

Microsoft Azure Administrator (AZ-104)

Duration: 4 Days **Course Code: M-AZ104**

Overview:

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.

Target 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.

Objectives:

- **After completing this course you should be able to:**
- Secure and manage identities with Azure Active Directory.
- Implement and manage users and groups.
- Implement and manage Azure subscriptions and accounts.
- Implement Azure Policy, including custom policies.
- Use RBAC to assign permissions.
- Leverage Azure Resource Manager to organize resources.
- Use the Azure Portal and Cloud Shell.
- Use Azure PowerShell and CLI.
- Use ARM Templates to deploy resources.
- Implement virtual networks and subnets.
- Configure public and private IP addressing.
- Configure network security groups.
- Configure Azure Firewall.
- Configure private and public DNS zones
- Configure VNet Peering.
- Configure VPN gateways.
- Choose the appropriate intersite connectivity solution.
- Configure network routing including custom routes and service endpoints.
- Configure an Azure Load Balancer.
- Configure and Azure Application Gateway.
- Choose the appropriate network traffic solution.
- Create Azure storage accounts.
- Configure blob containers.
- Secure Azure storage.
- Configure Azure files shares and file sync.
- Manage storage with tools such as Storage Explorer
- Plan for virtual machine implementations.
- Create virtual machines.
- Configure virtual machine availability, including scale sets.
- Use virtual machine extensions.
- Create an app service plan.
- Create a web app.
- Implement Azure Container Instances.
- Implement Azure Kubernetes Service.
- Backup and restore file and folders.
- Backup and restore virtual machines.
- Use Azure Monitor.
- Create Azure alerts.
- Query using Log Analytics.
- Use Network Watcher.

Prerequisites:

Attendees should meet the following prerequisites:

- 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.

Testing and Certification

Recommended as preparation for the following exams:

- **AZ-104** - Microsoft Certified: Azure Administrator Associate

Content:

Module 1: Identity

- Azure Active Directory
- Users and Groups
- Lab : Manage Azure Active Directory Identities

Module 2: Governance and Compliance

- Subscriptions and Accounts
- Azure Policy
- Role-based Access Control (RBAC)
- Lab : Manage Subscriptions and RBAC
- Lab : Manage Governance via Azure Policy

Module 3: Azure Administration

- Azure Resource Manager
- Azure Portal and Cloud Shell
- Azure PowerShell and CLI
- 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

Module 4: Virtual Networking

- Virtual Networks
- IP Addressing
- Network Security groups
- Azure Firewall
- Azure DNS
- Lab : Implement Virtual Networking

Module 5: Intersite Connectivity

- VNet Peering
- VPN Gateway Connections
- ExpressRoute and Virtual WAN
- Lab : Implement Intersite Connectivity

Module 6: Network Traffic Management

- Network Routing and Endpoints
- Azure Load Balancer
- Azure Application Gateway
- Traffic Manager
- Lab : Implement Traffic Management

Module 7: Azure Storage

- Storage Accounts
- Blob Storage
- Storage Security
- Azure Files and File Sync
- Managing Storage
- Lab : Manage Azure storage

Module 8: Azure Virtual Machines

- Virtual Machine Planning
- Creating Virtual Machines
- Virtual Machine Availability
- Virtual Machine Extensions
- Lab : Manage virtual machines

Module 9: Serverless Computing

- Azure App Service Plans
- Azure App Service
- Container Services
- Azure Kubernetes Service
- Lab : Implement Web Apps
- Lab : Implement Azure Container Instances
- Lab : Implement Azure Kubernetes Service

Module 10: Data Protection

- File and Folder Backups
- Virtual Machine Backups
- Lab : Implement Data Protection

Module 11: Monitoring

- Azure Monitor
- Azure Alerts
- Log Analytics
- Network Watcher
- Lab : Implement Monitoring

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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