



Azure Fundamentals (AZ-900) Bootcamp

Gain knowledge of Azure cloud concepts and services

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@zaalion

Microsoft
CERTIFIED
Trainer



Course Overview



Exam AZ-900: Microsoft Azure Fundamentals

<https://docs.microsoft.com/en-us/learn/certifications/exams/az-900>



AZ-900 Bootcamp

- Day 01
 - Cloud concepts
 - Core Azure services
 - Core solutions and management tools on Azure
 - Wrap-up and Q&A



AZ-900 Bootcamp

- Day 02
 - General Azure security and network security features
 - Azure identity, governance, privacy, and compliance features
 - Azure cost management and service-level agreements
 - Wrap-up and Q&A



Course Repository

<https://github.com/zaalion/oreilly-az-900>





Azure Free Account

<https://azure.microsoft.com/en-ca/free>



Day 1



Azure Fundamentals Bootcamp

- Cloud concepts
- Core Azure services
- Core solutions and management tools on Azure
- Wrap-up and Q&A





Cloud Computing


Cloud computing is the on-demand availability of computer system resources, especially data storage (cloud storage) and computing power, without direct active management by the user.



Cloud Benefits

- Scalability
- Flexibility (IaaS, PaaS, SaaS)
- Unlimited storage
- Unlimited processing
- Rich tooling
- Easily accessible
- Advanced cost management
- Maintainability
- Rich security
- Democratizing expensive services





Consumption-based Model

You are charged for only what you use. This model is also known as the Pay-As-You-Go rate.





Serverless Computing

A cloud computing execution model in which the cloud provider allocates machine resources on demand, taking care of the servers on behalf of their customers.



Cloud Considerations

- Design security beforehand (data, app, in transit, at rest)
- Invest in service/app monitoring and logging
- IaaS vs. PaaS vs. SaaS
- Choose your services before jumping into implementation
- Design your solution before jumping into implementation
- Watch the cost
- There are always multiple ways to implement a project





Cloud Service Categories

AI + machine learning

Analytics

Compute

Containers

Databases

Developer tools

DevOps

Hybrid + multicloud

Identity

Integration

Internet of Things

Management and governance

Media

Migration

Mixed reality

Mobile

Networking

Security

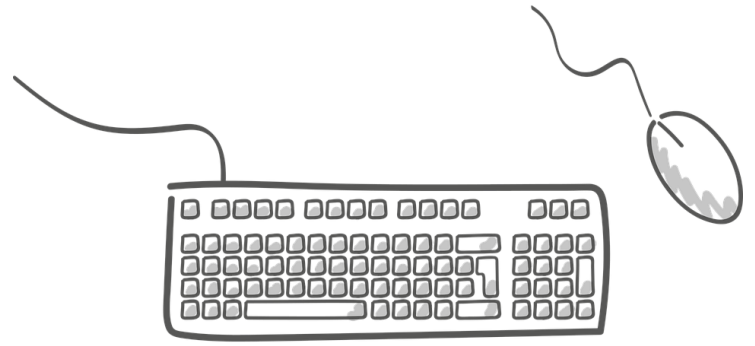
Storage

Virtual desktop infrastructure



Demo

- Getting to know the Azure portal
- Provisioning a new resource



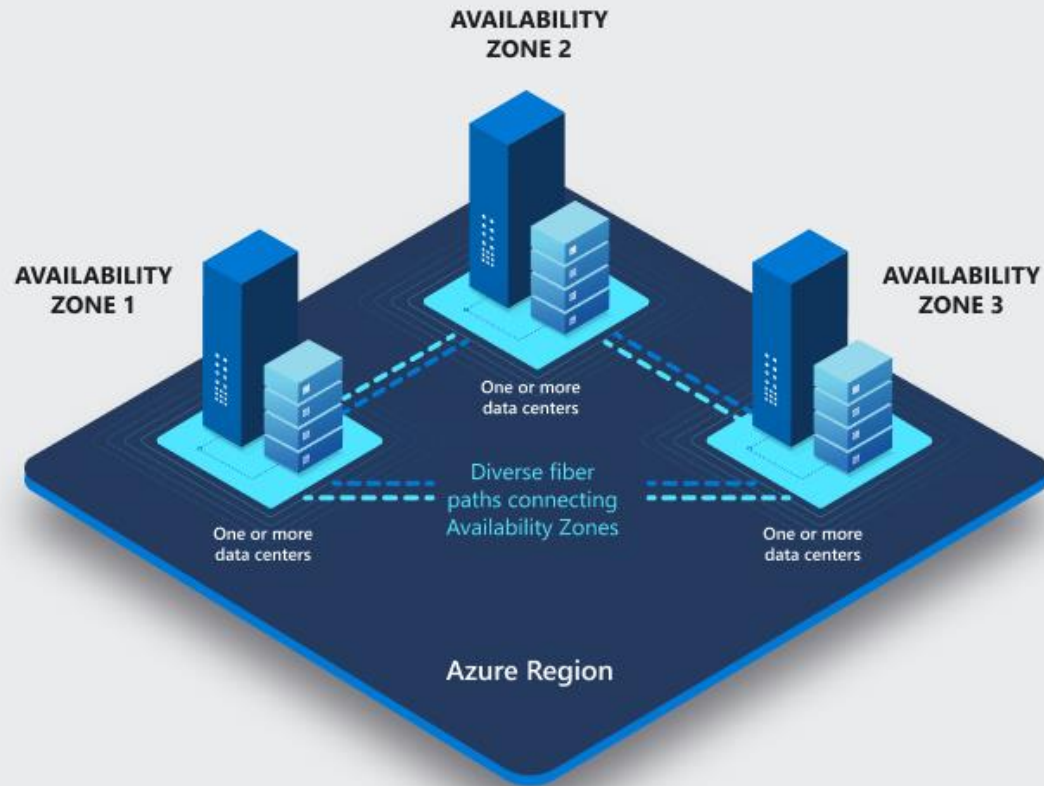
Azure regions with availability zones

Azure provides the most extensive global footprint of any cloud provider and is rapidly opening new regions and availability zones.

| Americas | Europe | Africa | Asia Pacific |
|------------------|----------------------|--------------------|----------------|
| Brazil South | France Central | South Africa North | Australia East |
| Canada Central | Germany West Central | | Central India* |
| Central US | North Europe | | Japan East |
| East US | Norway East | | Korea Central |
| East US 2 | UK South | | Southeast Asia |
| South Central US | West Europe | | East Asia* |
| US Gov Virginia | Sweden* | | |
| West US 2 | | | |
| West US 3 | | | |

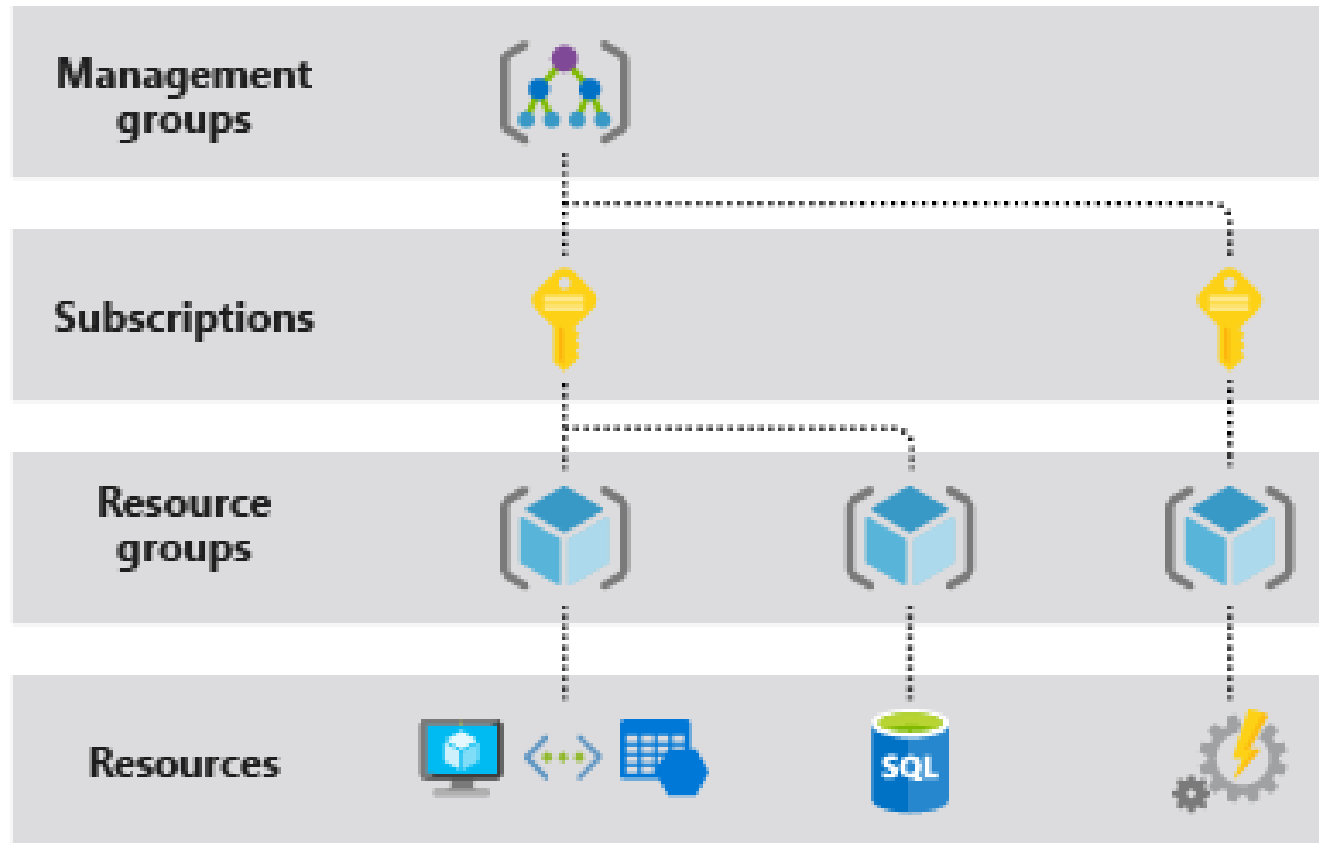
[See reference](#)





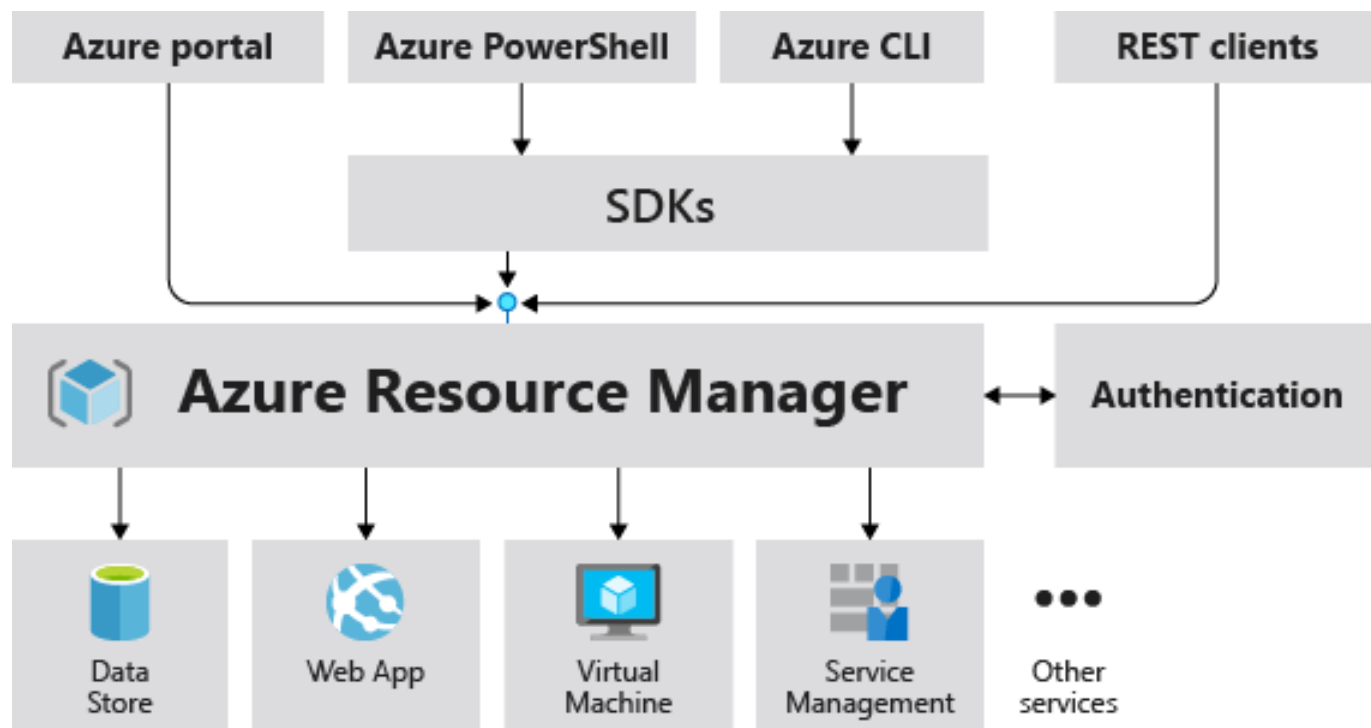
See reference





[See reference](#)





[See reference](#)





Azure Resource Manager (ARM) is the deployment and management service for Azure.

See reference



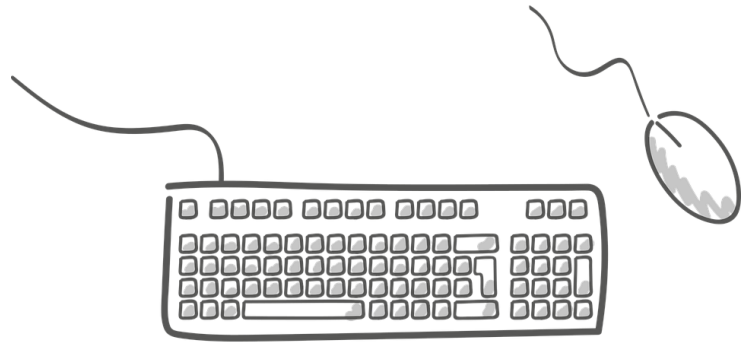
Core Azure Services

- Virtual machines
- Azure App Service
- Azure Container Instances (ACI)
- Azure Kubernetes Service (AKS)
- Windows Virtual Desktop
- Virtual networks
- VPN gateway
- Virtual network peering, and ExpressRoute
- Container (blob) storage
- Disk storage
- File storage, and storage tiers
- Azure SQL Database, Azure Database for MySQL, Azure Database for PostgreSQL, and SQL Managed Instance



Demo

- Azure App Services
- Cosmos DB
- Azure Marketplace



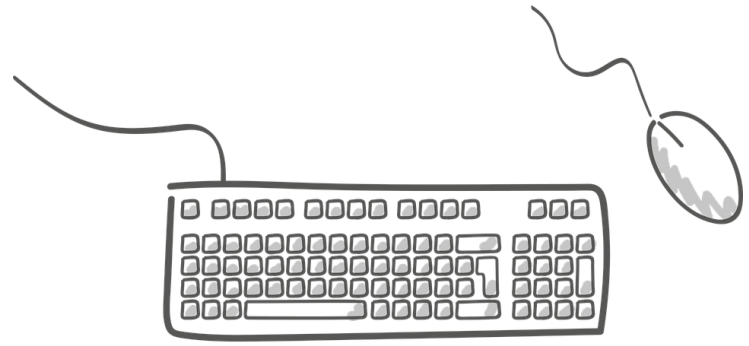


Core solutions and management tools on Azure

- [Azure Machine Learning](#)
- [Cognitive Services](#), and [Bot Service](#)
- [Azure DevOps](#), [GitHub](#), [GitHub Actions](#), and [Azure DevTest Labs](#)
- [Internet of Things \(IoT\) Hub](#), [IoT Central](#), and [Azure Sphere](#)
- [HDInsight](#), and [Azure Databricks](#)
- [Azure portal](#), [Azure PowerShell](#), [Azure CLI](#), [Cloud Shell](#)
- [Azure Mobile App](#)
- [Azure management tools: Azure Advisor, Azure Monitor, Azure Service Health](#)
- [Azure Status](#)



Demo



- Azure Resource Manager (ARM) templates
- Azure Synapse Analytics
- Azure Functions and Logic Apps





Use Azure Architecture Center for architecting solutions on Azure using established patterns and practices.



Day 2



Azure Fundamentals Bootcamp

- General Azure security and network security features
- Azure identity, governance, privacy, and compliance features
- Azure cost management and service-level agreements
- Wrap-up and Q&A

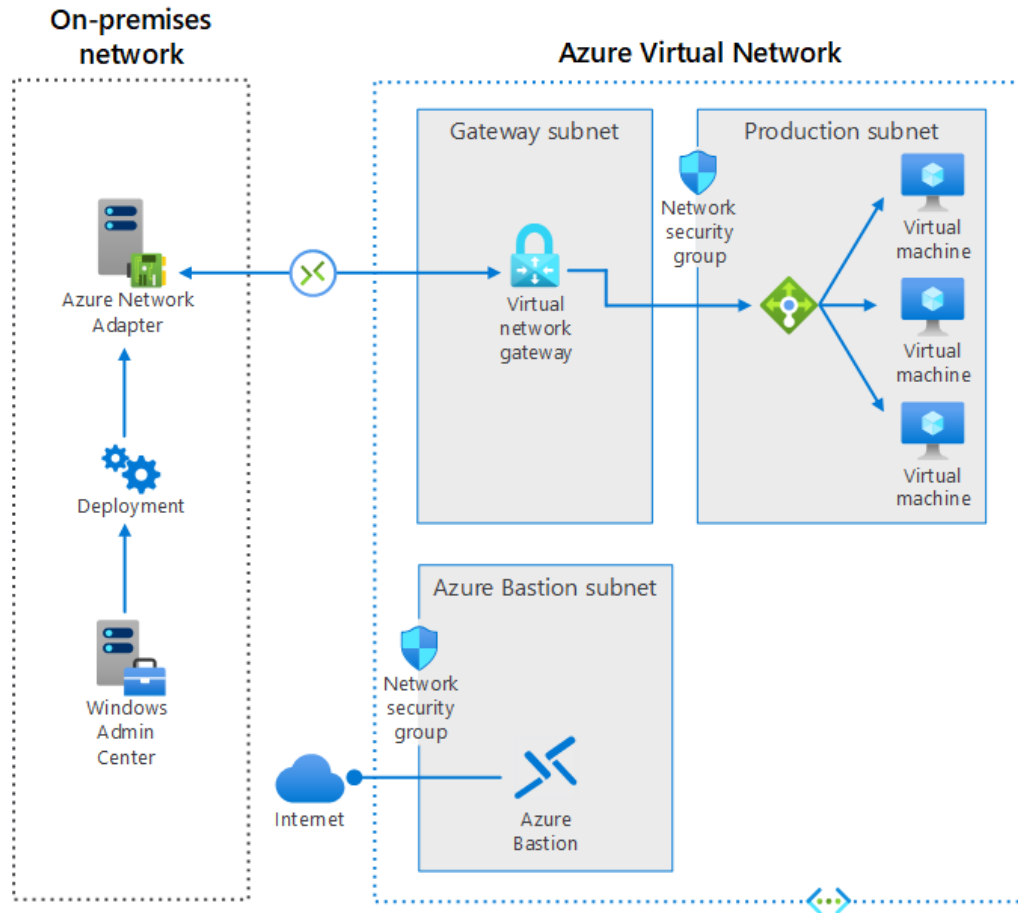




General Azure security and network security features

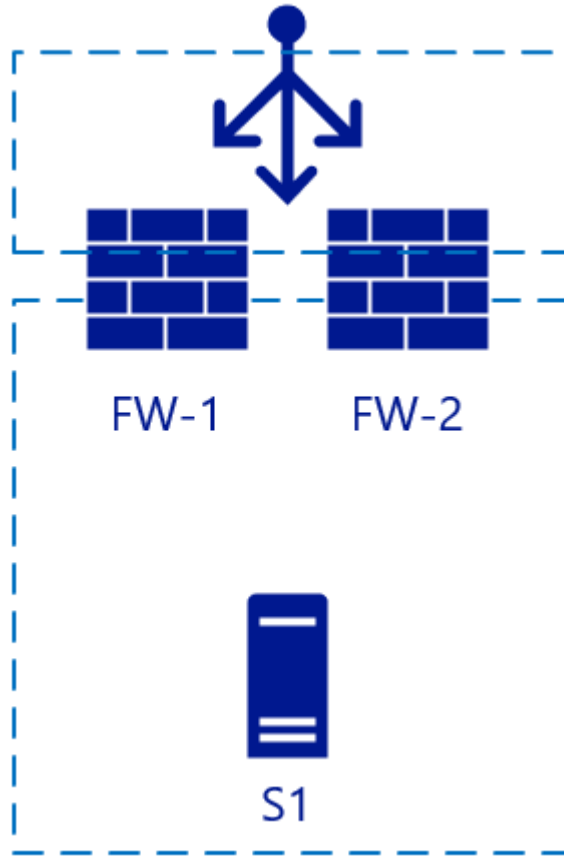
- Azure network security and the concept of defense in depth
- Azure Security Center, including policy compliance, security alerts, secure score, and resource hygiene
- Azure Sentinel
- Azure Defender
- Azure Dedicated Hosts
- Azure Firewall
- Azure DDoS protection





See reference



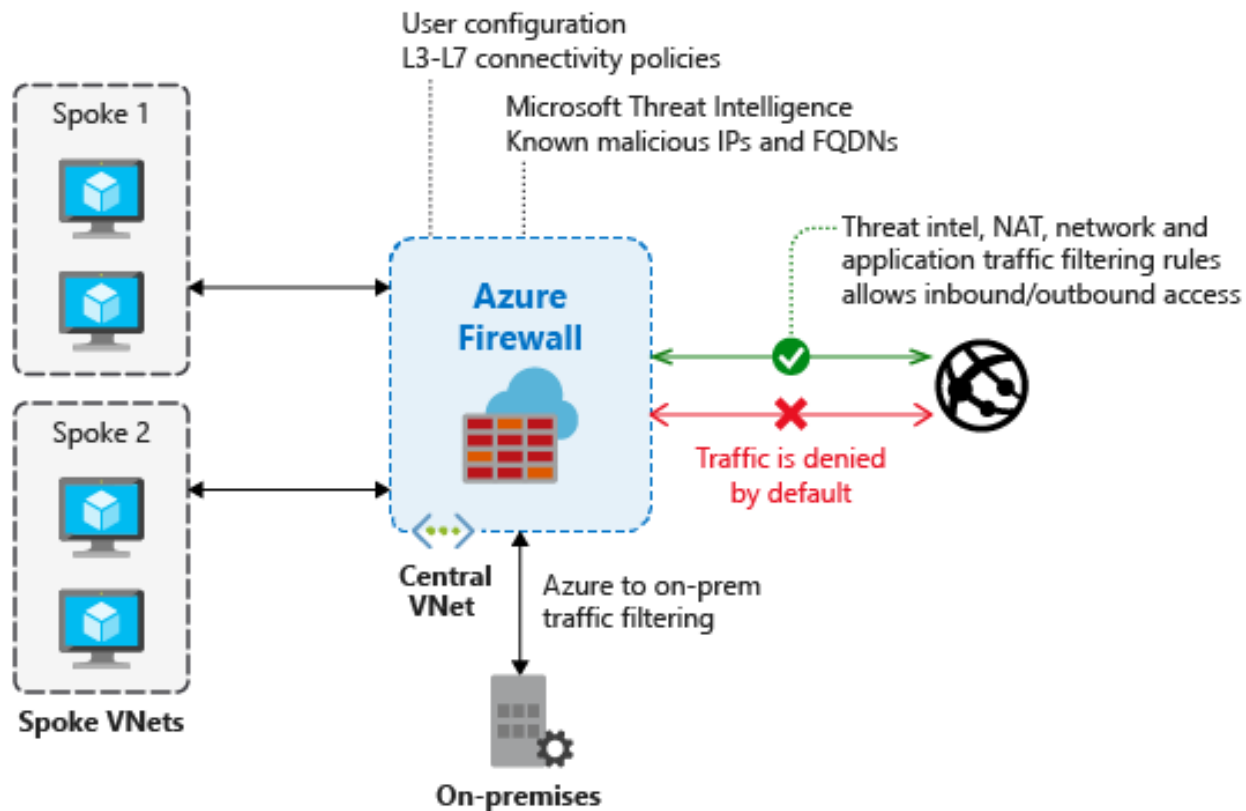


Subnet-A

Subnet-B

See reference



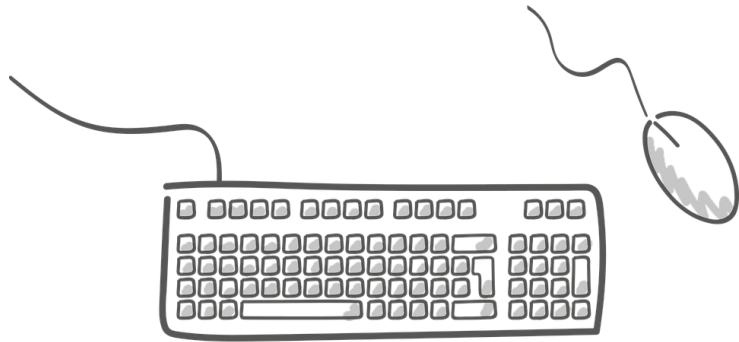


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Demo

- Explore Key Vault
- Network Security Groups (NSG)



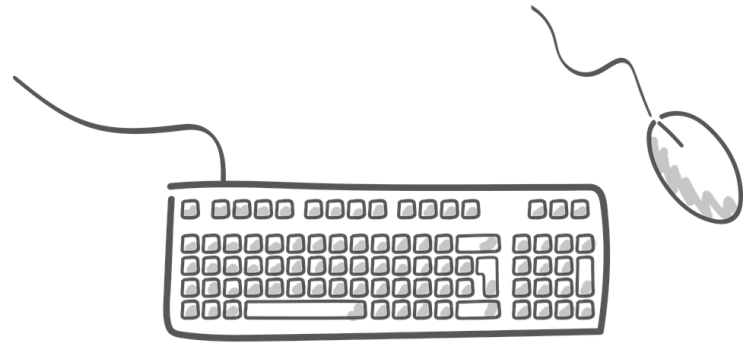
Azure identity, governance, privacy, and compliance features

- Authentication vs. authorization
- Azure Active Directory
- Conditional Access, multifactor authentication (MFA), and single sign-on (SSO)
- Azure governance features
- Using Azure Blueprints
- Azure Cloud Adoption Framework
- Describing privacy and compliance resources
- The purpose of the Microsoft privacy statement, data protection addendum (DPA), and Product Terms site
- Security, privacy, and compliance
- Azure compliance
- Trust Center, Azure sovereign regions
- Resource locks



Demo

- Role-based access control (RBAC)
- Using tags
- Using Azure Policy





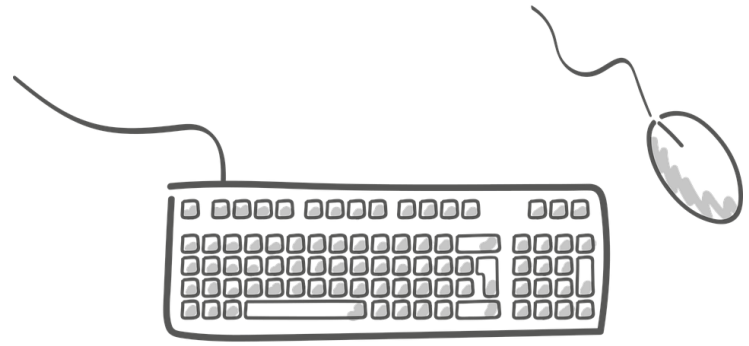
Azure cost management and service-level agreements

- Methods for planning and managing costs
- Identifying factors that can affect costs (resource types, services, locations, ingress and egress traffic)
- Factors that can reduce costs (reserved instances, reserved capacity, hybrid use benefit, spot pricing)
- The purpose of an Azure service-level agreement
- Actions that can impact an SLA
- The service lifecycle in Azure (public preview and general availability)
- Pricing calculator and the total cost of ownership (TCO) calculator
- Azure cost management



Demo

- Azure pricing calculator



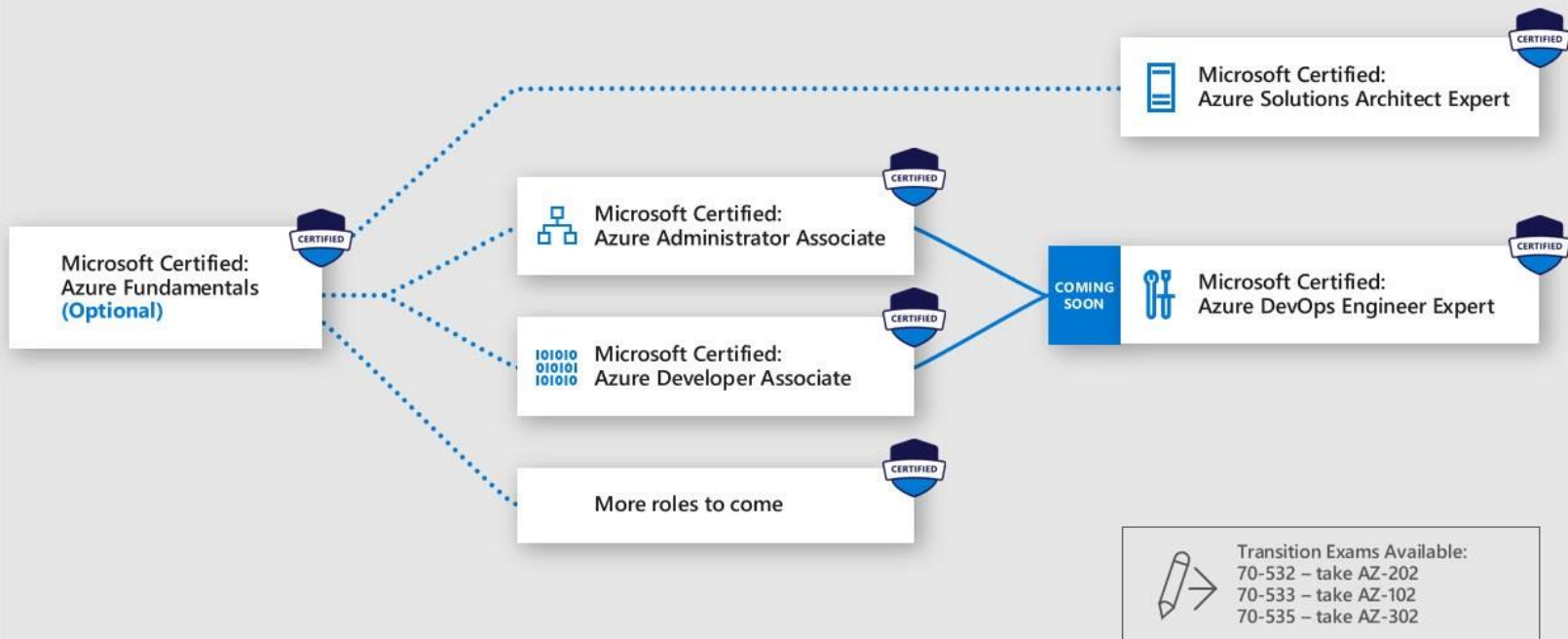
The Exam

Azure Apps and Infrastructure certifications

Fundamentals

Associate

Expert



See reference



Questions in AZ-900

- Number of Questions 40-60 Questions
- Questions
 - Multiple choice
 - Drag and drop
 - Scenario based
- There will NOT be hands-on labs but watch for updates!
- Pass Score 700 (on a scale of 1-1000)



DP-203

- Exam AZ-900 → <https://docs.microsoft.com/en-us/learn/certifications/exams/az-900>
- Skills measured → <https://query.prod.cms.rt.microsoft.com/cms/api/am/binary/RE3VwUY>



Schedule exam

Exam AZ-900: Microsoft Azure Fundamentals

United States

Languages: English, Japanese, Chinese (Simplified), Korean, Spanish, German, French, Indonesian (Indonesia), Arabic (Saudi Arabia), Chinese (Traditional), Italian, Portuguese (Brazil), Russian

Retirement date: none

This exam measures your ability to describe the following concepts: cloud concepts; core Azure services; core solutions and management tools on Azure; general security and network security features; identity, governance, privacy, and compliance features; and Azure cost management and Service Level Agreements.

\$99 USD*

Price based on the country in which the exam is proctored.

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Select exam options

DP-200: Implementing an Azure Data Solution

All fields are required.

How do you want to take your exam? [Exam delivery option descriptions](#)

- ☐ At a local test center
- ☒ At my home or office
- ☐ I have a Private Access Code

Are you going to be testing on this device and network?

If so, perform a quick pre-check to verify compatibility of your device and network before planning to take this exam in your home or office.
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[Next](#)





System check - Checking your requirements



Microphone

Default - Microphone (SI ▼)



Internet speed



Webcam

Integrated Webcam (0c ▼)

Next



Course Repository

<https://github.com/zaalion/oreilly-az-900>





Q&A



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Thank you!

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