



Information Technology

Microsoft Certified: Azure Network Engineer Associate

# **Course Introduction**

This Training program prepares participants for the Microsoft Certified: Azure Network Engineer Associate certification. This training program covers Azure networking solutions, hybrid connectivity, routing, security, and monitoring to enable professionals to design, implement, and maintain secure and efficient Azure networks.

# **Target Audience**

- Network engineers working with cloud or hybrid environments.
- IT professionals seeking Azure networking expertise.
- Candidates preparing for the Azure Network Engineer certification.

# **Learning Objectives**

- Understand Azure networking architecture and components.
- Design and implement hybrid networking solutions.
- Configure and manage network security and performance.
- Monitor, troubleshoot, and optimize Azure network environments.
- Prepare for the Azure Network Engineer Associate certification exam.

## **Course Outline**

#### • DAY 01

#### **Introduction to Azure Networking**

- Overview of Azure networking architecture
- Azure regions, availability zones, and network topology
- Core components: VNets, subnets, and IP addressing
- Azure DNS and name resolution
- Network security basics in Azure
- Azure resource groups and role-based access
- Introduction to Azure CLI and PowerShell for networking

#### **Virtual Network Design and Configuration**

- Designing Azure VNets
- Subnetting strategies
- Address space planning
- VNet peering: regional and global
- Configuring network interfaces
- Using Azure Bastion
- Private endpoints and service endpoints

#### • Day 02

#### **Hybrid Networking with Azure**

- VPN Gateway fundamentals
- Configuring site-to-site VPNs
- ExpressRoute overview and use cases
- ExpressRoute configuration basics
- Point-to-site VPN
- Network virtual appliances
- Hybrid DNS configurations

#### **Network Routing and Traffic Management**

Azure routing concepts

- User-defined routes (UDR)
- Border Gateway Protocol (BGP) in Azure
- Azure Traffic Manager
- Azure Front Door
- Load balancing options
- Application Gateway introduction

#### • Day 03

#### **Network Security Solutions**

- Network Security Groups (NSG)
- Application Security Groups (ASG)
- Azure Firewall
- DDoS protection
- Web Application Firewall (WAF)
- Security Center recommendations
- Zero-trust networking principles

#### **Monitoring and Diagnostics**

- Azure Monitor for networking
- Network Watcher overview
- Connection troubleshoot tool
- Packet capture
- Metrics and alerts
- Network performance monitor
- Log Analytics for networking

#### • Day 04

#### **Identity and Access for Networking**

- Azure AD basics
- Role-Based Access Control (RBAC)
- Managed identities
- Securing network management endpoints
- Conditional Access for admins
- Integrating with on-prem AD
- Privileged Identity Management

### **Advanced Network Design Patterns**

- Hub-spoke architectures
- Multi-region network design
- Global transit network design
- Securing hybrid connections
- High availability networking
- Multi-cloud networking considerations
- Cost optimization for network resources

#### • Day 05

#### **Network Automation and Infrastructure as Code**

- ARM templates for networking
- Bicep basics
- Terraform for Azure networking
- Automating security with policies
- Azure Blueprints
- CI/CD for networking configurations
- Scripting with PowerShell

## **Exam Preparation and Review**

- Exam format and blueprint review
- Key concepts recap
- Practice questions
- Troubleshooting scenarios
- Tips for time management in exams
- Certification registration process

# **Confirmed Sessions**

FROM	то	DURATION	FEES	LOCATION
Aug. 18, 2025	Aug. 22, 2025	5 days	4250.00 \$	UAE - Dubai
Nov. 17, 2025	Nov. 21, 2025	5 days	4250.00 \$	UAE - Dubai

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