Workshop Example Turnkey business ready azure

About this example

- This powerpoint workshop is usually 80-100 pages

- Aim is to show our way of work to get the requirements and decisions clearly defined and recorded . This is done together in a workshop format where the information is added as we go through the presentation

- This workshop about the design of the landingzone is part of the 'Assessment' phase. The results wil be used as input for the 'Design' phase.

Agenda

Part I

1. **Introduction**
   Assessment, Health-scan

2. **Landingzone**
   Overview

3. Networking

4. Governance
   Subscriptions – Policy – Cost – Tagging etc

Part II

5. Identity

6. Security

7. Monitoring

8. Automation

Part III

Agenda item

Agenda item

Agenda item

Agenda item

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Introduction

Customer

Attendee's name– role
Attendee's name– role
Attendee's name– role
Attendee's name– role
Attendee's name– role

Bjorn Bats – Lead architect Cloud Infra & Apps

Joe Tahsin - Lead devops

Arjan Kooij – Lead consultant

Click to add text

Goals

What are your expectations for today?

Which topics should be addressed and decided on today according to you ?

Which subject matters require specific attention today ?

Background

Goal

- *Design & implement Turnkey Business ready azure solution for Customer based on Azure native features.*

Rationale

- **A turnkey Business ready azure** requires a governance model in order to provide **Cost management**, **Automation**, **Monitoring** & **Compliancy validation with the help of Azure Policy** also directly include primitives such as naming convention, subscription design, resource groups and the usage of management groups.

- Provide a **future ready governance architecture** to remain in controll for the new **Azure platform environment**.

Next steps

- After having successful workshop, the design will be digest including design decisions and rationale. After reviewing and agreed implementation will be effectuated in production.

What is a landing zone ?

Definition:
Its an environment for hosting your workloads, pre-provisioned through code.

Basic building block of any cloud adoption environment.
It includes foundational capabilities using defined set of cloud services and best practices, so you are set up for success.
Usually it's a just a configuration on top of Azure subscriptions. Like connectivity, access, audit trail and security settings etc.

▶ Identity,

▶ Networking

▶ Monitoring

▶ Automation

▶ Security

▶ Governance

Why we need a landing zone ?

▶ By using Landing zones, projects instantly focus on development and be sure that their subscription follows organization best practices and requirements.

▶ In the past every project needed to find out what are the security requirements and how to do in the Azure

▶ With Landing zones, organizations can centrally invest on it and duplicate / copy process to all the subscriptions.

▶ Development projects focus on application development and "forget" administrative overhead.

▶ With deploying and maintain landing zones, all the subscriptions are secured, and changes and fixes afterwards are minimized.

Landing zone core components

Design of Landing zones

Azure Landing zone architecture

What is a landing zone

A landing zone is an environment that is pre-designed and deployed with code. The use of landing zones ensures that application workloads can land on the Azure platform on a standardized basis.
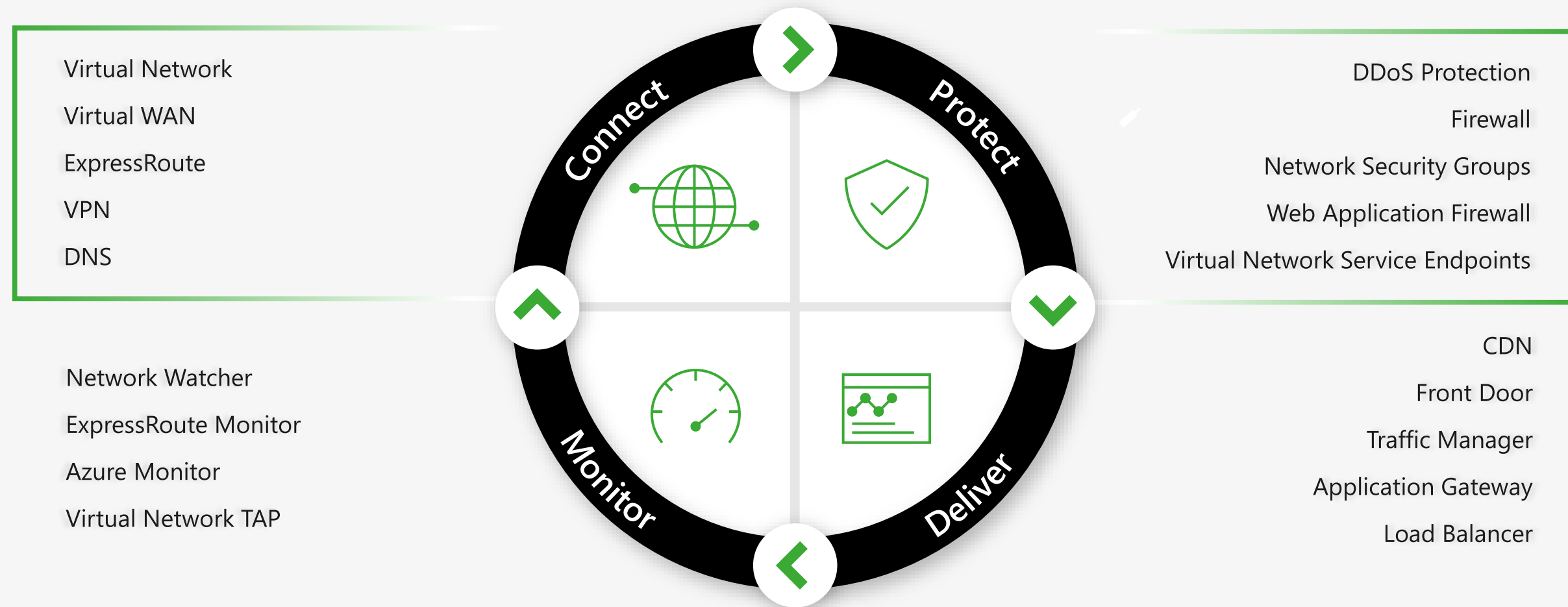

App C building block

App A building block

App A building block

App B building block

App B building block

App B building block

App C building block

App C building block

App C building block

Application A landingzone

Application B landingzone

Application C landingzone

Networking

Governance

Security

Monitoring

Automation

Identity

Foundation utilities

Azure platform landingzone

Networking

▶ Between clouds

▶ Between subscriptions

▶ To onprem

▶ And security

Drawing of possible solution for mileway

Azure networking services

Connect
- Virtual Network
- Virtual WAN
- ExpressRoute
- VPN
- DNS

Monitor
- Network Watcher
- ExpressRoute Monitor
- Azure Monitor
- Virtual Network TAP

Protect
- DDoS Protection
- Firewall
- Network Security Groups
- Web Application Firewall
- Virtual Network Service Endpoints

Deliver
- CDN
- Front Door
- Traffic Manager
- Application Gateway
- Load Balancer

Design decision networking

Hub & Spoke topology

Protection services enabling zero trust

Landing zone

| Azure FrontDoor | DDoS protection | Web Application Firewall | Azure Firewall | Network Security Groups | Virtual Network & Service Endpoints | Private Link |

Application protection & Delivery

Network Segmentation
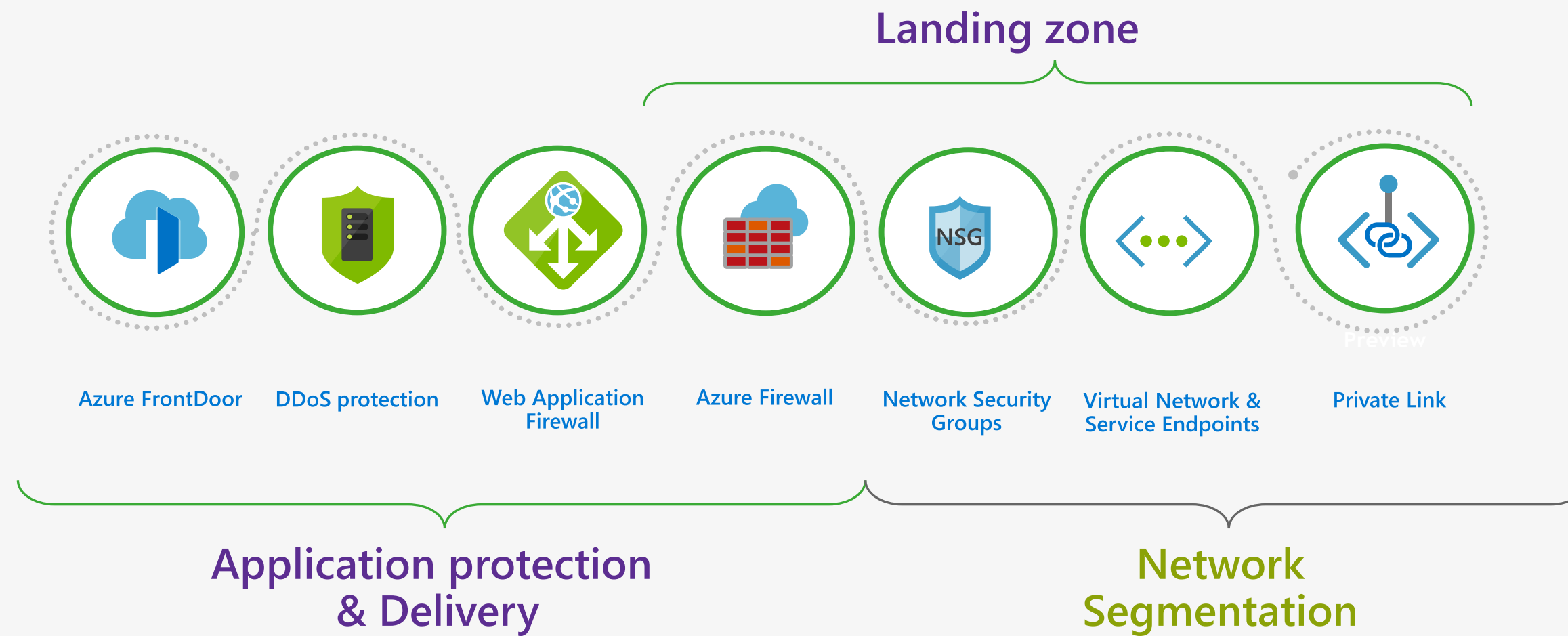
Traffic costs overview

Governance

▶ Regulatory compliance requirements

▶ Security settings

▶ Audit settings

▶ Automation (Deploy-if-not-exists
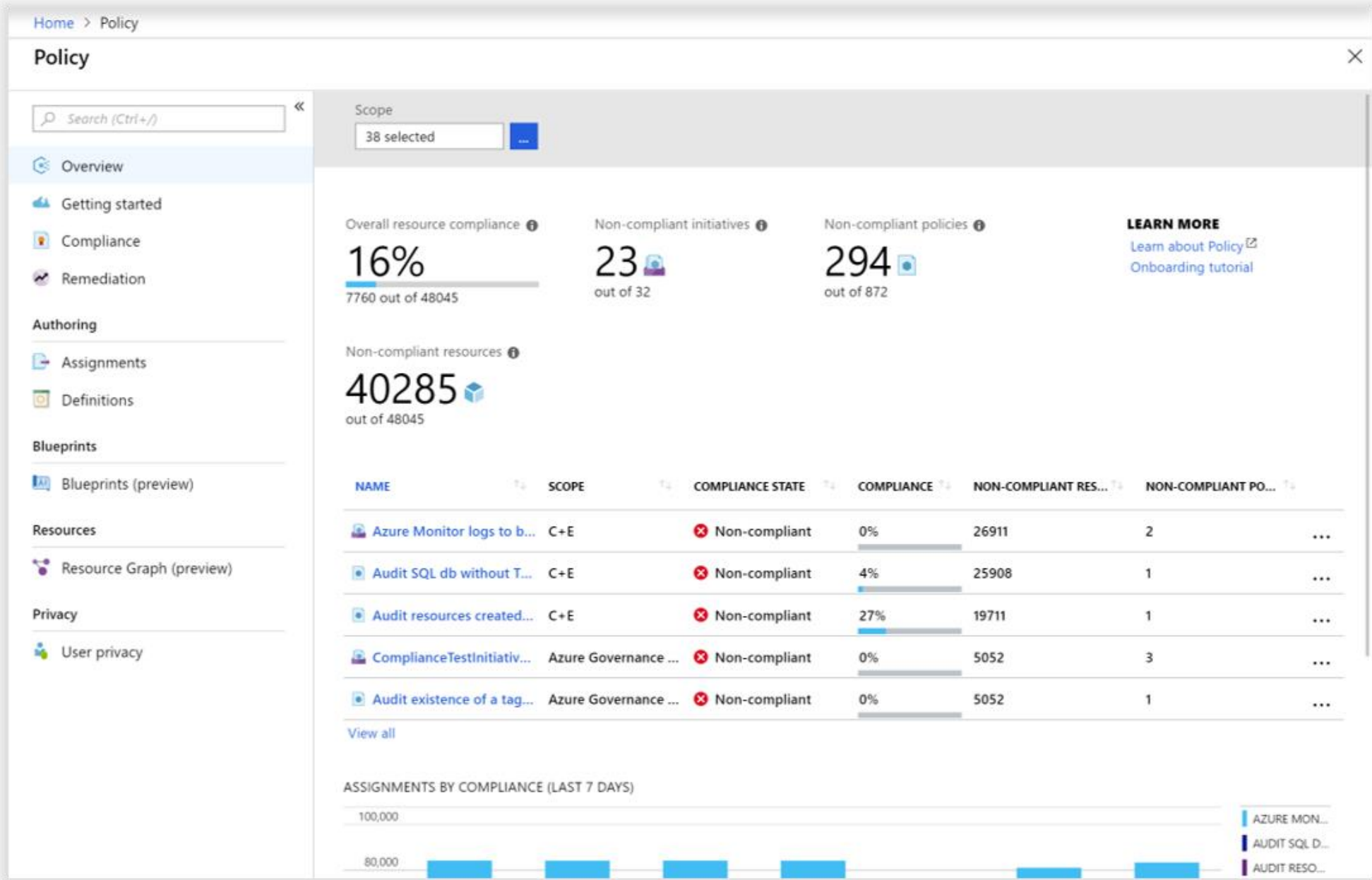
Governance overview

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Why governance

Azure Governance architecture

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The 5 Disciplines of Cloud Governance

Cloud Governance

Cost Management	Security Baseline	Identity Baseline	Resource Consistency	Deployment Acceleration
Evaluate & monitor costs	Ensure compliance with IT security requirements	Ensure consistency & resource configuration	Ensure consistency with identity and access management	Accelerate deployment of solutions

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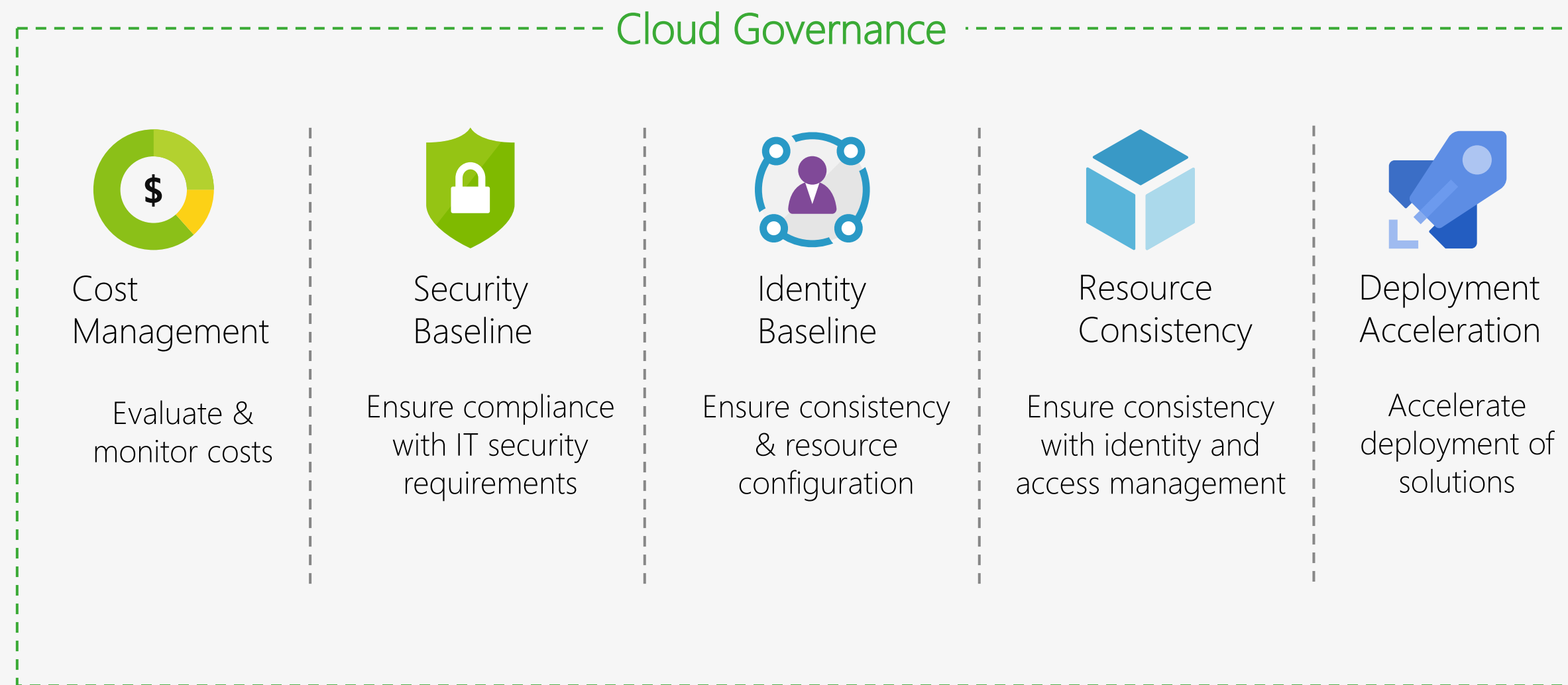
Governance on Azure
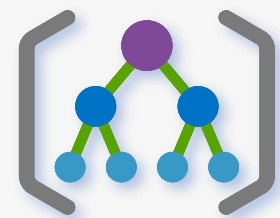
Management Group

Define organizational hierarchy

Hierarchy

Cost Management

Monitor cloud spend and optimize resources

Consumption
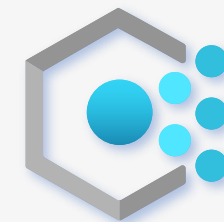
Policy

Real-time enforcement, compliance assessment and remediation

Control

Blueprints

Deploy and update cloud environments in a repeatable manner using composable artifacts

Environment
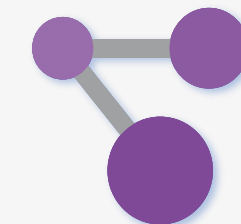
Resource Graph

Query, explore & analyze cloud resources at scale

Visibility

Identity

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- Policy adminstrator vs.
  Subscription owner

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- Custom roles
  Platform owner vs.
  Landing zone owners vs.
  Application owner.

Security

- Security Center policy
- Security Baselines
- In-guest settings
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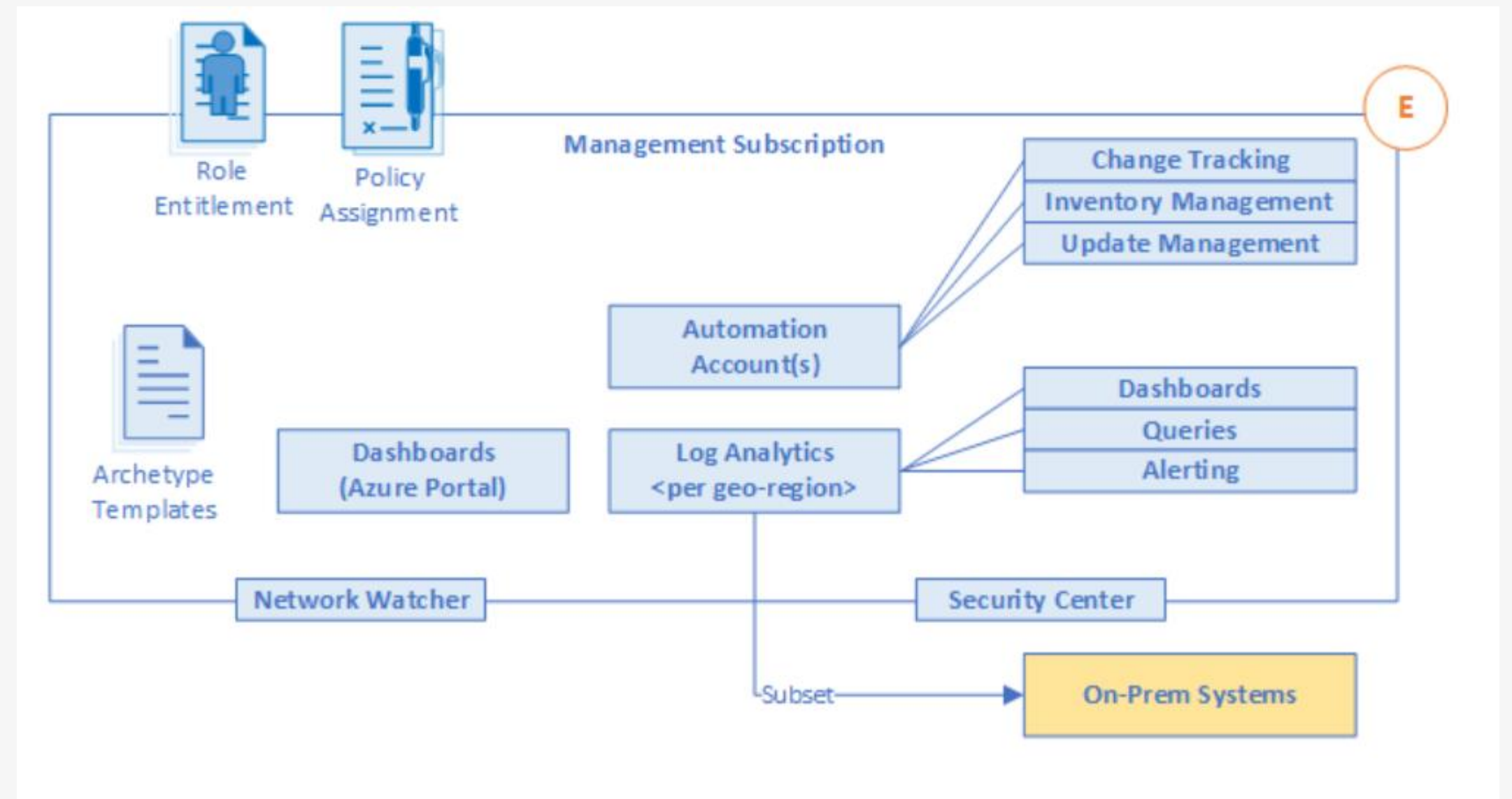- Left blank
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Monitoring

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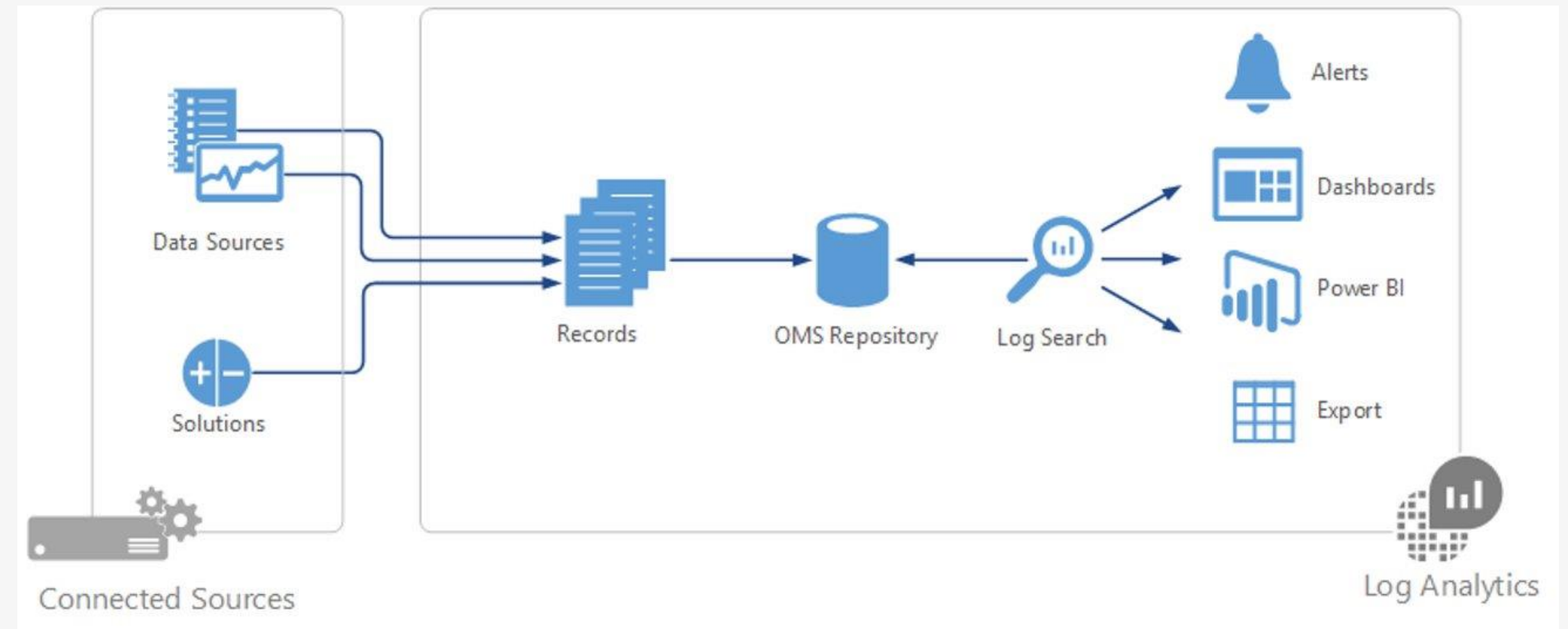
Automation

- OS patching
- Update management
- Desired State Configuration
- Change Management
- Dependency overview
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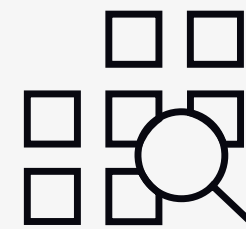# Native capabilities to ensure compliant use of cloud resources

Policy

Real-time enforcement, compliance assessment and remediation
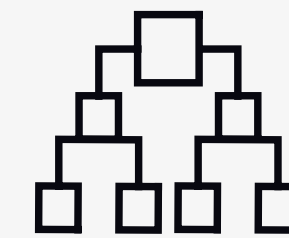
Blueprints

Deploy and update cloud environments in a repeatable manner using composable artifacts

Resource Graph

Query, explore & analyze cloud resources at scale

Management Group

Define organizational hierarchy

Cost

Monitor cloud spend and optimize resources

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Introducing Azure Management Groups

Make environment management easier by grouping subscriptions together

- Grouping subscriptions into logical groups allow for new organization models

- Inheritance allows for single assignment of controls that apply to all subscriptions

- Aggregated views above the subscription level

Create a hierarchy of management groups that fit your organization

- Create a flexible hierarchy that can be updated quickly

- Hierarchy doesn't need to model the organizations billing hierarchy

- Can easily scale up or down depending on the organizational needs
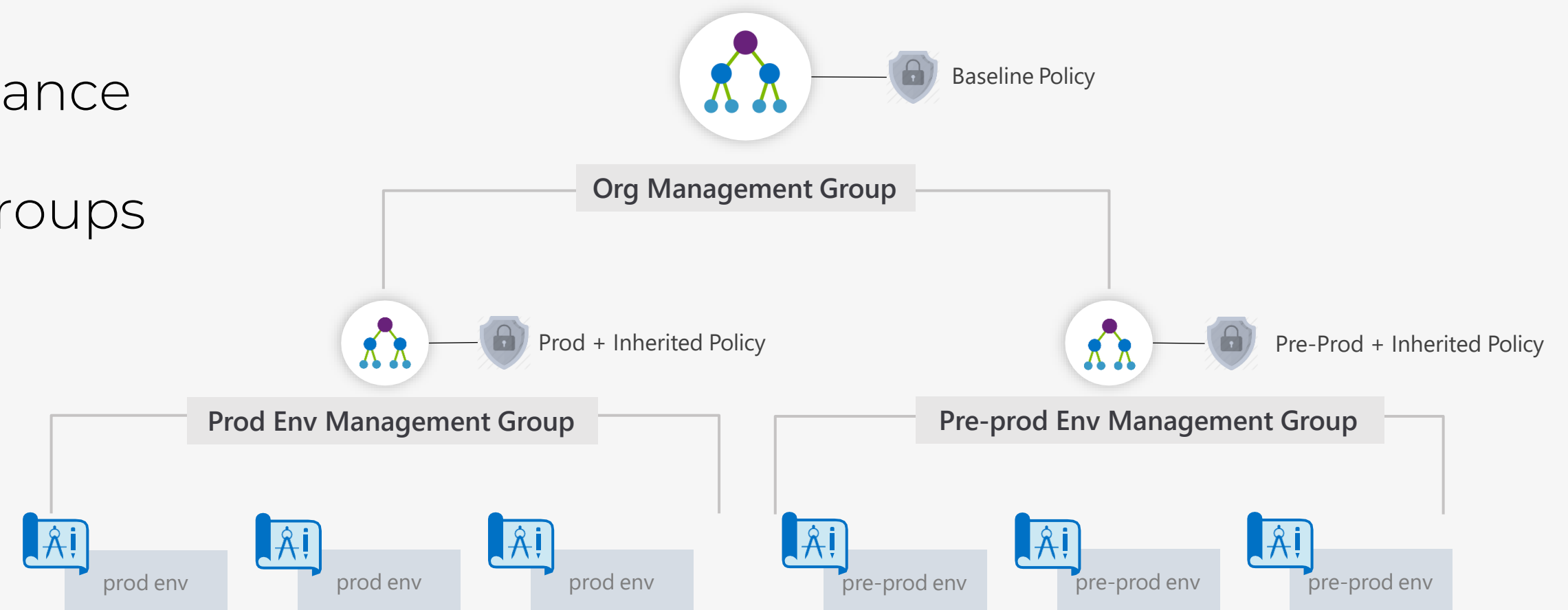
Apply governance controls with policies and access controls along with other Azure services

- Azure Resource Manager (ARM) objects that allow integrations with other Azure services

- Azure services:
  - Azure Policy
  - RBAC
  - Azure Cost Management
  - Azure Blueprints
  - Azure Security Center

Management Groups
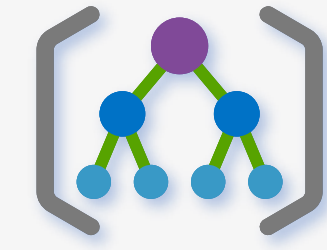
- Organize resources in organization

- Manage access, policy and compliance

- Assign Policies to Management Groups

- Scope for cost management

Baseline Policy

Org Management Group

Prod + Inherited Policy

Pre-Prod + Inherited Policy

Prod Env Management Group

Pre-prod Env Management Group

prod env   prod env   prod env

pre-prod env   pre-prod env   pre-prod env

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Management Groups Facts

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Subscriptions

Azure policy

Azure Template deployment

Azure Resource Graph

Cost Management

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Azure cost management features

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Role based access control

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Resource tags

Resource tags - recommendations

Monitoring

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Conditional Access

Azure AD Foundation

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Security Center

- Whiteboard session.

- Design Security Center.
  - Which features does your infrastructure need ?