



Azure Administrator Learning Pathway (1/2)

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Getting started

Azure Skills Navigator



System Administrator

Looking to develop your Microsoft Azure knowledge and skills? You're on the right path!

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This Azure learning journey is designed for two different types of explorers:

Systems administrators just beginning their careers in the cloud. These IT professionals manage the configuration, performance, and security of Windows Server environments on-premises or operate, protect, and monitor cloud workloads. This includes IT Managers looking to enhance their existing on-premises systems with the hybrid benefits of cloud capabilities.

Students who are just getting started learning about Azure

This guide maps out your itinerary for deepening your Azure knowledge, drawing on a wide array of Microsoft resources. You'll begin by diving into the fundamental concepts of cloud computing and Azure core infrastructure services, then move on to management, monitoring, security, and compliance. These modules are designed to be completed in order, step by step, as outlined in this guide

Microsoft Resources:

- Build your Tech resilience
- Azure Fundamentals
- Virtualization - Sharing cloud resources
- Linux on Azure
- Microsoft Azure Blog
- Microsoft Trust Centre | Compliance
- Azure Community Support
- Threat Modeling Security Fundamentals
- Intro to data protection and privacy regulations
- Get started with Azure Advisor
- Automate administrative tasks by using PowerShell

Role based certification Azure Administrator

AZ-104: Microsoft Azure Administrator

Skills Measured:

- Manage Azure identities and governance (15-20%)
- Implement and manage storage (15-20%)
- Deploy and manage Azure compute resources (20-25%)
- Configure and manage virtual networking (20-25%)
- Monitor and back up Azure resources (10-15%)

Exam Study
Guide

Course Page

Sample
Questions

Exam Page

Azure AD
Documentation

Practice
Assessment

Prerequisites for Azure Administrators

Manage Azure identities and governance

- Configure Azure Active Directory
- Configure user and group accounts
- Configure subscriptions
- Configure Azure policy
- Configure role-based access control
- Create Azure users and groups in Azure Active Directory
- Secure your Azure resources with Azure role-based access control (Azure RBAC)
- Allow users to reset their password with Azure Active Directory self-service password reset

Implement and manage storage

- Configure storage accounts
- Configure blob storage
- Configure storage security
- Configure Azure files and Azure File Sync
- Configure storage with tools
- Create an Azure Storage account
- Control access to Azure Storage with shared access signatures
- Upload, download, and manage data with Azure Storage Explorer

Deploy and manage Azure compute resources

- Configure virtual machines
- Configure virtual machine availability
- Configure virtual machine extensions
- Configure app service plans
- Configure Azure App Services
- Configure Azure Container Instances
- Configure Azure Kubernetes Service
- Manage virtual machines with the Azure CLI
- Create a Windows virtual machine in Azure
- Host a web application with Azure App Service
- Protect your virtual machine settings with Azure Automation State Configuration

Configure and manage virtual networking

- Configure virtual networks
- Configure network security groups
- Configure Azure Firewall
- Configure Azure DNS
- Configure virtual network peering
- Configure VPN Gateway
- Configure ExpressRoute and Virtual WAN
- Configure network routing and endpoints

- Configure Azure Load Balancer
- Configure Azure Application Gateway
- Design an IP addressing schema for your Azure deployment
- Distribute your services across Azure virtual networks and integrate them by using virtual network peering
- Host your domain on Azure DNS
- Manage and control traffic flow in your Azure deployment with routes
- Improve application scalability and resiliency by using Azure Load Balancer

Monitor and back up Azure resources

- Configure file and folder backups
- Configure virtual machine backups
- Configure Azure Monitor
- Configure Azure alerts
- Configure Log Analytics
- Configure Network Watcher
- Improve incident response with alerting on Azure
- Analyze your Azure infrastructure by using Azure Monitor logs
- Monitor performance of virtual machines by using Azure Monitor VM Insights



Azure Administrator Learning Pathway (2/2)

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Supporting Study | Doing More

Managing Azure Active Directory (Azure AD)

- What is Azure Active Directory?
- Compare AD to Azure AD
- Azure AD Objects
- Creating & Managing Users
- Setting up self service password resets
- What is Azure AD join?

Role Based Access Control (RBAC)

- What is Azure RBAC? | Built in RBAC roles
- RBAC – add/remove assignments

Subscriptions & Governance

- Principles of resource groups
- Get started with the Azure Enterprise portal
- Management/Resource Groups
- What is Azure Policy?

Storage:

- Azure Storage Overview | Storage Services
- Replication – Azure Storage Redundancy
- Azure Key Vault – Customer Managed Keys
- Azure Blob Storage | Files vs Blobs
- What is Azure Import/Export?

Virtual Machines:

- Windows VM in Azure Documentation
- Availability options for VMs in Azure
- Regions and Availability Zones in Azure
- Use VM Images from Azure Marketplace
- Define Azure Resource Manager templates
- Using Custom Script Extensions
- Azure Disk Encryption for Windows VMs

Containers:

- Container Instances Documentation
- YAML Files | Docker
- AKS Kubernetes – 50 days zero to hero

Virtual Networking:

- Virtual Network Documentation
- Manage DNS Records
- What is Azure Load Balancer?

Microsoft Learn

- Best practices for Azure migration
- Prepare to migrate VMware workloads to Azure by deploying Azure VMware Solution
- Improve your reliability with modern operations practices
- Secure your cloud applications in Azure
- Managing bulk Azure Reserved Instances
- Protect identity and access with Azure Active Directory
- Implement Windows Server IaaS VM Identity
- Implement Windows Server IaaS VM Security
- Secure your cloud data
- Architect secure infrastructure in Azure
- Azure security best practices and patterns
- Deploy and configure Windows Server IaaS VM
- Implement a Windows Server hybrid cloud infrastructure
- Implement Windows Server hybrid cloud management, monitoring, and security

Azure Active Directory | Identity

- Azure Active Directory Documentation
- Azure AD Domain Services Documentation
- External Identities Documentation
- Azure Information Protection
- Implement Microsoft Identity
- Describe the identity and access management capabilities of Microsoft 365
- Protect identity and access with Azure Active Directory
- Manage identity and access in Azure Active Directory
- Manage identities and governance for Azure administrators
- Monitor and report on security events in Azure AD
- Monitor and maintain Azure Active Directory
- Implement hybrid identity with Windows Server
- Deploy and manage Azure IaaS Active Directory domain controllers in Azure



Learn Live

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Azure Core IaaS Study Hall

Learn about highly secure, available, and scalable cloud services. Modernize your IT with an enterprise-grade cloud infrastructure and migrate your apps with confidence. Running through to June 2023.

On demand library: Watch all previous shows on demand [HERE](#) including:

- Hybrid Infrastructure Study Hall
- FastTrack for Azure Season 1
- Azure Hybrid Cloud Study Hall
- Run VMware workloads on Azure VMware Solution

Backup and Disaster Recovery

Learn why centrally managed backup for on-premises and cloud data is best for reducing the management burden and costs of a BDR infrastructure while optimizing the speed and reliability of backup and data recovery operations. Then dive into the Azure backup architecture and learn how to design your backup and recovery solution.

Azure Skills Navigator

Backup and Disaster Recovery

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Microsoft Learn Collections

Azure VMware Solution

Azure Virtual Desktop

Azure Compute

Azure Arc

Azure Storage

Azure Monitor

BCDR

Automanage

Modernise your Infrastructure

Azure Infrastructure Official Collection

Azure Connected Learning Experience

Microsoft Azure Connected Learning Experience (CLX) is an experiential training program that sets a trajectory for aspiring learners and working professionals to be Azure experts. The CLX program offers a personalized journey that aims to optimize learning experience while maximizing return on time invested.

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