

KOENIG SOLUTIONS · COURSE OUTLINE

Bootcamp for Azure Administration

Learn to administer Azure identity, networking, storage, compute and monitoring, and to script deployments with tools such as PowerShell and Bicep.

15 Days

DURATION

23

MODULES

103

TOPICS

15 days Regular Track; 8 days Fast Track

COURSE OVERVIEW

This course covers core cloud and Azure concepts before moving into Azure management and governance, including cost control, policy and resource deployment tools. It then addresses administering identity, subscriptions, role-based access control, resources, virtual networking, intersite connectivity and network traffic, followed by storage, virtual machines, PaaS compute options, data protection and monitoring. Networking is extended with virtual network design, hybrid connectivity, ExpressRoute, load balancing, network security, private access to Azure services and network monitoring. The course closes with administering Azure through command-line and scripting tools such as PowerShell, CLI, ARM, Bicep and Terraform.

WHO THIS COURSE IS FOR

Azure Administrators

Network Administrators

Cloud Administrators

System Administrators

Infrastructure Engineers

LEARNING OBJECTIVES

- Describe core cloud concepts and Azure architectural components
- Configure Azure Active Directory users and groups
- Apply Azure Policy and role-based access control for governance
- Configure virtual networks, network groups and Azure Firewall
- Implement hybrid connectivity using VPN Gateway and ExpressRoute
- Configure load balancers and application gateways for traffic
- Configure storage accounts, blob storage and Azure Files
- Administer Azure resources using PowerShell, CLI, ARM and Bicep

23 Modules, 103 Topics

01

Microsoft Azure Fundamentals: Describe Cloud Concepts

TOPICS

- **Module 1:** Describe cloud computing
- **Module 2:** Describe the benefits of using cloud services
- **Module 3:** Describe cloud service types

02

Azure Fundamentals: Describe Azure Architecture and Services

TOPICS

- **Module 1:** Describe the core architectural components of Azure
- **Module 2:** Describe Azure compute and networking services
- **Module 3:** Describe Azure storage services
- **Module 4:** Describe Azure identity, access, and security

03

Azure Fundamentals: Describe Azure Management and Governance

TOPICS

- **Module 1:** Describe cost management in Azure
- **Module 2:** Describe features and tools in Azure for governance and compliance
- **Module 3:** Describe features and tools for managing and deploying Azure resources
- **Module 4:** Describe monitoring tools in Azure

04

Administer Identity

TOPICS

Module 1: Configure Azure Active Directory · **Module 2:** Configure User and Group Accounts

05

Administer Governance and Compliance

TOPICS

Module 1: Configure Subscriptions · **Module 2:** Configure Azure Policy · **Module 3:** Configure Role Based Access Control

06

Administer Azure Resources

TOPICS

- **Module 1:** Configure Azure Resources with Tools
- **Module 2:** Configure Resources with ARM Templates

07

Administer Virtual Networking

TOPICS

Module 1: Configure Virtual Networks · **Module 2:** Configure Network Groups · **Module 3:** Configure Azure Firewall · **Module 4:** Configure Network Watcher

08

Administer Intersite Connectivity

TOPICS

- **Module 1:** Configure VNet Peering
- **Module 2:** Configure VPN Gateway
- **Module 3:** Configure ExpressRoute and Virtual WAN

09

Administer Network Traffic

TOPICS

- **Module 1:** Configure Network Routing and Endpoints
- **Module 2:** Configure Azure Load Balancer
- **Module 3:** Configure Azure Application Gateway

10

Administer Azure Storage

TOPICS

Module 1: Configure Storage Accounts · **Module 2:** Configure Blob Storage · **Module 3:** Configure Storage Security · **Module 4:** Configure Azure Files and File Sync

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Administer Azure Virtual Machines

TOPICS

- **Module 1:** Configure Virtual Machines
- **Module 2:** Configure Virtual Machine Availability
- **Module 3:** Configure Virtual Machine Extensions

12

Administer PaaS Compute Options

TOPICS

Module 1: Configure Azure App Service Plans · **Module 2:** Configure Azure App Service · **Module 3:** Configure Azure Container Instances · **Module 4:** Configure Azure Kubernetes

13

Administer Data Protection

TOPICS

Module 1: Configure File and Folder Backups · **Module 2:** Configure Virtual Machine Backups

14

Administer Monitoring

TOPICS

Module 1: Configure Azure Monitor · **Module 2:** Configure Azure Alerts · **Module 3:** Configure Log Analytics

15

Introduction to Azure Virtual Networks

TOPICS

- Explore Azure Virtual Networks
- Configure public IP services
- **Exercise:** design and implement a Virtual Network in Azure
- Design name resolution for your Virtual Network
- **Exercise:** configure DNS settings in Azure
- Enable Cross-VNet connectivity with peering
- **Exercise:** connect two Azure Virtual Networks using global virtual network peering
- Implement virtual network traffic routing
- Configure internet access with Azure Virtual NAT

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Design and Implement Hybrid Networking

TOPICS

- Design and implement Azure VPN Gateway
- **Exercise:** create and configure a virtual network 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
- **Exercise:** create a Virtual WAN by using Azure Portal
- Create a network virtual appliance (NVA) in a virtual hub

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Design and Implement Azure ExpressRoute

TOPICS

- Explore Azure ExpressRoute
- Design an ExpressRoute deployment
- **Exercise:** configure an ExpressRoute gateway
- **Exercise:** provision an ExpressRoute circuit
- 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

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Load Balance non-HTTP(S) Traffic in Azure

TOPICS

- Explore load balancing
- Design and implement Azure load balancer using the Azure portal
- **Exercise:** create and configure an Azure load balancer
- Explore Azure Traffic Manager
- **Exercise:** create a Traffic Manager profile using the Azure portal

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Load Balance HTTP(S) Traffic in Azure

TOPICS

- Design Azure application gateway
- Configure Azure application gateway
- **Exercise:** deploy Azure application gateway
- Design and configure Azure front door
- **Exercise:** create a front door for a highly available web application

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Design and Implement Network Security

TOPICS

- Secure your virtual networks in the Azure portal
- Deploy Azure DDoS Protection by using the Azure portal
- **Exercise:** configure DDoS Protection on a virtual network using the Azure portal
- Deploy Network Security Groups by using the Azure portal
- Design and implement Azure Firewall
- **Exercise:** deploy and configure Azure Firewall using the Azure portal
- Working with Azure Firewall Manager
- **Exercise:** secure your virtual hub using Azure Firewall Manager
- Implement a Web Application Firewall on Azure Front Door

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Design and Implement Private Access to Azure Services

TOPICS

- Explain virtual network service endpoints
- Define Private Link Service and private endpoint
- Integrate Private Link with DNS
- **Exercise:** restrict network access to PaaS resources with virtual network service endpoints
- **Exercise:** create an Azure private endpoint using Azure PowerShell
- Integrate your App Service with Azure virtual networks

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Design and Implement Network Monitoring

TOPICS

- Monitor your networks with Azure Monitor
- **Exercise:** Monitor a load balancer resource by using Azure Monitor
- Monitor your networks with Azure Network Watcher

23

Azure Administration with Command and Script

TOPICS

Azure PowerShell · Azure CLI · Azure ARM · Azure Bicep · Terraform · IAC (Infrastructure as a code)

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

Learn the Way That Suits You

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Live Online Classes (ILO)

Fly-Me-A-Trainer (FMAT)

Flexi (Self-Paced)

1-on-1 Training

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