



# Microsoft Azure: Introduction

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# Agenda

## Identity

- Microsoft Entra ID (AAD)
- User Groups
- Permissions
- MFA

## Governance

- Subscriptions, resource groups, resources and management groups
- Workload deployment strategies (resource groups, landing zones,...)
- Tagging
- Policies
- Privileged Identity Management (PIM)

## Costs management

- Overview – Cost Management, Invoices
- Startup billing portal
- Budgets, alerts
- Automatic resource stopping or deletion

## Deploying workloads

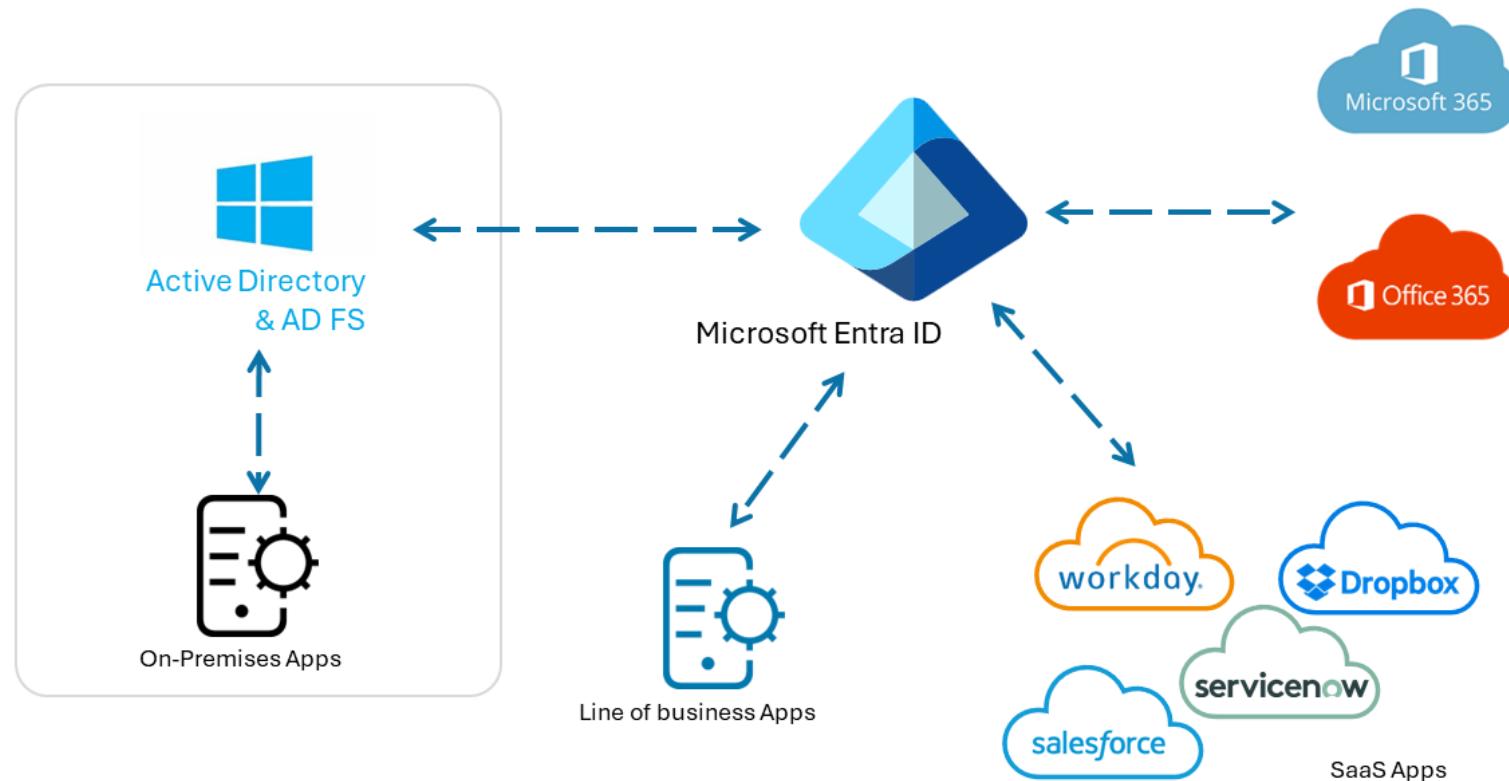
- Portal, AZ CLI, PowerShell
- ARM, Bicep, Terraform
- Deploying AI Foundry for the day #2 (?)



Identity

# Microsoft Entra ID

- Microsoft Entra ID is a cloud-based identity and access management service that your employees can use to access external resources. Example resources include Microsoft 365, the Azure portal, and thousands of other SaaS applications.



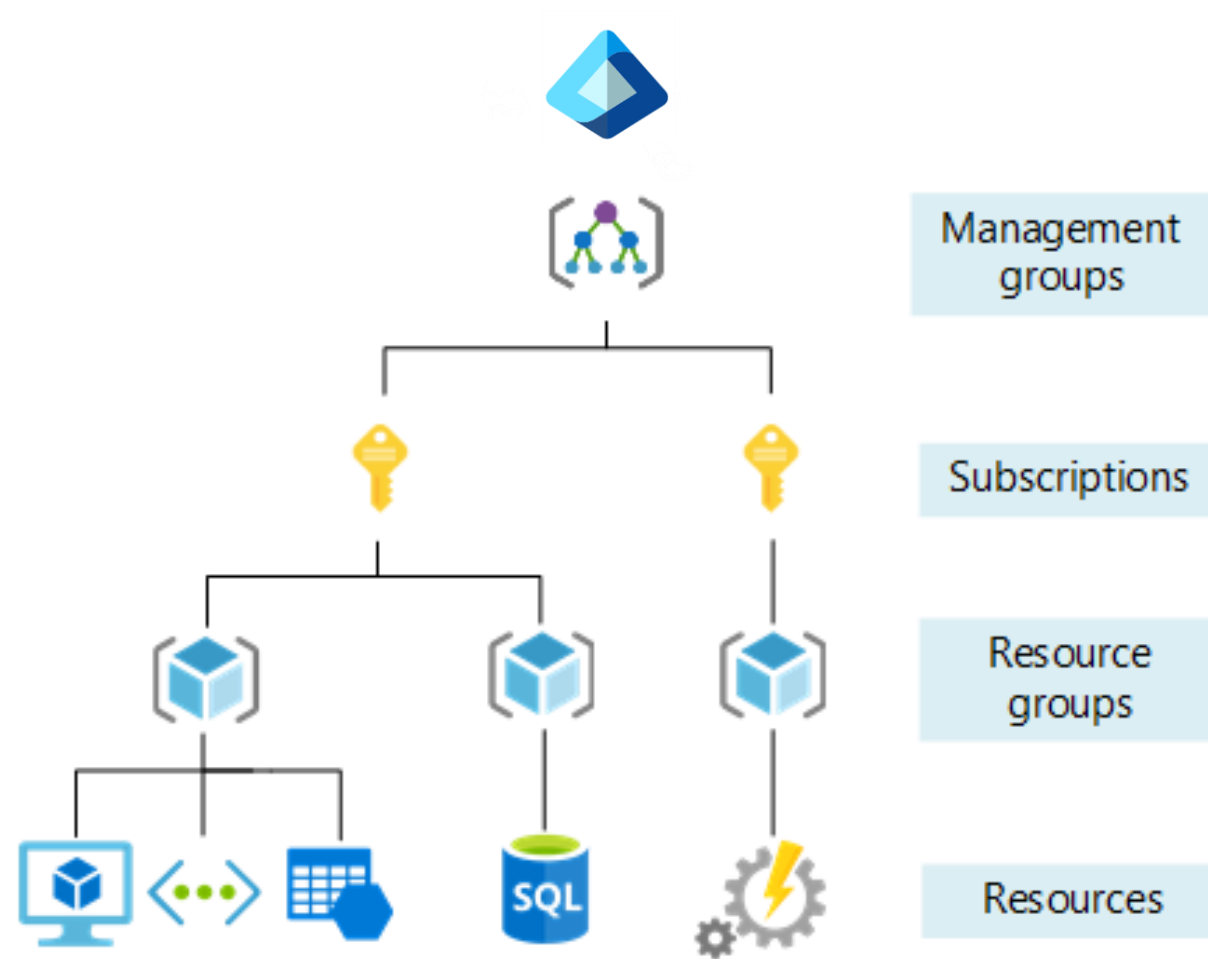
# Demo

- *portal.azure.com (+ portal navigation)*
- *admin.microsoft.com*
- *User groups*
- *Permissions / RBAC*
- *Note: have MFA enabled*



**Governance**

# Resource organization in Azure

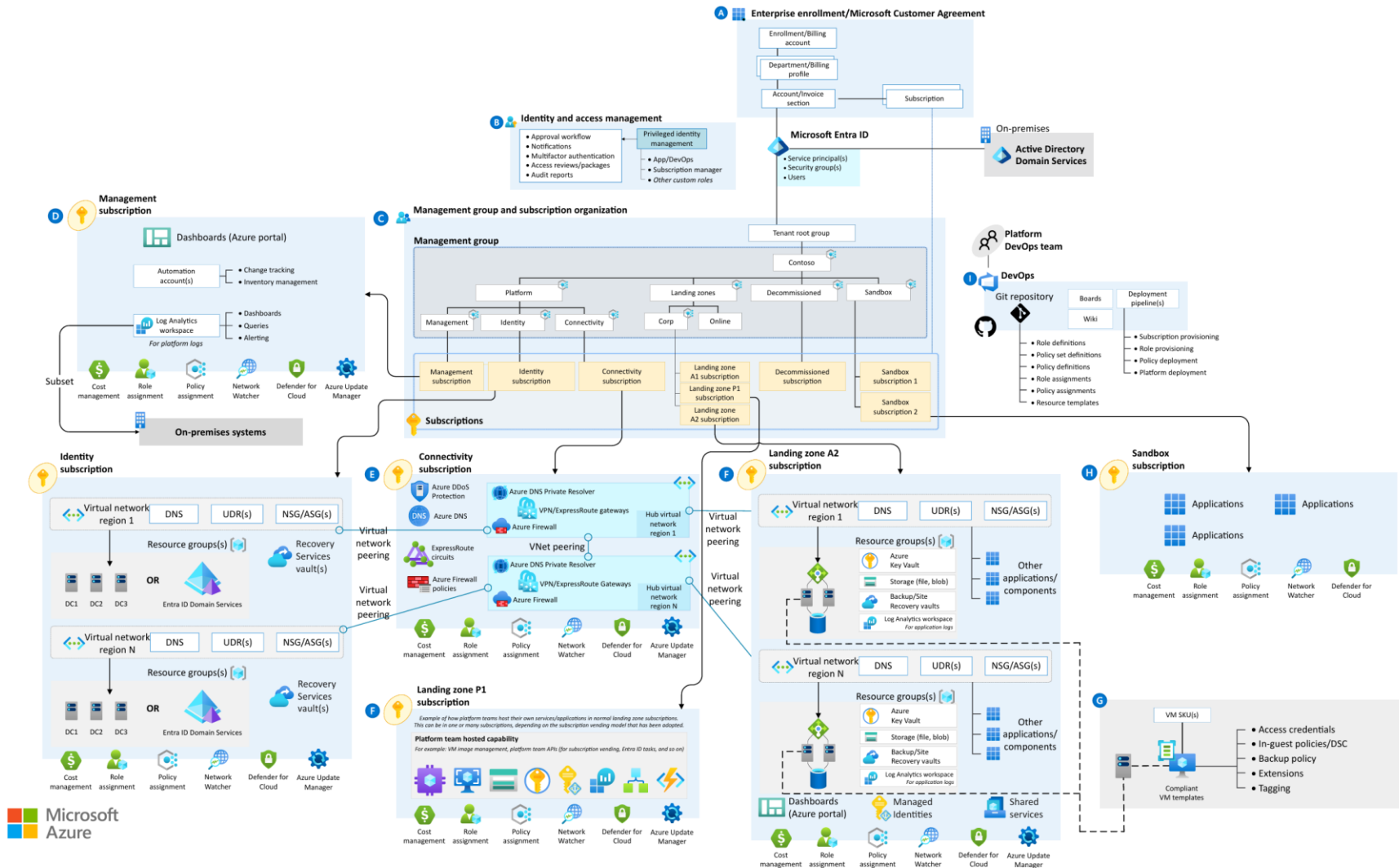


# Workload deployment strategies

- Separation using Resource Groups
- Multiple resource groups (separation compute vs state)
- Multiple Subscriptions
- Management groups

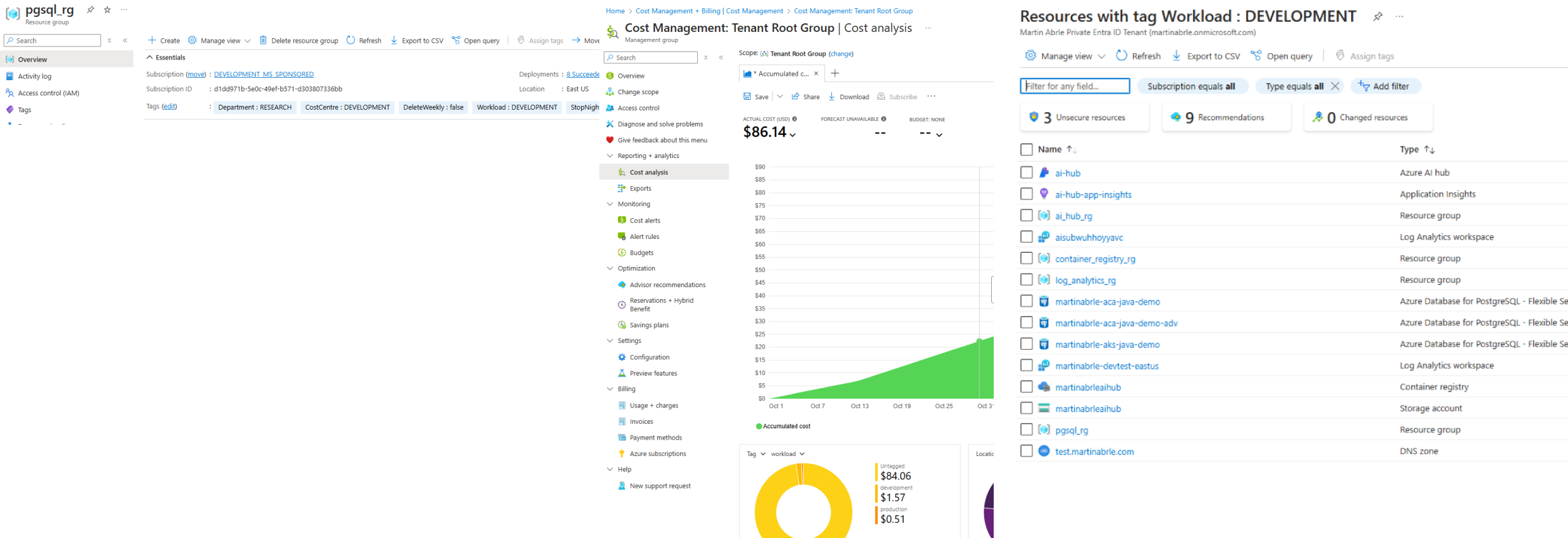


# Resource organization in Azure - EZLS



# Workload tagging

- Strategies: many, best practices
- Where: Subscriptions, Resource Groups, Resource levels
- Why: governance, cost management



# Azure policies

- **Azure Policy:** service in Azure which allows you create policies which enforce and control the properties of a resource. When these policies are used they enforce different rules and effects over your resources, so those resources stay compliant with your IT governance standards. To summarize, Azure policy is basically 3 components; policy definition, assignment and parameters.
- **Azure initiative:** collection of Azure policy definitions that are grouped together towards a specific goal or purpose in mind. Azure initiatives simplify management of your policies by grouping a set of policies together as one single item. For example, you could use the PCI-DSS built-in initiative which has all the policy definitions that are centered around meeting PCI-DSS compliance. (*must-do in FSI, healthcare,..*)

Microsoft Azure

Home > Policy | Compliance >

Assign initiative

Basics Parameters Remediation Non-compliance messages Review + create

Scope

Scope \*

DEVELOPMENT\_DATA

Learn more about setting the scope

Exclusions

Optionally select resources to exclude from the policy assignment.

Resource selectors (Expand)

Using resource selectors, you can further refine this assignment's applicability by targeting specific subsets of resources. Expand to learn more.

Basics

Initiative definition \*

Overrides (Expand)

Using overrides, you can change the effects or referenced versions of definitions for all or a subset of resources evaluated by this assignment. Expand to learn more.

Assignment name \*

Description

Policy enforcement

Enabled

Available Definitions

PCI

Policy type: All policy types Category: All categories

Initiative name	Latest version	Category	Type
PCI DSS v4	1.5.0	Regulatory Compli...	Built-in
PCI v3.2.1.2018	6.4.0	Regulatory Compli...	Built-in

1 out of 1 policies selected

Add Cancel

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# Privileged Identity Management (PIM)

- Provide just-in-time privileged access to Microsoft Entra ID and Azure resources
- Assign time-bound access to resources using start and end dates
- Require approval to activate privileged roles
- Enforce multifactor authentication to activate any role
- Use justification to understand why users activate
- Get notifications when privileged roles are activated
- Conduct access reviews to ensure users still need roles
- Download audit history for internal or external audit
- Must-have for regulated industries
- [Demo link](#)

# Cost Management

# Cost Management - Demo

- Overview – Cost Management, Invoices ([link](#))
- Startup billing portal
- Budgets, alerts
- Automatic resource stopping or deletion

# Deploying workloads

# Deploying Workloads - Demo

- Click-Ops + export template
- Azure Command Line Interface (az cli)
- Az PowerShell module
- Azure Resource Manager (ARM) templates
- Bicep Templates
- Terraform
- [\(link\)](#)
- Time permits: AI Hub



# Azure Best Practices

# Best practices

- Architecture center
- Well Architected Framework
- Azure Advisor
- Secure Score



Thank you