

AZ-104T00-A: Microsoft Azure Administrator

Course Summary

Description

This course teaches IT Professionals how to manage their Azure subscriptions, secure identities, administer the infrastructure, configure virtual networking, connect Azure and on-premises sites, manage network traffic, implement storage solutions, create and scale virtual machines, implement web apps and containers, back up and share data, and monitor your solution.

Topics

- Identity
- Governance and Compliance
- Azure Administration
- Virtual Networking
- Intersite Connectivity
- Network Traffic Management
- Azure Storage
- Azure Virtual Machines
- Serverless Computing
- Data Protection
- Monitoring

Audience

This course is for Azure Administrators. The Azure Administrator implements, manages, and monitors identity, governance, storage, compute, and virtual networks in a cloud environment. The Azure Administrator will provision, size, monitor, and adjust resources as appropriate.

Prerequisites

Before attending this course, students must have:

- Successful Azure Administrators start this role with experience on operating systems, virtualization, cloud infrastructure, storage structures, and networking.
- Understanding of on-premises virtualization technologies, including: VMs, virtual networking, and virtual hard disks.
- Understanding of network configuration, including TCP/IP, Domain Name System (DNS), virtual private networks (VPNs), firewalls, and encryption technologies.
- Understanding of Active Directory concepts, including domains, forests, domain controllers, replication, Kerberos protocol, and Lightweight Directory Access Protocol (LDAP).
- Understanding of resilience and disaster recovery, including backup and restore operations.

Duration

Four days

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Course Outline

I. Identity

In this module, you will learn how to secure identities with Azure Active Directory, and implement users and groups.

- A. Azure Active Directory
- B. Users and Groups

Lab : Manage Azure Active Directory Identities

II. Governance and Compliance

In this module, you will learn about managing your subscriptions and accounts, implementing Azure policies, and using Role-Based Access Control.

- A. Subscriptions and Accounts
- B. Azure Policy
- C. Role-based Access Control (RBAC)

Lab : Manage Subscriptions and RBAC

Lab : Manage Governance via Azure Policy

III. Azure Administration

In this module, you will learn about the tools an Azure Administrator uses to manage their infrastructure. This includes the Azure Portal, Cloud Shell, Azure PowerShell, CLI, and Resource Manager Templates. This module includes:

- A. Azure Resource Manager
- B. Azure Portal and Cloud Shell
- C. Azure PowerShell and CLI
- D. ARM Templates

Lab : Manage Azure resources by Using the Azure Portal

Lab : Manage Azure resources by Using ARM Templates

Lab : Manage Azure resources by Using Azure PowerShell

Lab : Manage Azure resources by Using Azure CLI

IV. Virtual Networking

In this module, you will learn about basic virtual networking concepts like virtual networks and subnetting, IP addressing, network security groups, Azure Firewall, and Azure DNS.

- A. Virtual Networks
- B. IP Addressing
- C. Network Security groups

D. Azure Firewall

E. Azure DNS

Lab : Implement Virtual Networking

V. Intersite Connectivity

In this module, you will learn about intersite connectivity features including VNet Peering, Virtual Network Gateways, and Site-to-Site Connections.

- A. VNet Peering
- B. VPN Gateway Connections
- C. ExpressRoute and Virtual WAN

Lab : Implement Intersite Connectivity

VI. Network Traffic Management

In this module, you will learn about network traffic strategies including network routing and service endpoints, Azure Load Balancer, Azure Application Gateway, and Traffic Manager.

- A. Network Routing and Endpoints
- B. Azure Load Balancer
- C. Azure Application Gateway
- D. Traffic Manager

Lab : Implement Traffic Management

VII. Azure Storage

In this module, you will learn about basic storage features including storage accounts, blob storage, Azure files and File Sync, storage security, and storage tools.

- A. Storage Accounts
- B. Blob Storage
- C. Storage Security
- D. Azure Files and File Sync
- E. Managing Storage

Lab : Manage Azure storage

VIII. Azure Virtual Machines

In this module, you will learn about Azure virtual machines including planning, creating, availability and extensions.

- A. Virtual Machine Planning
- B. Creating Virtual Machines
- C. Virtual Machine Availability
- D. Virtual Machine Extensions

Lab : Manage virtual machines

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Course Outline (cont'd)

IX. Serverless Computing

In this module, you will learn administer serverless computing features like Azure App Service, Azure Container Instances, and Kubernetes.

- A. Azure App Service Plans
- B. Azure App Service
- C. Container Services
- D. Azure Kubernetes Service

Lab : Implement Web Apps

Lab : Implement Azure Container Instances

Lab : Implement Azure Kubernetes Service

X. Data Protection

In this module, you will learn about backing up files and folders, and virtual machine backups.

XI. Lessons File and Folder Backups

XII. Virtual Machine Backups

Lab : Implement Data Protection

XIII. Monitoring

In this module, you will learn about monitoring your Azure infrastructure including Azure Monitor, alerting, and log analytics.

- A. Azure Monitor
- B. Azure Alerts
- C. Log Analytics
- D. Network Watcher

Lab : Implement Monitoring