



# Cloud Adoption Framework for Azure

## *Intro session*

Matteo Marini  
Cloud Solution Architect  
OCP Italy  
[mamarini@microsoft.com](mailto:mamarini@microsoft.com)

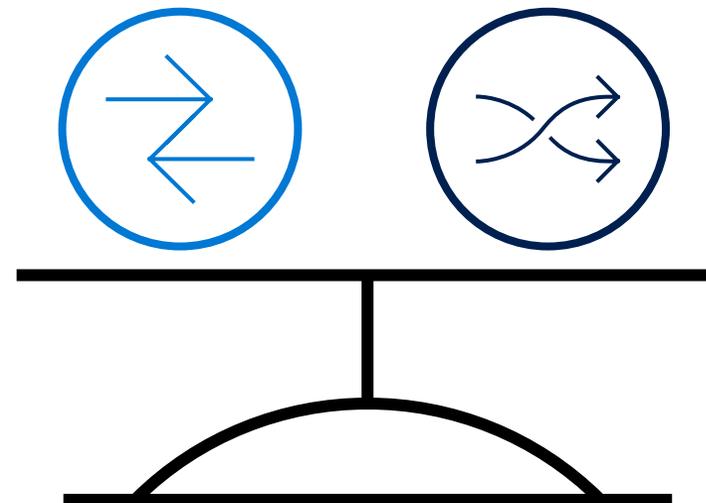
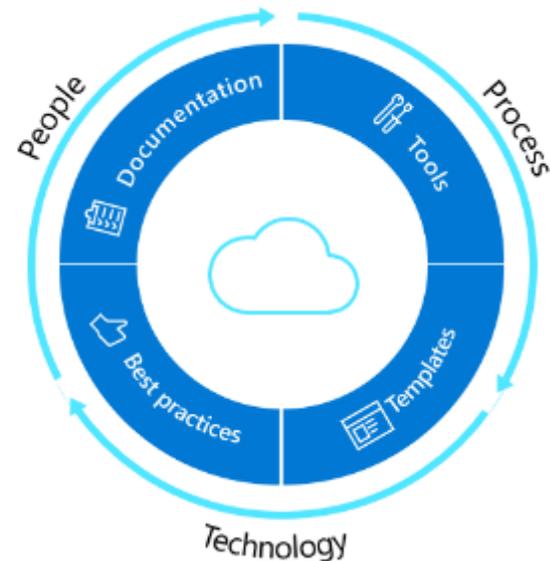
# Agenda

- Introduction
- Why CAF
- Plan
- Ready
- Adopt
- Govern & Manage
- Resources & Next Steps

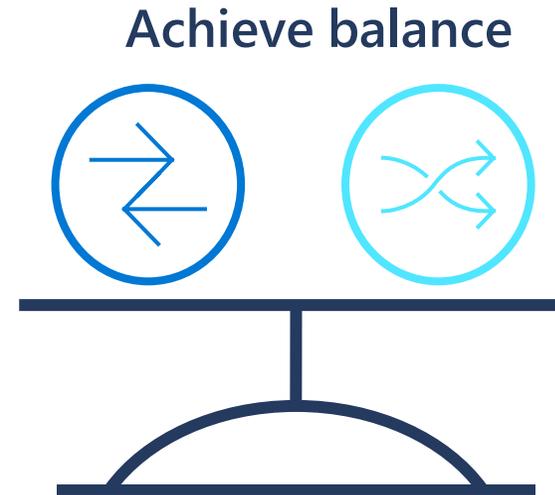
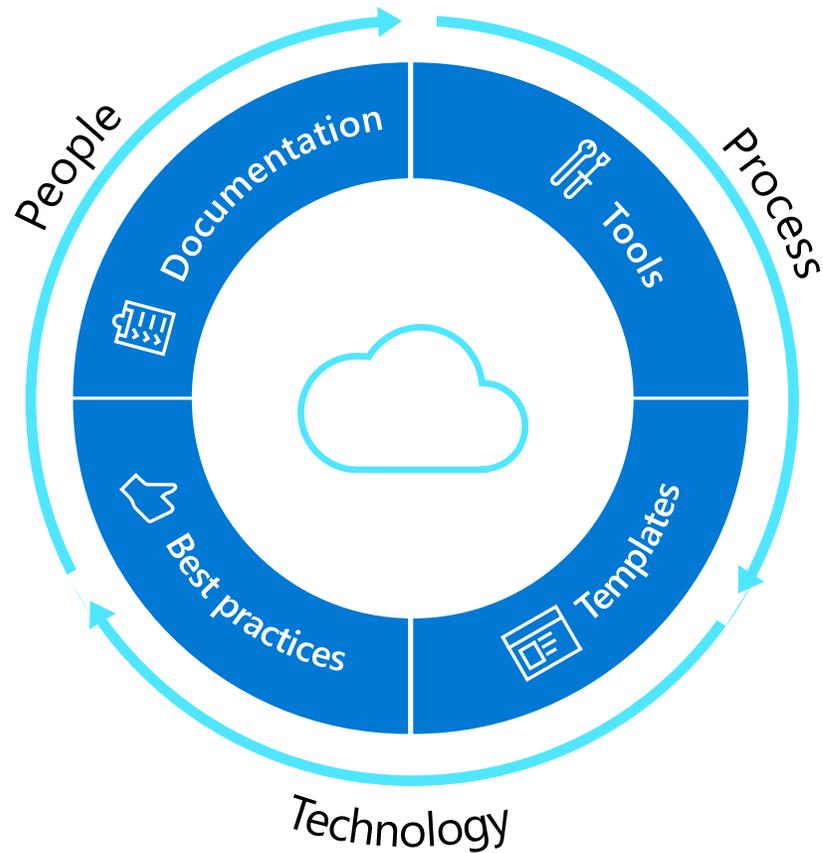
# Microsoft Cloud Adoption Framework for Azure

# 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.



# Microsoft Cloud Adoption Framework for Azure



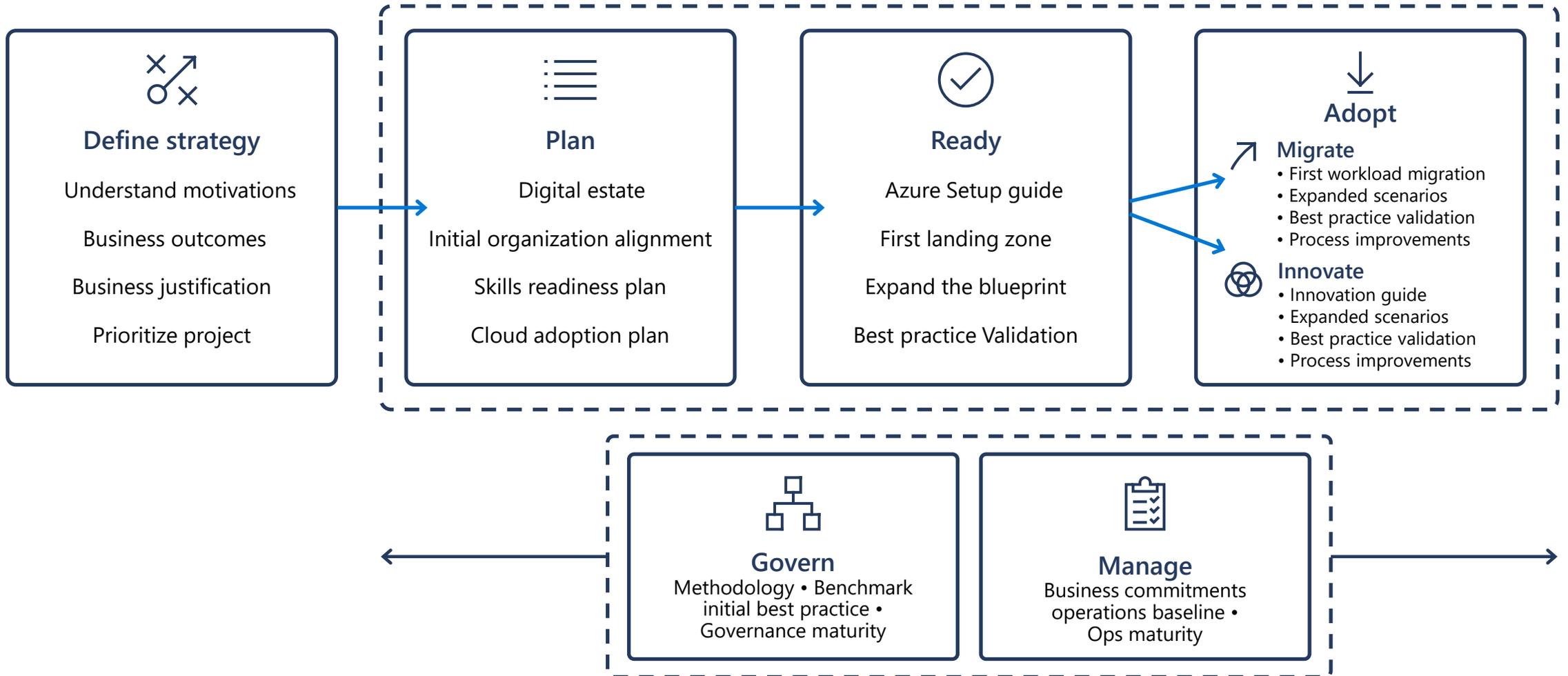
Align **business, people and technology strategy** to achieve business goals with **actionable, efficient, and comprehensive** guidance to deliver fast results with control and stability.

# Building the framework

Modular approach, meeting the customer in their journey



# Microsoft Cloud Adoption Framework for Azure



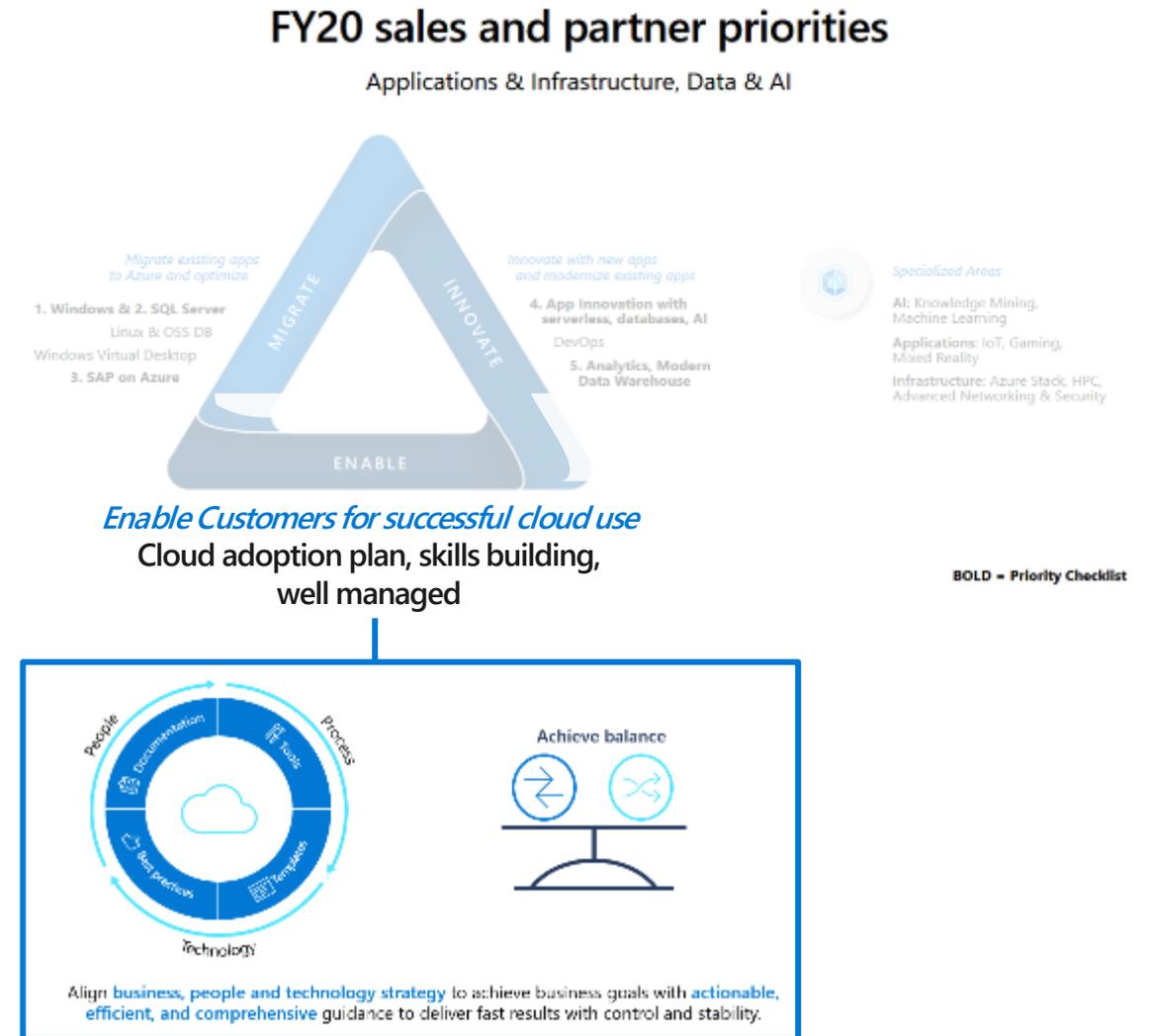
# Cloud Adoption Framework Customer Journeys | Potential Paths

- **Different paths**, depending on entry point and customer segment
- **Tools, Docs and Partner offers** are pervasive across all paths, as they are the core content and guidance
- **Partners** are quite constant as well, not just leading the partner-led engagements but supporting/co-leading all other paths

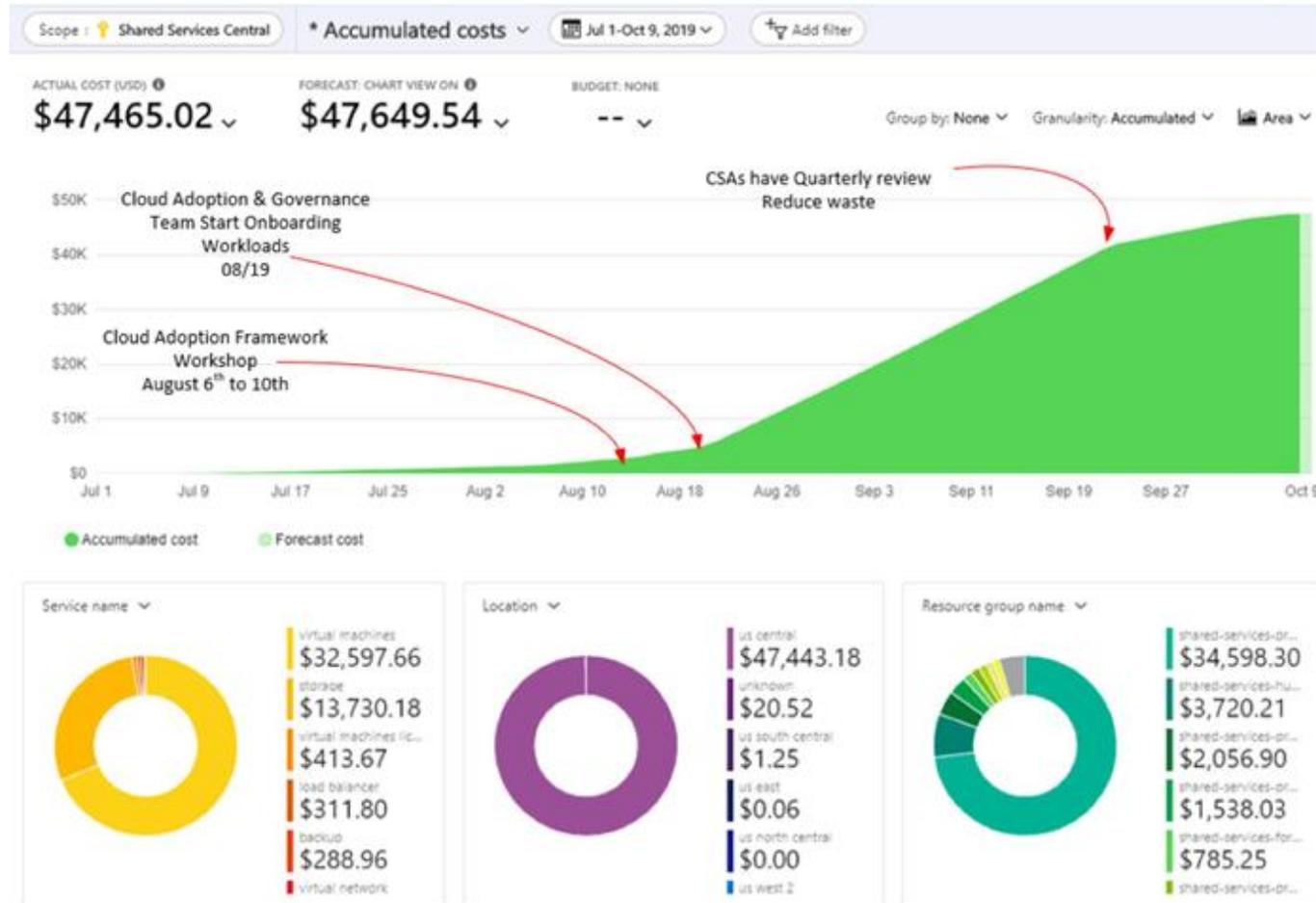
	SELF-SERVICE	FIELD-LED	PARTNER-LED
Customer's Cloud Strategy Team			
MS CAF for Azure (tools & DOCS)			
MS Field (CSA, CSM, SSP, PSS)			
Cloud Adoption Framework aligned partners			
Azure Marketplace partner offerings aligned to Cloud Adoption Framework			

# Aligning to Microsoft Cloud Adoption Framework for Azure Partner Benefits

- Aligning with Microsoft's FY20 sales & partner priorities strategy - CAF underpinning the **Enable** pillar
- Driving greater **customer satisfaction** while better aligning guidance, methodologies, tooling and GTM
- Opportunity for promoting CAF aligned solutions across Microsoft and driving **co-selling** motions
- Getting **recognised** on the Microsoft Cloud Adoption Framework public-facing landing page
- Accelerating **consumption** towards customer adds and ACR sustainability



# ACR Impact following CAF Workshop



Strategy

# 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 Business Outcomes

Engage different stakeholders and document desired outcomes across these categories



- **Fiscal** outcomes include increased [revenue](#), savings in [cost](#) and drive [profits](#)
- **Agility** outcomes include [time-to-market](#) and [provision time](#) to respond to changes
- **Reach** outcomes include [global access](#) and [data sovereignty](#)
- **Customer engagement** outcomes include [meeting customer expectations](#) by reducing cycle times
- **Performance** outcomes include having [highly available, global](#) applications
- **Security & Compliance** regulations addressed and implemented



Use the [business document template](#) to identify your business outcomes

# Define Strategy | Develop Business Justification

Dispel common cloud migration myths such as ..

Mirroring on-premise environment will save money in the cloud

Everything should go into the cloud

I have less visibility and control over my cloud resources

Cloud is always cheaper

An operating expense model is better than a capital expense model

I can run workloads on-prem cheaper than in the cloud

Moving to the cloud is like flipping a switch

Public Cloud is not secure

Server costs drive business cases for cloud migration

# 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.

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

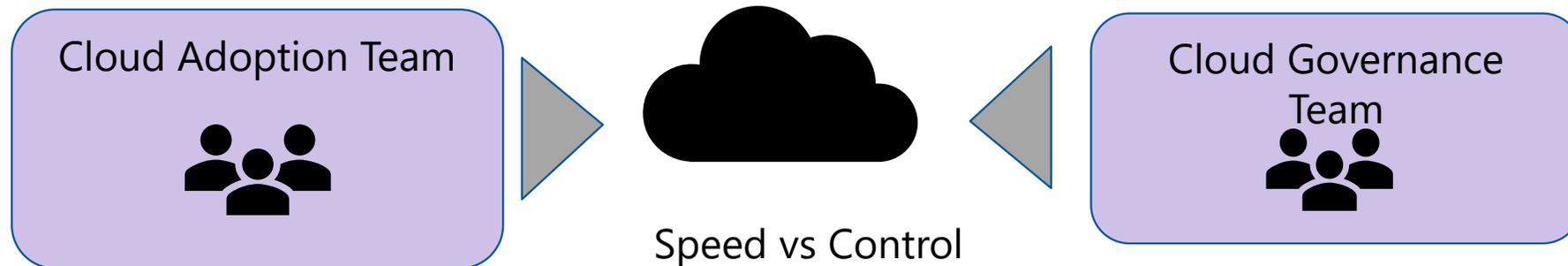
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## Cloud adoption plan

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



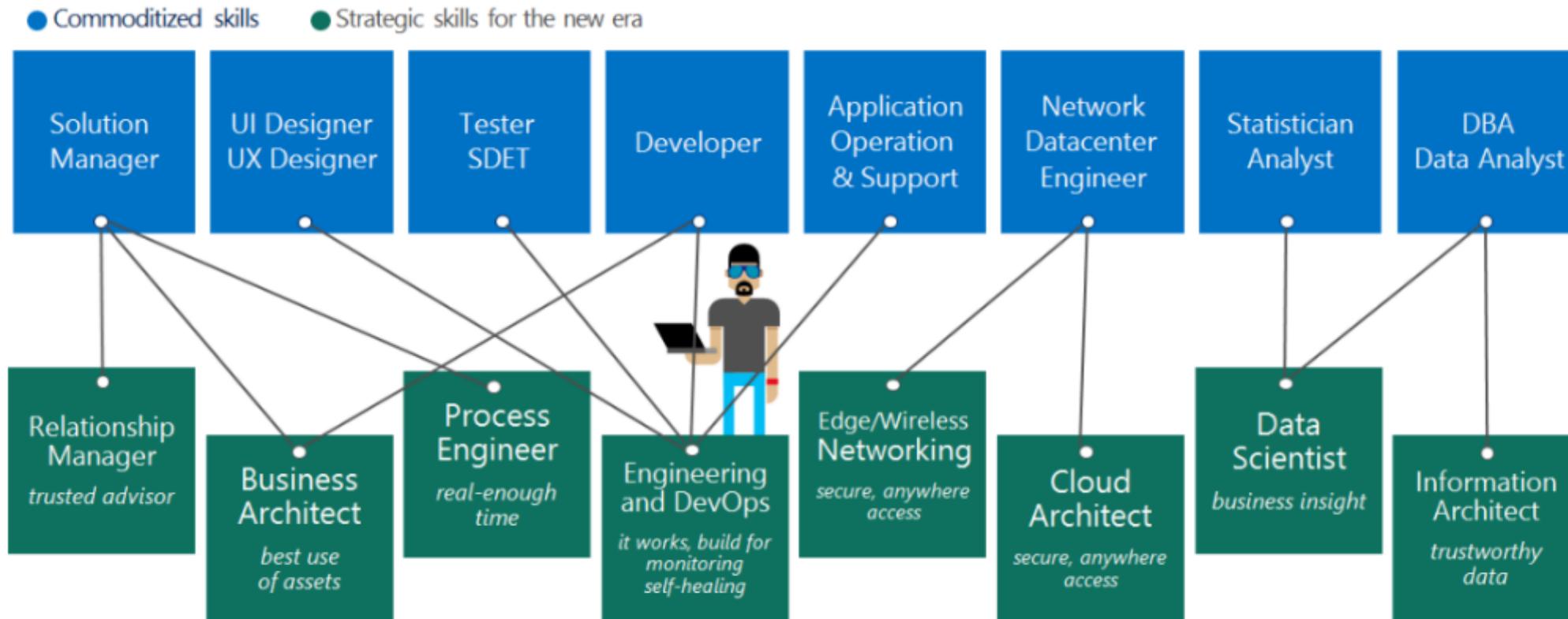
- Create a balance between speed or *moving quickly* and control or *reducing risks* by have teams accountable for adoption and governance.
- While cloud adoption team is required to execute cloud adoption tasks, governance team ensures processes and controls are implemented

# 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

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.

# 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:

# Strategy, Plan & Ready Tooling

Cloud Adoption Plan  
Azure DevOps Generator

<https://azuredevopsdemogenerator.azurewebsites.net/>

Your cloud adoption journey

**Define Strategy**  
Define business and technical goals and select business cloud services to support them.  
| Check for alignment to the Cloud  
| [View more >](#)

**Plan**  
Align available technology projects to business outcomes.  
| Azure DevOps Plan Generator  
| Highlight initial capabilities alignment  
| Templates for planning cloud costs  
| [View more >](#)

**Ready**  
Align critical workloads to projects and business outcomes.  
| Learning Module  
| Get a First Host  
| Ready - First workload  
| [View more >](#)

**Adapt**  
Review the people and process changes required to support the cloud.  
| Training the team  
| Workload analysis  
| Innovation Template  
| KPI setup  
| Migration tooling  
| End-to-end workload migration  
| [View more >](#)

**Operate**  
Review and manage migration projects for business success.  
| Process for Long Term Org Alignment  
| Existing on Internal Cloud Strategy Team  
| [View more >](#)

**Base Card**  
Cover end-to-end project status, people & business processes.  
| Project for Long Term Org Alignment  
| Existing on Internal Cloud Strategy Team  
| [View more >](#)

Workload summary of your assets. >

[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.]

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

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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 [i.e. any business drivers]	KPI [i.e. any metrics]	Capabilities [i.e. necessary capabilities]

**Mid Priority**

Stakeholder	Outcome
-------------	---------

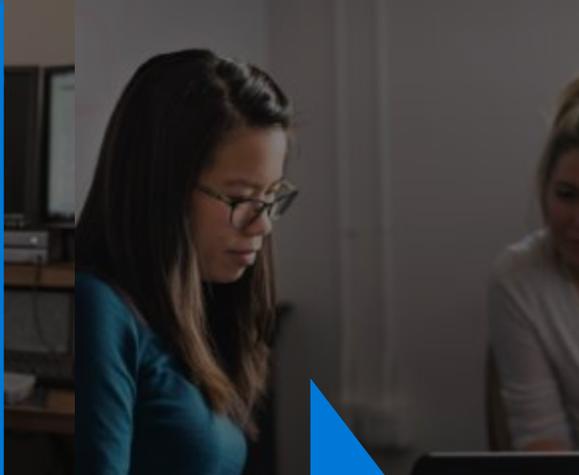
- Epic > 🏰 Cloud Adoption Strategy
- Epic > 🏰 Cloud Adoption Plan
- Epic > 🏰 Cloud Ready
- Epic 🏰 Cloud Innovation
- Epic ▾ 🏰 Cloud Migration
  - Feature > 🏆 First Workload
  - Feature > 🏆 First Host
  - Feature ▾ 🏆 Workload Template
    - User Story > 📖 Prerequisites
    - User Story > 📖 Assess the workload
    - User Story > 📖 VM - UX Server
    - User Story > 📖 VM - Middle Tier
    - User Story > 📖 VM 3 - SQL Server
    - User Story > 📖 Test Workload
    - User Story > 📖 Optimize Workload Assets

# Common blockers

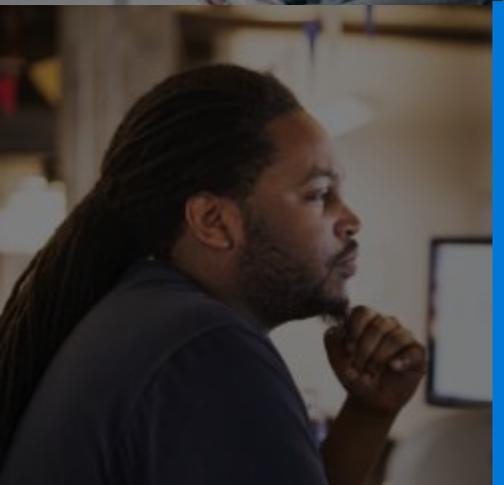
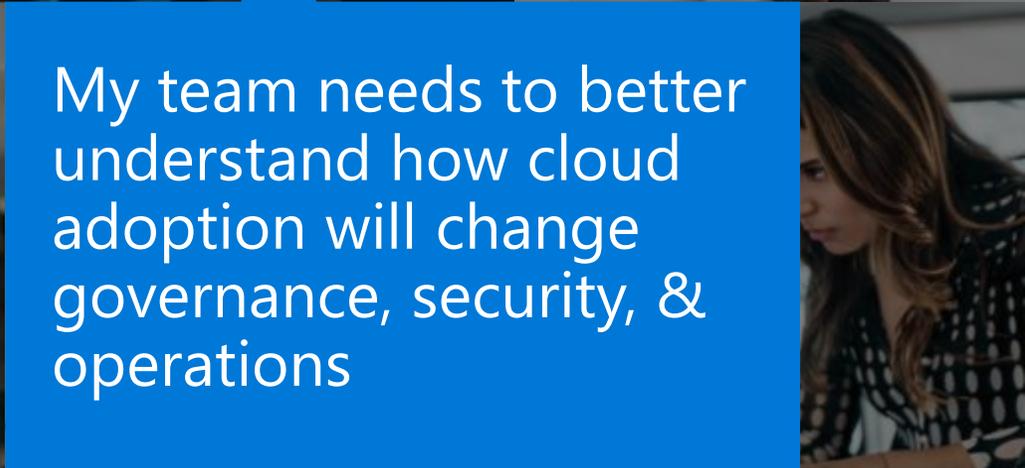
*Unblocking and accelerating cloud adoption*



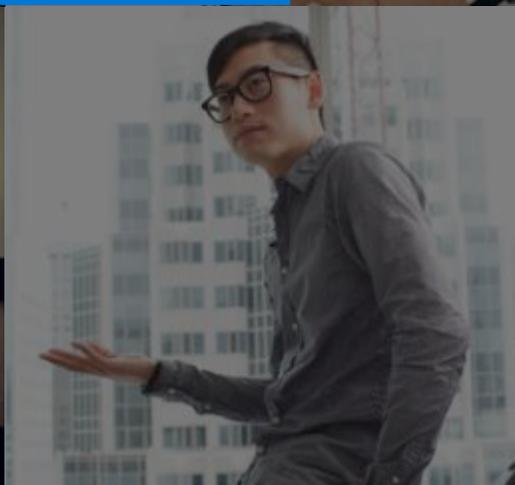
My team doesn't fully understand the cloud or where the different adoption teams are going. We need to get ahead of those needs.



My team needs to better understand how cloud adoption will change governance, security, & operations



We are stalled making hard decisions regarding networking, identity, connectivity, and centralized management principles.



# Common path – Common blocker



# Too many options... Too early to say...

Compute

Network

Storage

Data

Management Groups

Resource Groups

Cost

Policy

**Primitives**

**Governance**

Naming Standards

Subscription Design

Monitoring

Identity

# 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

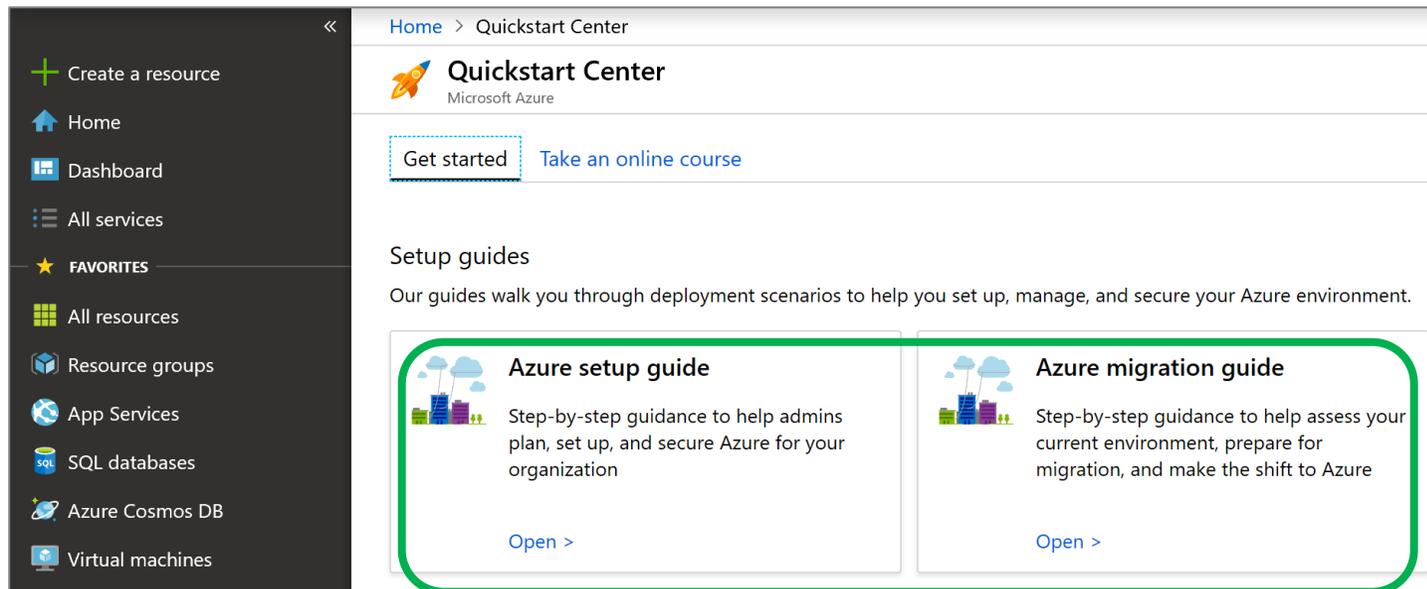
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## Best practices

Validate landing zone modifications against best practices

# Ready | Azure Setup Guide

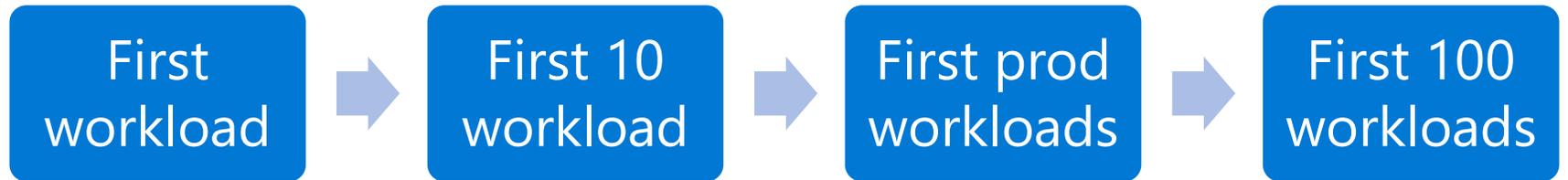
- Prepare the cloud environment before building and deploying solutions using Azure services
- The Azure Setup Guide provides guidance on how to organize resources, control costs, and secure and manage your organization helping you create your landing zone in Azure



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

# Parallel iterations

Cloud Adoption  
(Migrate or Innovate)

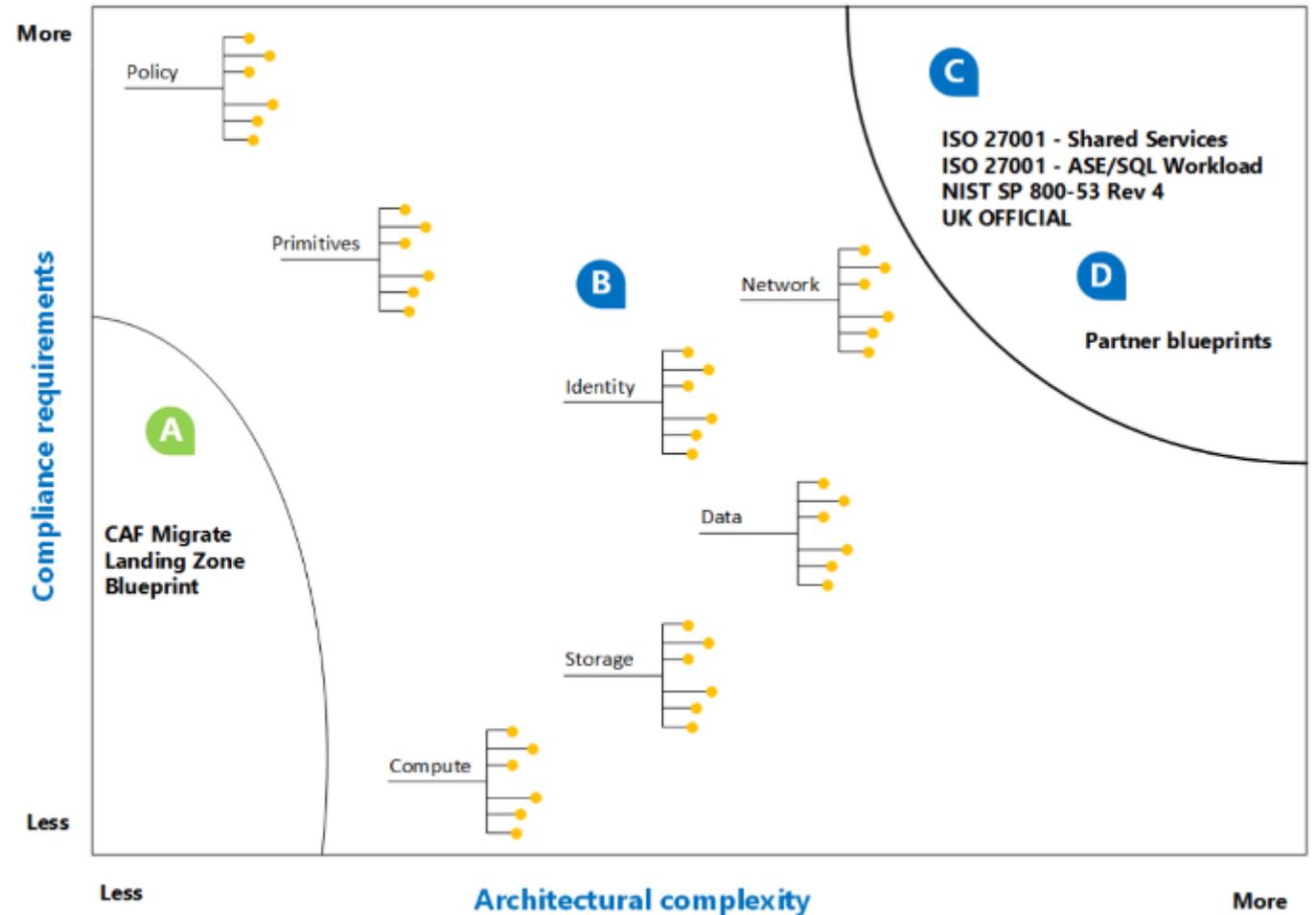


Cloud Platform

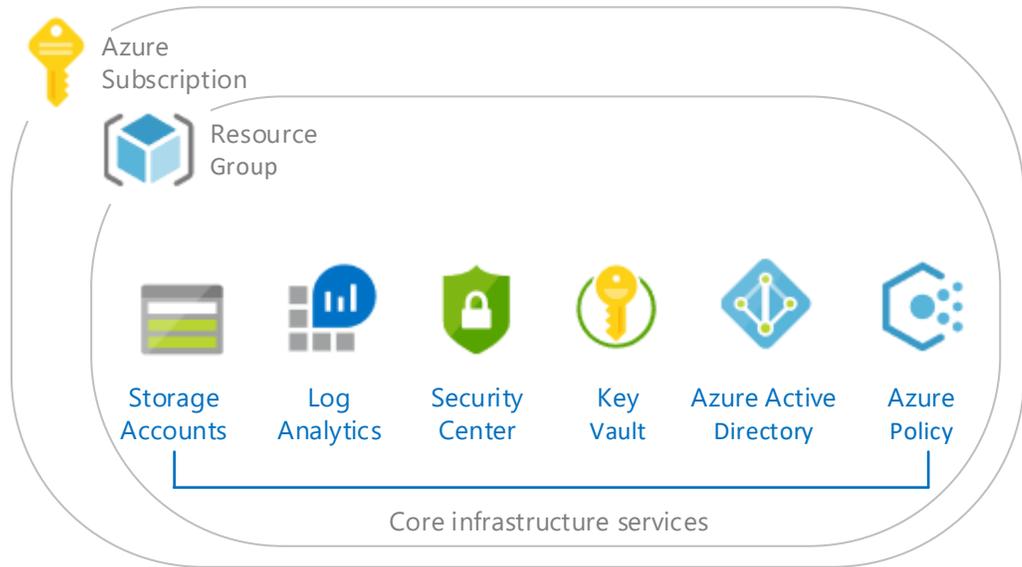


# First Landing Zone

- 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 landing zone which can be updated to meet your specific needs.



# CAF Foundation Blueprint



<http://aka.ms/cafbpfoundation>

Microsoft Azure (Preview) Search resources, services, and docs (G+ /)

Blueprints - Getting started > Create blueprint

### Create blueprint

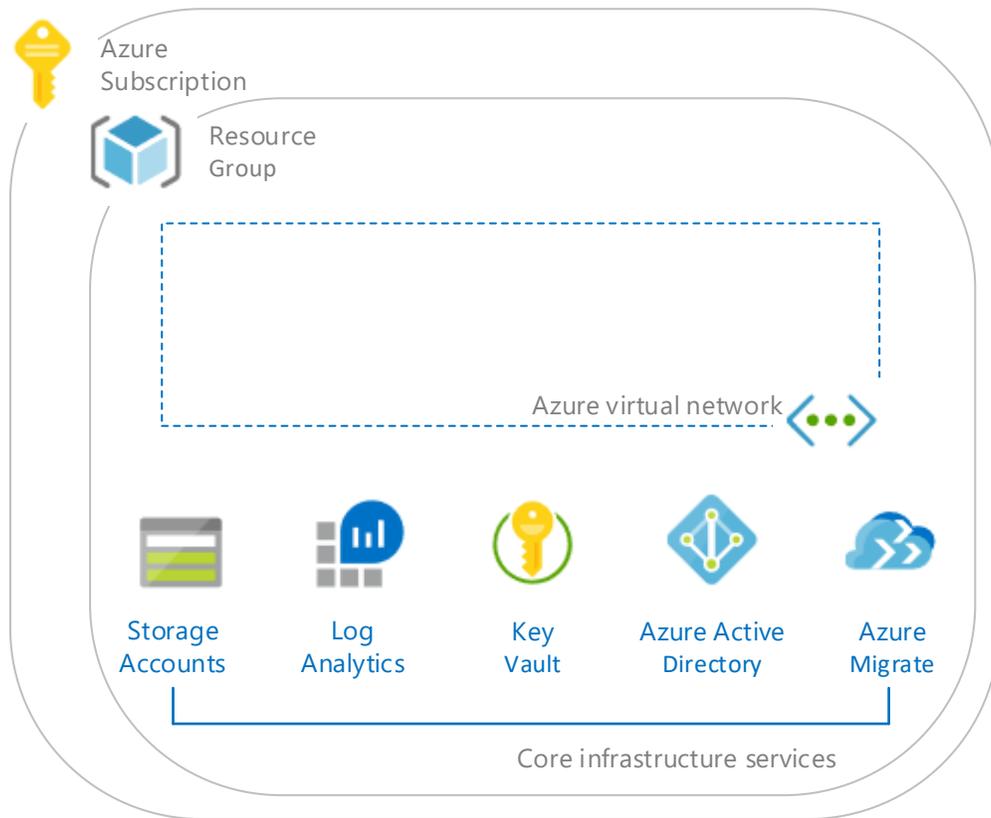
Basics Artifacts

Add artifacts to the blueprint. Add resource groups to organize where the artifacts should be deployed and assigned.

Name	Artifact type	Parameters
Subscription		
Append CostCenter TAG & its value from the Resource ...	Policy assignment	1 out of 1 parameters populated
Append CostCenter TAG to Resource Groups	Policy assignment	1 out of 2 parameters populated
Enable Monitoring in Azure Security Center	Policy assignment	105 out of 105 parameters populated
Allowed locations	Policy assignment	0 out of 1 parameters populated
Allowed locations for resource groups	Policy assignment	0 out of 1 parameters populated
Deploy network watcher when virtual networks are cre...	Policy assignment	None
Resource Types that you do not want to allow in your e...	Policy assignment	0 out of 1 parameters populated
Secure transfer to storage accounts should be enabled	Policy assignment	None
Allowed storage account SKUs	Policy assignment	0 out of 1 parameters populated
Allowed virtual machine SKUs	Policy assignment	0 out of 1 parameters populated

Save Draft Discard « Previous : Basics

# CAF Migrate landing zone Blueprint

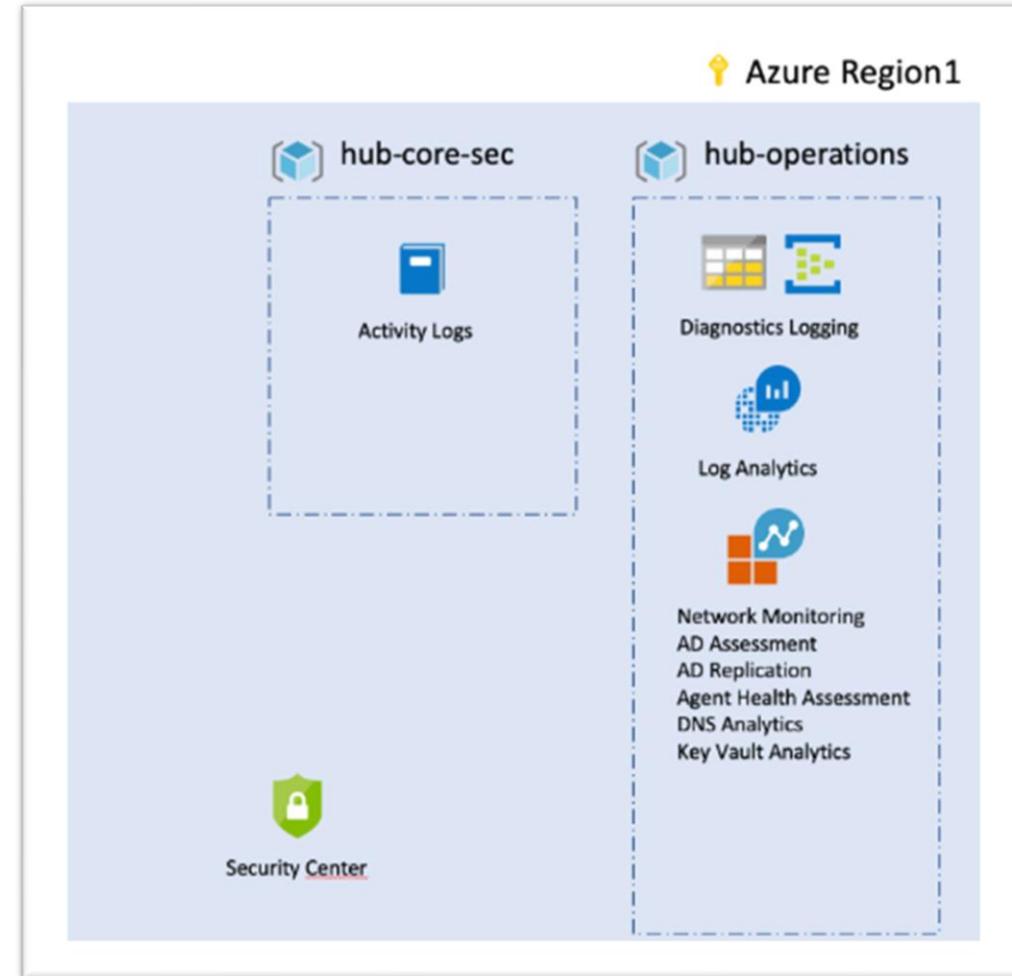
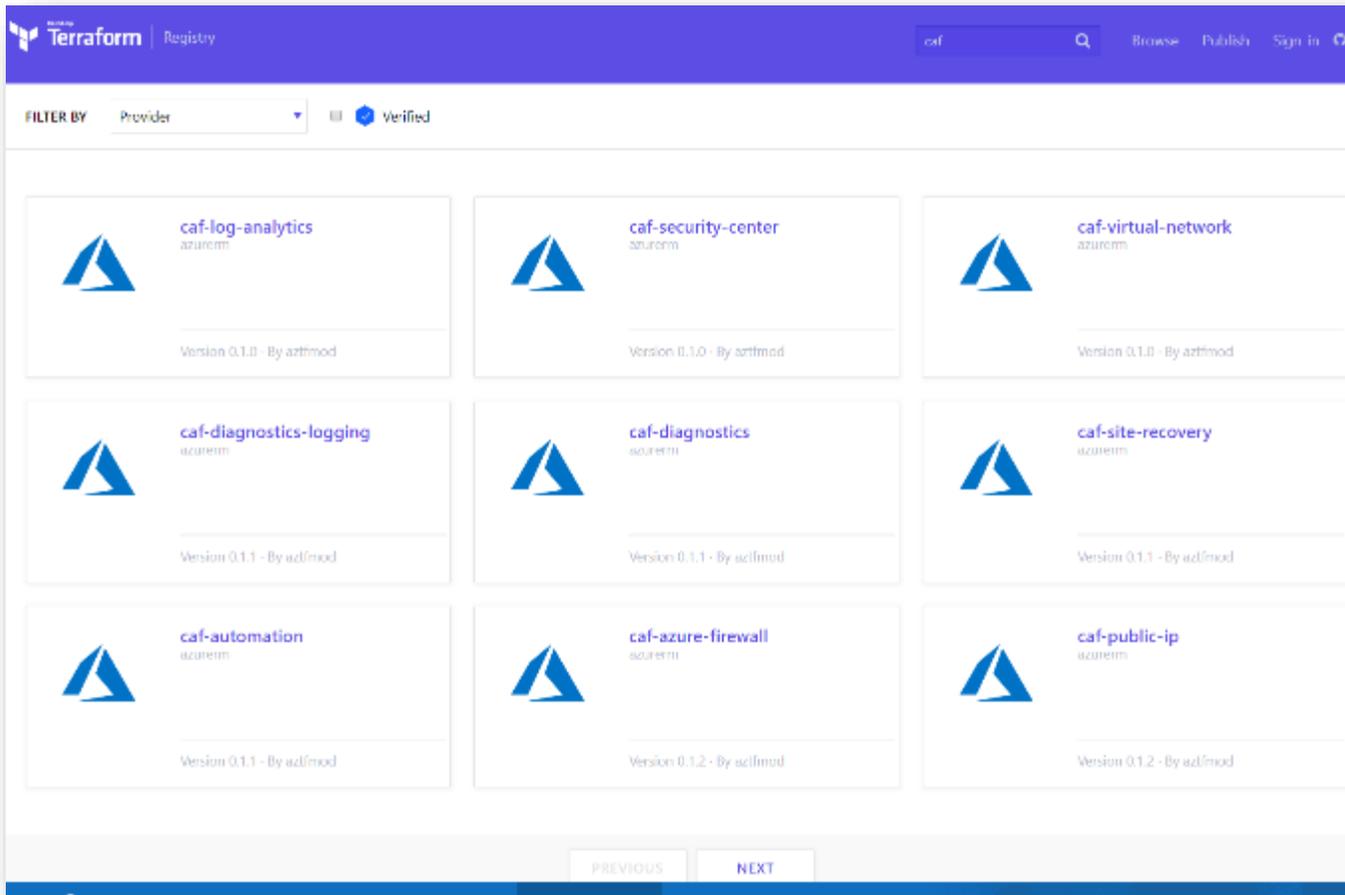


<http://aka.ms/cafbplandingzone>

The screenshot shows the 'Create blueprint' page in the Microsoft Azure (Preview) portal. The page is divided into 'Basics' and 'Artifacts' tabs. The 'Artifacts' tab is active, showing a table of artifacts to be added to the blueprint. The table has columns for Name, Artifact type, and Parameters. The artifacts are organized into three resource groups: Subscription, Resource Group for Shared Services, and Resource Group for Networks. Each resource group has a '+ Add artifact...' button. The artifacts listed are: Deploy Key Vault, Deploy Log Analytics, Deploy vNET landing zone, and Deploy Azure Migrate. The 'Parameters' column shows the number of parameters populated for each artifact.

Name	Artifact type	Parameters
Subscription		
+ Add artifact...		
Resource Group for Shared Services	Resource group	2 out of 2 parameters populated
Deploy Key Vault	Azure Resource Mana...	0 out of 2 parameters populated
Deploy Log Analytics	Azure Resource Mana...	0 out of 3 parameters populated
+ Add artifact...		
Resource Group for Networks	Resource group	2 out of 2 parameters populated
Deploy vNET landing zone	Azure Resource Mana...	0 out of 2 parameters populated
+ Add artifact...		
Resource Group for Azure Migrate	Resource group	2 out of 2 parameters populated
Deploy Azure Migrate	Azure Resource Mana...	0 out of 2 parameters populated

# Azure Native or Open Source tooling

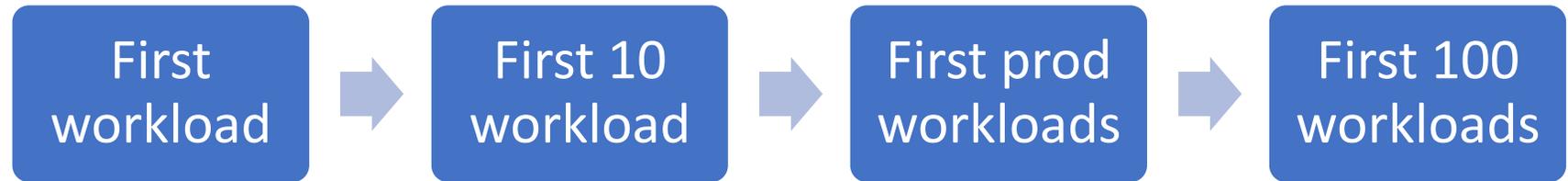


Expand the blueprint

*Start small, but be ready to scale*

# Parallel iterations

Cloud Adoption  
(Migrate or Innovate)



Cloud Platform

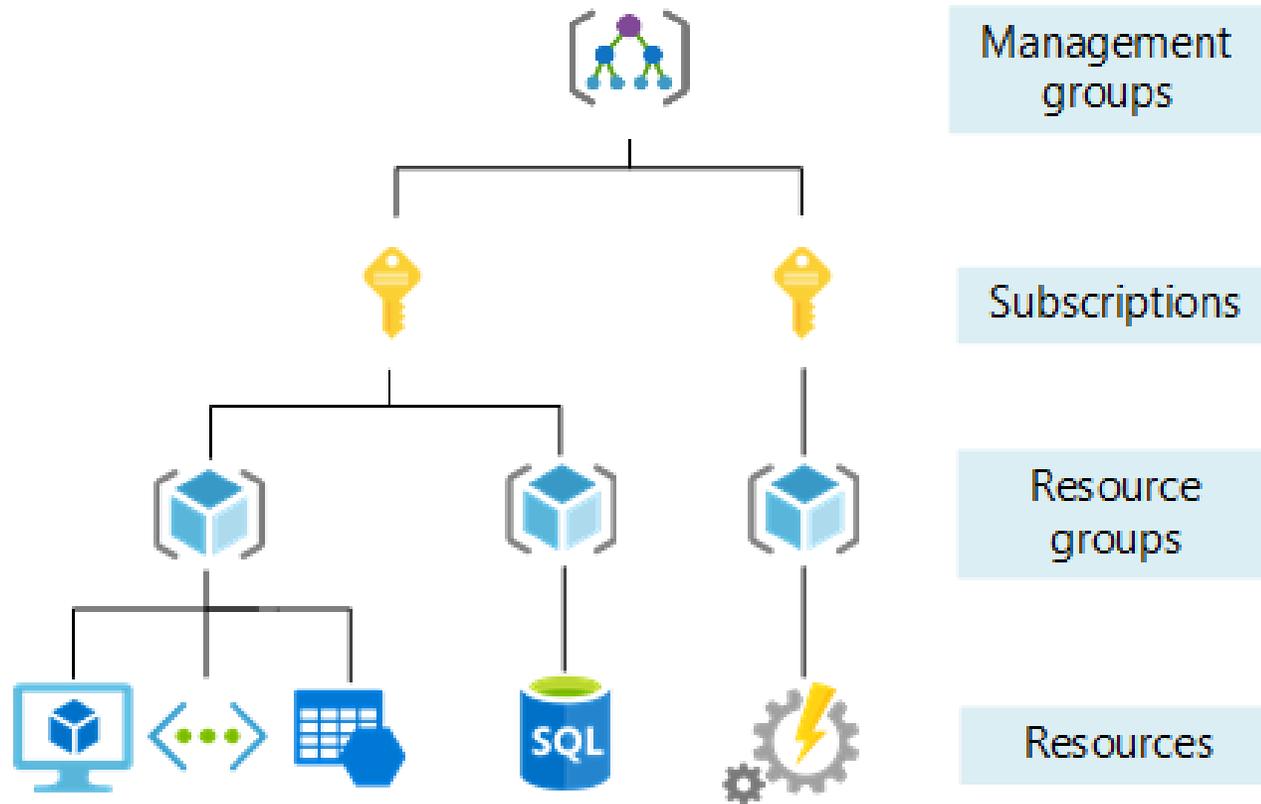


# Ready | Expand the landing zone blueprint

The considerations for implementing a landing zone fall into three categories

- **Hosting** - decisions need to be made around compute, storage, networking, databases to help create hosting options in the landing zone blueprint
- **Azure fundamentals** - these are the foundational building blocks for organizing resources in the cloud environment.
- **Governance considerations** – applying governance principles on each landing zone

# Ready | Organize your Azure Resources

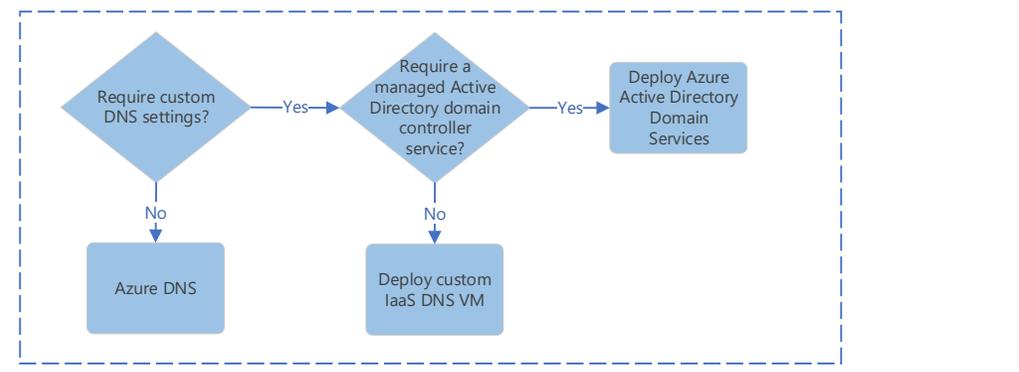
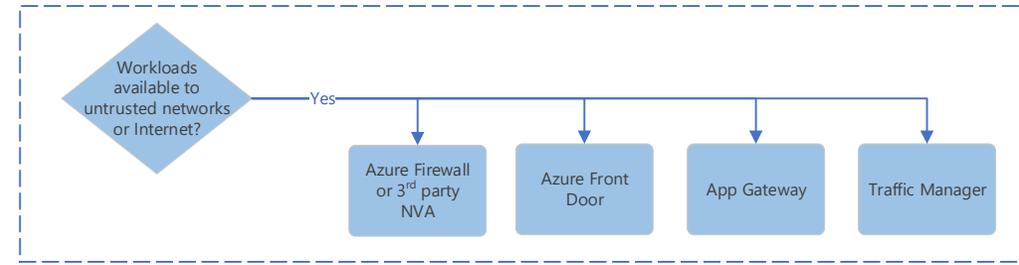
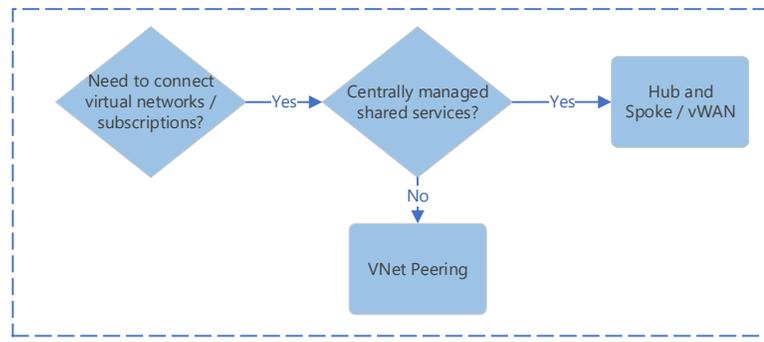
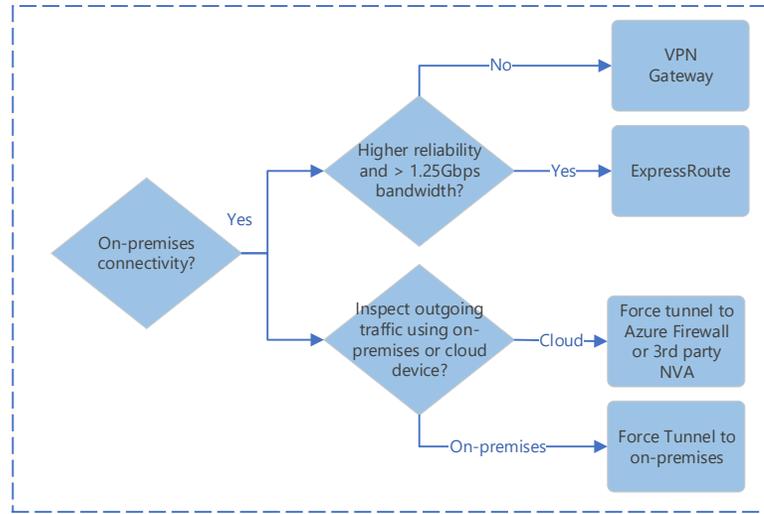
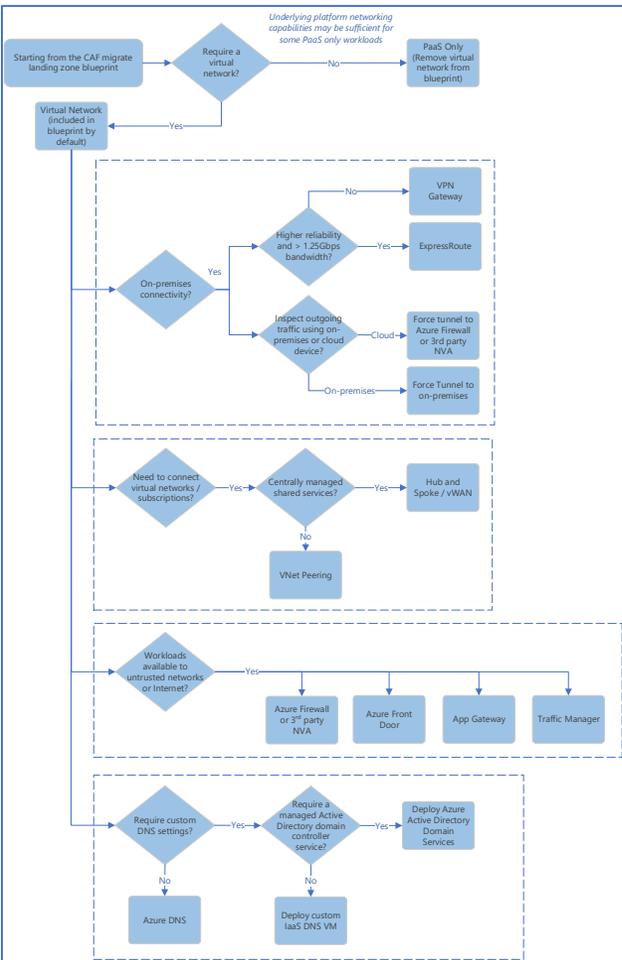


- Use the management hierarchies within the Azure platform.
- Implement well-thought out naming conventions
- Apply resource tagging

# Ready | Recommended Practices

- Leverage best practices in Cloud Adoption Framework to help your teams establish and prepare Azure environment. These include guidance in the areas of
  - [Azure fundamentals](#)
  - [Networking](#)
  - [Identity and Access Control](#)
  - [Storage](#)
  - [Databases](#)
  - [Cost Management](#)

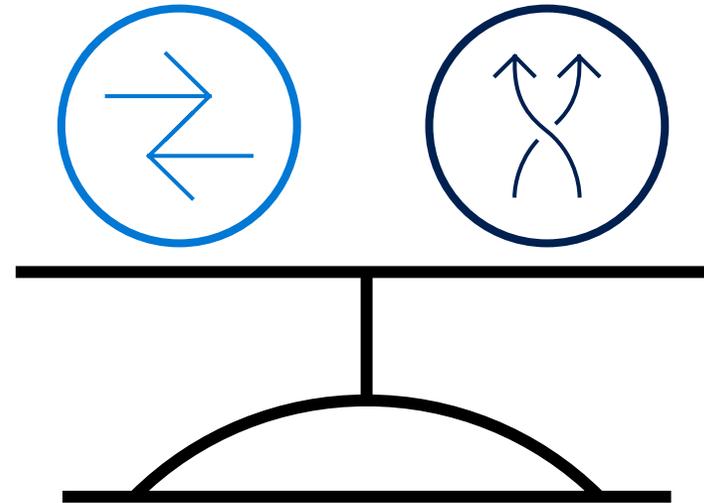
# Networking decisions



# Migrate

# CAF Migrate: Balance within Migration Efforts

**Lift, Shift, & Optimize**



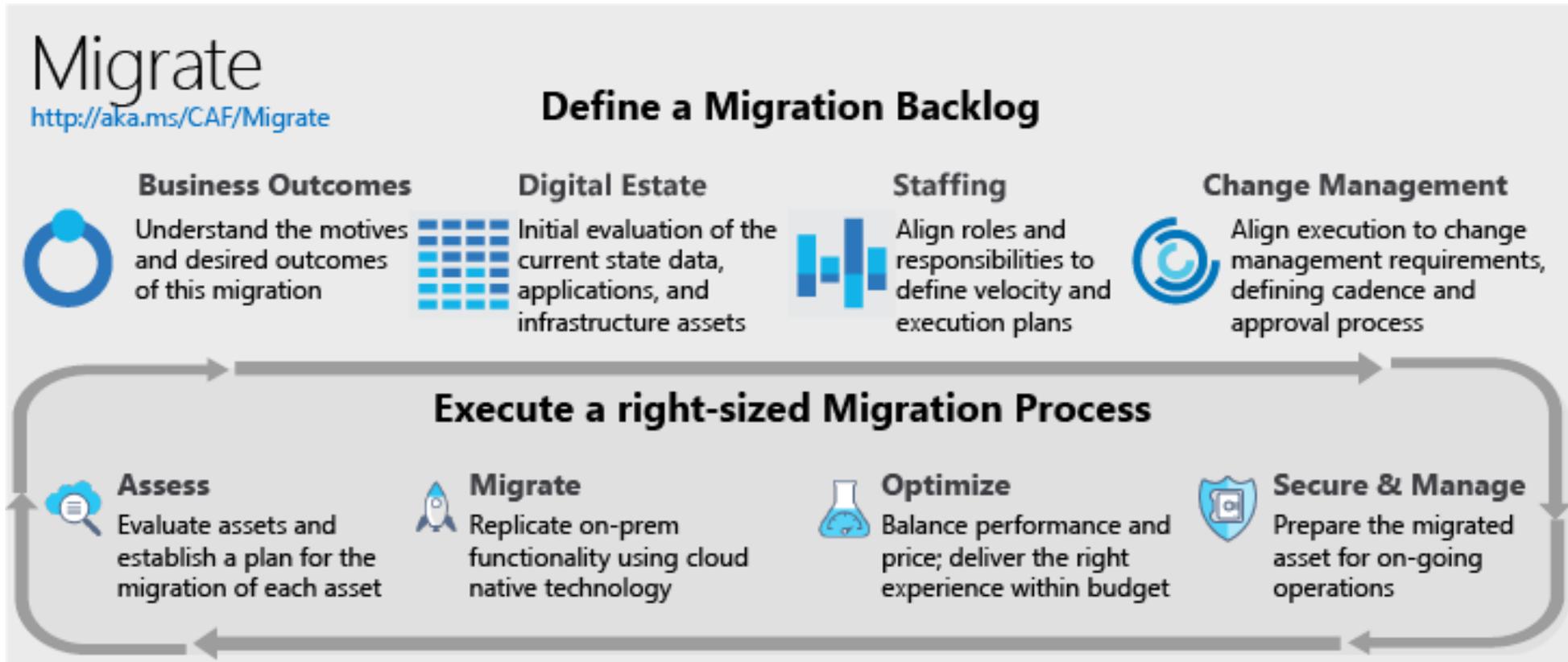
**Modernize**

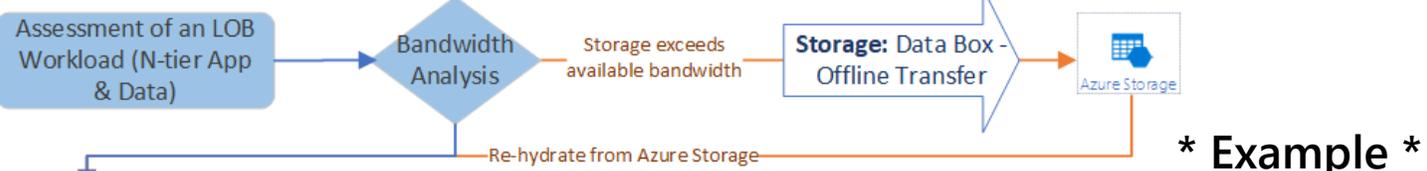
**CAF Migrate** provides a single migration methodology that balances Lift, Shift, & Optimize motions and Modernization motions, into one fluid process

# Migration Methodology and AMP alignment

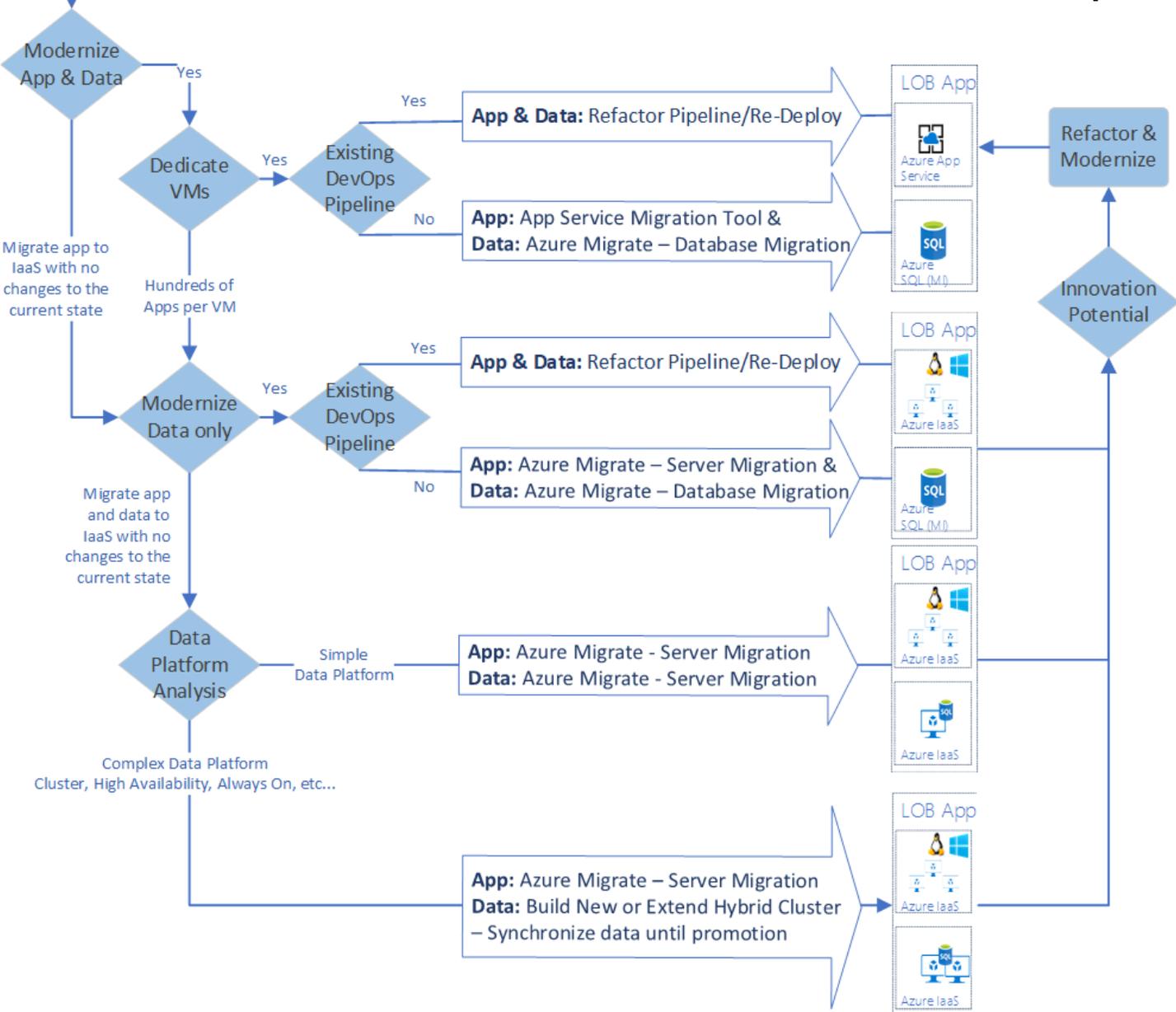
Prioritize investments of time and energy based on migration objectives

## Migration Implementation





# Migration Tooling Options



Migration is more than a shift & lift rehost to IaaS using tools like Azure Site Recovery.

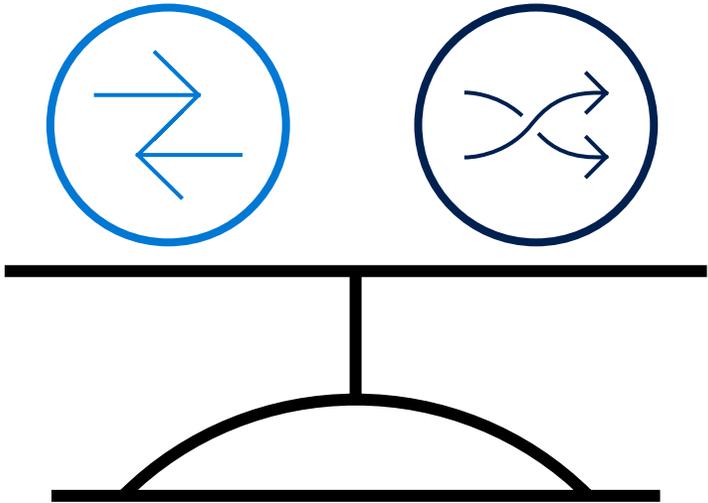
Modernize some assets during migration with PaaS focused solutions like Database Migration Service

Over time, refactor and modernize any workloads that represent innovation potential

# Governance

# Objective of this Model: Create Balance

**Control &  
Stability**



**Speed &  
Results**

# CAF Governance Model

Governance End State that fosters trust and builds confidence

**Govern** <http://aka.ms/CAF/Gov>

## Define Corporate Policy

### Business Risks



Document evolving business risks and the business' tolerance for risk, based on data classification and application criticality

### Policy & Compliance



Convert Risk decisions into policy statements to establish cloud adoption boundaries.

### Process



Establish processes to monitor violations and adherence to corporate policies.

## Five Disciplines of Cloud Governance



### Cost Management

Evaluate & monitor costs, limit IT spend, scale to meet need, create cost accountability



### Security Baseline

Ensure compliance with IT Security requirements by applying a security baseline to all adoption efforts



### Resource Consistency

Ensure consistency in resource configuration. Enforce practices for on-boarding, recovery, and discoverability



### Identity Baseline

Ensure the baseline for identity and access are enforced by consistently applying role definitions and assignments



### Deployment Acceleration

Accelerate deployment through centralization, consistency, and standardization across deployment templates

## Corporate Policy

Governance is a big, intimidating topic. Establish proper scope by mitigating *tangible* risks through corporate policy.

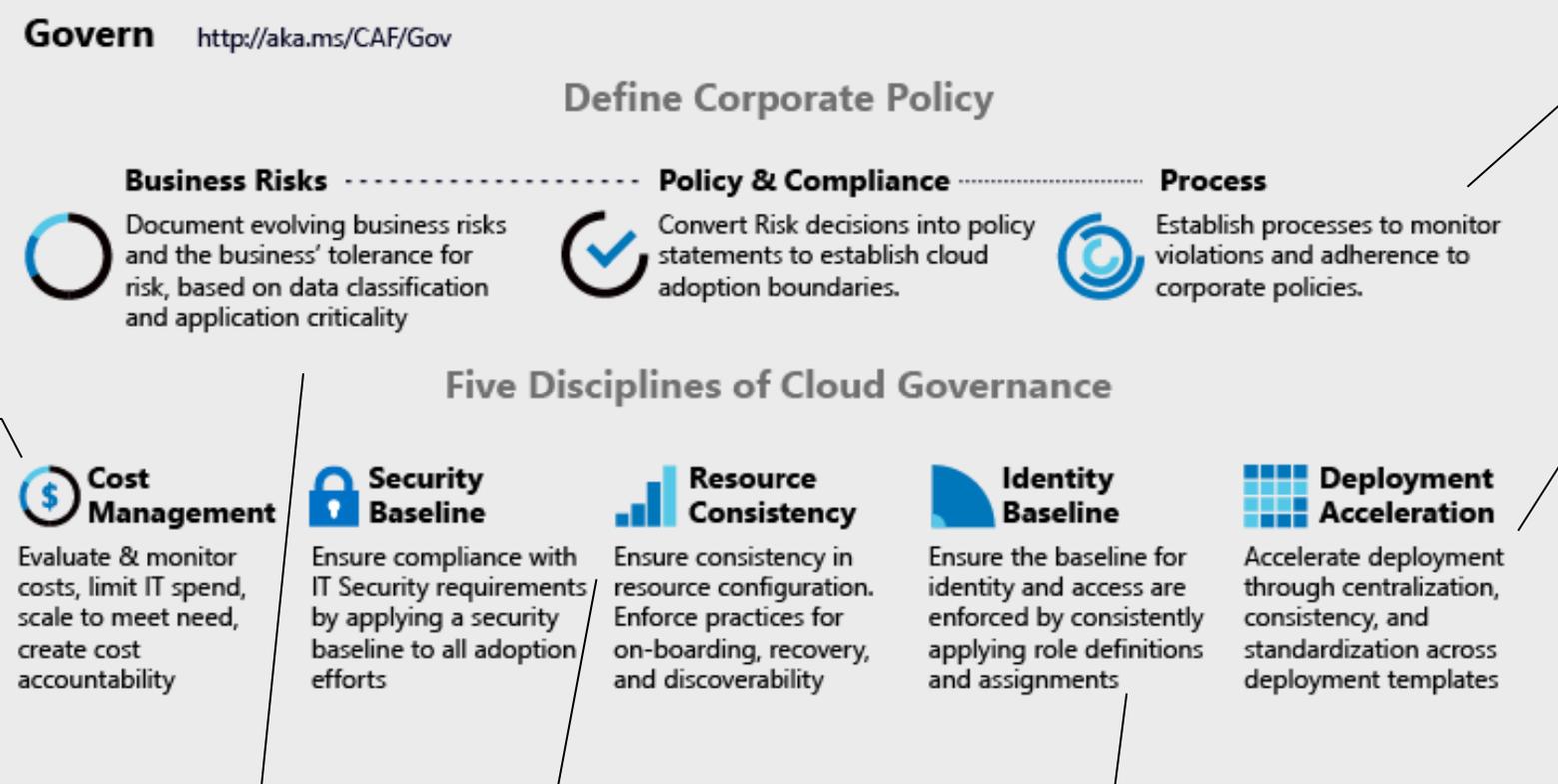
## Cloud Governance Disciplines

Governance is a team sport. Empower multiple team members by decomposing corporate policy changes into five actionable disciplines.

## Cloud Governance Team

A team of governance minded cloud architects can evolve these disciplines, ensure governance consistency, and accelerate deployment.

# Making Governance Actionable with Native Tools



**Azure Monitor**

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

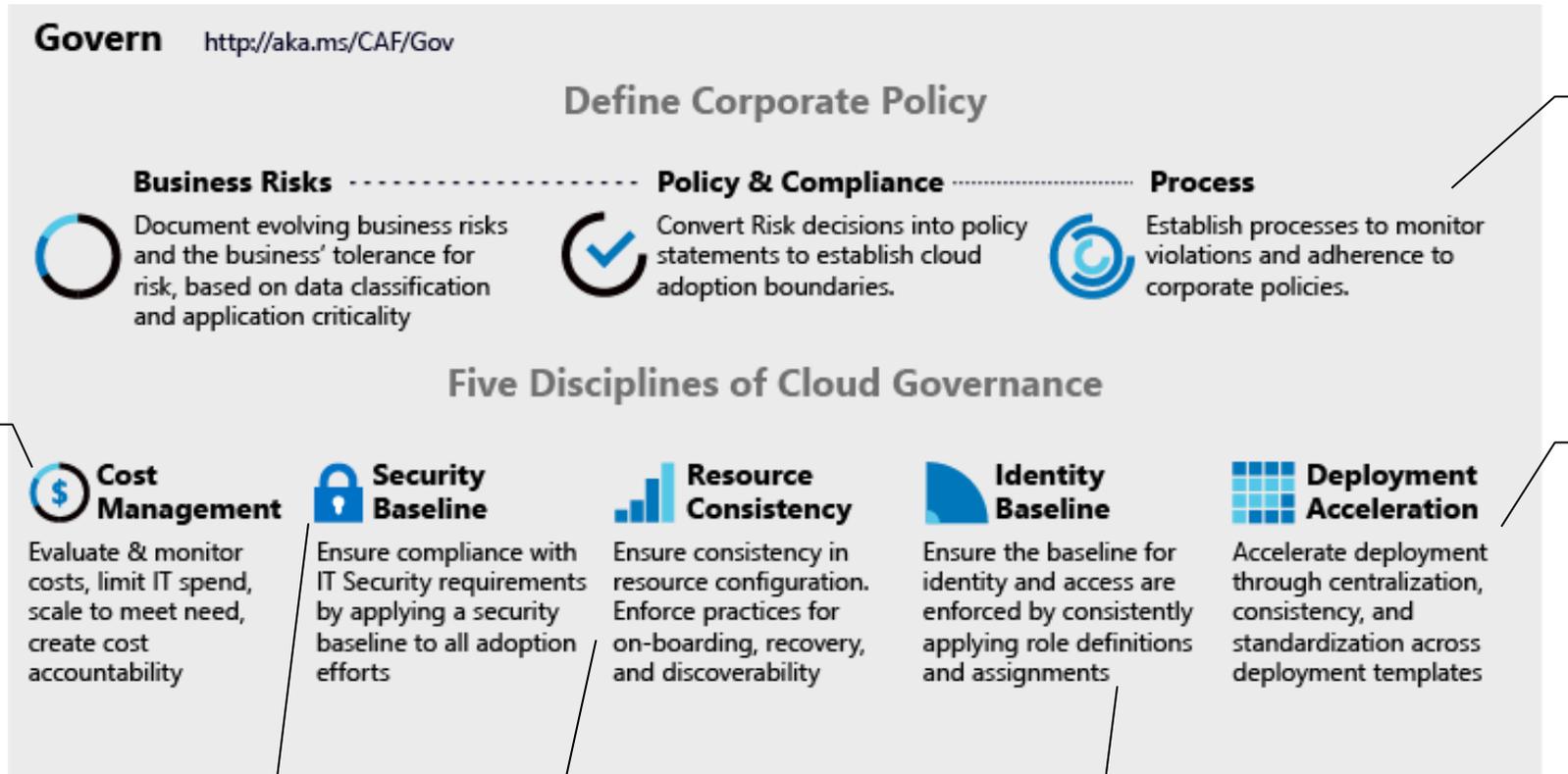
- Azure Blueprints
- Azure Policy
- Azure Cost Management
- Azure Advisor
- Azure Portal
- Azure EA Content Pack

- 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

# Integrating 3<sup>rd</sup> Party Tools



- Monitoring 3<sup>rd</sup> parties**
- OpsCompass

- Cost Management 3<sup>rd</sup> parties**
- HashiCorp Terraform (ROI tools)

- Deployment 3<sup>rd</sup> parties**
- Nagios
  - HashiCorp Terraform
  - devops tools like Chef, Puppet, Zabix

- Security baseline 3<sup>rd</sup> parties**
- Splunk
  - HashiCorp Vault
  - F5
  - Gemalto
  - Palo Alto

- Discovery, onboarding, and recovery 3<sup>rd</sup> parties**
- ServiceNow
  - HashiCorp Terraform

- 3<sup>rd</sup> party identity providers**
- HashiCorp Vault
  - RSA
  - Omada
  - Ping Identity
  - SailPoint

# Digital customer journey for Microsoft Cloud Adoption Framework for Azure

- Search/SEO
- ACOM traffic
- AR/PR
- Ignite
- Azure Blog
- Organic social
- Paid social

## CAF @ ACOM

- ✓ Figure out your own cloud journey → **DYI**
  - ✓ Find a Partner to help you with cloud adoption → **Partner**
  - ✓ Learn more about cloud adoption → **Learn**
- Aka.ms/adopt**

**DYI** → Tools

**Partner** → CAF-aligned Partners

**Learn** → DOCS

Authenticated\* →

Assessments

Partner engagements/ offers

# CAF-Ready Partner Criteria

## Checklist for successful partner alignment

### Requirements

1. Achievement of at least [Gold Cloud Platform](#) competency or [Azure Expert MSP](#) status
2. Successful validation of partner's CAF offering and technical delivery capability per the review process
3. Nomination of at least one CAF champion within the partner's organisation
4. At least one CAF-aligned offering listed in the [Azure Marketplace](#) and OCP GTM catalogue
5. At least one\* CAF partner customer case study



# Resources

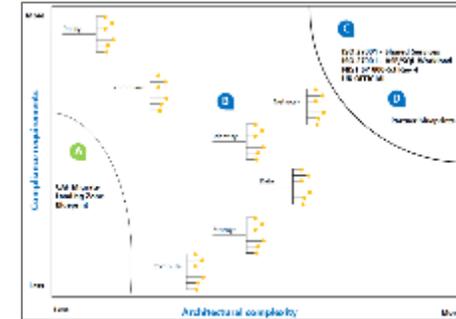
# Key Tools and Assets



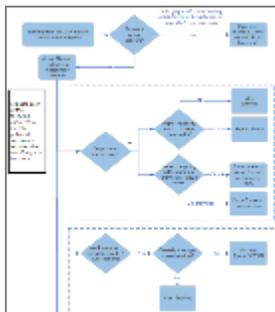
Governance benchmark tool  
<http://aka.ms/adopt/gov/assess>



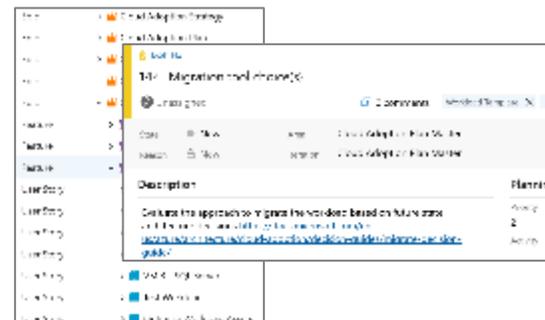
Fusion Navigator tool  
<aka.ms/fusionnavigator>



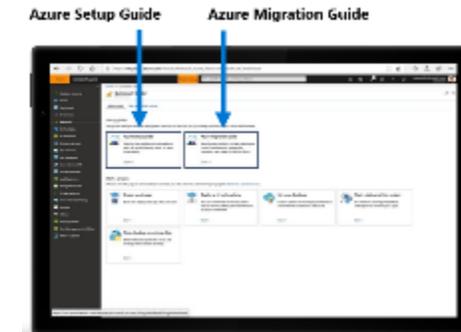
Migrate landing zone blueprint  
<aka.ms/adopt/landingzone>



Landing zone decision guides  
<aka.ms/adopt/landingzone>



Cloud Adoption Plan  
<aka.ms/adopt/plan>



Implementation Guides  
Azure Portal

# Getting Started Resources

Where	What
MS Learn	<a href="#">Learning module</a>
MS Docs	<a href="#">Cloud Adoption Framework for Azure</a>
Governance Benchmark tool	<a href="#">Q&amp;A based tool to assess current and desired state on cloud governance</a>
Azure Architecture Center	<a href="#">Examples, reference architectures, microservices design, data architectures, app innovation design guides</a>
Azure Expert MSP	<a href="#">Partners already trained and/or with offerings aligned to Cloud Adoption Framework for Azure</a>
Foundation Blueprint Samples	<a href="#">Recommended CAF design patterns</a>

# GRAZIE

- Next
- <https://www.cloudchampion.it/calendario/>:
  - 29 luglio: CAF Strategy/Plan/Ready
  - 5 Agosto: CAF Governance

- Matteo Marini
- Cloud Solution Architect
- OCP Italy
- [mamarini@microsoft.com](mailto:mamarini@microsoft.com)