Design and Implement Microsoft Azure Network Solutions
(AZ-700T00)

ID AZ-700T00   **Price** 1,890.— €(excl. tax)   **Duration** 3 days

Course Overview

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.

You could consider taking these Applied Skills to emphasize key skills like monitoring and security, which are essential for network engineers. Use them to bridge to practical, real world skills application. You can take the Applied Skills assessment as a focus area or prep for the certification:

- Deploy and configure Azure Monitor (AZ-1004)
- Secure Azure services and workloads with Microsoft Defender for Cloud regulatory compliance controls (SC-5002)

Who should attend

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. Successful Azure Network Engineers start this role with experience in enterprise networking, on-premises or cloud infrastructure and network security.

- Understanding of on-premises virtualization technologies, including: VMs, virtual networking, and virtual hard disks.
- Understanding of network configurations, including TCP/IP, Domain Name System (DNS), virtual private networks (VPNs), firewalls, and encryption technologies.
- Understanding of software defined networking.
- Understanding hybrid network connectivity methods, such as VPN.
- Understanding resilience and disaster recovery, including high availability and restore operations.

This course is part of the following Certifications

Microsoft Certified: Azure Network Engineer Associate (MCANEA)

Prerequisites

- You should have experience with networking concepts, such as IP addressing, Domain Name System (DNS), and routing
- You should have experience with network connectivity methods, such as VPN or WAN
- You should be able to navigate the Azure portal
- You should have experience with the Azure portal and Azure PowerShell

Course Objectives

Learn how to design and implement a secure network infrastructure in Azure and how to establish hybrid connectivity, routing, private access to Azure services, and monitoring in Azure.

Course Content

- Introduction to Azure Virtual Networks
- Design and implement hybrid networking
- Design and implement Azure ExpressRoute
- Load balance non-HTTP(S) traffic in Azure
- Load balance HTTP(S) traffic in Azure
- Design and implement network security
- Design and implement private access to Azure Services
- Design and implement network monitoring

Detailed Course Outline

Introduction to Azure Virtual Networks

In this module, you learn how to design and implement Azure networking services. You learn about virtual networks, public and private IPs, DNS, virtual network peering, routing, and Azure Virtual NAT.

- Introduction
- Explore Azure Virtual Networks
- Configure public IP services
- Exercise: Design and implement a virtual network in Azure
- Design name resolution for your virtual network
- Exercise: Configure domain name servers settings in Azure
- Enable cross-virtual network connectivity with peering
- Exercise: Connect two Azure virtual networks using global virtual network peering
- Implement virtual network traffic routing
- Configure internet access with Azure Virtual NAT
- Summary

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.

- Introduction
- Design and implement Azure VPN Gateway
- Exercise: Create and configure a virtual network gateway
- Connect networks with Site-to-site VPN connections
- Connect devices to networks with Point-to-site VPN connections
- Connect remote resources by using Azure Virtual WANs
- Exercise: Create a Virtual WAN by using the Azure portal
- Create a network virtual appliance (NVA) in a virtual hub
- Summary

Design and implement Azure ExpressRoute

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

- Introduction
- Explore Azure ExpressRoute
- Design an ExpressRoute deployment
- Exercise: Configure an ExpressRoute gateway
- Exercise: Provision an ExpressRoute circuit
- Configure peering for an ExpressRoute deployment
- Design an ExpressRoute circuit for resiliency
- Connect geographically dispersed networks with ExpressRoute global reach
- Improve data path performance between networks with ExpressRoute FastPath
- Troubleshoot ExpressRoute connection issues
- Summary and resources

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.

- Introduction
- Explore load balancing
- Design and implement Azure load balancer using the Azure portal
- Exercise: Create and configure an Azure load balancer
- Explore Azure Traffic Manager
- Exercise: Create a Traffic Manager profile using the Azure portal
- Summary

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.

- Introduction
- Design Azure Application Gateway
- Configure Azure Application Gateway
- Exercise: Deploy Azure Application Gateway
- Design and configure Azure Front Door
- Exercise: Create a Front Door for a highly available web application
- Summary

Design and implement network security

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

- Introduction
- Get network security recommendations with Microsoft Defender for Cloud
- Deploy Azure DDoS Protection by using the Azure portal
- Exercise: Configure DDoS Protection on a virtual network using the Azure portal
- Deploy Network Security Groups by using the Azure portal
- Design and implement Azure Firewall
- Exercise: Deploy and configure Azure Firewall using the

Azure portal
- Secure your networks with Azure Firewall Manager
- Exercise: Secure your Virtual Hub using Azure Firewall Manager
- Implement a Web Application Firewall
- Summary and resources

Design and implement private access to Azure Services

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

- Introduction
- Explain virtual network service endpoints
- Define Private Link Service and private endpoint
- Integrate private endpoint with Domain Name Service
- Exercise: Restrict network access to PaaS resources with virtual network service endpoints using the Azure portal
- Exercise: Create an Azure private endpoint using Azure PowerShell
- Summary

Design and implement network monitoring

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

- Introduction
- Monitor your networks using Azure Monitor
- Exercise: Monitor a load balancer resource using Azure monitor
- Monitor your networks using Azure Network Watcher
- Summary

About Fast Lane

Fast Lane is a global, award-winning specialist in technology and business training as well as consulting services for digital transformation. As the only global partner of the three cloud hyperscalers- Microsoft, AWS and Google- and partner of 30 other leading IT vendors, Fast Lane offers qualification solutions and professional services that can be scaled as needed. More than 4,000 experienced Fast Lane professionals train and advise customers in organizations of all sizes in 90 countries worldwide in the areas of cloud, artificial intelligence, cyber security, software development, wireless and mobility, modern workplace, as well as management and leadership skills, IT and project management.

Fast Lane Services
✓ High End Technology Training
✓ Business & Soft Skill Training
✓ Consulting Services
✓ Managed Training Services
✓ Digital Learning Solutions
✓ Content Development
✓ Remote Labs
✓ Talent Programs
✓ Event Management Services

Training Methods
✓ Classroom Training
✓ Instructor-Led Online Training
✓ FLEX Classroom – Classroom & Online Hybrid
✓ Onsite & Customized Training
✓ E-Learning
✓ Blended & Hybrid Learning
✓ Mobile Learning

Technologies & Solutions
✓ Digital Transformation
✓ Artificial Intelligence
✓ Cloud
✓ Networking
✓ Cyber Security
✓ Wireless & Mobility
✓ Modern Workplace
✓ Data Center

Worldwide Presence
with high-end training centers around the globe

Multiple Awards
from vendors such as AWS, Microsoft, Cisco, Google, NetApp, VMware

Experienced SMEs
with over 19.000 combined certifications

Germany
Fast Lane Institute for Knowledge Transfer GmbH
Tel. +49 40 25334610

info@flane.de / www.flane.de

Austria
ITLS GmbH
(Partner of Fast Lane)
Tel. +43 1 6000 8800

info@itls.at / www.itls.at

Switzerland
Fast Lane Institute for Knowledge Transfer (Switzerland) AG
Tel. +41 44 8325080

info@flane.ch / www.flane.ch