AZ-700T00: Designing and Implementing Microsoft Azure Networking Solutions

Elements of this syllabus are subject to change.

About this course

This course teaches Network Engineers how to design, implement, and maintain Azure networking solutions. This course covers the process of designing, implementing, and managing core Azure networking infrastructure, Hybrid Networking connections, load balancing traffic, network routing, private access to Azure services, network security and monitoring. Learn how to design and implement a secure, reliable, network infrastructure in Azure and how to establish hybrid connectivity, routing, private access to Azure services, and monitoring in Azure.

Audience Profile

This course is for Network Engineers looking to specialize in Azure networking solutions. An Azure Network engineer designs and implements core Azure networking infrastructure, hybrid networking connections, load balance traffic, network routing, private access to Azure services, network security and monitoring. The azure network engineer will manage networking solutions for optimal performance, resiliency, scale, and security.

Introduction to Azure Virtual Networks

You'll learn how to design and implement core Azure Networking infrastructure such as virtual networks, public and private IPs, DNS, virtual network peering, routing, and Azure Virtual NAT.

Learning objectives

At the end of this module, you'll be able to:

- Implement virtual networks
- Configure public IP services
- Design and implement name resolution
- Design and implement cross-VNET connectivity
- Implement virtual network routing
- Design and implement an Azure Virtual Network NAT

Design and implement hybrid networking

Design and implement hybrid networking solutions such as Site-to-Site VPN connections, Point-to-Site VPN connections, Azure Virtual WAN, and Virtual WAN hubs.

Learning objectives

At the end of this module, you are able to:

- Design and implement a site-to-site VPN connection
- Design and implement a point-to-site VPN connection
- Design and implement authentication for point-to-site VPN connections
- Design and implement Azure Virtual WAN

Design and implement Azure ExpressRoute

You learn how to design and implement Azure ExpressRoute, ExpressRoute Global Reach, ExpressRoute FastPath.

Learning objectives

At the end of this module, you are able to:

- Design and implement ExpressRoute
- Design and implement ExpressRoute Global Reach
- Design and implement ExpressRoute FastPath
- Troubleshoot ExpressRoute connection issues

Load balance non-HTTP(S) traffic in Azure

You learn the different load balancer options in Azure and how to choose and implement the right Azure solution for non-HTTP(S) traffic.

Learning objectives

At the end of this module, you are able to:

- Identify the features and capabilities of Azure Load Balancer
- Design and implement an Azure Load Balancer
- Implement a Traffic Manager profile

Load balance HTTP(S) traffic in Azure

You learn how to design load balancer solutions for HTTP(S) traffic and how to implement Azure Application Gateway and Azure Front Door.

Learning objectives

At the end of this module, you are able to:

- Design and implement Azure Application Gateway
- Implement Azure Front Door

Design and implement network security

You'll learn to design and implement network security solutions such as Azure DDoS, Network Security Groups, Azure Firewall, and Web Application Firewall.

Learning objectives

At the end of this module, you'll be able to:

- Get network security recommendations with Microsoft Defender for Cloud
- Deploy Azure DDoS Protection by using the Azure portal
- Design and implement network security groups (NSGs)
- Design and implement Azure Firewall
- Design and implement a web application firewall (WAF) on Azure Front Door

Design and implement private access to Azure Services

You'll learn to design and implement private access to Azure Services with Azure Private Link, and virtual network service endpoints.

Learning objectives

At the end of this module, you'll be able to:

- Explain virtual network service endpoints
- Define Private Link Service and private endpoints
- Integrate private endpoints with DNS
- Design and configure private endpoints
- Design and configure access to service endpoints
- Integrate your App Service with Azure virtual networks

Design and implement network monitoring
You learn to design and implement network monitoring solutions such as Azure Monitor and Network watcher.

Learning objectives
At the end of this module, you are able to:

- Configure network health alerts and logging by using Azure Monitor
- Create and configure a Connection Monitor instance
- Configure and use Traffic Analytics
- Configure NSG flow logs
- Enable and configure diagnostic logging
- Configure Azure Network Watcher