Designing and Implementing Microsoft Azure Networking Solutions – Intensive Training («AZ700»)

This AZ-700 training takes place in an intensive format where you have full day sessions with our MCT experts. After completing the training you still have access to Learning Support for 30 more days to prepare for the exam and ask questions.

Duration: 3 days
Price: 2'550.–
Course documents: Official Microsoft Courseware and Microsoft Learn
Vendor code: AZ-700

Content

The content of this intensive training is derived from the exam «AZ-700: Designing and Implementing Microsoft Azure Networking Solutions (beta)». Start preparing for the course on Microsoft Learn now and use the Learning Support if you have any questions. During the intensive training days with the instructor you will work with the official Microsoft course material (more information under «Methodology & didactics»).

Course outline:

Module 1: Introduction to Azure Virtual Networks
In this module you will learn how to design and implement fundamental Azure Networking resources such as virtual networks, public and private IPs, DNS, virtual network peering, routing, and Azure Virtual NAT.
Lessons

- Explore Azure Virtual Networks
- Configure public IP services
- Design name resolution for your Virtual Network
- Enable Cross-VNet connectivity with peering
- Implement virtual network traffic routing
- Configure internet access with Azure Virtual NAT

Lab : Exercise: design and implement a Virtual Network in Azure
Lab : Exercise: configure DNS settings in Azure
Lab : Exercise: connect two Azure Virtual Networks using global virtual network peering

Module 2: Design and Implement Hybrid Networking
In this module you will learn how to 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.
Lessons

- Design and implement Azure VPN 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
- Create a network virtual appliance (NVA) in a virtual hub

Lab : Exercise: create a Virtual WAN by using Azure Portal
Lab : Exercise: create and configure a virtual network gateway

Module 3: Design and implement Azure ExpressRoute

In this module you will learn how to design and implement Azure ExpressRoute, ExpressRoute Global Reach, ExpressRoute FastPath and ExpressRoute Peering options.

Lessons

- Explore Azure ExpressRoute
- Design an ExpressRoute deployment
- Configure peering for an ExpressRoute deployment
- Connect an ExpressRoute circuit to a VNet
- Connect geographically dispersed networks with ExpressRoute global reach
- Improve data path performance between networks with ExpressRoute FastPath
- Troubleshoot ExpressRoute connection issues

Lab : Exercise: configure an ExpressRoute gateway
Lab : Exercise: provision an ExpressRoute circuit

Module 4: Load balancing non-HTTP(S) traffic in Azure

In this module you will learn how to design and implement load balancing solutions for non-HTTP(S) traffic in Azure with Azure Load balancer and Traffic Manager.

Lessons

- Explore load balancing
- Design and implement Azure load balancer using the Azure portal
- Explore Azure Traffic Manager

Lab : Exercise: create a Traffic Manager profile using the Azure portal
Lab : Exercise: create and configure an Azure load balancer

Module 5: Load balancing HTTP(S) traffic in Azure

In this module you will learn how to design and implement load balancing solutions for HTTP(S) traffic in Azure with Azure Application gateway and Azure Front Door.

Lessons

- Design and configure Azure application gateway and Azure Front Door

Lab : Exercise: deploy Azure application gateway
Lab : Exercise: create a front door for a highly available web application

Module 6: Design and implement network security

In this module you will learn to design and imponent network security solutions such as Azure DDoS, Azure Firewalls, Network Security Groups, and Web Application Firewall.

Lessons

- Secure your virtual networks in the Azure portal
- Deploy Azure DDoS Protection by using the Azure portal
- Deploy Network Security Groups by using the Azure portal
- Design and implement Azure Firewall
- Working with Azure Firewall Manager
- Implement a Web Application Firewall on Azure Front Door

Lab : Exercise: deploy and configure Azure Firewall using the Azure portal
Lab : Exercise: secure your virtual hub using Azure Firewall Manager
Lab : Exercise: configure DDoS Protection on a virtual network using the Azure portal

Module 7: Design and implement private access to Azure Services

In this module you will learn to design and implement private access to Azure Services with Azure Private Link, and virtual network service endpoints.

Lessons

- Define Private Link Service and private endpoint
- Explain virtual network service endpoints
- Integrate Private Link with DNS
- Integrate your App Service with Azure virtual networks

Lab : Exercise: create an Azure private endpoint using Azure PowerShell
Lab : Exercise: restrict network access to PaaS resources with virtual network service endpoints

Module 8: Design and implement network monitoring
In this module you will learn to design and implement network monitoring solutions such as Azure Monitor and Network watcher.
Lessons

- Monitor your networks with Azure Monitor
- Monitor your networks with Azure Network Watcher

Lab : Exercise: Monitor a load balancer resource by using Azure Monitor

Key Learnings

- Designing, implementing and managing hybrid network connections
- Designing and implementing core Azure networking infrastructure
- Designing and implementing routing and load balancing in Azure
- Securing and monitoring networks
- Designing and implementing private access to Azure Services

Methodology & didactics

Digicomp Blended Learning Approach:

- **Pre-Study:** As soon as you have booked the training, you will receive access to our exclusive Learning Support and can individually familiarize yourself with the Microsoft Learn content. We recommend that you go through the content superficially and invest a little more time in those areas where a lot of knowledge is missing.
- **After-Study:** After the training you will have access to the Learning Support for another 30 days and can continue to work on the subject matter as required to ensure a lasting learning experience.
- **Learning Support:** By means of forums, you have the opportunity to ask questions at any time and within a few hours you will receive a solution that will help you get ahead.

Target audience

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.

Requirements

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.

The following courses or equivalent knowledge is required:

- Microsoft Azure Fundamentals (Hands-on) – Intensive Training («A900IC»)

Certification

This intensive training prepares you for:

- **Exam:** «AZ-700: Designing and Implementing Microsoft Azure Networking Solutions (beta)» for the
- **Certification:** «Microsoft Certified: Azure Network Engineer Associate»

Any questions?

We are happy to advise you on +41 44 447 21 21 or info@digicomp.ch. You can find detailed information about dates on www.digicomp.ch/courses-microsoft-technology/microsoft-azure/microsoft-certified-azure-network-engineer-associate/course-designing-and-implementing-microsoft-azure-networking-solutions-intensive-training-az-700