# How to use this template

This sample template is designed to help you define the policy statements and design guidance that allow you to mature the [Five Disciplines of Cloud Governance](https://docs.microsoft.com/en-us/azure/architecture/cloud-adoption/governance/governance-disciplines) within your organization. The examples in this template are focused on the [Cost Management](https://docs.microsoft.com/en-us/azure/architecture/cloud-adoption/governance/cost-management/overview) discipline. Use these examples as a starting point for discussions within your organization around this discipline.

The following instructions will guide usage of this template:

* Update the template's title page with your author information, publish date and the governance discipline this document supports.
* Update this template to reflect risks, tolerance, indictors, toolchains, etc., that align to your business and technology needs.
* Update this template to reflect your policy statements.
* Update this template's executive summary to reflect your updated content.
* Before publication remove the “sample” watermark.
* Delete this page and update the table of contents before publishing your customized policy statements.

**Microsoft Cloud Adoption Framework for Azure**

**Cloud Governance**

Cost Management Discipline

Policy Statements and Design Guidance

The document outlines the policy statements, design guidance, and processes required to support cost management during cloud adoption. Associated risks, tolerance, and remediation strategies are included for reference.

**Author(s):** <Update Author>

**Date Published:** 03/3/2019

Contents

[How to use this template 1](#_Toc2782574)

[Executive Summary 3](#_Toc2782575)

[Policy Statements 3](#_Toc2782576)

[Business Risks 4](#_Toc2782577)

[Metrics and Indicators 4](#_Toc2782578)

[Metrics 4](#_Toc2782579)

[Indicators 4](#_Toc2782580)

[Policy compliance processes 5](#_Toc2782581)

[Planning, review, and reporting processes 5](#_Toc2782582)

[Ongoing monitoring 5](#_Toc2782583)

[Violation Triggers and Enforcement Actions 6](#_Toc2782584)

[Toolchain 7](#_Toc2782585)

[Azure Specific Tooling 7](#_Toc2782586)

[Tooling for other Cloud Providers 7](#_Toc2782587)

# Executive Summary

The cloud enables powerful new technical capabilities, such as self-service deployment. These types of features promote business agility and innovation. However, they also introduce new risks related to the cost of technology that weren’t as prevalent in traditional, on-premises datacenters. This document identifies and determines the business’s tolerance for risks, and outlines efforts to remediate these risks. The result is a series of policy statements that should guide the architecture of any solutions deployed to the cloud.

This policies and guidance in this document has been developed in conjunction with the governance best practices documented in the [Microsoft Cloud Adoption Framework for Azure (CAF)](http://aka.ms/caf).

# Policy Statements

The following statements should guide cloud adoption architecture decisions to ensure compliance with governance efforts related to the Cost Management discipline. For additional examples of relevant policy statements, see the [governance theory section of CAF](https://docs.microsoft.com/en-us/azure/architecture/cloud-adoption/governance/cost-management/policy-statements).

**Future Proof:** To ensure current adoption efforts can be effectively governed in the future, all deployments must adhere to the best practices outlined in the [Actionable Journeys section of CAF](https://docs.microsoft.com/en-us/azure/architecture/cloud-adoption/governance/journeys/overview).

**Budget Overrun:** Any assets deployed to the cloud must be aligned to a billing unit, with approved budget, and a mechanism for enforcing budgetary limits.

**Overprovisioned Assets:** All deployed assets must be registered with a solution that can monitor usage and report on any over provisioned resources.

# Business Risks

The following cost related business risks have been identified as concerns based on the current plans for cloud adoption. For additional examples of relevant business risks, see the [governance theory section of CAF](https://docs.microsoft.com/en-us/azure/architecture/cloud-adoption/governance/cost-management/business-risks).

|  |  |  |  |
| --- | --- | --- | --- |
| Risk | Description | Indicators | Resolution |
| Future Proof | Lack of standards will hinder future governance. | Current | Policy statements enforced |
| Budget Overrun | Budget overruns are a potential risk in the future. | Next Major Release | Policy statements drafted but not enforced |
| Over Allocation | Paying too much for unused resources is a potential future risk. | Monthly spend exceeds $1M USD | Policy statements drafted but not enforced |

# Metrics and Indicators

The following are key metrics and indicators that will guide the resolution or mitigation of business risks. For additional examples of relevant metrics or indicators, see the [governance theory section of CAF](https://docs.microsoft.com/en-us/azure/architecture/cloud-adoption/governance/cost-management/metrics-tolerance).

## Metrics

This governance discipline attempts to govern and improve the following key metrics.

* Annual Spend: The total annual cost for services provided by a cloud provider.
* Monthly Spend: The total monthly cost for services provided by a cloud provider.
* Forecast vs Actuals Ratio: The ratio comparing forecasted and actual spend (Monthly or Annual).
* Pace of adoption (MOM) Ratio: The percentage of the delta in cloud costs from month to month.

## Indicators

The following indicators will trigger changes in policy statements based on changes in metrics and other conditions.

* Current: Current state of metrics. Any policy statements listed as current should be actively enforced.
* Release based indicator: Upon the next major release, there will be a sufficient risk of budget overrun to warrant budget controls.
* Monthly spend: When monthly spend exceeds $1M USD, new policy statements will go into effect to better control spending.

# Policy compliance processes

The following section outlines the processes that will ensure cloud deployments remain in compliance with Cost Management policies. This includes an overview of the planning, review and reporting processes performed by the Cloud Governance team, as well as the ongoing monitoring and enforcement processes that can be automated or supplemented with tooling to allow for faster response to policy deviation.

For additional examples of relevant policy compliance processes, see the [governance theory section of CAF](https://docs.microsoft.com/en-us/azure/architecture/cloud-adoption/governance/cost-management/compliance-processes).

## Planning, review, and reporting processes

Initial risk assessment and planning: As part of initial adoption of the Cost Management discipline, the Cloud Governance team will identify core business risks and tolerances related to cloud costs. The team will use This information to discuss budget and cost-related risks with members of business teams and to develop a baseline set of policies for mitigating these risks to establish an initial governance strategy.

Deployment planning: Before any asset is deployed, the Cloud Governance team will establish a forecasted budget based on expected cloud allocation. As part of this process, the team will document ownership and accounting information for the deployment.

Annual planning: On an annual basis, the Cloud Governance team will perform a roll-up analysis on all deployed and to-be-deployed assets. The team will align budgets with business units, departments, teams, and other appropriate divisions to empower self-service adoption. This process will ensure that the leader of each billing unit is aware of the budget and how to track spending.

This planning process will also decide on pre-commitments or pre-purchases of cloud services to maximize discounting. These decisions should also align annual budgeting with the cloud vendor's fiscal year to further capitalize on year-end discount options.

Quarterly planning: On a quarterly basis, the Cloud Governance team will review budgets with each billing unit leader to align forecast and actual spending. If there are changes to the plan or unexpected spending patterns, billing unit leaders will align and reallocate their budget.

The Cloud Governance team will also evaluate the team's current membership for knowledge gaps related to current or future business plans. The team will invite relevant staff and workload owners to participate in reviews and planning as either temporary advisors or permanent members of the team.

Education and Training: On a bi-monthly basis, the Cloud Governance team will offer training sessions to make sure business and IT staff are up-to-date on the latest Cost Management policy requirements. As part of this process the team will review and update all documentation, guidance, or other training assets to ensure they are in sync with the latest corporate policy statements.

Monthly reporting: On a monthly basis, the Cloud Governance team will generate actual spending against forecast, and billing leaders notified of any unexpected deviations.

## Ongoing monitoring

IT teams will implement automated systems for monitoring cloud spending and usage for unplanned deviations from expected costs. They will also establish reporting and alerting systems to ensure prompt detection and mitigation of potential policy violations.

## Violation Triggers and Enforcement Actions

Monthly Budget Deviations: Any deviations in monthly spend exceeding 20% Forecast vs Actuals ratio will be discussed with billing unit leader. Resolutions or changes in forecast will be recorded.

Pace of Adoption: Any deviation at a subscription level exceeding 20% will trigger a review with billing unit leader. Resolutions or changes in forecast will be recorded.

# Toolchain

The following cloud provider specific tools will be implemented to automate the policy statements in this document. For additional examples of relevant tooling specific to Azure, see the [governance theory section of CAF](https://docs.microsoft.com/en-us/azure/architecture/cloud-adoption/governance/cost-management/toolchain).

## Azure Specific Tooling

Budget Control: [Azure Cost Management](https://docs.microsoft.com/en-us/azure/cost-management/overview-cost-mgt)

Enforce accounting metadata on resources: [Azure Policy](https://docs.microsoft.com/en-us/azure/governance/policy/overview)

Detect Over Provisioning: [Azure Advisor](https://docs.microsoft.com/en-us/azure/advisor/advisor-cost-recommendations)

## Tooling for other Cloud Providers

List similar tools for other cloud providers, as needed.