

Designing and Implementing Microsoft Azure Networking Solutions (AZ-700T00)

Duration: 3 days

Audience: Professionnel TI

Who is this training for?

Network engineers who want to specialize in Azure networking solutions.

Training objectives

- Design, implement and manage hybrid network connections.
- Design and implement Azure's core network infrastructure.
- Design and implement routing and load balancing in Azure.
- Secure and monitor networks.
- Design and implement private access to Azure services.

Summary

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

Course outline

Module 1: Introduction to Azure Virtual

Network:

- Explore Azure Virtual
- Networks. Configuring public IP services.
- Design name resolution for your virtual network.

- Enable cross-network connectivity with peering.
- Implement virtual network traffic routing.
- Configure internet access with Azure Virtual NAT.

Module 2: Designing and implementing a hybrid

Network:

- Design and implement the Azure VPN gateway.
- Connect networks with site-to-site VPN connections.
- Connect devices to networks with point-to-site VPN connections.
- Connect remote resources using Azure Virtual WANs.
- Create a Network Virtual Appliance (NVA) in a virtual hub.

Module 3: Designing and Implementing Azure

ExpressRoute:

- Explore Azure ExpressRoute.
- Design an ExpressRoute deployment.
- Configuring 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.

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

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

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

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Designing the Azure Application Gateway.

- Configure the Azure Application Gateway.
- Design and configure the Azure front door.

Module 6: Design and implement network security

- Secure your virtual networks in the Azure portal.
- Deploy Azure DDoS protection using the Azure portal.
- Deploy network security groups using the Azure portal.
- Design and implement Azure Firewall.
- Work with Azure Firewall Manager.
- Implement a web application firewall on Azure Front Door.

Module 7: Designing and Implementing Private Access to Azure

Services:

- Virtual Network Service Endpoints Explained.
- Define the Private Link service and the private endpoint.
- Integrate Private Link with DNS.
- Integrate your App Service with Azure virtual networks.

Module 8: Designing and implementing Network

Monitoring:

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

Approach and methodology

The course emphasizes a technical and hands-on approach that includes structured lectures, Azure-led labs, and analysis of hybrid and secure network design scenarios. Participants design, implement, and troubleshoot real-world Azure network solutions related to connectivity, security, and

monitoring. The approach is aligned with the requirements and objectives of the Azure Certification exam.

Recommendations

- Understanding of network configurations, such as TCP/IP, DNS, VPN, firewall, and encryption technologies.
- Understanding of software-defined networks.
- Understand hybrid network connectivity methods, such as VPN.
- Understand resiliency and disaster recovery, including high availability and recovery operations.
- Have completed Microsoft Azure Training - Administration (MSAZ104) or equivalent knowledge.

Certifications

- Exam: AZ-700 – Designing and Implementing Microsoft Azure Networking Solutions
- Certification Obtained: Microsoft Certified: Azure Network Engineer Associate
- Link to Training: The course prepares directly for the AZ-700 exam.