Microsoft

SAP on Azure Enablement

Cloud Adoption Framework

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Microsoft APAC

Module One – Week Two
Day 2 – Tuesday, Sep 29, 2020

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SAP on Azure Partner Enablement

Module One – Week Two

Day 2 – Cloud Adoption Framework

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Agenda

What is the Cloud Adoption Framework ?

Common Cloud adoption scenarios

Azure Cloud Adoption Framework Deep Dive

Microsoft Azure

Why is cloud adoption important?

Key Business Drivers

Business Transformation enabled by Cloud Technologies

Modernization

Improving customer and employee experiences

Transformation

Evolving how businesses operate and interact with the market

Growth

Scaling products and services to meet ever growing business needs

Business Returns

IT must rapidly produce measurable business returns to stay relevant

… but change is difficult. We understand that. Change impacts your people, your culture, and feels risky.

Change requires radical thinking.

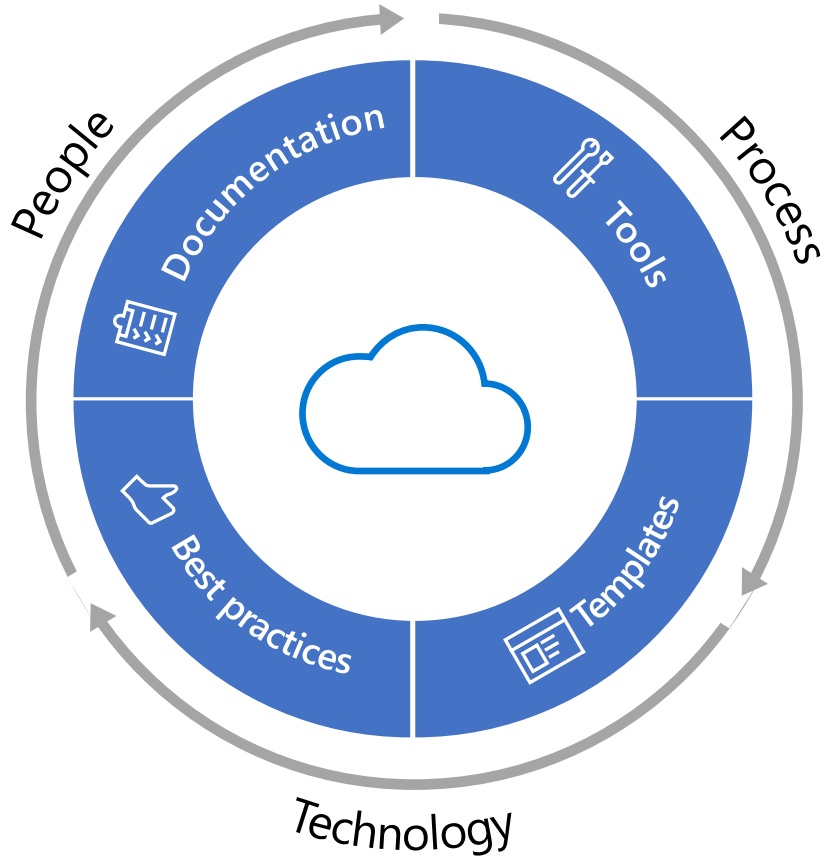
It requires leaders to adapt, take risks, and learn quickly.

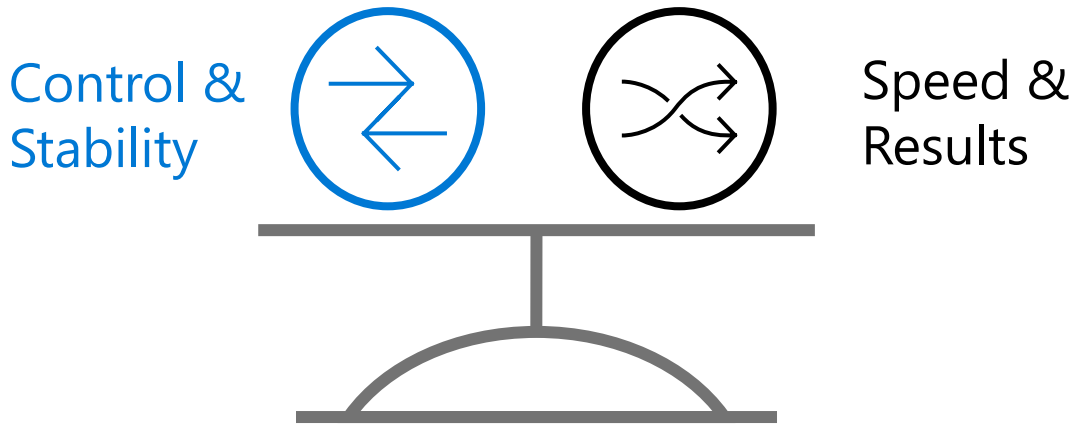
Change requires a culture shift within your organization, and starts with you.

Microsoft

What is the Microsoft Cloud Adoption Framework ?

Achieve balance. Deliver modernization.

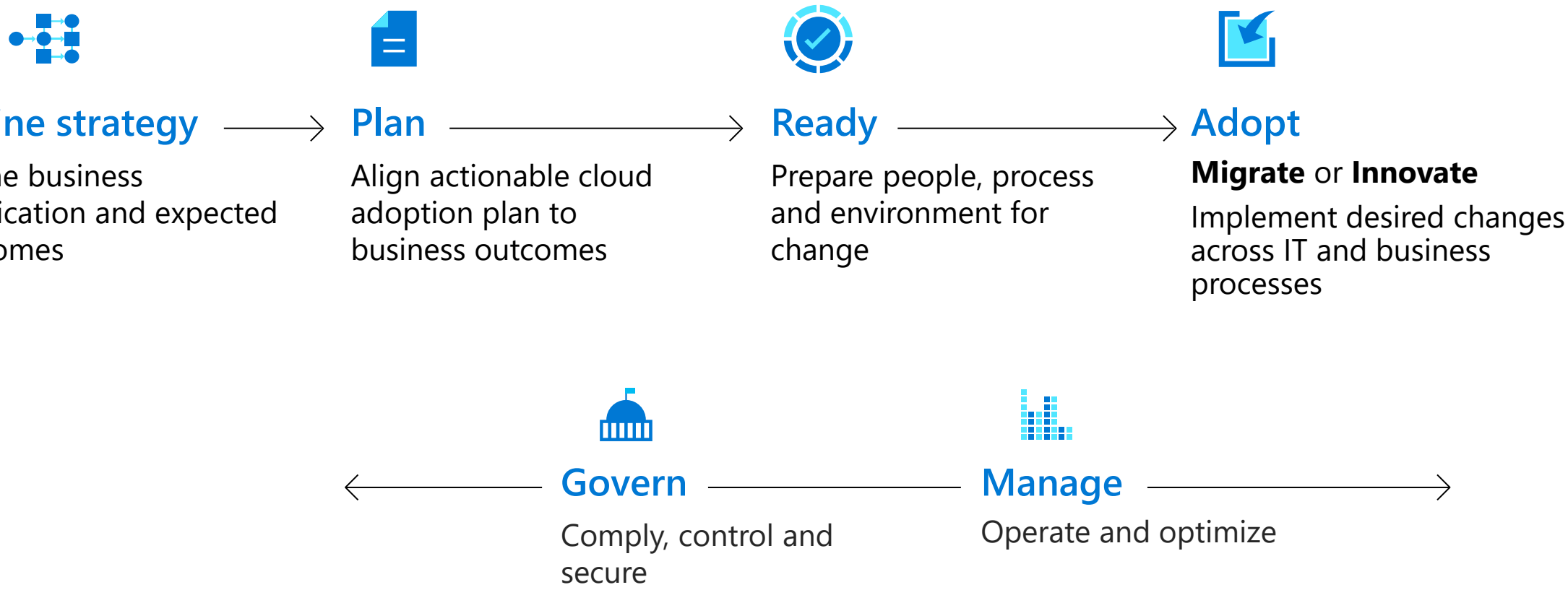




Align—business, people and technology strategy.
Achieve—business goals with actionable, efficient, and comprehensive guidance.
Deliver—fast results with control and stability.

Microsoft Cloud Adoption Framework for Azure

Proven guidance to accelerate your cloud adoption journey

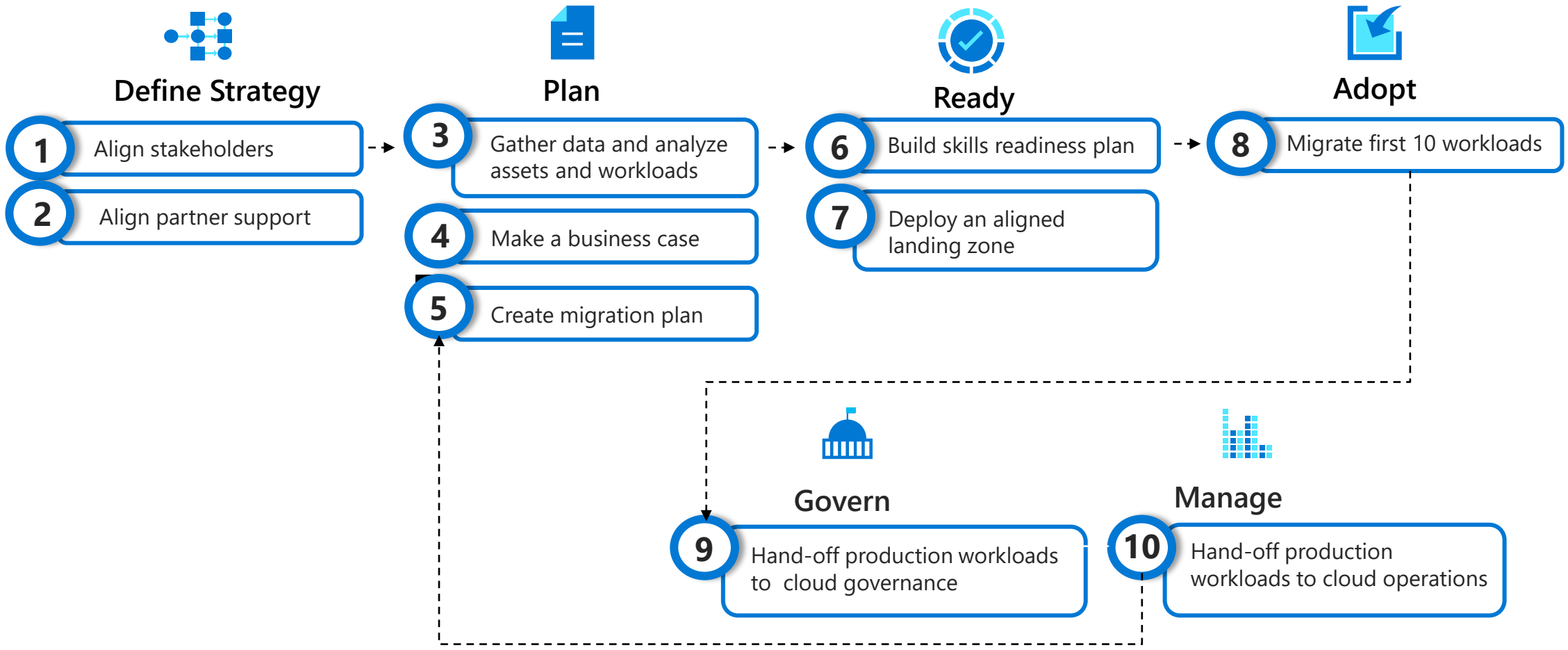


https://aka.ms/adopt/overview

Microsoft Azure

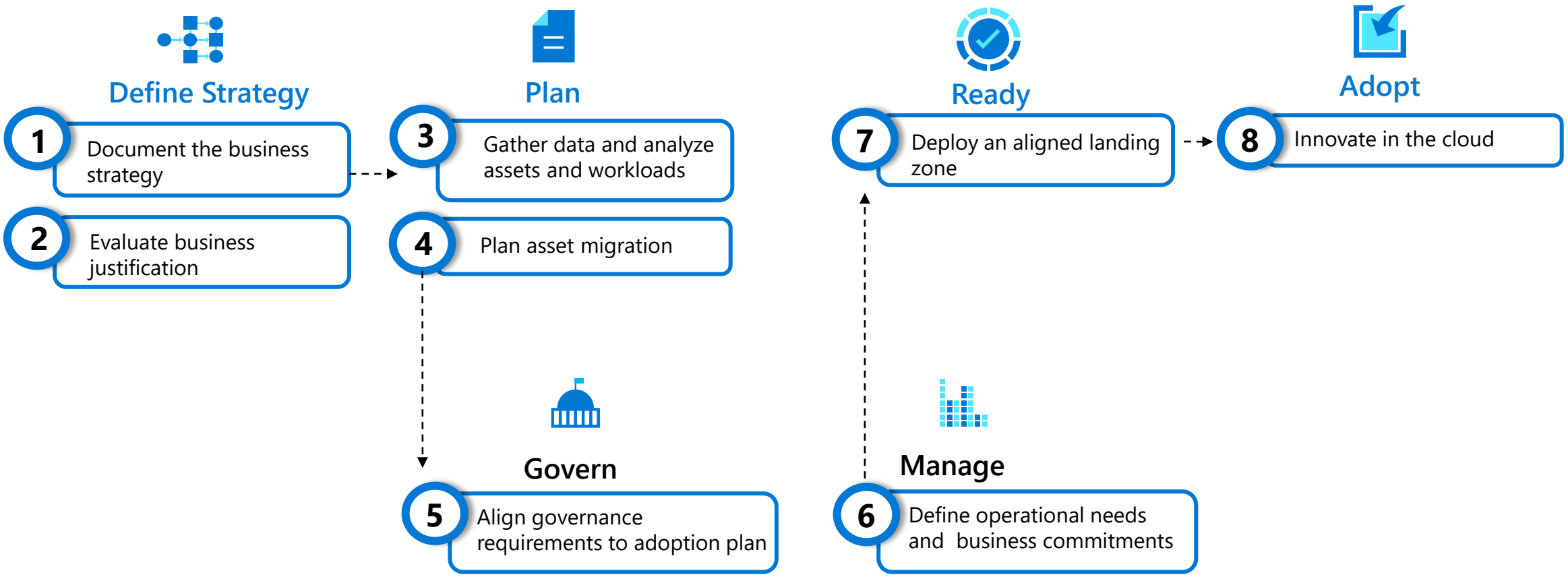
Common cloud adoption scenarios

Migrate existing workloads to the cloud



aka.ms/adopt/getstarted-migrate

Build new products and services



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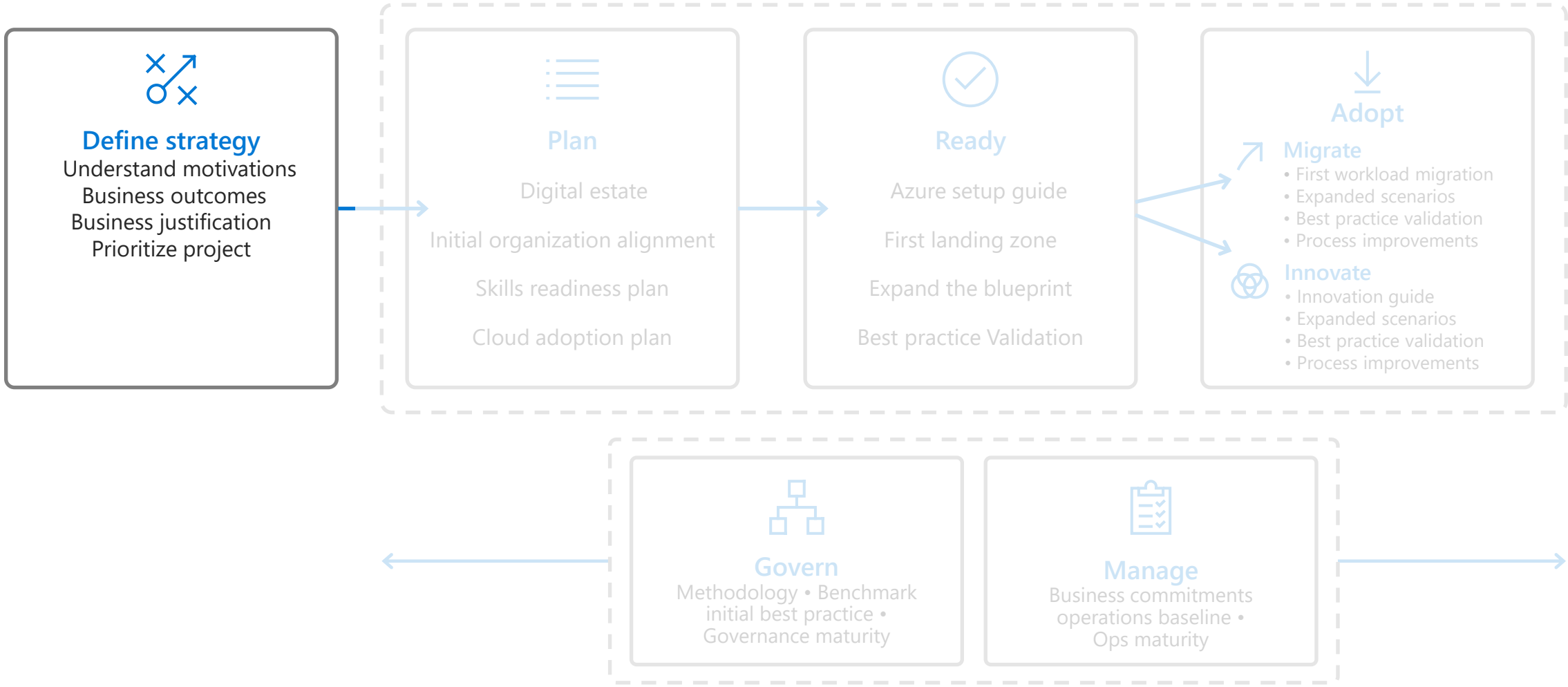
Microsoft Azure

Microsoft Cloud Adoption Framework for Azure

Microsoft Cloud Adoption Framework for Azure



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

Define Strategy | Understanding your motivation

Critical business events

such as end of support for mission-critical technologies

- ✓ Datacenter exit
- ✓ Mergers & Acquisitions
- ✓ Reduction in capital expenses
- ✓ EoS of mission critical technologies
- ✓ Regulatory compliance changes
- ✓ Deadlines of data sovereignty requirements
- ✓ Recent disruptions in IT stability

Migration triggers

such as cost saving and operations optimization

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

Innovation triggers

such as scaling to meet market or geographical demands

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

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

Define Strategy | Identify First Project

Choose the first project to move to the cloud by using a clearly defined criteria and clearly identified 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

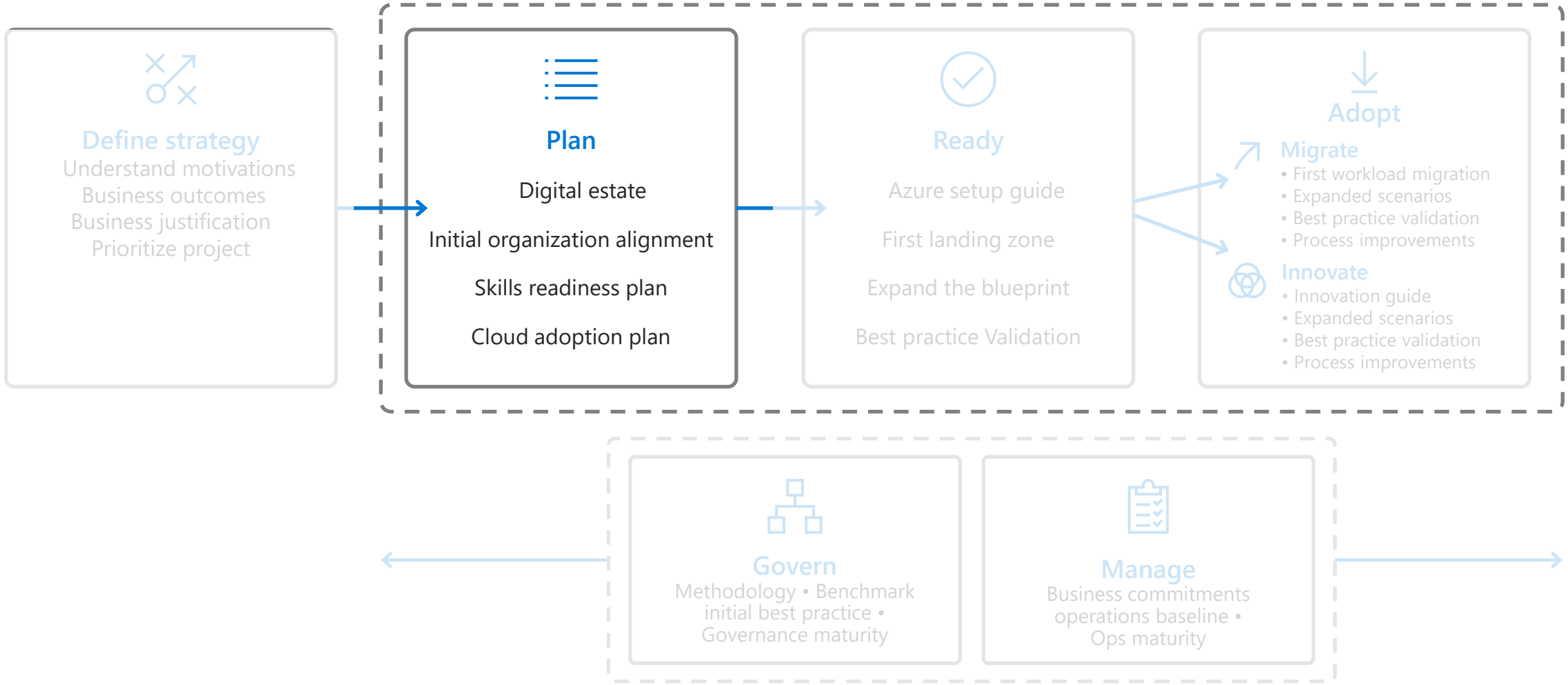
- Project is a source of learning.
- It might result in production deployments, but it will probably require additional effort first.
- The output of this project is a set of clear requirements to provide a longer-term production solution.

First Project Examples

for each motivation category

- **Critical business events:** Use Azure Site Recovery as a disaster recovery tool, reducing dependencies on disaster recovery assets within the datacenter.
- **Migration motivations:** Start with a noncritical workload and use Azure setup guide and the Azure migration guide for guidance
- **Innovation motivations:** Creation of a targeted dev/test environment can be a great first project.

Microsoft Cloud Adoption Framework for Azure



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

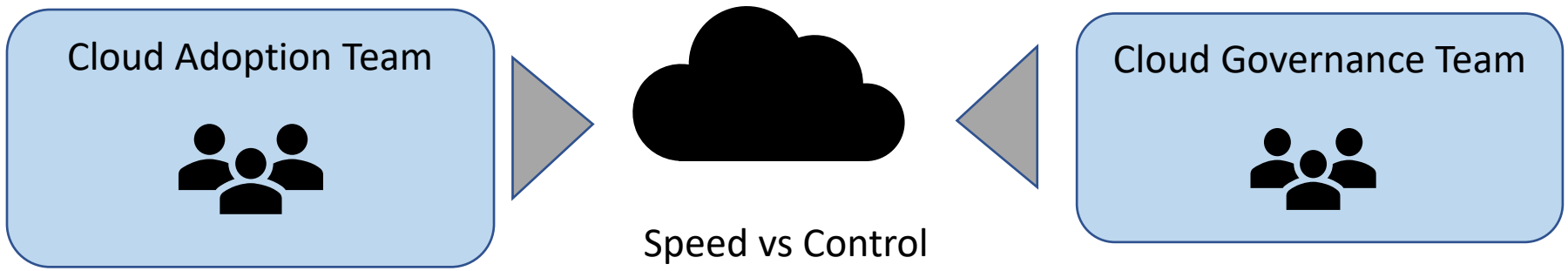
2. ## Initial org alignment
   Align governance and cloud adoption to mitigate risks

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

Plan | Initial Org Alignment

Implementing Cloud adoption plan requires some initial alignment of different stakeholders who will make the plan a reality



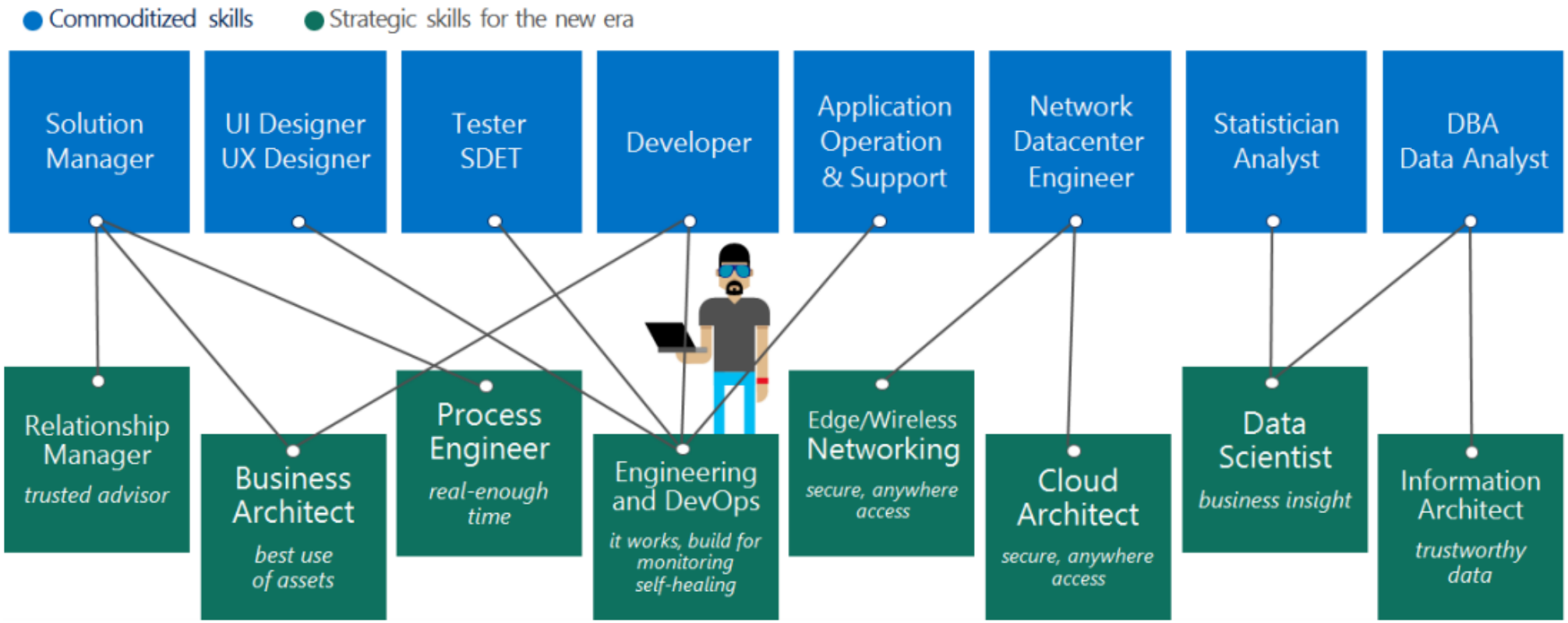
- Create a balance between speed or *moving quickly* and control or *reducing risks* by have teams accountable for adoption and governance.
- While cloud adoption team is required to execute cloud adoption tasks, governance team ensures processes and controls are implemented

Plan | 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)
- Rationalization can take place using an **Incremental approach** or 'Power of 10' where the cloud strategy team selects the first 10 applications to be migrated which are a mix of simple and complex workloads; (recommended approach)
- The output of a rationalization effort is a prioritized backlog of all assets that are affected by the chosen transformation.
- Use costing models from your chosen cloud provider to forecast costs for your prioritized backlog; for Azure, we have pricing tools like Azure Migrate, Azure pricing calculator and Azure cost management. Ensure that hybrid is incorporated into the costing models

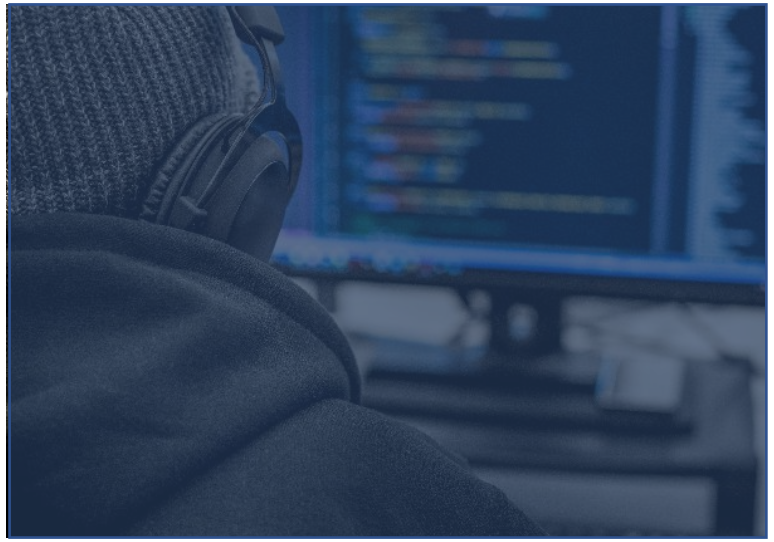
Plan | Skills Readiness Plan

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



First project

Demonstrate a growth mindset by choosing a small, low impact, self-contained first workload for the Cloud Adoption Team to migrate & learn. See next section for guidance on execution.

Business justification

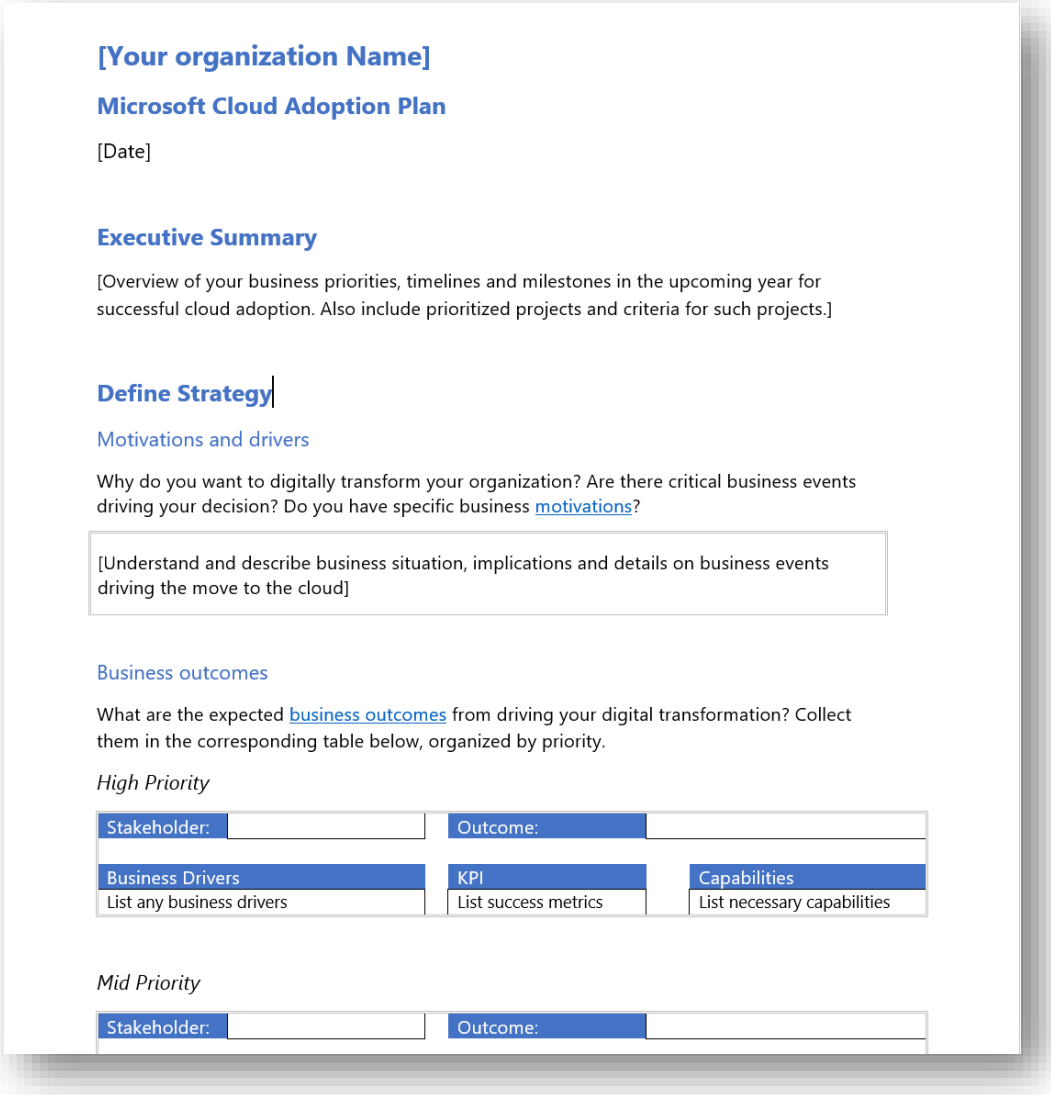
Align the right level of business justification using calculators and Azure Migrate, digital estate rationalization, and/or a migration business case.

Build a migration plan

Align business and technical strategies to rationalization the digital estate and create an initial migration backlog.

Plan | Cloud Adoption Plan Template

- Cloud adoption plan converts the aspirational goals of the cloud adoption strategy into an actionable plan
- All the cloud teams leverage the cloud adoption plan to guide technical efforts, in alignment with the business outcomes.
- Download the template and get started with creating your plan



[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 digitally transform your organization? 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 driving your digital transformation? Collect them in the corresponding table below, organized by priority.

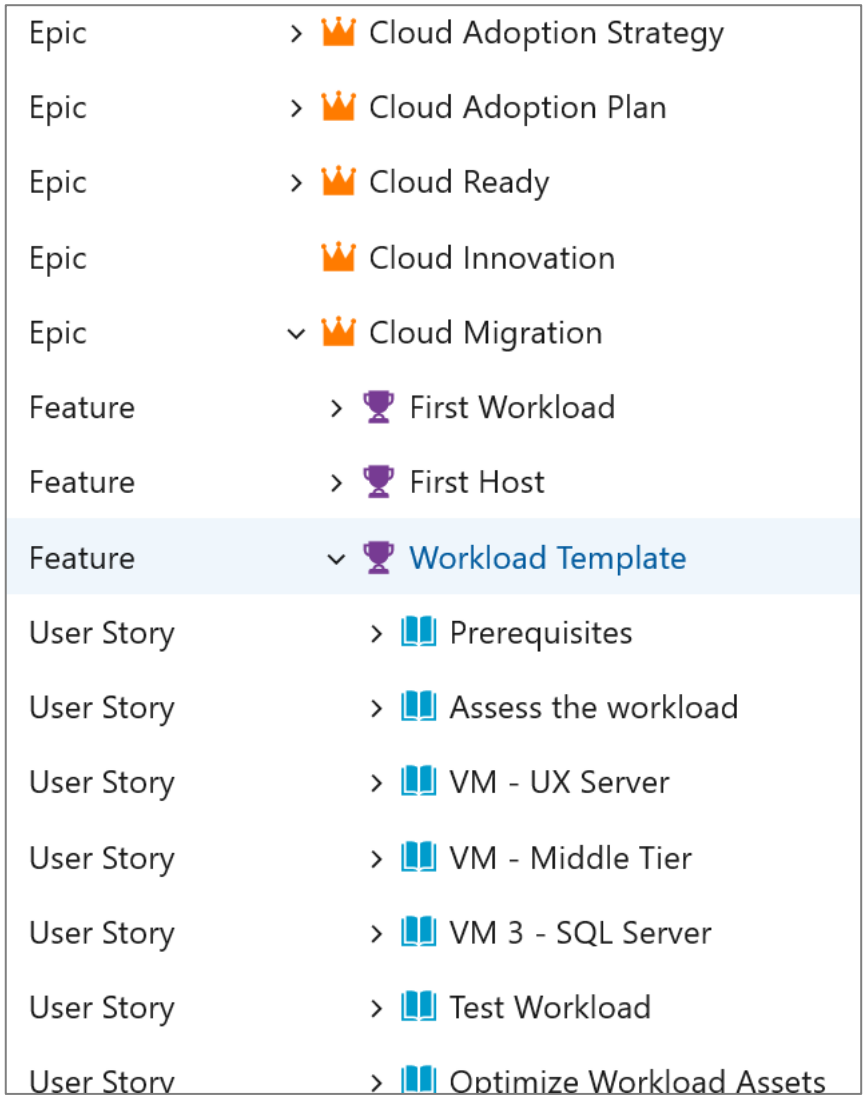
High Priority

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

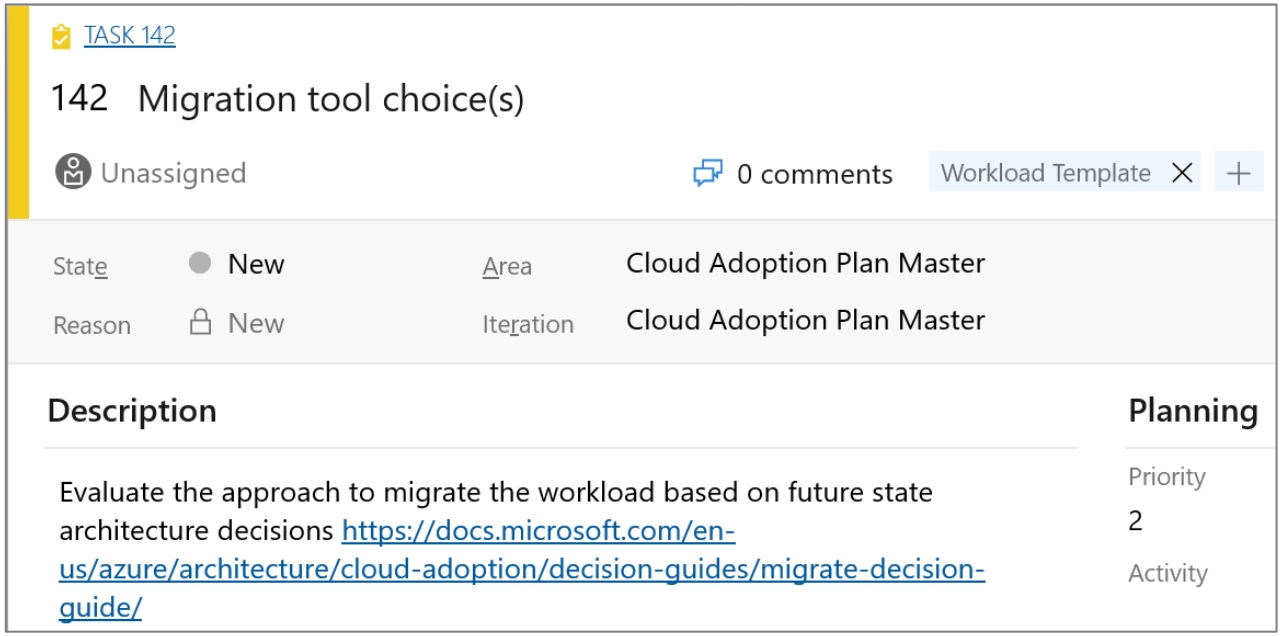
Mid Priority

Stakeholder:		Outcome:	

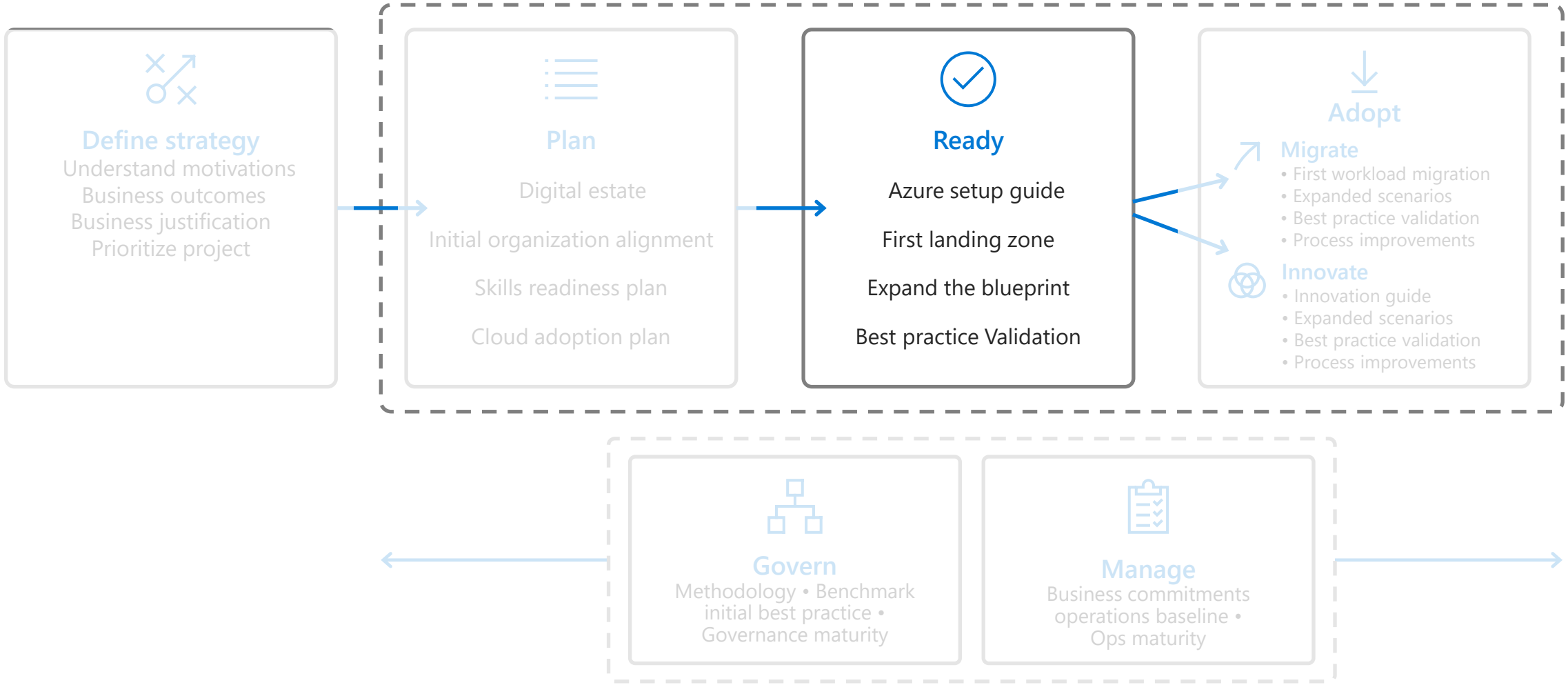
Azure DevOps Cloud Adoption Plan Generator



Leverage Azure DevOps to log and track your cloud adoption plan
aka.ms/adopt/plan



Microsoft Cloud Adoption Framework for Azure



Ready

Ready establishes a cloud foundation or adoption target that can provide hosting for any adoption efforts.

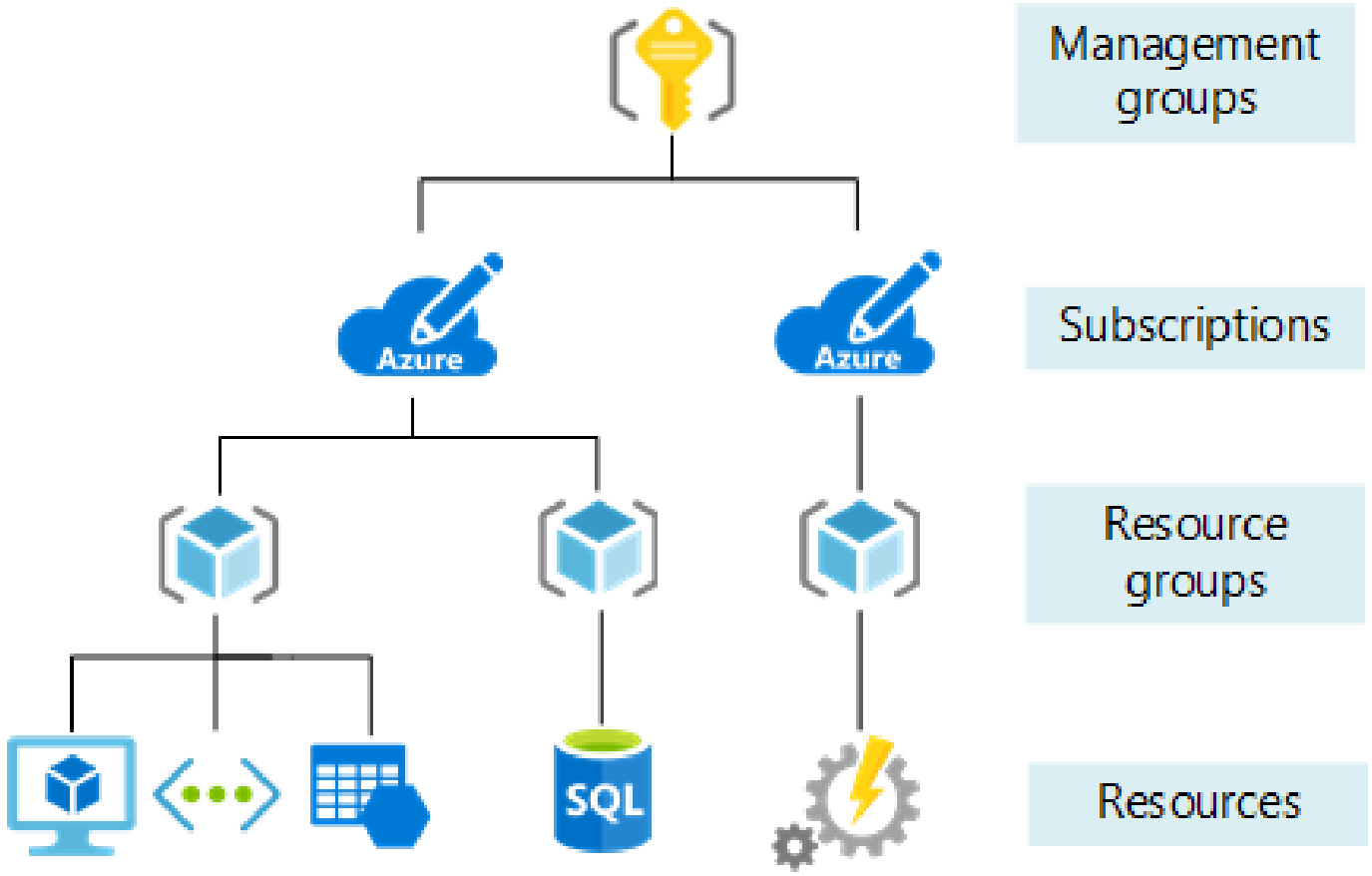
1. **Azure setup guide**
   Azure setup guidance in the Cloud Adoption Framework

2. **First landing zone**
   Leverage the Cloud Adoption Framework migrate landing zone blueprint

3. **Expand the blueprint**
   Use the landing zone considerations to enhance the blueprint template

4. **Best practices**
   Validate landing zone modifications against best practices

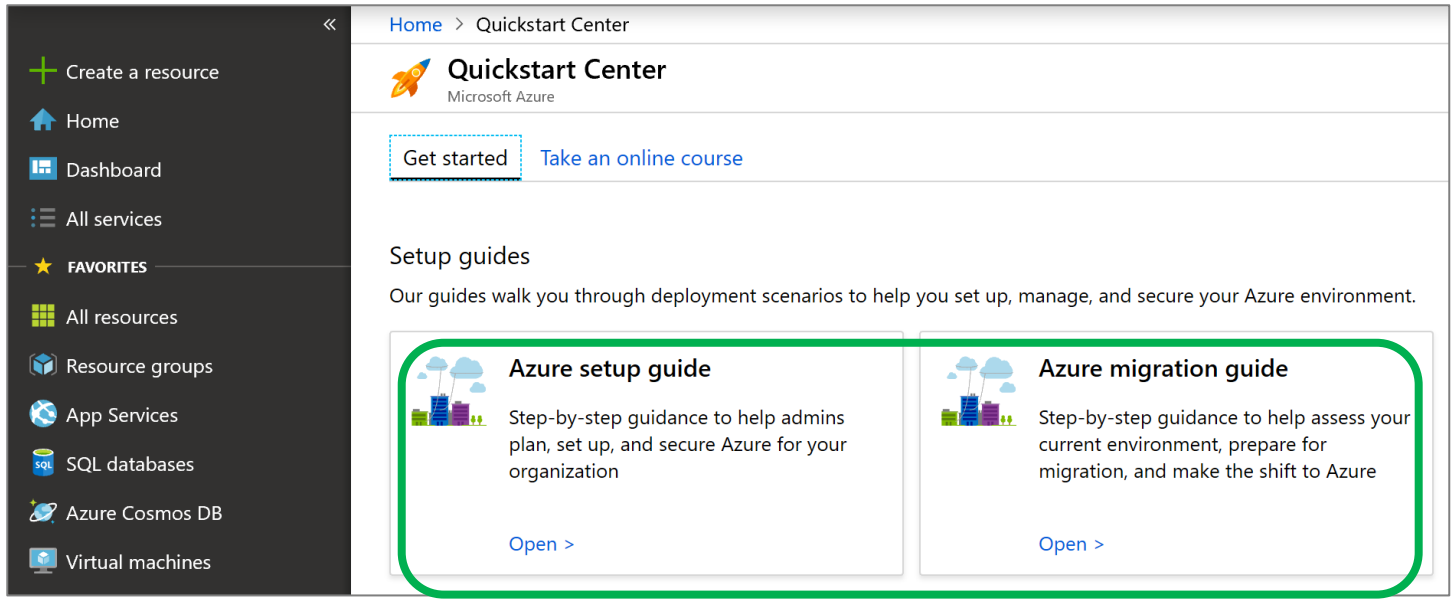
Ready | Organize your Azure Resources



- Use the management hierarchies within the Azure platform.
- Implement well-thought out naming conventions
- Apply resource tagging

Ready | Azure setup guide

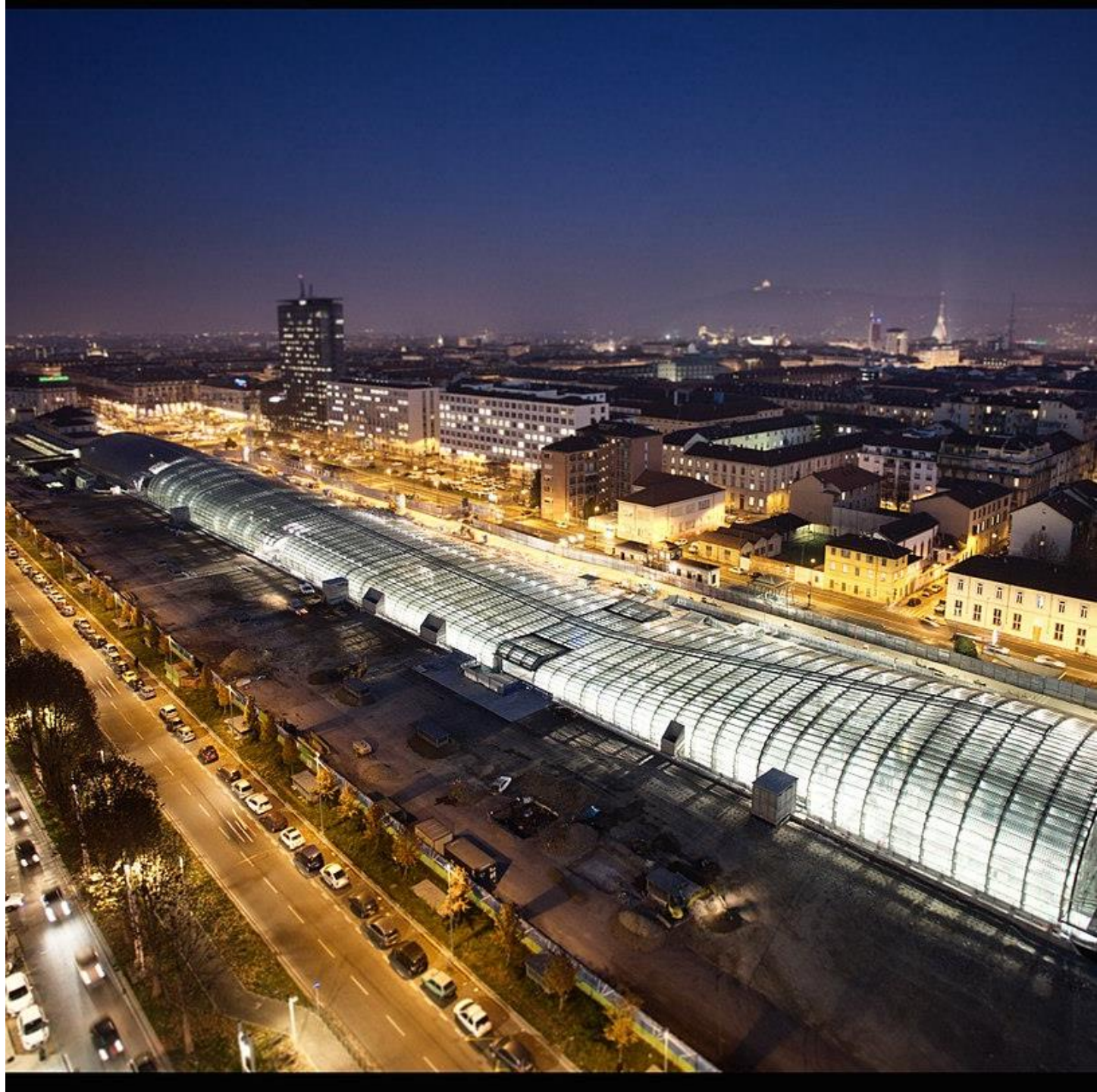
- Prepare the cloud environment before building and deploying solutions using Azure services
- The Azure setup guide provides guidance on how to organize resources, control costs, and secure and manage your organization helping you create your landing zone in Azure



The guide is also published in the **Azure Quickstart Center** within the Azure Portal

Ready | Landing zone

*Using an analogy, this is similar to how city utilities such as **water**, **gas**, and **electricity** are accessible before new houses are constructed. In this context, the network, IAM, policies, management, and monitoring are shared **'utility'** services that **must be readily available** to help streamline the application migration process.*



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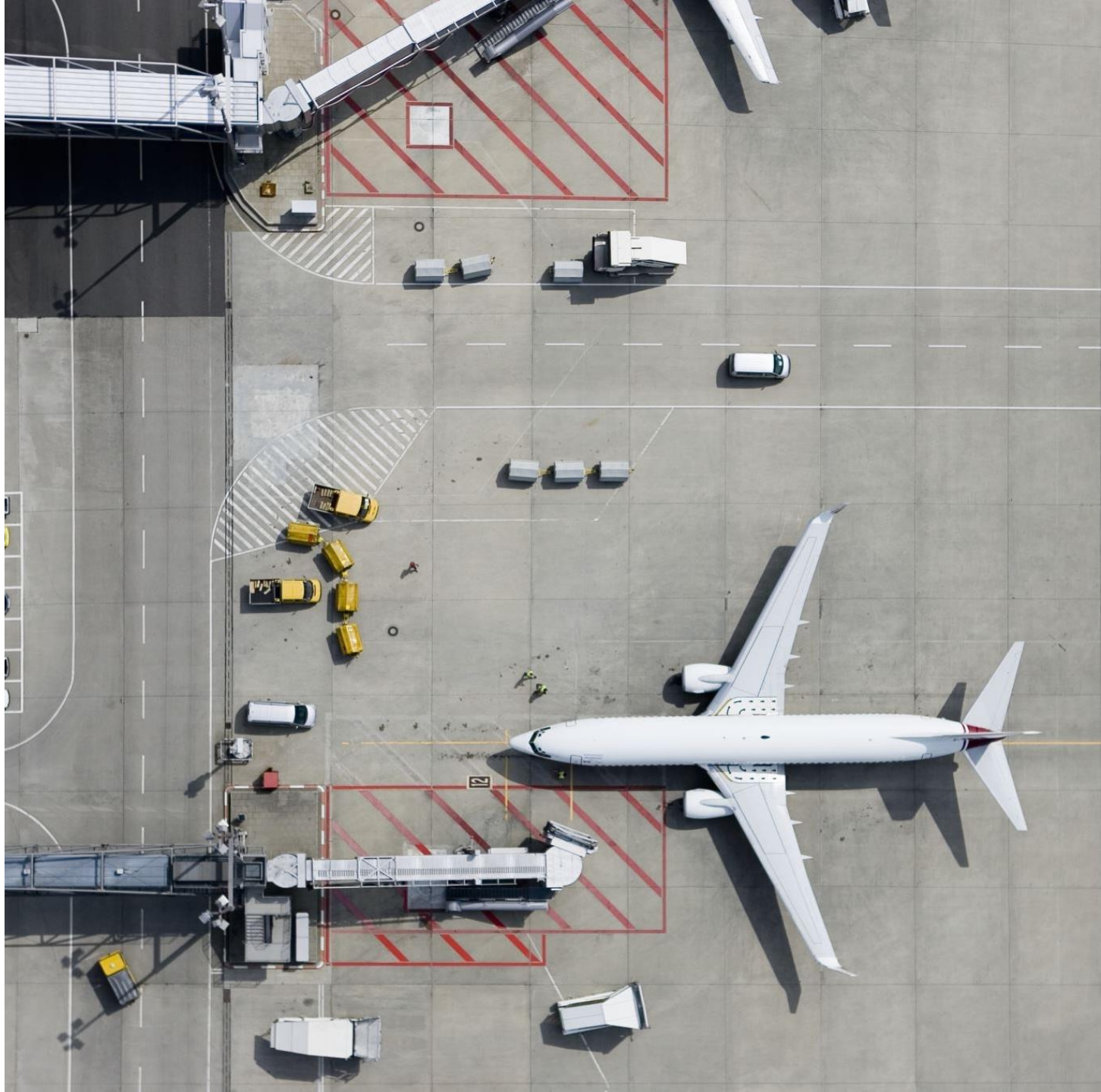
Ready | Landing zone

The principle purpose of the “Landing Zone” is therefore to ensure that when an application lands on Azure, the required “**plumbing**” is already in place, providing greater **agility** and **compliance** with enterprise security and governance requirements.



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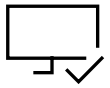
Azure Readiness Guide (Create the first landing zone)

Naming Standards

Resource Organization

Identity and Access



Compute

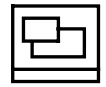
Configuring virtual machines for availability, scale and performance

Network

Designing the network for current and future connectivity requirements

Storage

Planning for performance, durability, scalability and archival



Manage

Planning for production operations for monitoring and disaster recovery

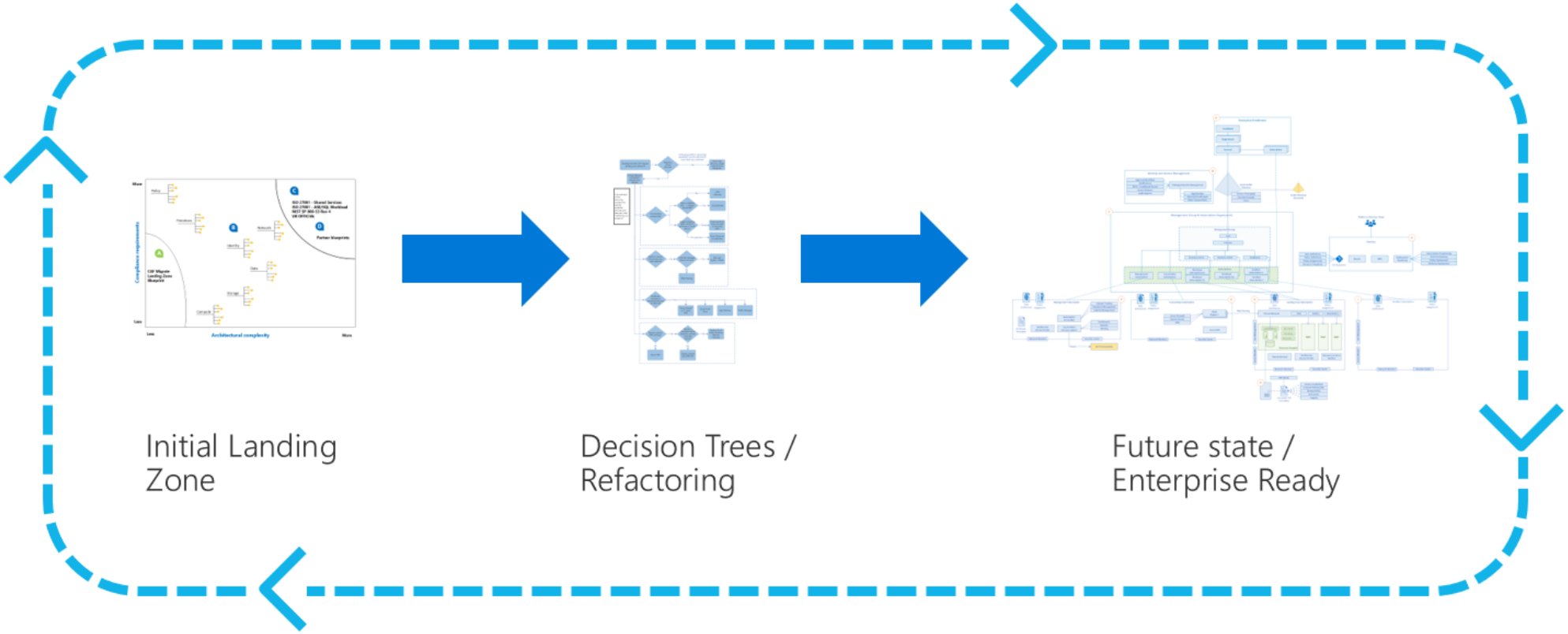
Governance

Control access to resources, what can be used, setup cost management and chargeback

Build a solid foundation using best practices and prescriptive guidance prior to starting migration efforts

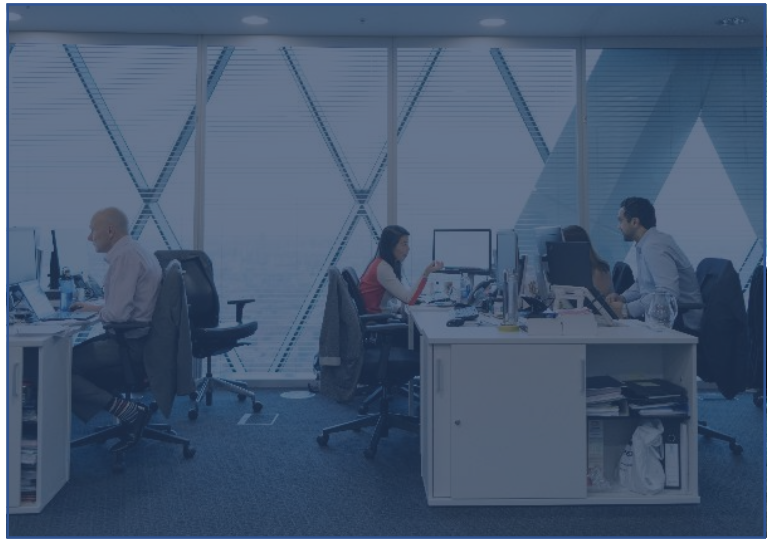
Azure Readiness Guide: https://review.docs.microsoft.com/en-us/azure/architecture/cloud-adoption/ready/azure-readiness-guide/?branch=CAF%2Fmigrate-v1

Refactoring landing zones



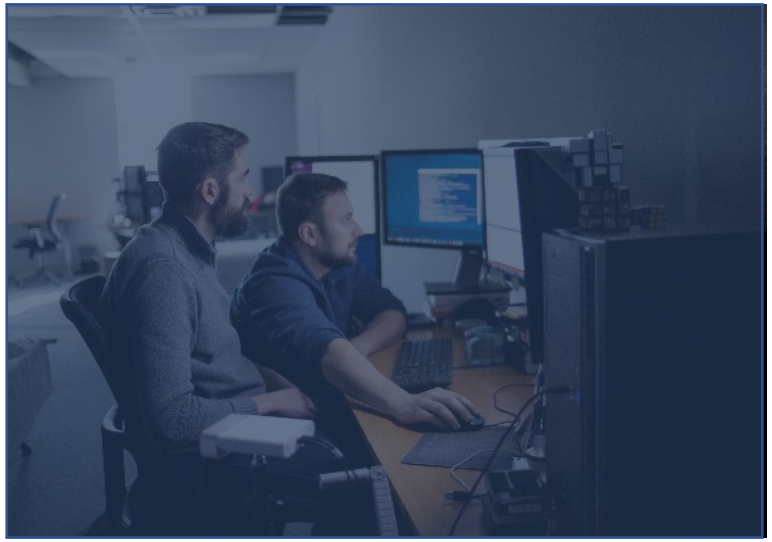
Since landing zone infrastructure is defined in code, it can be refactored similar to any other codebase. Refactoring is the process of modifying or restructuring source code to optimize the output of that code without changing its purpose or core function.

Ready | Outcome



Business readiness

Create initial org alignment with a Cloud Strategy Team to represent business needs and market changes in the migration backlog



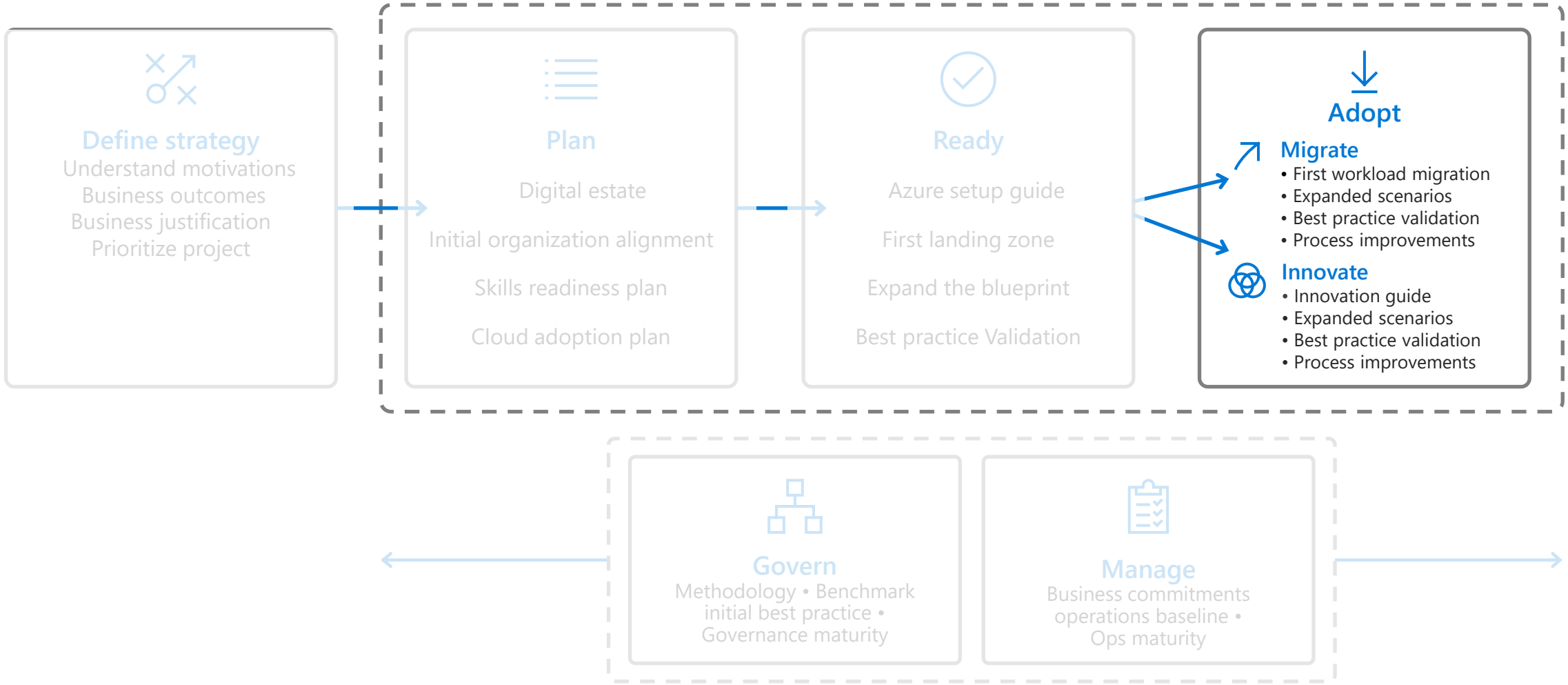
Skill & support readiness

Create a skills readiness plan for staff (IT and Business Staff), identify execution gaps, align key partners, choose support and services options

Environment Readiness

Establish a Landing Zone in the cloud. This target should be readied to handle the workloads and assets being migrated to the cloud

Microsoft Cloud Adoption Framework for Azure



Microsoft

First Workloads in production

Production ready workload

Objective:

Migration of the first workload is a highly suggested learning experience, which should come early in any migration effort. The goal is to deploy one or more **production ready workloads**.

Domain Alignment:

Choose workloads that represents the domain focus that will be used throughout the migration plan.

Workloads

Applications

VMs

Select a Toolchain:

Choose one or two migration tools to use for this first migration

Azure Migrate

App Service Migration Tool

Data Migration Service

Workload Selection:

The following checklist can aid in selection of a first workload

1. Low impact to end users & business processes
2. Performance of the workload is established and can be tested
3. Performance impacts during this experiment won't negatively impact critical processes
4. Application Owner is supportive of the cloud migration objectives
5. Subject Matter Experts for the workload should be aware or even involved in the migration
6. Operations staff for the workload should be aware or even involved in the migration
7. IT experts from networking, identity, security, governance, and compliance should be aware or even involved in the migration
8. The migration landing zone should be validated prior to migration
9. Well maintained (Current on patches & updates)
10. Limited infrastructure complexity (Small number of assets)
11. Limited dependencies (All dependencies should be moved in the first workload migration)
12. Limited exposure (No mission critical applications or sensitive data)

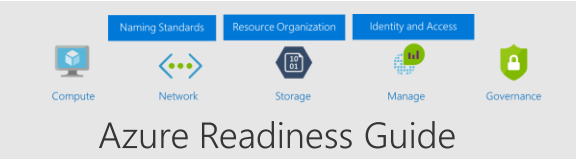
Microsoft

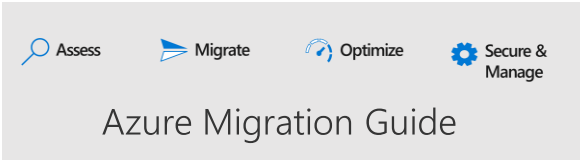
Iteratively mature migration process

Maturing Processes

Key maturity motions

First Workloads in Production





Target: ~50 assets
(Infra, Apps, & Data)

Business

Migration backlog review, release, & realignment processes

People

Evolve and align Definition of Done to match org structure

Culture of learning; continuously expand skills

Technology

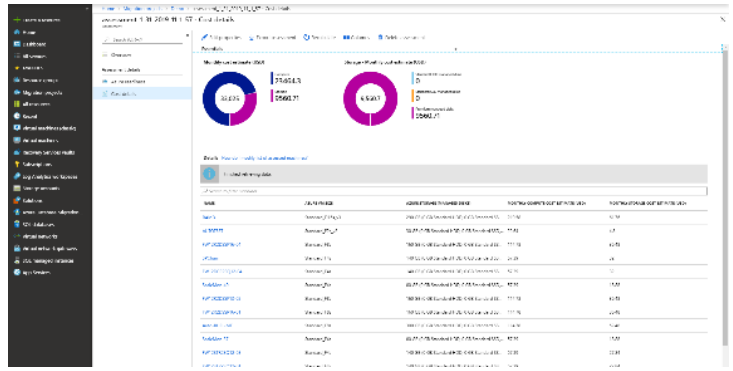
Increase assessment decisions accuracy w/ better data

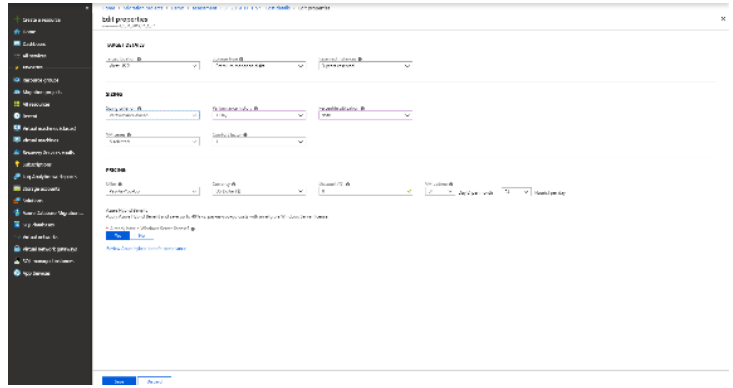
Expand workload architecture options w/ broaden tooling

Improve optimization w/ testing & monitoring options

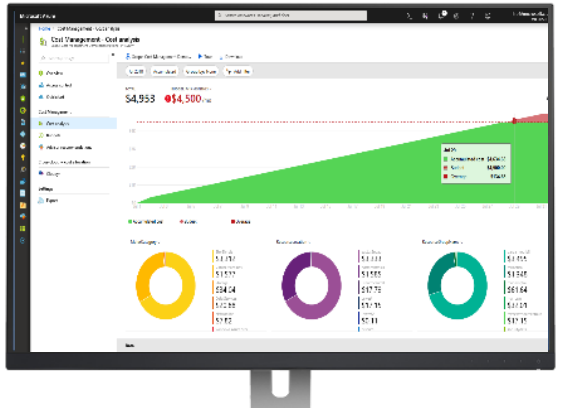
Expand initial architectures for reliability and resiliency

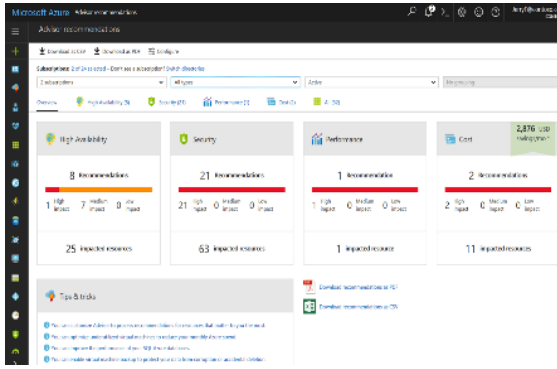
Continuously optimize resources during and after migration



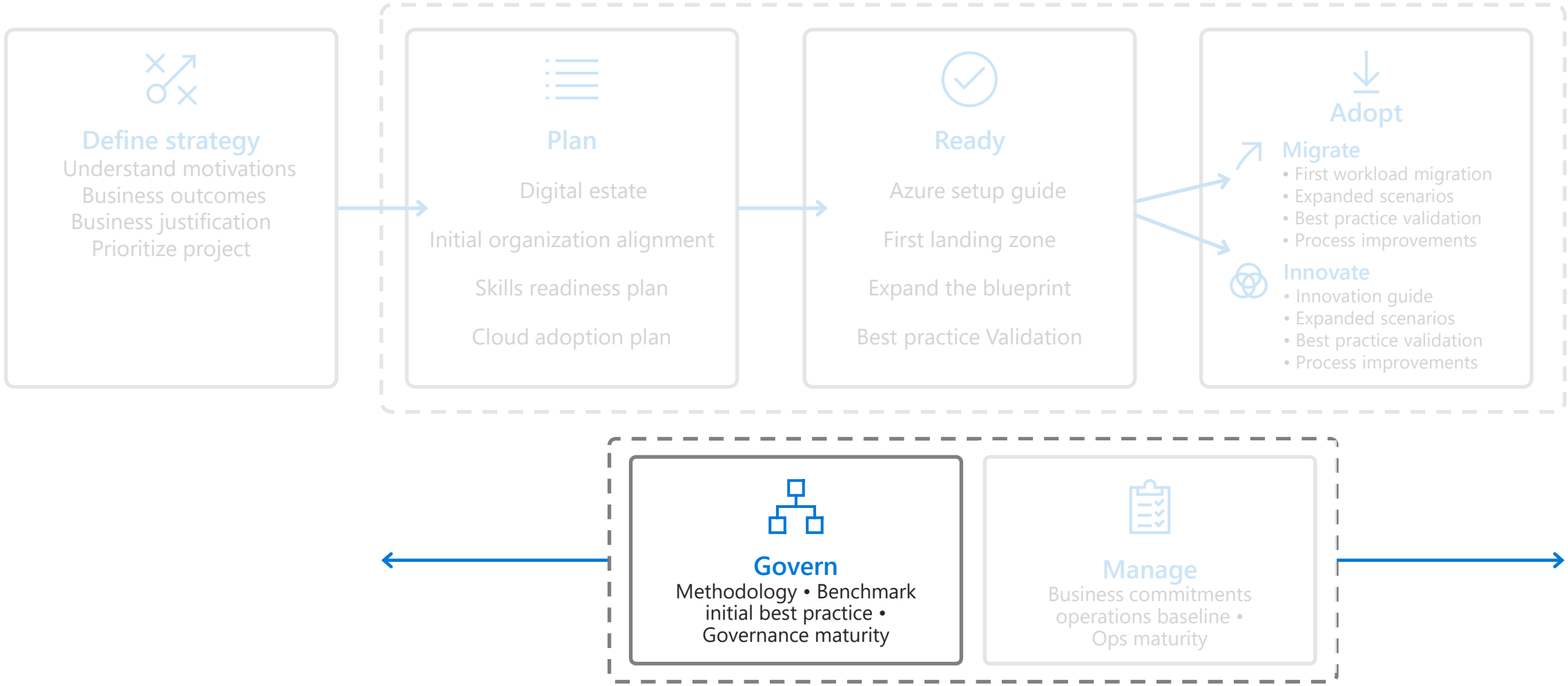


- As you move
- Right-size Azure resources based on assessment guidance
- Use Azure Hybrid Benefit and Azure Reserved Instances to save money
- After you move
- Unified experience to optimize cloud spends: Azure Cost Management
- Azure Advisor: Built-in best practice recommendations
    - (e.g., turn off idle VMs)
- Balance optimization and performance decisions with
    - Azure Monitor
- Modernize for longer term value





Microsoft Cloud Adoption Framework for Azure

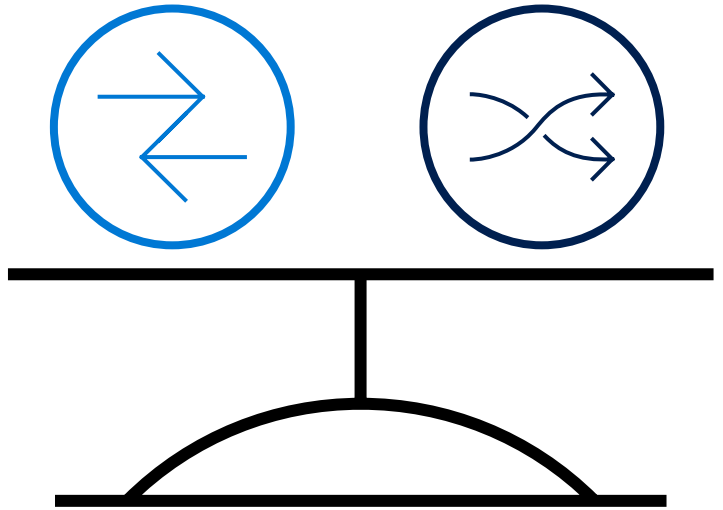


The major drivers for IT governance

- Keep risk at acceptable levels
- Maintain availability to systems and services
- Consistently apply policy and audit compliance
- Protect customer data

Objective of this Model: Create Balance

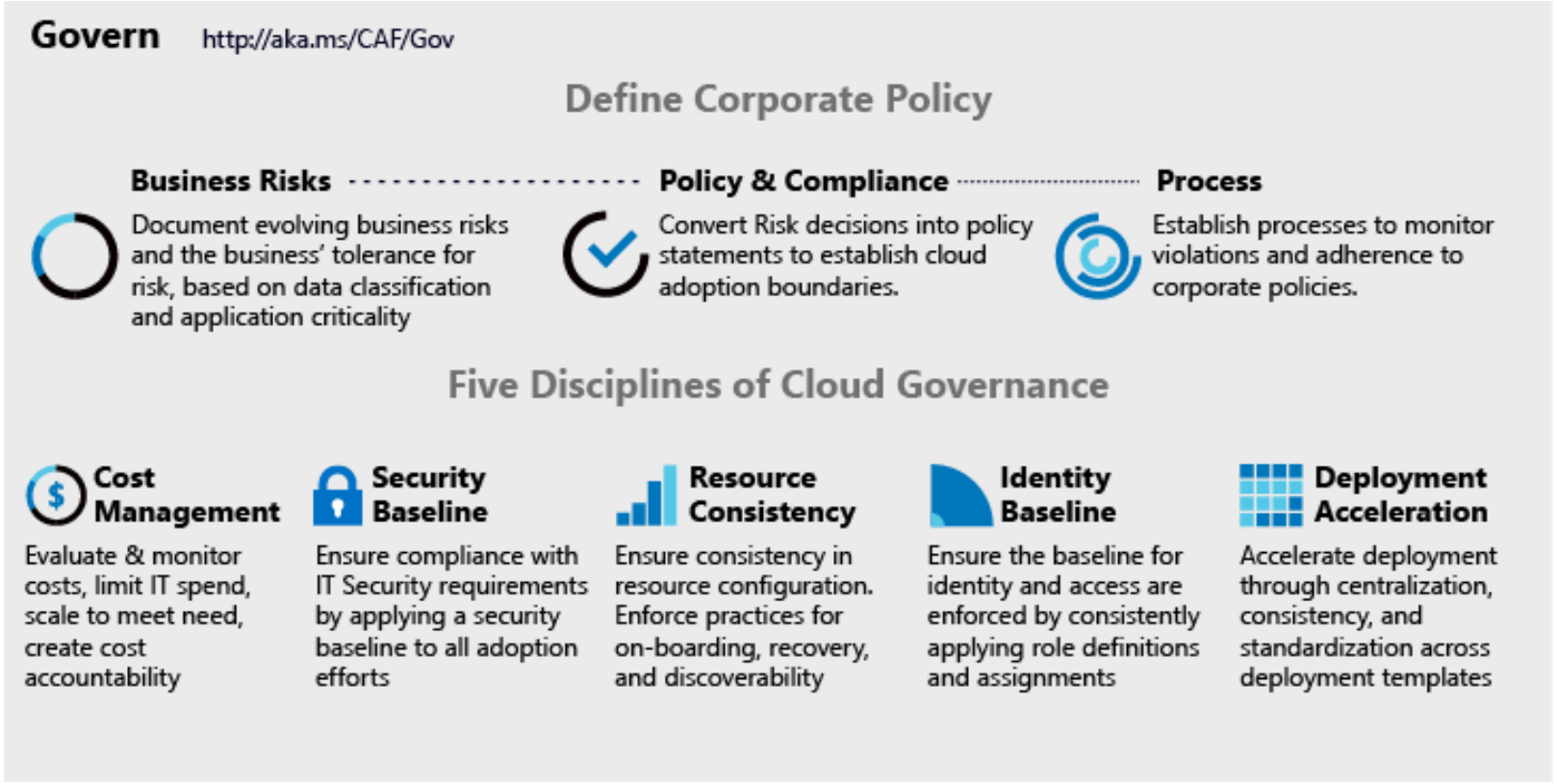
Control & Stability



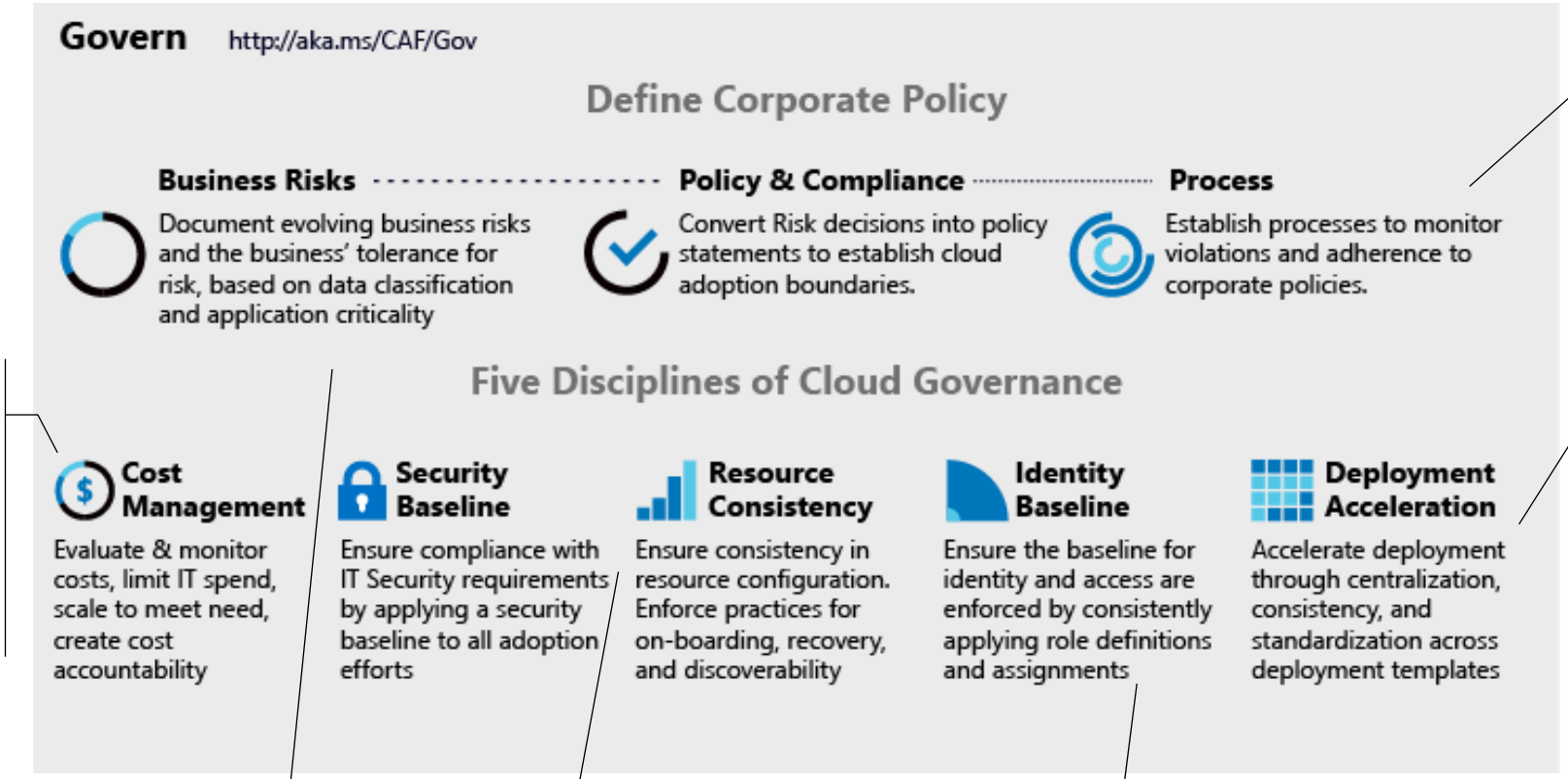
Speed & Results

CAF Governance Model

Governance End State that fosters trust and builds confidence



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

Defining Initial Governance for your organization

Governance MVP

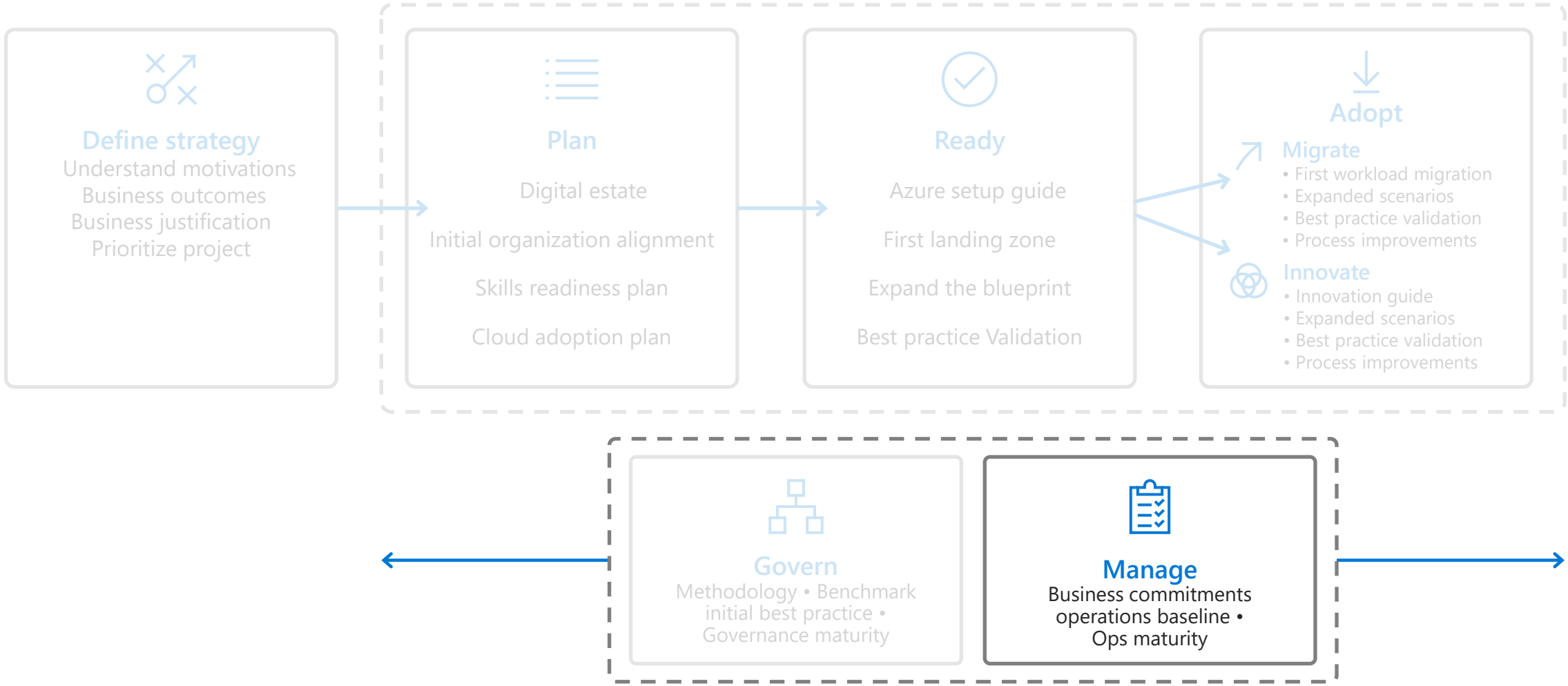
Start small. Establish a foundation that can quickly evolve as cloud adoption and cloud governance mature. Mitigate tangible risks identified in the cloud adoption plans.

Risk Evolutions

As additional iterations of cloud adoption are planned, the risk profile will change. The Cloud Governance Team monitors those adoption plans to identify risks and evolve corporate policy statements.

Caution: take a balanced approach to implementation, audit then apply

Microsoft Cloud Adoption Framework for Azure



Management baseline

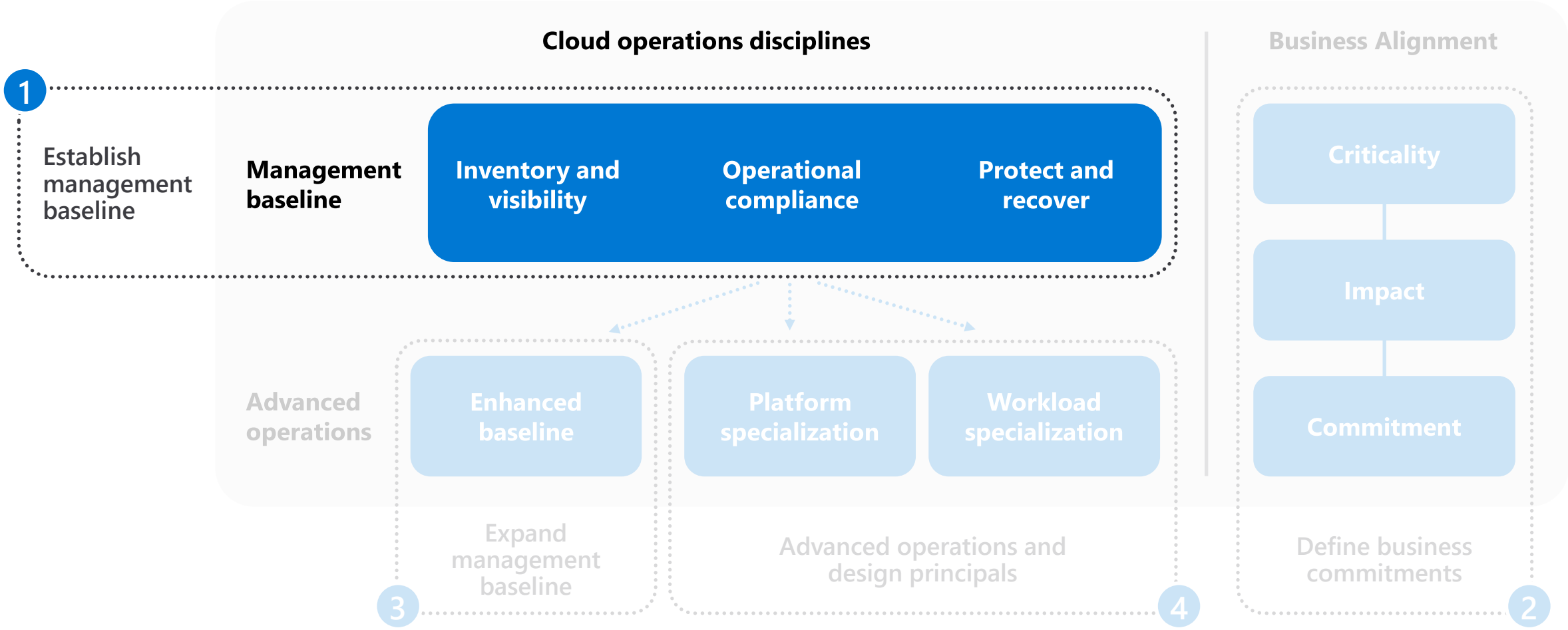
Why do you need this?

A well-guided management baseline defines a set of cloud management tools and processes required to deliver your minimum commitment to operations management.

Goals for management baseline

- Define the basic tools needed for managing operations around any Azure production environments
- Focus on the minimum options and processes necessary instead of all the available options
- Use the management baseline to apply resource consistency across different resources on the Azure platform

Methodology to enable cloud management



Business alignments and commitments

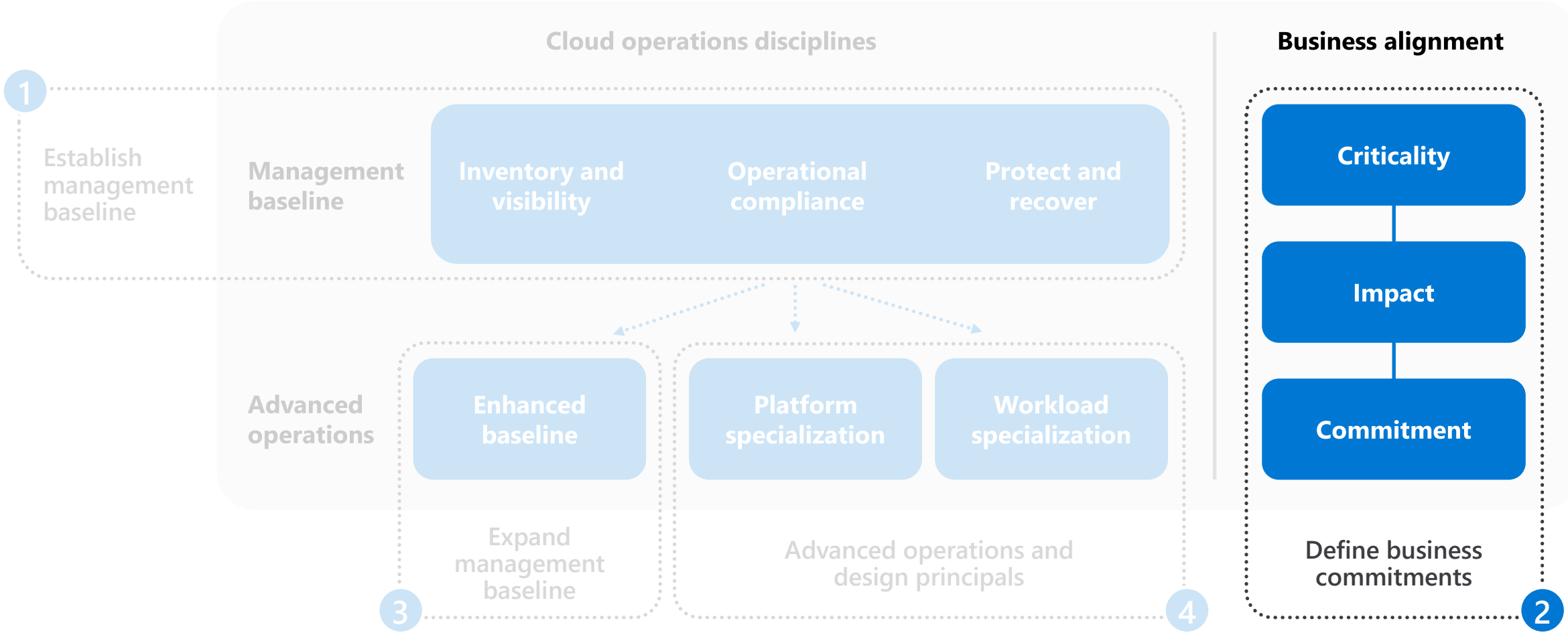
Why do you need this?

Business alignment with cloud management is required to rethink commitments to operational management in partnership with the business.

Goals for management baseline

- Document the criticality and relative business value of each workload
- Establish clear performance expectations and business interruption time/value metrics
- Document, track, and report on commitments to cost and performance

Methodology to enable cloud management



Enhance management baseline

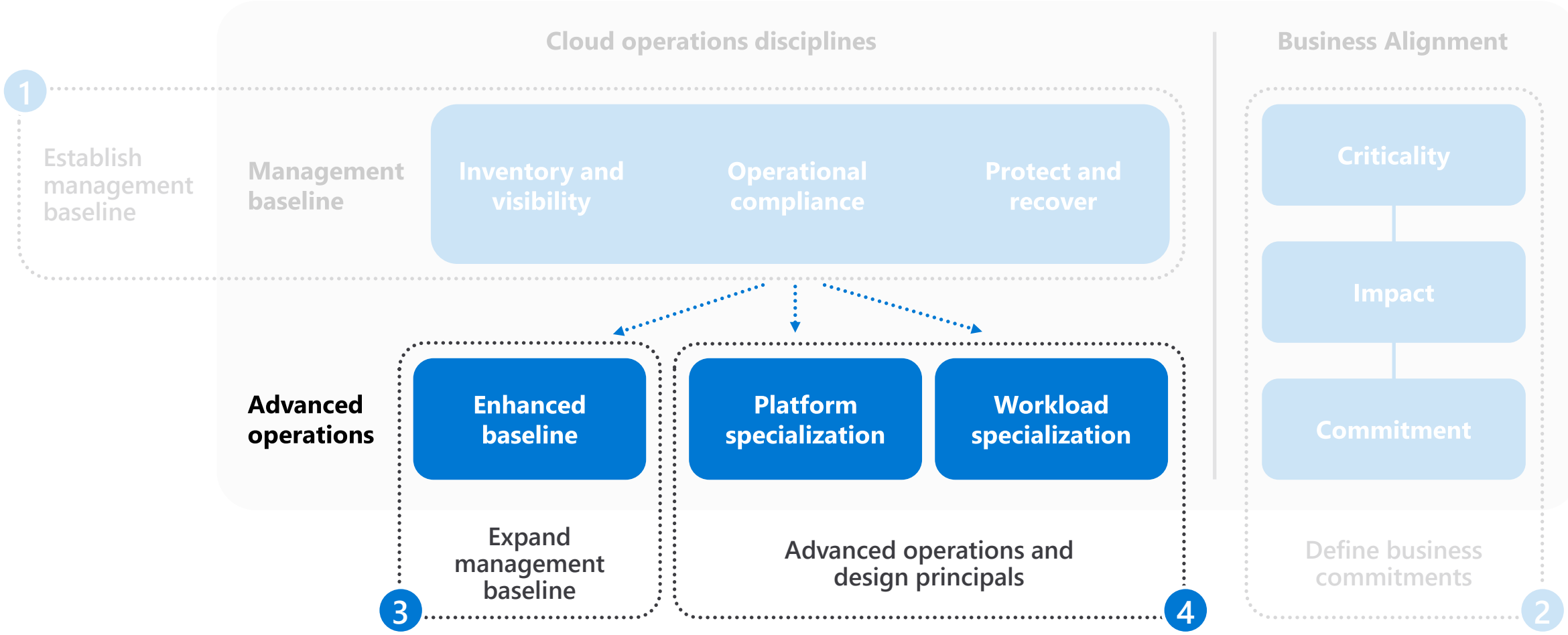
Why do you need this?

Outline a minimum viable product (MVP) for cloud management services, referred to as a management baseline, and add common improvements to the baseline.

Goals for management baseline

- In addition to management baseline, improve business commitments with enhanced management baseline
- Improve uptime and decrease recovery times for the entire portfolio of workloads with cloud-native tools

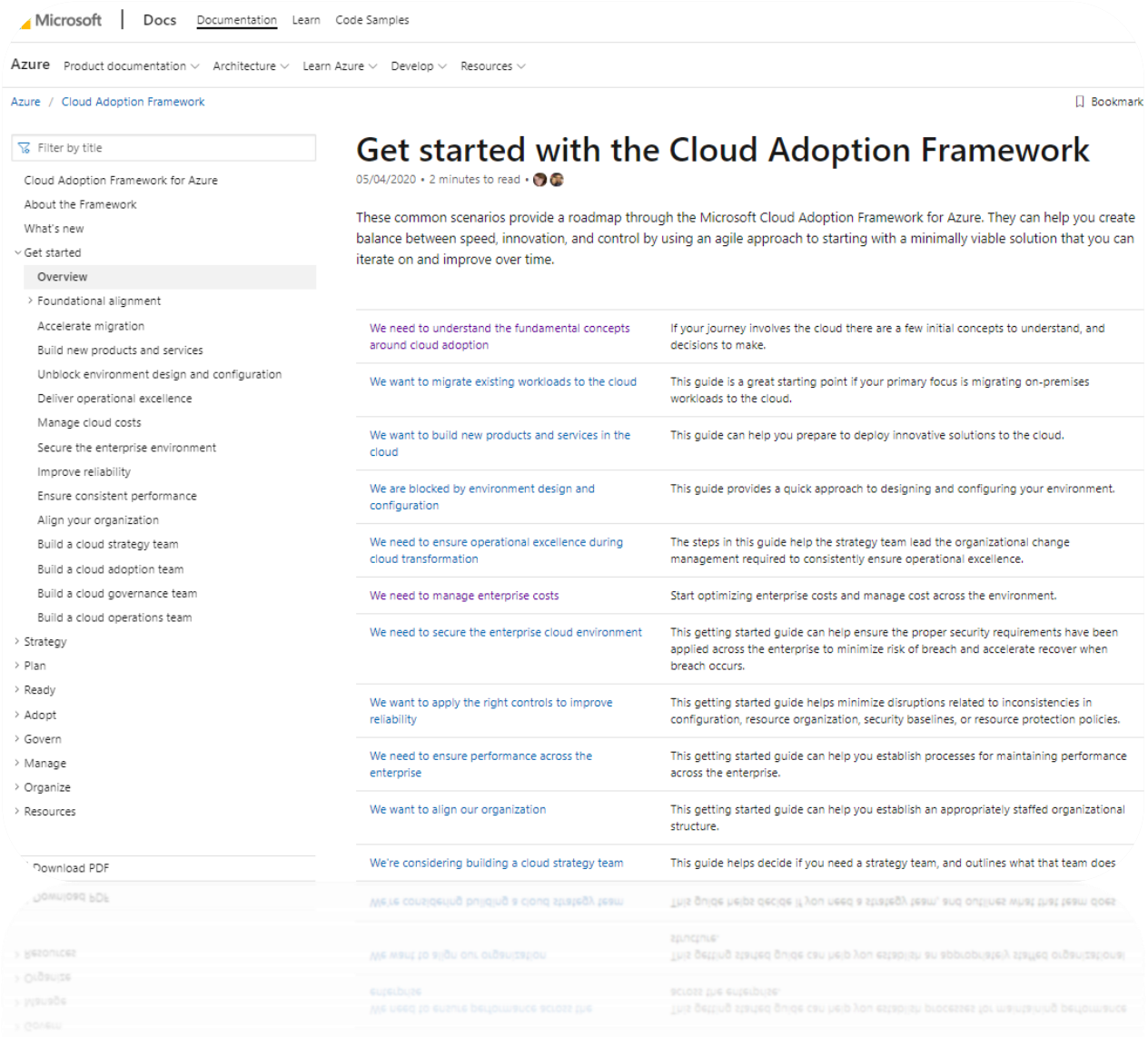
Methodology to enable cloud management



Microsoft Azure

Next steps

Find *your path*—get started on **your journey**



Use the Get Started Guides as your roadmap through the Cloud Adoption Framework to overcome common blockers

Tools, templates, and assessments

Define strategy

- Cloud journey tracker
- Business outcome template

Plan

- Azure DevOps dem`o 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

aka.ms/adopt/tools-templates

Q&A

Reach out to the team

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Feedback

Your feedback is very important for us.

https://aka.ms/SAPAPAC-POE-FEEDBACK

Microsoft

SAP on Azure Enablement

Next Session – Introduction to Azure for SAP workloads

Tomorrow - Wednesday, Sep 30, 2020, 10am SGT

Reach out to the team

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Thank You