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

CompuEducación®

Curso (3 days)

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.

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.

Job role: Network Engineer

Preparation for exam: AZ-700

Features: none

Skills gained

Design, implement and manage hybrid network connections
Design and implement core Azure networking infrastructure
Design and implement routing and load balancing in Azure
Secure and monitor networks
Design and implement private access to Azure Services

Prerequisites

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.

Prerequisite courses (or equivalent knowledge and hands-on experience):

This free online training will give you the experience you need to be successful in this course.

Azure Fundamentals part 1: Describe core Azure concepts - Learn | Microsoft Docs

Azure Fundamentals part 2: Describe core Azure services - Learn | Microsoft Docs

Azure Fundamentals part 3: Describe core solutions and management tools on Azure - Learn | Microsoft Docs

Azure Fundamentals part 4: Describe general security and network security features - Learn | Microsoft Docs

AZ-104: Configure and manage virtual networks for Azure administrators - Learn | Microsoft Docs

🕐 Duracion	📑 Examen	🏆 PDU	☑ Requisitos	🌐 Idioma
3 días	No Incluido	No Aplica PDU	Ver Prerrequisitos	Ingles

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
After completing this module, students will be able to:

Implement virtual networks

Configure public IP services

Configure private and public DNS zones

Design and implement cross-VNET connectivity

Implement virtual network routing

Design and implement an Azure Virtual Network NAT

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
After completing this module, students will be able to:

Design and implement a site-to-site VPN connection

Design and implement a point-to-site VPN connection

Design and implement Azure Virtual WAN Resources

Módulo 3: Diseñar e implementar Azure ExpressRoute

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

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
After completing this module, students will be able to:

Design and implement Expressroute

Design and implement Expressroute Direct

Design and implement Expressroute FastPath

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
After completing this module, students will be able to:

Design and implement Azure Laod Balancers

Design and implement Azure Traffic Manager

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 Azure application gateway

Configure Azure application gateway

Design and configure Azure front door

Lab : Exercise: deploy Azure application gateway
Lab : Exercise: create a front door for a highly available web application
After completing this module, students will be able to:

Design and implement Azure Application Gateway

Implement Azure Front Door

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
After completing this module, students will be able to:

Configure and monitor an Azure DDoS protection plan

implement and manage Azure Firewall

Implement network security groups

Implement a web application firewall (WAF) on Azure Front Door

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
After completing this module, students will be able to:

Define the difference between Private Link Service and private endpoints

Design and configure private endpoints

Explain virtual network service endpoints

Design and configure access to service endpoints

Integrate Private Link with DNS

Integrate your App Service with Azure virtual networks

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
After completing this module, students will be 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