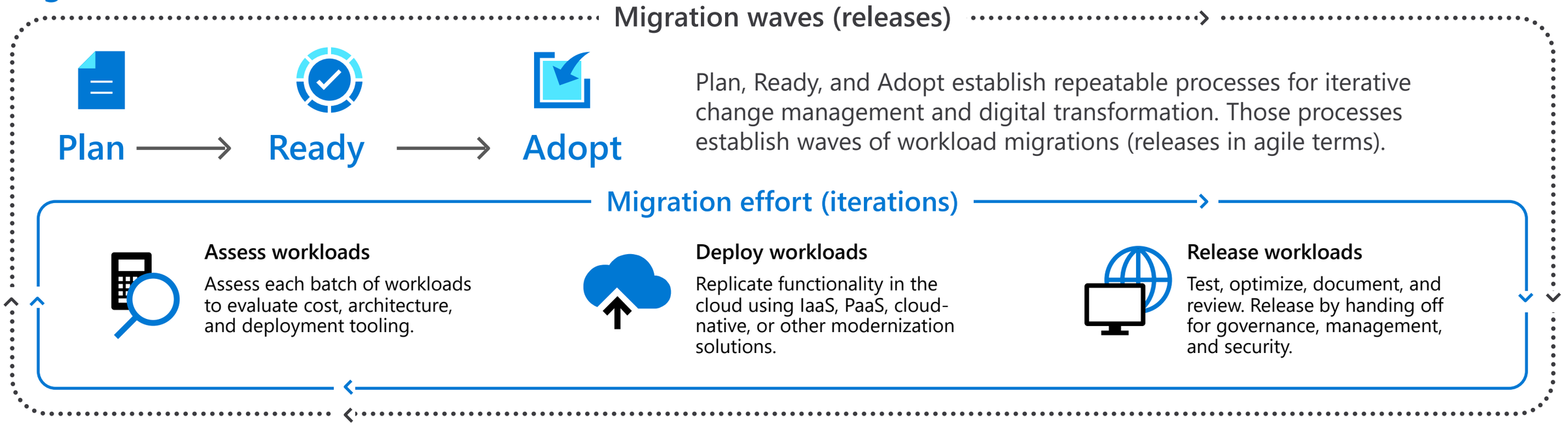
Before proceeding with migration execution, it is required that all the upstream steps of Strategy, Plan and Ready are completed. Key deliverable assets include – the Cloud Adoption Plan template and a landing zone configuration.



Assess migration readiness: https://aka.ms/smarttool

Adopt migration execution

Migrate



- Assess each workload and finalize architectural decisions about migration options.
- Initiate the migration of the environment using native tools, third-party tools, and project management tools.
- Workloads should be tested, optimized, documented, and released for ongoing operations.
- Review the migrated workloads and hand them off to governance, operations management, and security teams for ongoing support of those workloads.

https://aka.ms/adopt/migrate

Migration tooling options

Assess workloads

Deploy workloads

Release workloads

Azure Migrate		
Data Migration Assistant (DMA)	Azure Database Migration Service	Azure Cost Management
SQL Server Migration Assistant (SSMA)	Azure Data Box	Azure Advisor
		Azure Monitor
		Azure Security Center

ISV solutions (as needed)

MOVERE

Cloudamize

CloudAtlas®

BitTitan

CHEF

STRATOZONE®

turbonomic

Zerto

Corent

intigua

stiim

ATTUNITY

DATOMETRY

MORPHIS

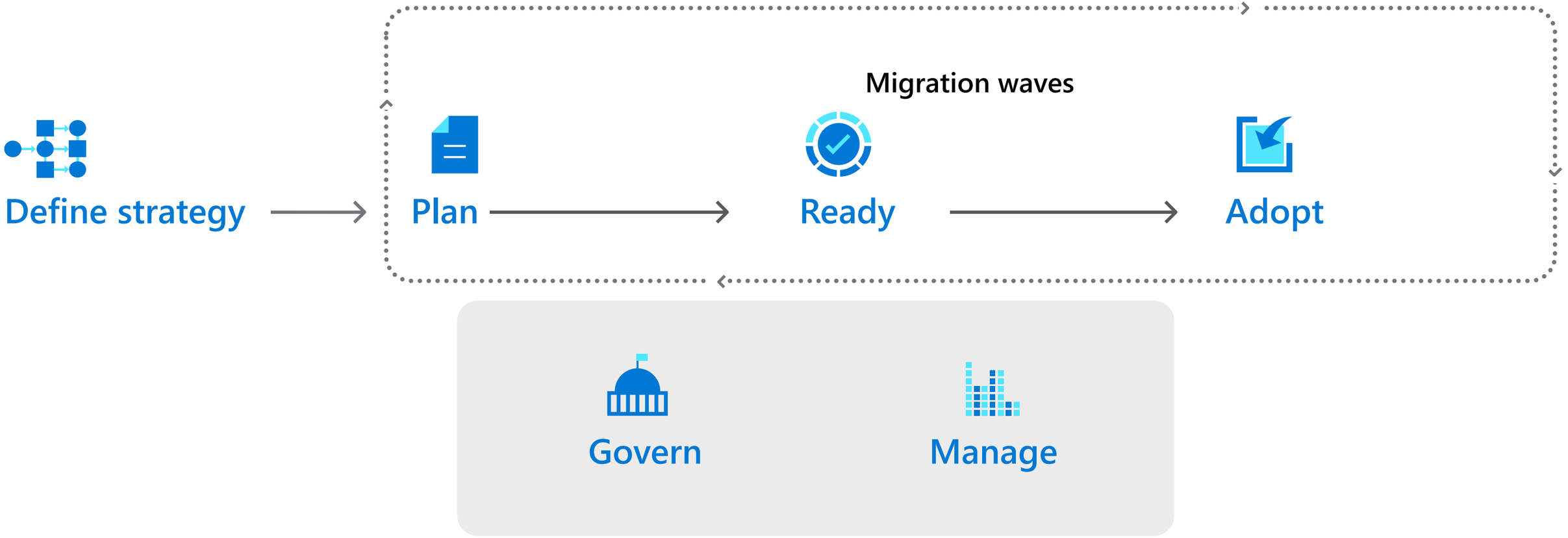
Ispirer

Informatica

QuerySurge

Govern and manage migrated workloads

After a successful workload migration, the adoption team should hand off to governance and operations teams to ensure the workload is well-governed and optimized.



Adopt & Manage Workshop Flow

Session 1: Migration overview
Suggested time: 2-4 hours

Part 1: Adopt | Migrate methodology
- Migration process overview: Assess workloads, Deploy workloads, Release workloads
- *'One Migration'* scenarios to address specific first and third-party technologies
- Best practices to address common needs

Part 2: Architect solutions with Well-Architected
- Overview of Well-Architected Framework
- Well-Architected Review assessment

Output:
- Commit to a go-forward plan to migrate the first wave of workloads, commonly represented in a finalized Migration Azure DevOps backlog

Suggested Participants
- Cloud architects
- IT operations
- Developers
- Cloud adoption team
- Operations lead

Tools and Assessments:
- Azure Migrate

Session 2: Setup operations mgmt.
Suggested time: 4-6 hours

Part 1: 'Manage' methodology
- Manage methodology deep dive
- Define business commitments
- Establish management baseline
- Advanced operations and Well-Architected

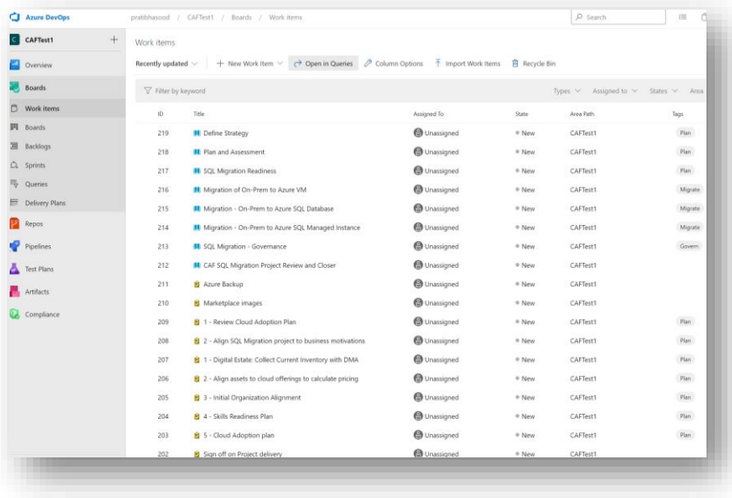
Part 2: Optimize workloads with Well-Architected
- Overview of Well-Architected Framework
- Well-Architected Review assessment

Output:
- Commit to operations management testing, transition, accountability, & processes for post-migration workloads.
- Updated operations management planning workbook

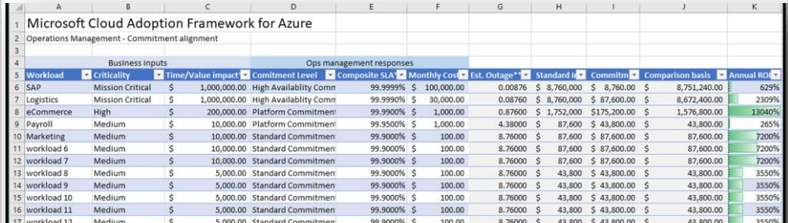
Suggested Participants
- Strategy team
- Enterprise Architects
- Governance team
- Cloud adoption team
- Operations lead
- Developers

Tools and Assessments:
- Operations Management planning workbook

Outcome:



Migration ADO backlog



Updated Ops management workbook

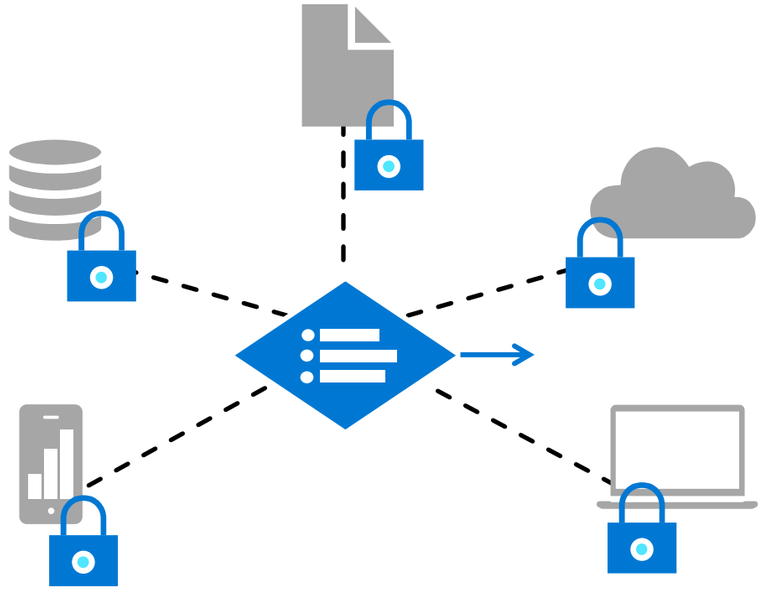
Microsoft Azure

Microsoft Cloud Adoption Framework: Where is security?

Access control

Simplify security—and make it more effective

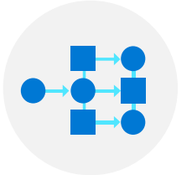
Classic approach
Restrict everything
to a secure network



Zero trust
Protect assets anywhere
with central policy

Microsoft Cloud Adoption Framework for Azure

Security is a discipline you practice along your entire cloud adoption path



Define strategy

Define motivations, and **create a business case** leveraging **cloud economics**

Plan

Create **actionable cloud adoption plan** aligned to the strategy

Ready

Prepare cloud environments with **Azure landing zones**

Adopt

Migrate or **Innovate**

Design, build and **deploy workloads to Azure**

Security is a critical design area here

Govern

Automate governance baseline and empower delegated responsibility

Security is a discipline of governance & automated guardrails

Manage

Build operations baseline and support enterprise operations

Security drives your operations baseline implementation

Secure

Establish security baseline and manage security posture

All of which depend on sound security posture management

Cloud Adoption Framework – Secure methodology

End state for managing your overall security posture

Secure

Business alignment

Risk insights

Integrate security insights into risk management framework and digital initiatives.

Security integration

Integrate security insights and practices into business and IT processes

Operational resilience

Ensure organization can operate during attacks and rapidly regain full operational status.

Security disciplines

Access control

Establish Zero Trust access model. Extend modern protection to legacy assets.

Security operations

Detect, respond, and recover from attacks; hunt for hidden threats; lead through data-driven decision

Asset protection

Protect sensitive data and systems. Continuously discover, classify & secure assets.

Security governance

Continuously identify, measure, and manage security posture to correct deviation and reduce risk.

Innovation security

Integrate security into DevSecOps processes. Align security, development, and operations practices.

Business alignment

Establish cross-org processes to scale cloud security throughout your business

Security disciplines

Implement proven security processes built on modern, cloud-based security tools

Cloud security team

Establish team with expertise and experience for security and cloud. Often a cross-functional security team(s) that includes members of security team, cloud center of excellence (CCoE), Cloud operations, IT operations, and others.

Establish a security foundation

Don’t try to learn every security tool today.
Take a balanced approach to implementation—audit, learn, then apply.

Security foundation

Start small. Establish processes that quickly evolve as cloud adoption and cloud security mature.

Improve your security posture based on risks identified in the cloud adoption plans.

Continuous improvement

As additional iterations of cloud adoption are planned, the risk profile will change.

Incrementally expand processes for each security discipline, which will require expertise in additional tools.

Accelerate security with native tools

Secure

Risk insights

Integrate security insights into risk management framework and digital initiatives.

Business alignment

Security integration

Integrate security insights and practices into business and IT processes

Operational resilience

Ensure organization can operate during attacks and rapidly regain full operational status.

Security disciplines

Access control

Establish Zero Trust access model. Extend modern protection to legacy assets.

Azure AD
M365 Defender
Azure Firewall
Azure RBAC & ABAC
Azure DDoS
Azure Web Application Firewall
Azure AD B2B
Azure AD B2C
Azure Bastion
Azure Lighthouse
Directory Federation
Directory Replication
Azure Networking
Azure Portal
Subscription Design
Hybrid Identity
Management Groups
PrivateLink

Security operations

Detect, respond, and recover from attacks; hunt for hidden threats; lead through data-driven decision

Azure Defender
Azure Sentinel
M365 Defender
Azure DDoS
Azure Web App Firewall
Azure Site Recovery
Azure Backup

Asset protection

Protect sensitive data and systems. Continuously discover, classify & secure assets.

Azure Blueprints
Azure Policy
Defender for Cloud
Azure Networking
Azure Storage
Encryption
Management Groups

Security governance

Continuously identify, measure, and manage security posture to correct deviation and reduce risk.

Defender for Cloud
Azure Blueprints
Azure Policy
Azure RBAC & ABAC
Secure Score
Compliance Dashboard
Resource Locks

Innovation security

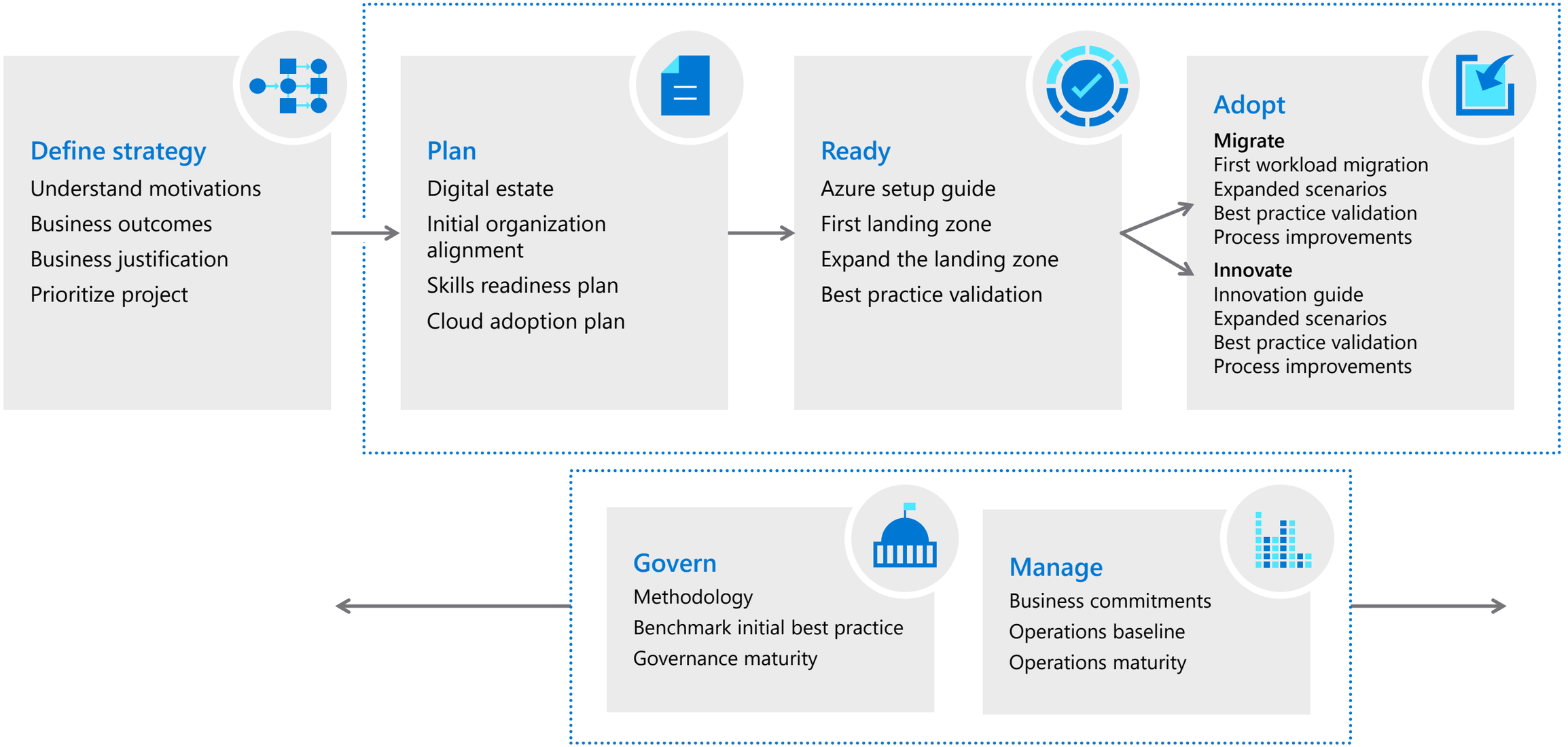
Integrate security into DevSecOps processes. Align security, development, and operations practices.

Azure DevOps
GitHub Advanced Security
Resource Manager Templates
Azure Automation
API Management Gateway

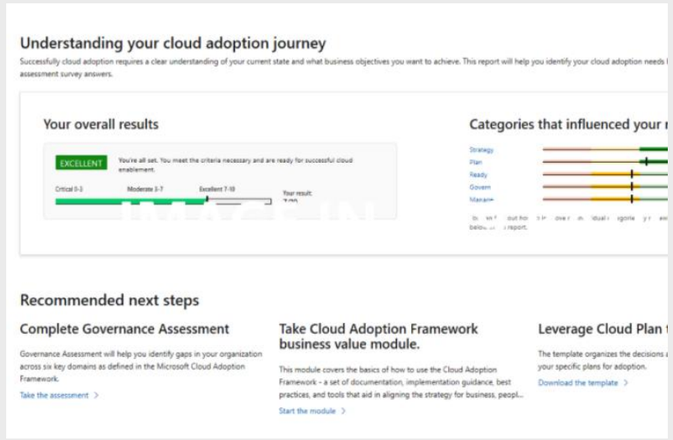
Security best practices - Cloud Security & Zero Trust – Norge Cloud Champion

Access control	RBAC controls, Identity, NSGs, Firewalls, WAF, Gateways, Encryption, …
Security operations	Sentinel (SIEM/SOAR), BCDR
Asset protection	Azure Policy, encryption, backup
Security governance	Defender for Cloud, Blueprints, Management Groups
Innovation security	Security architect, secure DevOps, secure development practices

Microsoft Cloud Adoption Framework for Azure

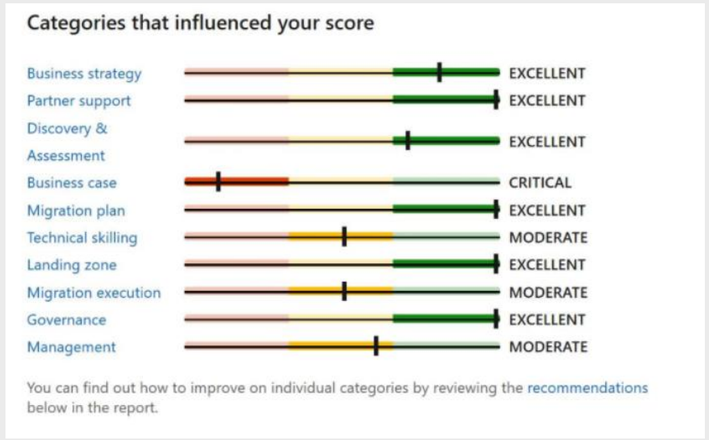


Evaluate your cloud readiness using Microsoft Assessments



Cloud Journey Tracker

Identify your cloud adoption needs and find recommendations for your unique cloud journey.



Strategic Migration Assessment & Readiness Tool

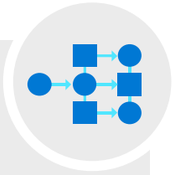
Understand your organization's preparedness to implement a cloud migration at scale.

Governance Benchmark

Identify gaps in your organization's current state of governance and get curated guidance on how to get started.

Other tools, templates, and assessments

Define strategy



Cloud journey tracker

Business outcome template

Plan

Azure DevOps demo generator

Cloud adoption plan template

Ready

Azure setup guide

Readiness checklist

Naming and tagging tracking template

Landing zone blueprints

Adopt

Strategic migration assessment and readiness tool (SMART)

Azure migration guide

Azure innovation guide

Govern

Governance benchmark

Governance process template

Cost Management process template

Deployment acceleration process template

Identity process template

Resource consistency process template

Security baseline process template

Manage

Microsoft Azure Well-Architected Review

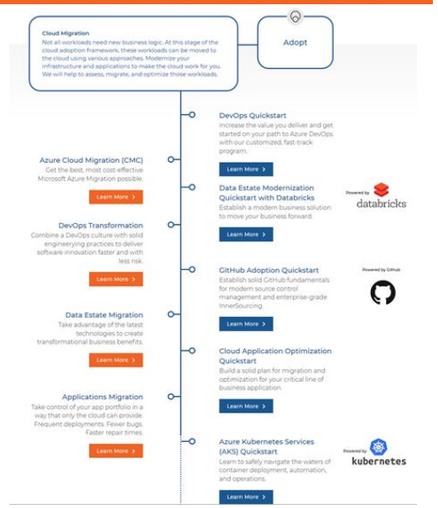
Best practices source code

Operations management workbook

Key Deliverables and Outcomes

1. CAF-ready Partners

Co-sell Prioritized & Co-sell Ready

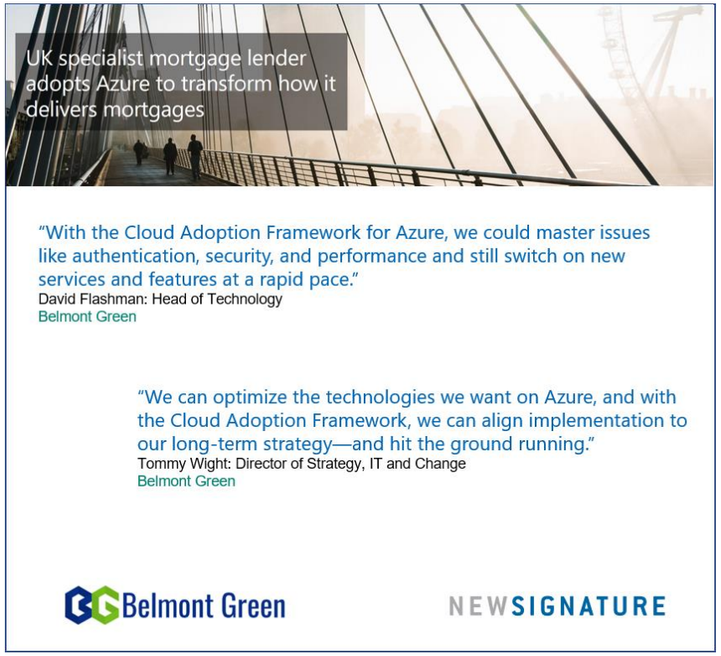


2. CAF-aligned Offers

Marketplace listings

3. CAF customer & partner success stories

Stories published & amplified



https://customers.microsoft.com/en-us/story/753908-belmont-green-banking-capital-markets-azure

Microsoft Azure

Thank you