

AZ-700: Azure Network Engineer

Design and troubleshoot Azure networks that connect, protect and deliver applications — and prepare for the AZ-700 exam.

DURATION

3 days · 24 hours

LEVEL

Intermediate

CURRICULUM

10 modules · 9 labs

DELIVERYLive online, Onsite,
Corporate

Course overview

Networking is where many Azure projects stall: a private endpoint that will not resolve, a route that sends traffic the wrong way, or a hybrid link that works for one subnet and not another. This three-day course is built for network engineers who need to design Azure networks properly and fix them quickly when something goes wrong.

Day one covers core infrastructure — IP planning, virtual networks, peering, routing with user-defined routes and route servers, and name resolution with Azure DNS and the DNS Private Resolver. Day two moves to hybrid connectivity: site-to-site and point-to-site VPN, ExpressRoute circuits and private peering, and Azure Virtual WAN for larger topologies.

Day three focuses on application delivery and security. You configure Azure Load Balancer, Application Gateway, Front Door and Traffic Manager, then secure the environment with network security groups, Azure Firewall, Web Application Firewall policies and Private Link. A final troubleshooting block uses Network Watcher to diagnose broken paths.

Labs are designed around one evolving hub-and-spoke network, so you see how each change affects routing, DNS and security across the whole environment rather than in isolation.

The course is aligned to the AZ-700 exam. Microsoft updates exam outlines periodically, so check the current skills measured on Microsoft Learn before booking.

Highlights

- 24 hours of live, lab-heavy sessions
- Builds a hub-and-spoke network across the three days
- VPN, ExpressRoute and Virtual WAN design covered in depth
- Private Link, DNS and Azure Firewall labs
- Troubleshooting drills with Network Watcher

What's included

- One hub-and-spoke network built and extended through the course
- Routing, DNS and private endpoint troubleshooting drills
- VPN and ExpressRoute design workshops
- Load balancing decision guide for all four services
- Azure Firewall and WAF policy labs
- Exam strategy session with practice questions
- 30 days of post-training doubt support

Who this course is for

Who should attend

- Network engineers extending on-premises networks into Azure
- Azure administrators responsible for connectivity
- Cloud architects who design network topologies
- Security engineers working with network controls

Prerequisites

- Solid networking fundamentals: IP subnetting, routing, DNS and VPNs
- Hands-on Azure experience (AZ-104 level recommended)
- Basic familiarity with PowerShell or Azure CLI

Detailed curriculum — 3 days, 24 hours, 10 modules, 9 hands-on labs

Day 1 Core Networking Infrastructure

8 hours

1.1 Virtual networks and IP planning

- Address space planning and IPv6 support
- Public IP addresses and prefixes
- Subnets and subnet delegation
- NAT Gateway for outbound traffic

LAB Plan and deploy a hub-and-spoke address scheme · 40 min

1.2 Peering and routing

- VNet peering and gateway transit
- Azure Route Server and BGP
- System routes and user-defined routes
- Forced tunnelling

LAB Route spoke traffic through a hub appliance with UDRs · 50 min

1.3 Name resolution

- Azure DNS public zones
- Azure DNS Private Resolver
- Private DNS zones and auto-registration
- Hybrid DNS forwarding

LAB Configure hybrid DNS with the Private Resolver · 45 min

Day 2 Hybrid Connectivity

8 hours

2.1 VPN connectivity

- VPN Gateway SKUs and generations
- Active-active gateways and BGP
- Site-to-site with policy- and route-based VPN
- Point-to-site with Entra ID authentication

LAB Build a site-to-site VPN between two simulated sites · 55 min

2.2 ExpressRoute

- Circuits, peering locations and providers
- ExpressRoute Global Reach and FastPath
- Private and Microsoft peering
- Resilience and VPN failover design

LAB Design workshop: resilient ExpressRoute for two regions · 40 min

2.3 Azure Virtual WAN

- Virtual hubs and routing
- When Virtual WAN beats a custom hub
- Secured virtual hubs

LAB Connect spokes and branches through Virtual WAN · 45 min

Day 3 Application Delivery, Security and Exam Readiness

8 hours

3.1 Load balancing and delivery

- Azure Load Balancer (internal and public)
- Azure Front Door
- Choosing the right service
- Application Gateway and path-based routing
- Traffic Manager

LAB Publish an application through Application Gateway with WAF · 50 min

3.2 Network security and private access

- NSGs, ASGs and flow logs
- Private Link and private endpoints
- Azure Firewall and Firewall Manager
- Service endpoints and policies

LAB Secure PaaS access with private endpoints and Azure Firewall · 45 min

3.3 Monitoring and troubleshooting

- Network Watcher tools
- Effective routes and IP flow verify
- Connection monitor

LAB Troubleshoot three deliberately broken network paths · 30 min

3.4 Exam readiness

- Exam format and design scenarios
- Practice questions with review

Skills and tools

Skills you will build

Azure Virtual Network

VNet peering

User-defined routes

Azure Route Server

Azure DNS

DNS Private Resolver

VPN Gateway

ExpressRoute

Virtual WAN

Load Balancer

Application Gateway

Front Door

Azure Firewall

Private Link

Network Watcher

Tools used in class

Azure portal

Azure CLI

Azure PowerShell

Network Watcher

Azure Firewall Manager

Bicep

Certification exam

This course is aligned to the exam below and prepares you for it. The exam itself is booked and taken with the vendor.

Exam	Microsoft Certified: Azure Network Engineer Associate
Exam code	AZ-700
Duration	100 minutes
Passing score	700 / 1000 (scaled)
Format	Multiple choice, Multiple response, Drag and drop, Case study
Delivery	Online proctored, Test centre
Validity	1 year (free online renewal assessment)
Official page	https://learn.microsoft.com/credentials/certifications/exams/az-700/

Exam skill areas covered

Design and implement Azure networking infrastructures
Design and implement Azure security solutions

Exam details are pending verification. Confirm the current exam code, format and fee on the official vendor page before booking.

Frequently asked questions

Do I need AZ-104 before AZ-700?

It is not mandatory, but Azure administration experience makes the course much easier. Strong on-premises networking skills are the more important prerequisite.

Will I configure ExpressRoute in the labs?

ExpressRoute requires a provider circuit, so it is covered through design workshops and portal walkthroughs; VPN and Virtual WAN are fully hands-on.

How do I book the AZ-700 exam?

You schedule it through Microsoft Learn, either online-proctored or at a test centre. We walk through the process in the final session.

What happens if Microsoft updates the AZ-700 exam?

We map the curriculum to the current published skills outline and revise it when Microsoft changes the exam. Always check the latest outline on Microsoft Learn before booking.

Can you run a private batch for our team?

Yes. We run private online or onsite batches for corporate teams, and we can weight the labs towards your hybrid network design. Request a corporate quote with your team size and preferred dates.

Book a batch or talk to an advisor

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