

## Azure Fundamentals: AZ-900

### EXAM DESIGN

#### Audience Profile

This exam is designed for candidates looking to demonstrate foundational-level knowledge of cloud services and how those services are provided with Microsoft Azure. The exam is intended for candidates with non-technical backgrounds, such as those involved in selling or purchasing cloud-based solutions and services or who have some involvement with cloud-based solutions and services, as well as those with a technical background who have a need to validate their foundational level knowledge around cloud services. Technical IT experience is not required however some general IT knowledge or experience would be beneficial.

This exam can be taken as an optional first step in learning about cloud services and how those concepts are exemplified by Microsoft Azure. It can be taken as a precursor to Microsoft Azure or Microsoft cloud services exams. While it would be a beneficial first step, validating foundational level knowledge, taking this exam is not a prerequisite before taking any other Azure-based certifications

## Objective Domains

### SKILLS MEASURED

#### Understand Cloud Concepts - 15-20%

##### Describe the benefits and considerations of using cloud services

May include but is not limited to:

- Understand terms such as High Availability, Scalability, Elasticity, Agility, Fault Tolerance, and Disaster Recovery
- Understand the principles of economies of scale
- Understand the differences between Capital Expenditure (CapEx) and Operational Expenditure (OpEx)
- Understand the consumption-based model

##### Describe the differences between Infrastructure-as-a-Service (IaaS), Platform-as-a-Service (PaaS) and Software-as-a-Service (SaaS)

May include but is not limited to:

- Describe Infrastructure-as-a-Service (IaaS)
- Describe Platform-as-a-Service (PaaS)
- Describe Software-as-a-Service (SaaS)
- Compare and contrast the three different service types

##### Describe the differences between Public, Private and Hybrid cloud models

May include but is not limited to:

- Describe public cloud
- Describe private cloud



## Understand Core Azure Services (30-35%)

- Describe hybrid cloud
- Compare and contrast the three different cloud models
- Compare with on-premise Office 2016 deployment

### Understand the core Azure architectural components

May include but is not limited to:

- Describe Regions
- Describe Availability Zones
- Describe Resource Groups
- Describe Azure Resource Manager
- Describe the benefits and usage of core Azure architectural components

### Describe some of the core products available in Azure

May include but is not limited to:

- Describe products available for Compute such as Virtual Machines, Virtual Machine Scale Sets, App Service and Functions
- Describe products available for networking such as Virtual Network, Load Balancer, VPN Gateway, Application Gateway and Content Delivery Network
- Describe products available for storage such as Blob Storage, Disk Storage, File Storage, and Archive Storage
- Describe products available for databases such as CosmosDB, Azure SQL Database, Azure Database Migration Service, and Azure SQL Data Warehouse
- Describe the Azure Marketplace and its usage scenarios

### Describe some of the solutions available in Azure

May include but is not limited to:

- Describe Internet of Things (IoT) and products that are available for IoT on Azure such as IoT Fundamentals, IoT Hub and IoT Central
- Describe big data and analytics and products that are available for big data and analytics such as SQL Data Warehouse, HDInsight and Data Lake

## Understand Security, Privacy, Compliance, and Trust (30-35%)

Analytics

- Describe artificial intelligence (AI) and products that are available for AI such as Azure Machine Learning Service and Studio
- Describe serverless computing and Azure products that are available for serverless computing such as Azure Functions, Logic Apps and App Grid
- Describe the benefits and outcomes of using Azure solutions

### Understand Azure management tools

May include but is not limited to:

- Understand Azure tools such as Azure CLI, PowerShell, and the Azure Portal
- Understand Azure Advisors

### Understand securing network connectivity in Azure

May include but is not limited to:

- Describe Azure Firewall
- Describe Azure DDoS Protection
- Describe Network Security Group (NSG)
- Choose an appropriate Azure security solution

### Describe core Azure Identity services

May include but is not limited to:

- Understand the difference between authentication and authorization
- Describe Azure Active Directory
- Describe Azure Multi-Factor Authentication

### Describe security tools and features of Azure

May include but is not limited to:

- Describe Azure Security
- Understand Azure Security Center usage scenarios
- Describe Key Vault
- Describe Azure Information Protection (AIP)
- Describe Azure Advanced Threat Protection (ATP)

### Describe Azure governance methodologies

May include but is not limited to:

- Describe Azure Policies
- Describe Initiatives
- Describe Role-Based Access Control (RBAC)

## Understand Security, Privacy, Compliance, and Trust (30-35%)

- Describe Locks
- Describe Azure Advisor security assistance

### Understand monitoring and reporting options in Azure

May include but is not limited to:

- Describe Azure Monitor
- Describe Azure Service Health
- Understand the use cases and benefits of Azure Monitor and Azure Service Health

### Understand privacy, compliance and data protection standards in Azure

May include but is not limited to:

- Understand industry compliance terms such as GDPR, ISO and NIST
- Understand the Microsoft Privacy Statement
- Describe the Trust Center
- Describe the Service Trust Portal
- Describe Compliance Manager
- Determine if Azure is compliant for a business need
- Understand Azure Government services
- Understand Azure Germany services

## Understand Azure Pricing and Support (25-30%)

### Understand Azure subscriptions

May include but is not limited to:

- Describe an Azure subscription
- Understand the uses and options with Azure subscriptions

### Understand planning and management of costs

May include but is not limited to:

- Understand options for purchasing Azure products and services
- Understand options around Azure Free account
- Understand the factors affecting costs such as resource types, services, locations, ingress and egress traffic
- Understand zones for billing purposes
- Understand the pricing calculator
- Understand the Total Cost of Ownership (TCO) calculator

- Understand best practices for minimizing Azure costs such as performing cost analysis, creating spending limits and quotas, and using tags to identify cost owners; use Azure reservations; use Azure Advisor recommendations
- Describe Azure Cost Management

### Understand the support options available with Azure

May include but is not limited to:

- Understand support plans that are available such as Dev, Standard, Professional Direct and Premier
- Understand how to open a support ticket
- Understand available support channels outside of support plan channels
- Describe the Knowledge Center

### Describe Azure Service Level Agreements (SLAs)

May include but is not limited to:

- Describe a Service Level Agreement (SLA)
- Determine SLA for a particular Azure product or service

### Understand service lifecycle in Azure

May include but is not limited to:

- Understand public and private preview features
- Understand how to access preview features
- Understand the term General Availability (GA)
- Monitor feature updates