

Governance

Importance of Guard Rails
Management Group, Subscriptions and Resource Groups
Policy, RBAC and Budgets
Standards and Architecture Guidance

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Governance 101

- Governance in the cloud is critical
- Our processes and behavior is different in the cloud compared to on-premises
- In the cloud by default there are many types of public facing services available
 - This could be bad!
- Governance is about enforcement of rules and ensuring proper functioning to standards

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Understand Your Requirements

- Take some time to understand your requirements
 - Corporate standards
 - Regulatory compliance
- Azure is a shared responsibility model for many aspects of compliance
- [Compliance Manager](#) can help track

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Often these are all around mitigating risk

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Key Organizational Components

- Management Groups

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Key Organizational Components

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- Subscriptions

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KEY ORGANIZATIONAL COMPONENTS

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- Subscriptions
- Resource Groups

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SO WHAT CAN WE DO?

- RBAC
- Policy
- Budget
- Locking (subscription/RG/resource)

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A QUICK WORD ON ARM

- This will be covered in detail in the IaC module
- Understanding the structure of resources helps with Azure Policy
- Everything in Azure is made up of resources that are defined in resource providers
- A resource has properties and actions

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RBAC

- At all levels access control can be leveraged on the management plane
- Some services also support RBAC on data plane, e.g. some storage services
- Inherited
- Roles consist of actions that are assigned to security principal at a scope
- Grant to groups not users
- Leverage PIM for just-in-time

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AZURE POLICY

- Azure Policy sits at the top of ARM and any CRUD operation has to pass through it
- Can be used for enforcement and audit
- Start with audit!
- A policy is a set of conditions built around resource attributes and an effect
- Policies can be grouped into initiatives for assignment and compliance

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COST MANAGEMENT AND BUDGETS

- Cost Management provides insight and control of Azure (and AWS) spend
 - Cost analysis
 - Cost alerts
 - Budgets – Alerts & Action Groups
- Cost allocation with EA or Customer Agreement
- [Estimate Azure costs with Pricing Calculator](#)
- [Always optimize your Azure costs](#)

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NAMING STANDARDS

- Having a standard is very important
- Azure has some great [recommendations](#)
- Remember naming conventions apply to all resources and guest OS
- Have consistent for cloud and on-premises

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TAGGING!

- A name:value pair which can be very powerful
- Identify attributes/metadata of a resource
- Have standards for tags used and values
- Can enforce use through policy
 - **Be careful of deny!**
- Can be used for search, filter and billing
- Value could be document if required

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BLUEPRINTS

- Brings together different types of artifact to "stamp" a configuration
 - Resource Groups
 - RBAC
 - ARM JSON
 - Policy
 - Custom scripts
- Different deploy modes

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AZURE RESOURCE GRAPH

- Provides way to query ARM very efficiently and across subscriptions using KQL
- Can use portal or PowerShell/CLI/REST

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AZURE ADVISOR

- Throughout your Azure life there is constant re-evaluation and optimization
- Azure Advisor provides recommendations around key areas and should be checked weekly

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KEY MICROSOFT RESOURCES

- [Aka.ms/governancedocs](#)
- Cloud Adoption Framework
 - Includes landing zones
- Well-Architected Framework
 - Includes a review
- Azure Architecture Center

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