

# Microsoft Certified: Azure Network Engineer Associate (AZ-700)

This Designing and Implementing Microsoft Azure Networking Solutions (AZ-700) training covers how to plan, implement, and manage Azure networking solutions to optimize performance, resilience, scale, and security. This AZ-700 exam prep shows you how to take advantage of the synergy and seamless integration that's possible within the Azure ecosystem. Learning virtual network design and advanced security implementations is valuable at any point in your career, but for DevOps administrators who work with Microsoft technology, an Azure Network Engineer Associate certification is especially valuable.

[CBT Nuggets course material](#) →

## WEEK 1

### Understand the Azure Resource Manager Model 152 min.

Why Every "as a Service" Matters to Networkers	15
Azure Regions and Availability Zones	8
The Azure Resource Manager Model	12
Explore Entra ID (formerly Azure AD)	8
Review Your Bill (and Set Up Alerts)	3
CHALLENGE	2

### Empower Yourself with Powershell

Introducing Powershell (and the AZ CLI)	3
Prep Your Environment for Powershell and AZ CLI	15
Cmdlets and Parameters	8
Classes and the Pipeline	14
Using Powershell with Azure	11
Understand the AZ CLI Syntax	8
CHALLENGE	2

### Grasp IaC with ARM Templates

Where Infrastructure as Code Comes From	2
The Point of Infrastructure as Code	13
Construct a Template from Scratch	16
Make ARM Templates Dynamic with Parameters	12

## WEEK 2

151 min.

Make Templates Even More Dynamic with Variables	5
CHALLENGE	1

## Design and Implement VNet Resources

Introducing Virtual Network Designs	1
Plan for VNets in Azure	12
Deploy an Azure VNet and Subnets	15
Naming Your Resources	3
Reserve Public IPs	12
Bring Your Own Custom Public IP Address Range	5
Associate a Public IP with a vNIC	6
CHALLENGE	3

## Plan and Configure DNS in Azure

Introducing Azure DNS Implementations	1
A Brief Refresher on DNS Records	4
Azure Default Private DNS	14
Build Your Own Private DNS	15
Azure Private DNS Zones	7
Azure Public DNS Zones	7
CHALLENGE	2

## Enable Connectivity Between VNets

Introducing VNet-to-VNet Connectivity	1
Peering vs VPNs	13
Implement VNet Peering	12
VPNs: Deploy the VNet Gateway	12

### WEEK 3

158 min.

Create and Test the VPN Connection	8
CHALLENGE	1

## Implement Site-to-Site VPNs

Introducing Site-to-Site VPNs	4
Understand S2S Architectures	9
Understand IPSec Proposals	16
Deploy a VNet Gateway and Local Net Gateway	15
Set Up the Connection in Azure	6
Set Up the Connection on a UDM Pro	4
Deploy and Test the Tunnel	6
CHALLENGE	2

## Design and Implement Point-to-Site VPNs

Introducing Azure Point-to-Site VPN Fundamentals	2
Understand Point-to-Site Designs and Options	16
Prep Your Computer for Azure Certificate Authentication	14
Prepare for Entra ID Authentication	7
Prepare for RADIUS Authentication	7
Deploy the Point-to-Site Config in Azure	8
Configure the VPN Client on the MacOS Machine	10
CHALLENGE	1

## Understand ExpressRoute Designs and Practices

Introducing ExpressRoute	2
ExpressRoute Connectivity Models	20

### WEEK 4

154 min.

Routing Requirements	9
Circuit SKUs, Tiers, and Pricing	8
Create a Virtual Network Gateway	1

Create an ExpressRoute Circuit	5
Encryption Considerations	3
BFD and QoS Considerations	4
CHALLENGE	3

### Implement Advanced Routing Techniques

Introducing Routing for Various Scenarios	1
Understand Azure Route Server Concepts	9
Deploy Azure Route Server	10
Understand Forced Tunneling Concepts	3
Configure Forced Tunneling	6
Understand Transit Gateway Concepts	4
Implement Transit Gateways	11
CHALLENGE	2

### Implement Azure Virtual WAN

Introducing Azure Virtual WAN	1
Understanding Azure Virtual WAN	13
Deploy a Virtual WAN and Hub	19
Deploy a VPN Site	7
Create a VPN Connection	7
Connect an Azure Virtual Network	4
CHALLENGE	2

### Configure Connectivity for Private VMs

Introducing Private VM Connectivity	1
Understand NAT Gateways	11
Implement NAT Gateway	4
Understand Service Endpoints	6

## WEEK 5

151 min.

Implement Service Endpoints	8
Understand Private Endpoints	6
Implement Private Endpoints	13
CHALLENGE	2

### Implement Load Balancers

Introducing VNet Load Balancers	1
Azure Load Balancer Fundamentals	10
Load Balancer SKUs	8
Prep a Lab for Load Balancing	7
Deploy a Load Balancer	15
Monitor Your Load Balancer	5
CHALLENGE	2

### Implement Application Gateway

Introducing Application Gateway	1
Understand Application Gateway	10
Compare App Gateway SKUs	5
Prep a Lab for Application Gateway	8
Deploy Application Gateway	14
Validate the Application Gateway Implementation	8
CHALLENGE	2

### Implement Azure Front Door

Introducing Azure Front Door	1
Understanding Azure Front Door	12
Prep Web Apps with App Services	13

## WEEK 6

151 min.

Begin Implementing Front Door (Routes)	10
Finish Implementing Front Door (Security Policy)	4
Secure App Services with Private Links	5
CHALLENGE	4

### Implement Azure Traffic Manager

Introducing Azure Traffic Manager	2
Understand How it Works	6
Evaluate Traffic Manager Policies	16
Deploy VM Scale Sets and Load Balancers	9
Implement and Test Traffic Manager	12
CHALLENGE	2

### Monitor and Secure Networks in Azure

Introducing Azure Network Watcher	1
Explore Azure Network Watcher	11
Connection Monitor vs Connection Troubleshoot	10
IP Flow Verify vs NSG Diagnostics	4
Next Hop and Effective Security Rules	3
VPN Troubleshoot	2
Packet Capture	6
Flow Logs and Traffic Analytics	9
CHALLENGE	3

### Implement Azure Extended Network

Introducing Azure Extended Network	1
Understanding Extended Network	9
Prep Your Azure Networks	18

Deploy the S2S Tunnel	4
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## WEEK 7

158 min.

Prep the On-Premises Network	11
Prep Windows Admin Center	6
Deploy the Extended Network	9
CHALLENGE	5

### Implement Security Solutions in Virtual Networks

Introducing Security Solutions for Virtual Networks	2
Understand Microsoft DDoS Protection Services	12
Implement Microsoft DDoS Protection Services	7
Understand Microsoft Defender for Cloud	17
Understand Network Security Groups	7
Implement Network Security Groups	1
CHALLENGE	3

### Implement Azure Firewall

Introducing Azure Firewall	1
Understand Azure Firewall	11
Deploy Azure Firewall	10
Create a Route Table	8
Create a Network Policy	4
Create an Application Policy	5
Create a DNAT Rule	4
CHALLENGE	2

## Implement Web Application Firewall

Introducing Web Application Firewall	1
Understand Web Application Firewall	7
Understand Rule Sets	11
Customize Managed Rules	14

### WEEK 8

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**14 min.**

Policy Settings and Custom Rules	10
Create an Association	2
CHALLENGE	2