Microsoft

AZ-104

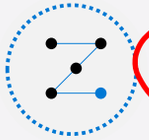
Administer Governance and Compliance

Course Outline

Deployment

Ausrollen
Bereitstellung

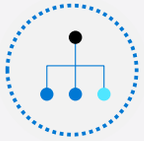
01: Administer Identity



02: Administer Governance and Compliance

2x RBAC Policies

03: Administer Azure Resources



04: Administer Virtual Networking

05: Administer Intersite Connectivity

06: Administer Network Traffic Management

07: Administer Azure Storage

08: Administer Azure Virtual Machines

09: Administer PaaS Compute Options

10: Administer Data Protection

11: Administer Monitoring

Learning Objectives

- Configure Subscriptions
- Configure Azure Policy
- Configure Role-Based Access Control
- Lab 02a - Manage Subscriptions and RBAC
- Lab 02b - Manage Governance via Azure Policy

Configure Subscriptions and Configure Azure Resource Manager Resources

Learning Objectives – Subscriptions and Azure RM

- Identify Regions
- Implement Azure Subscriptions
- Identify Subscription Usage
- Obtain a Subscription
- Create Resource Groups
- Determine Service Limits and Quotas
- Create an Azure Resource Hierarchy
- Apply Resource Tagging
- Manage Costs
- Learning Recap

Manage Azure identities and governance (20–25%): Manage subscriptions and governance

- Configure resource locks
- Apply and manage tags on resources
- Manage resource groups
- Manage subscriptions
- Manage costs by using alerts, budgets, and Azure Advisor recommendations
- Configure management groups

Identify Regions

- A region represents a collection of datacenters
- Provides flexibility and scale
- Preserves data residency
- Select regions close to your users
- Be aware of region deployment availability
- There are global services that are region independent
- Regions are paired for high availability
- Regions are paired for high availability

northeurope
5DC (Dublin)
westeurope
(Amsterdam)
Avail Zone
1
2
3
3DC

Worldwide there are 60+ regions representing 140 countries

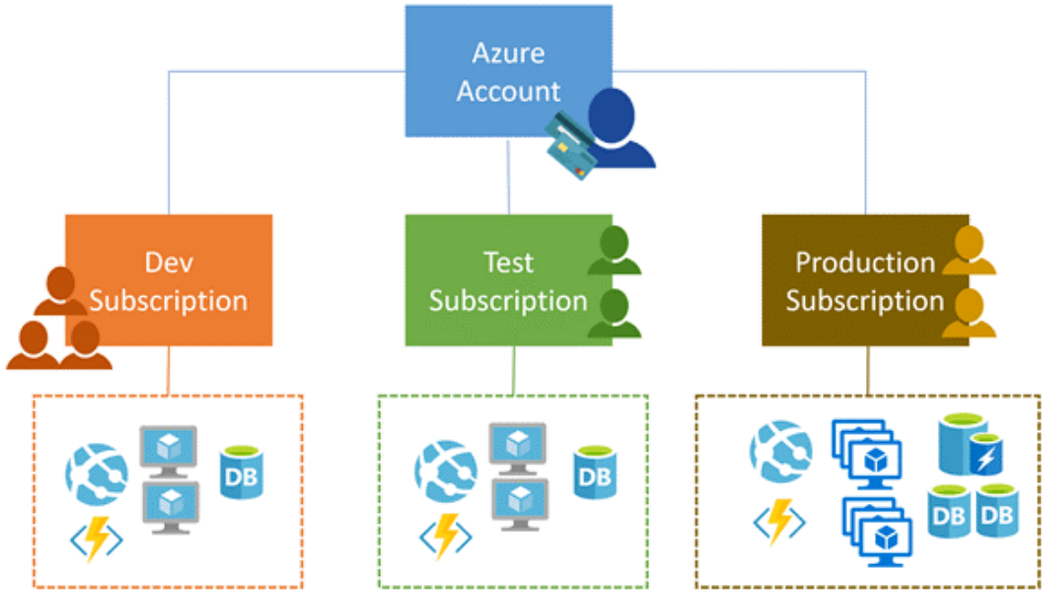
Soveveign Cloud

Implement Azure Subscriptions

Only identities in Azure AD, or in a directory that is trusted by Azure AD, can create a subscription

Logical unit of Azure services that is linked to an Azure account

Security and billing boundary*



Identify Subscription Usage

Subscription	Usage
Free	Includes a $200 credit for the first 30 days, free limited access for 12 months
Pay-As-You-Go	Charges you monthly
CSP	Agreement with possible discounts through a Microsoft Cloud Solutions Provider Partner – typically for small to medium businesses
Enterprise	One agreement, with discounts for new licenses and Software Assurance – targeted at enterprise-scale organizations
Student	Includes $100 for 12 months – must verify student access

Obtain a Subscription

Enterprise Agreement customers make an upfront monetary commitment and consume services throughout the year

Resellers provide a simple, flexible way to purchase cloud services

Partners can design and implement your Azure cloud solution

Personal free account – Start right away

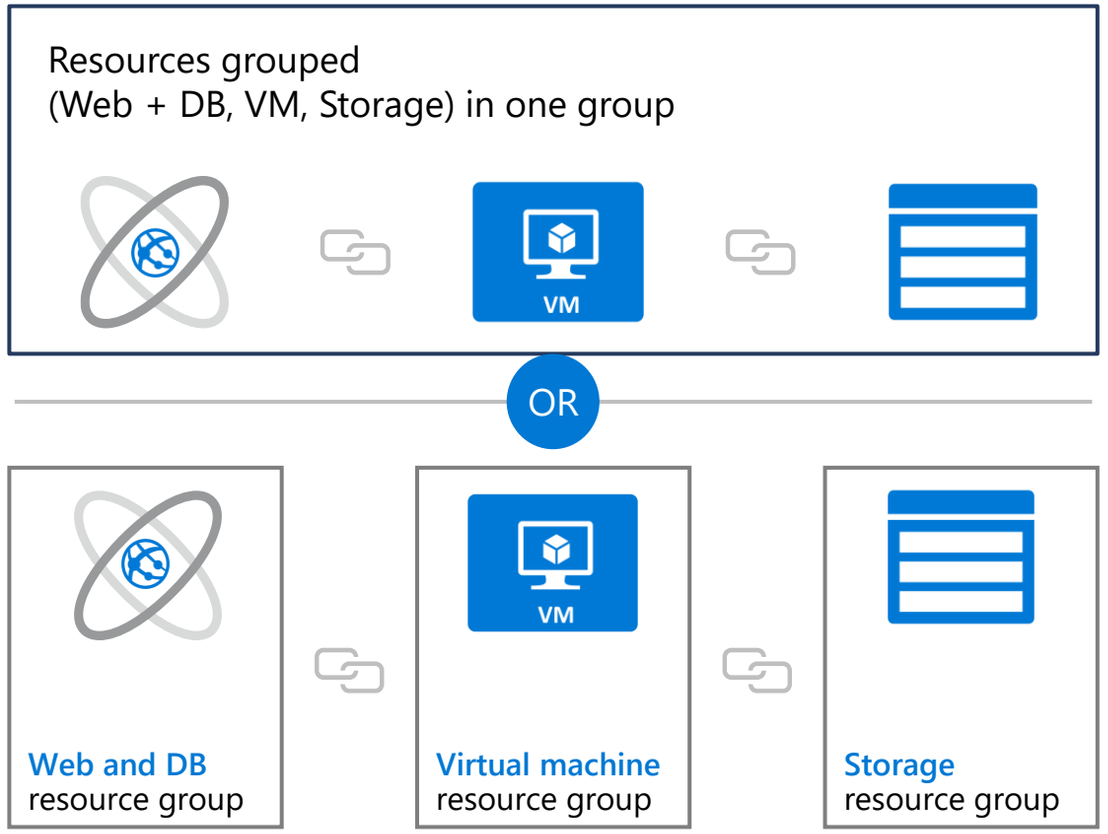
Create Resource Groups

Resources can only exist in one resource group

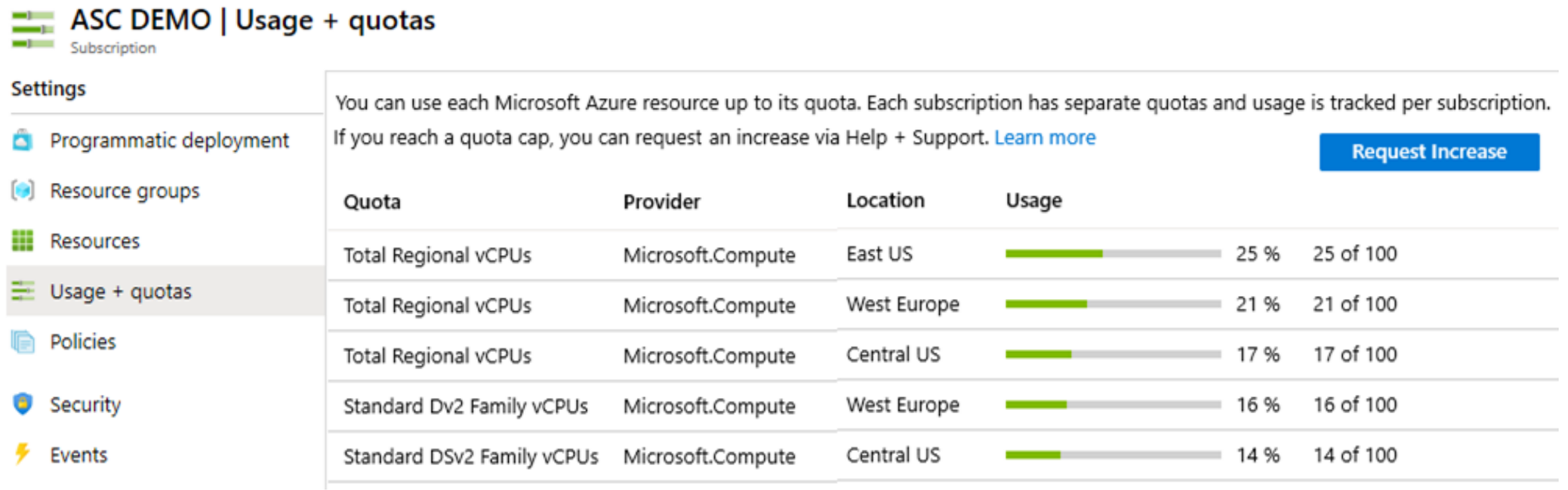
Groups can have resources of many different types (services) and from many different regions

Groups cannot be renamed or nested

You can move resources between groups



Determine Service Limits and Quotas



Resources have a default limit - a subscription quota

Helpful to track current usage, and plan for future use

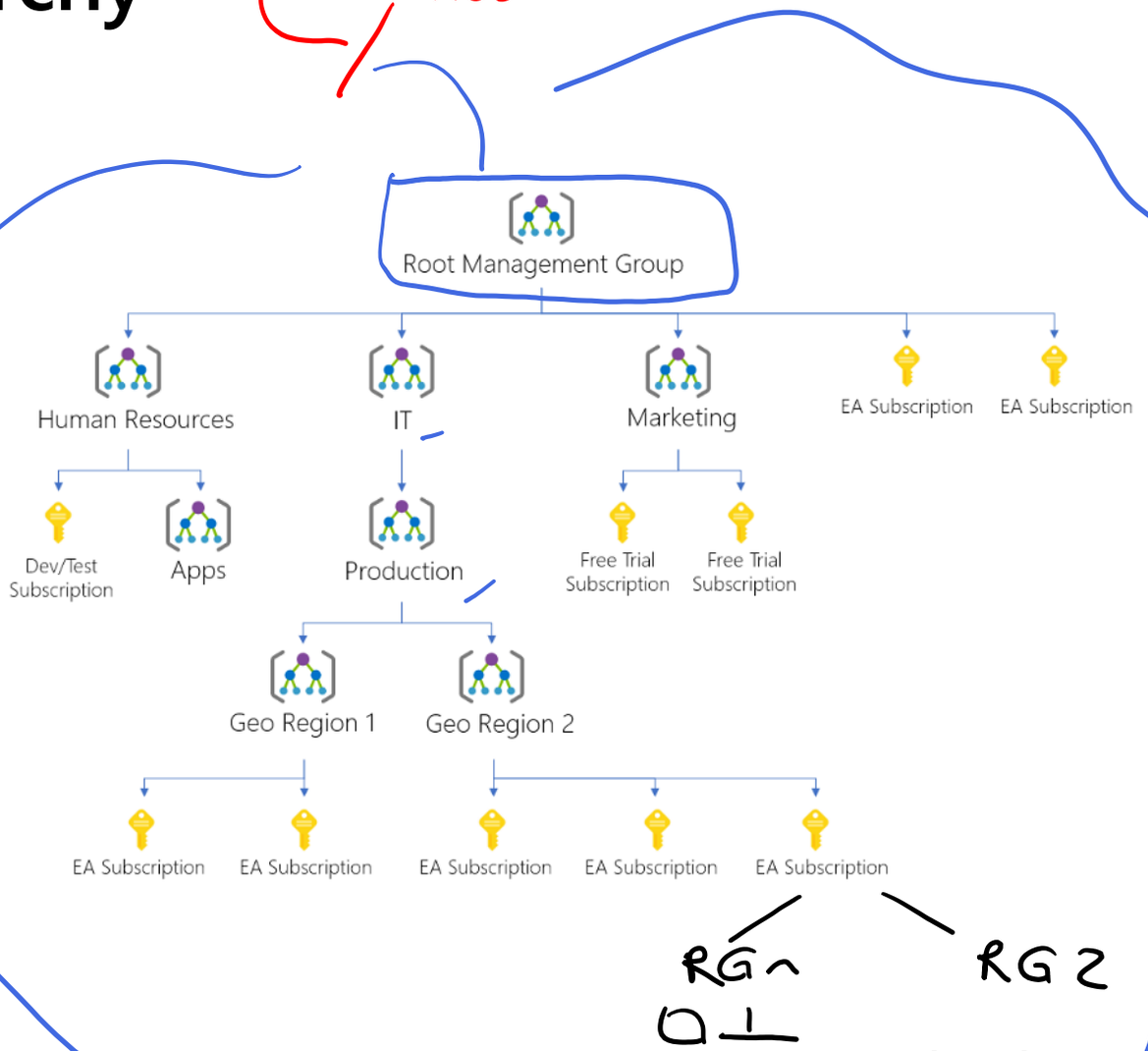
You can open a free support case to increase limits to published maximums

Create an Azure Resource Hierarchy

Management groups provides a level of scope above subscriptions

Target policies and spend budgets across subscriptions and inheritance down the hierarchies

Implement compliance and cost reporting by organization (business/teams)



* To prevent changes, apply resource locks at the subscription, resource group, or resources level

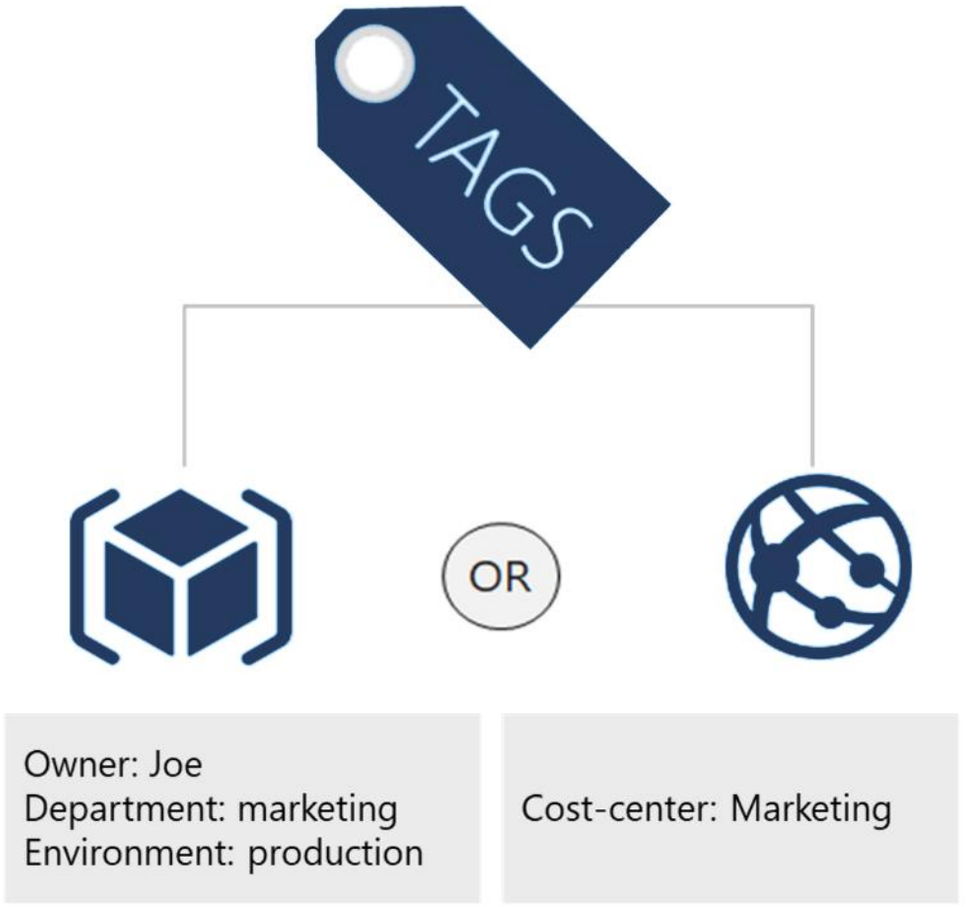
Apply Resource Tagging

Provides metadata for your Azure resources

Logically organizes resources

Consists of a name-value pair

Very useful for rolling up billing information



Configure Azure Policy

Implement Azure Policies

A service to create, assign, and manage policies

Runs evaluations and scans for non-compliant resources

Advantages:

- Enforcement and compliance
- Apply policies at scale
- Remediation

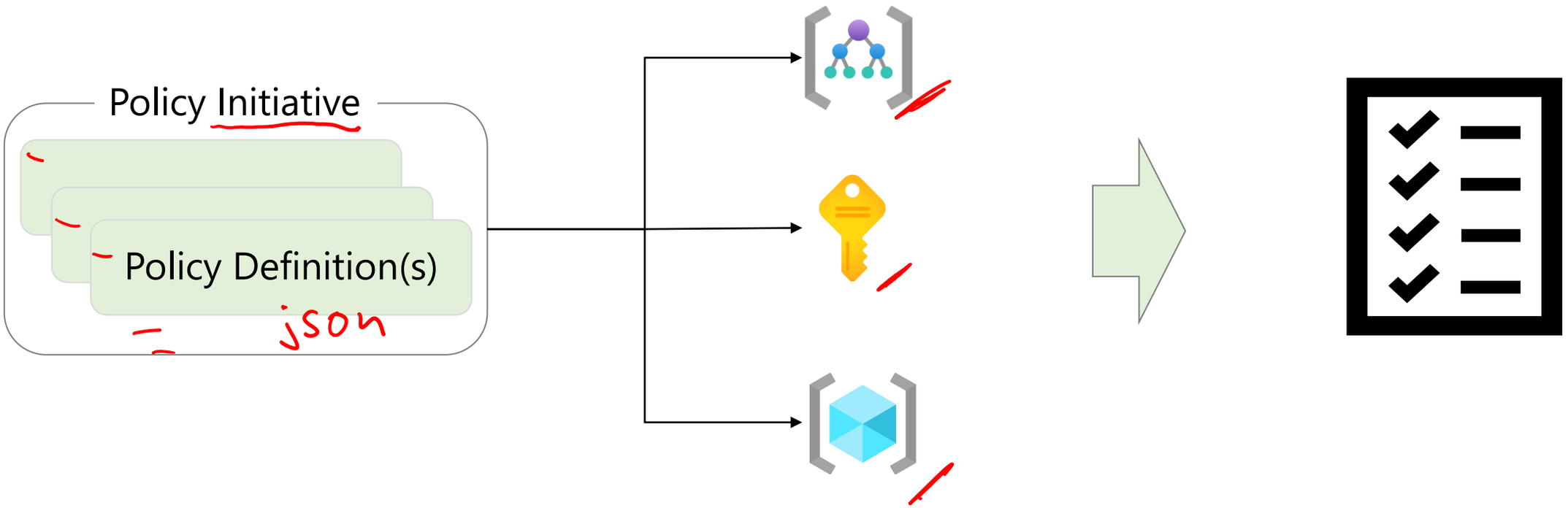
Usage Cases
Allowed resource types – Specify the resource types that your organization can deploy
Allowed virtual machine SKUs – Specify a set of virtual machine SKUs that your organization can deploy
Allowed locations – Restrict the locations your organization can specify when deploying resources
Require tag and its value – Enforces a required tag and its value
Azure Backup should be enabled for Virtual Machines – Audit if Azure Backup service is enabled for all Virtual machines

Create Azure Policies

Define and create

Scope and assign

Assess compliance



Configure Role-Based Access Control (RBAC)

Compare Azure RBAC Roles to Azure AD Roles

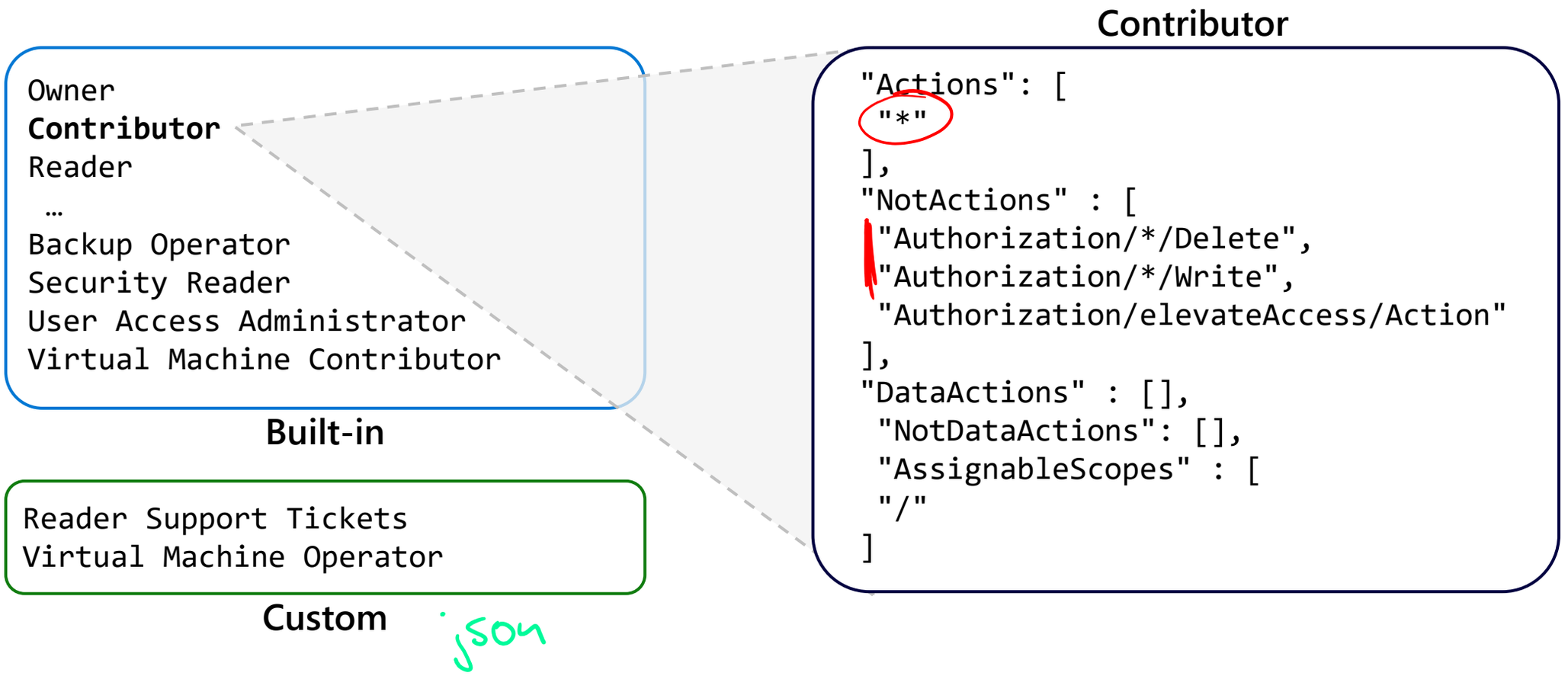
RBAC roles provide fine-grained access management

Azure RBAC roles	Azure AD roles
Manage access to Azure resources	Manage access to Azure AD objects
Scope can be specified at multiple levels	Scope is at the tenant level
Role information can be accessed in the Azure portal, Azure CLI, Azure PowerShell, Azure Resource Manager templates, REST API	Role information can be accessed in Azure portal, Microsoft 365 admin portal, Microsoft Graph, Azure Active Directory PowerShell for Graph

There are many built-in roles, or you can create your own custom role

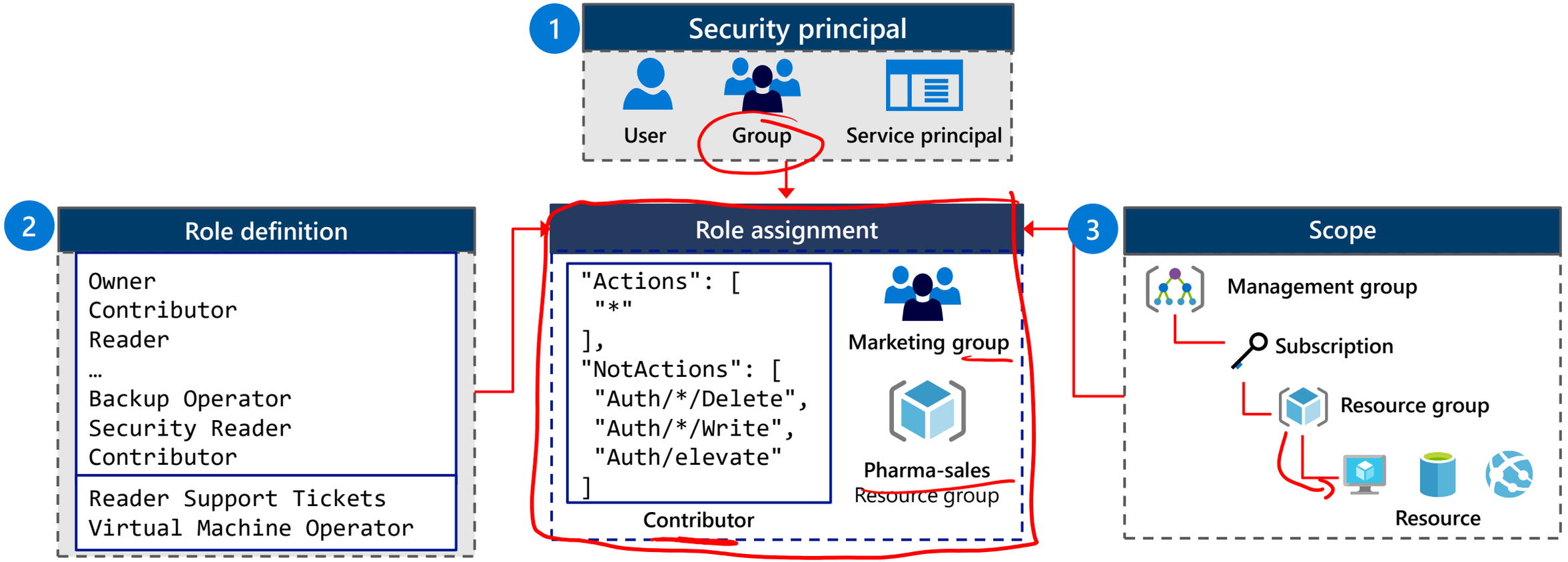
Create a Role Definition

Collection of permissions that lists the operations that can be performed

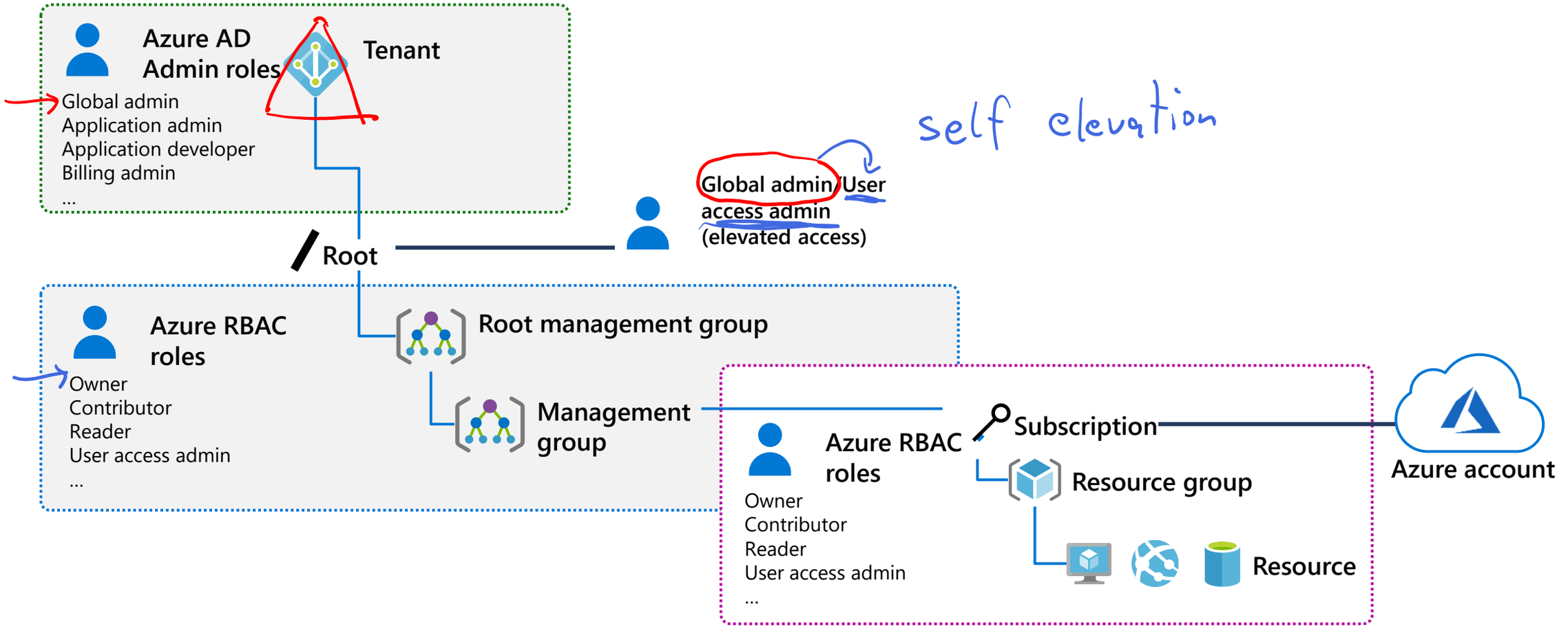


Create a Role Assignment

Process of binding a role definition to a user, group, or service principal at a scope for the purpose of granting access



Apply RBAC Authentication



Lab 02a - Manage Subscriptions and RBAC

Lab 02b - Manage Governance via Azure Policy

Lab 02a – Manage Subscriptions and Azure RBAC

Contoso needs to improve the management of Azure resources, specifically:

- Use management groups for the Azure subscriptions
- Grant user permissions for submitting support requests. This user would only be able to create support request tickets and view resource groups

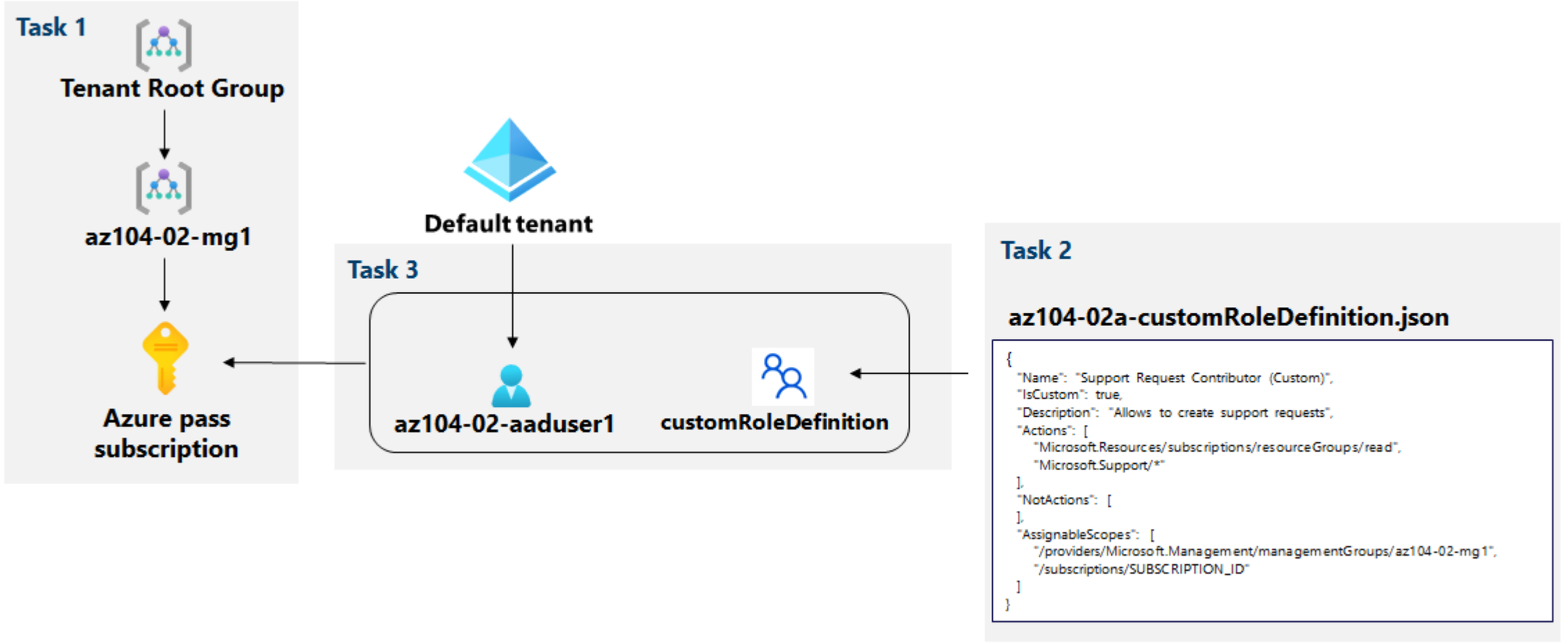
Objectives

Task 1: Implement Management Groups

Task 2: Create custom RBAC roles

Task 3: Assign RBAC roles

Lab 02a – Architecture diagram



Lab 02b – Manage Governance via Azure Policy

Contoso needs to improve the management of Azure resources, specifically:

- Tagging resource groups that include only infrastructure resources
- Ensuring that only properly tagged infrastructure resources can be added to infrastructure resource groups
- Remediating any non-compliant resources

Objectives

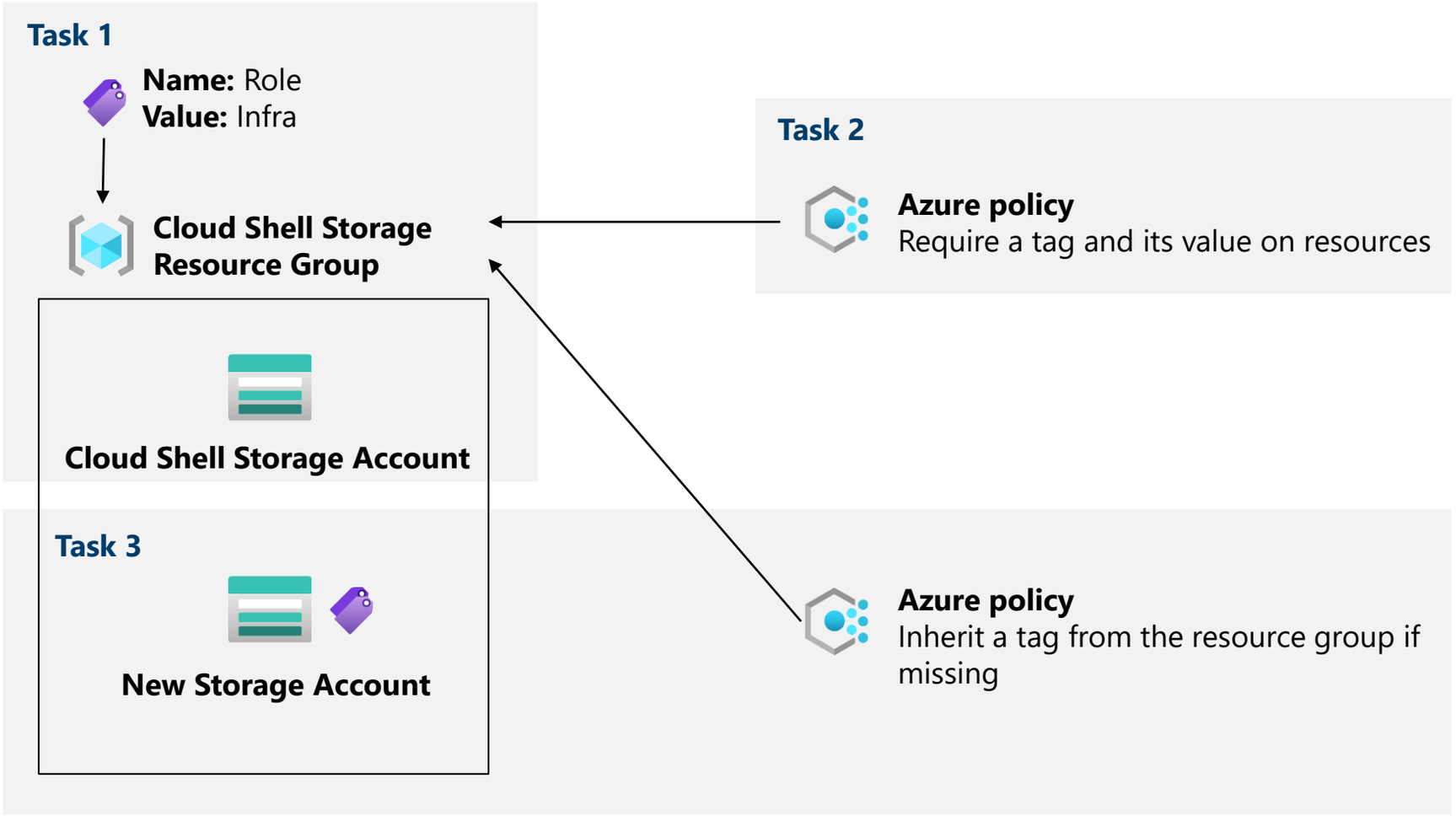
Task 1: Create and assign tags via the Azure portal

Task 2: Enforce tagging with an Azure Policy

Task 3: Apply tagging with an Azure Policy

Next slide for an architecture diagram

Lab 02b – Architecture diagram



End of presentation