

Microsoft Certified: Azure Network Engineer Associate

– Skills Measured

NOTE: The bullets that follow each of the skills measured are intended to illustrate how we're assessing that skill. This list is *not* definitive or exhaustive.

NOTE: Most questions cover features that are General Availability (GA). The exam may contain questions on Preview features, if those features are commonly used.

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

Design, Implement, and Manage Hybrid Networking (10–15%)

Design, implement, and manage a site-to-site VPN connection

- design a site-to-site VPN connection for high availability
- select an appropriate virtual network (VNet) gateway SKU
- identify when to use policy-based VPN versus route-based VPN
- create and configure a local network gateway
- create and configure an IPsec/IKE policy
- create and configure a virtual network gateway
- diagnose and resolve VPN gateway connectivity issues

Design, implement, and manage a point-to-site VPN connection

- select an appropriate virtual network gateway SKU
- plan and configure RADIUS authentication
- plan and configure certificate-based authentication
- plan and configure OpenVPN authentication
- plan and configure Azure Active Directory (Azure AD) authentication
- implement a VPN client configuration file
- diagnose and resolve client-side and authentication issues

Design, implement, and manage Azure ExpressRoute

- choose between provider and direct model (ExpressRoute Direct)
- design and implement Azure cross-region connectivity between multiple ExpressRoute locations
- select an appropriate ExpressRoute SKU and tier

- design and implement ExpressRoute Global Reach
- design and implement ExpressRoute FastPath
- choose between private peering only, Microsoft peering only, or both
- configure private peering
- configure Microsoft peering
- create and configure an ExpressRoute gateway
- connect a virtual network to an ExpressRoute circuit
- recommend a route advertisement configuration
- configure encryption over ExpressRoute
- implement Bidirectional Forwarding Detection
- diagnose and resolve ExpressRoute connection issues

Design and Implement Core Networking Infrastructure (20–25%)

Design and implement private IP addressing for VNETs

- create a VNet
- plan and configure subnetting for services, including VNet gateways, private endpoints, firewalls, application gateways, and VNet-integrated platform services
- plan and configure subnet delegation

Design and implement name resolution

- design public DNS zones
- design private DNS zones
- design name resolution inside a VNet
- configure a public or private DNS zone
- link a private DNS zone to a VNet

Design and implement cross-VNet connectivity

- design service chaining, including gateway transit
- design VPN connectivity between VNETs
- implement VNet peering

Design and implement an Azure Virtual WAN architecture

- design an Azure Virtual WAN architecture, including selecting SKUs and services
- connect a VNet gateway to Azure Virtual WAN
- create a hub in Virtual WAN
- create a network virtual appliance (NVA) in a virtual hub
- configure virtual hub routing
- create a connection unit

Design and Implement Routing (25–30%)

Design, implement, and manage VNet routing

- design and implement user-defined routes (UDRs)
- associate a route table with a subnet
- configure forced tunneling
- diagnose and resolve routing issues

Design and implement an Azure Load Balancer

- choose an Azure Load Balancer SKU (Basic versus Standard)
- choose between public and internal
- create and configure an Azure Load Balancer (including cross-region)
- implement a load balancing rule
- create and configure inbound NAT rules
- create explicit outbound rules for a load balancer

Design and implement Azure Application Gateway

- recommend Azure Application Gateway deployment options
- choose between manual and autoscale
- create a back-end pool
- configure health probes
- configure listeners
- configure routing rules
- configure HTTP settings
- configure Transport Layer Security (TLS)
- configure rewrite policies

Implement Azure Front Door

- choose an Azure Front Door SKU
- configure health probes, including customization of HTTP response codes
- configure SSL termination and end-to-end SSL encryption
- configure multisite listeners
- configure back-end targets
- configure routing rules, including redirection rules

Implement an Azure Traffic Manager profile

- configure a routing method (mode)
- configure endpoints

- create HTTP settings

Design and implement an Azure Virtual Network NAT

- choose when to use a Virtual Network NAT
- allocate public IP or public IP prefixes for a NAT gateway
- associate a Virtual Network NAT with a subnet

Secure and Monitor Networks (15–20%)

Design, implement, and manage an Azure Firewall deployment

- design an Azure Firewall deployment
- create and implement an Azure Firewall deployment
- configure Azure Firewall rules
- create and implement Azure Firewall Manager policies
- create a secure hub by deploying Azure Firewall inside an Azure Virtual WAN hub
- integrate an Azure Virtual WAN hub with a third-party NVA

Implement and manage network security groups (NSGs)

- create an NSG
- associate an NSG to a resource
- create an application security group (ASG)
- associate an ASG to a NIC
- create and configure NSG rules
- interpret NSG flow logs
- validate NSG flow rules
- verify IP flow

Implement a Web Application Firewall (WAF) deployment

- configure detection or prevention mode
- configure rule sets for Azure Front Door, including Microsoft managed and user defined
- configure rule sets for Application Gateway, including Microsoft managed and user defined
- implement a WAF policy
- associate a WAF policy

Monitor networks

- 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

Design and Implement Private Access to Azure Services (10–15%)

Design and implement Azure Private Link service and Azure Private Endpoint

- create a Private Link service
- plan private endpoints
- create private endpoints
- configure access to private endpoints
- integrate Private Link with DNS
- integrate a Private Link service with on-premises clients

Design and implement service endpoints

- create service endpoints
- configure service endpoint policies
- configure service tags
- configure access to service endpoints

Configure VNet integration for dedicated platform as a service (PaaS) services

- configure App Service for regional VNet integration
- configure Azure Kubernetes Service (AKS) for regional VNet integration
- configure clients to access App Service Environment