Microsoft Azure Administrator

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.

Prerequisites:

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.

Testing and Certification

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Content:

Module 1: Identity

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

- Azure Active Directory
- Users and Groups

Lab : Manage Azure Active Directory Identities

After completing this module, students will be able to:

- Secure and manage identities with Azure Active Directory.
- Implement and manage users and groups.

Module 2: Governance and Compliance

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

- Subscriptions and Accounts
- Azure Policy

Role-based Access Control (RBAC)

- Lab : Manage Subscriptions and RBAC
- Lab : Manage Governance via Azure Policy

After completing this module, students will be able to:

- 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

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- 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.

Module 5: Intersite Connectivity

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

- VNet Peering

Virtual Machine Extensions

- Lab : Manage virtual machines

After completing this module, students will be able to:

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Module 9: Serverless Computing

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

- Azure App Service Plans

- solution.
- Create Azure storage accounts.
- Configure blob containers.
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Module 3: 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:

- 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

After completing this module, students will be able to:

- 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.

- VPN Gateway Connections

ExpressRoute and Virtual WAN

- Lab : Implement Intersite Connectivity

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Module 6: Network Traffic Management

In this module, you will learn about network traffic strategies including network routing and

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- Azure App Service
- Container Services

Azure Kubernetes Service

- Lab : Implement Web Apps
- Lab : Implement Azure Container Instances
- Lab : Implement Azure Kubernetes Service

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Module 10: Data Protection

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

- Configure private and public DNS zones.
- Configure VNet Peering.
- Configure VPN gateways.
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- Configure and Azure Application Gateway.
- Choose the appropriate network traffic solution.
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Module 4: 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,

- Virtual Networks
- IP Addressing
- Network Security groups
- Azure Firewall

Azure DNS

- Lab : Implement Virtual Networking

service endpoints, Azure Load Balancer, Azure Application Gateway, and Traffic Manager.

- Network Routing and Endpoints
- Azure Load Balancer
- Azure Application Gateway

Traffic Manager

- Lab : Implement Traffic Management

After completing this module, students will be able to:

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backups.

- File and Folder Backups

Virtual Machine Backups

- Lab : Implement Data Protection

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Module 11: Monitoring

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

Module 7: 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.

- Storage Accounts
- Blob Storage
- Storage Security
- Azure Files and File Sync

Managing Storage

- Lab : Manage Azure storage

After completing this module, students will be able to:

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- Azure Monitor
- Azure Alerts
- Log Analytics

Network Watcher

- Lab : Implement Monitoring

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Module 8: Azure Virtual Machines

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

- Virtual Machine Planning
- Creating Virtual Machines
- Virtual Machine Availability

Further Information:

For More information, or to book your course, please call us on Head Office Tel.: +974 40316639

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