

EXAM AZ-802: ADMINISTERING WINDOWS SERVER

Course description

AZ-802 is responsible for deploying, implementing, managing, and troubleshooting Windows Server as a workload in on-premises, cloud, or hybrid environments.

- Course level: Intermediate
- Duration: 4 days

Activities

This course includes presentations, demonstrations, and Hands-on labs.

Course objectives

In this course, you will learn to:

- Deploy and manage Active Directory Domain Services (AD DS) across hybrid and cloud networks.
- Administer Windows Server workloads centrally using Azure Arc, PowerShell, and Windows Admin Center.
- Manage virtual machines and containers through Hyper-V virtualization and cloud environments.
- Implement hybrid networking infrastructure including advanced name resolution and IP addressing solutions.
- Configure storage and file services including Storage Spaces Direct, iSCSI, and file replication.

- Secure server infrastructure using Microsoft Defender for cloud, OSConfig baselines, and local security policies.
- Monitor and troubleshoot workloads using Windows Server native tools and Azure Monitor insights.

Intended audience

The AZ-802: Administering Windows Server training is engineered for IT professionals who operate at the intersection of traditional on-premises infrastructure and modern cloud ecosystem services. It targets individuals responsible for managing identity, compute, networking, and storage within a hybrid enterprise framework.

Prerequisites for the AZ-802 Exam Course

- Strong foundational knowledge of Windows Server core operating system concepts.
- Hands-on experience managing Active Directory Domain Services (AD DS) environments.
- Practical familiarity with on-premises networking, storage, and virtualization technologies.
- Basic understanding of Microsoft Azure cloud concepts and hybrid integration.

Course outline

Module 01: Deploy and manage AD DS

Deploy and manage AD DS domain controllers

- Deploy and manage domain controllers locally
- Deploy and manage domain controllers in Azure
- Deploy Read-Only Domain Controllers (RODCs)
- Manage account security on an RODC
- Manage and troubleshoot Flexible Single-Master Operations (FSMO) roles

Configure and manage multi-site, multi-domain, and multi-forest environments

- Configure domain and forest trust relationships
- Configure and manage AD DS sites
- Configure and manage AD DS replication

Create and manage AD DS security principals

- Create and manage AD DS users and groups
- Manage users and groups in multi-domain or multi-forest environments
- Select and manage service accounts

Manage Windows Server by using domain-based Group Policies

- Implement Group Policy
- Implement Group Policy preferences

Module 02: Manage Windows Server instances and workloads in a hybrid environment

Configure remote management for Windows Server instances in a hybrid environment

- Deploy and manage Windows Admin Center on-premises and in the Azure portal
- Configure remote management by using PowerShell, including double-hop and Just Enough Administration (JEA)
- Configure and manage remote Secure Shell (SSH)
- Configure and manage remote desktop access

Manage Windows Server instances and workloads by using Azure services in a hybrid environment

- Implement Azure Arc-enabled Windows Server instances
- Implement device configuration by using Azure Arc
- Deploy Azure services with virtual machine (VM) extensions on non-Azure machines
- Manage updates by using Azure Update Manager
- Create and run Azure Automation runbooks

Module 03: Manage VMs

Manage Hyper-V and guest VM

- Enable Enhanced Session Mode
- Manage VMs remotely by using PowerShell, PowerShell Direct, and SSH Direct for Linux guests
- Enable nested virtualization
- Configure VM memory settings
- Configure integration services
- Configure device assignment
- Configure GPU partitioning
- Manage VM checkpoints
- Implement high availability for Hyper-V VMs
- Manage Hyper-V virtual hard disks
- Configure Hyper-V network adapter
- Configure network interface card (NIC) teaming on the Hyper-V host and VM
- Configure Hyper-V Virtual Switch
- Configure Hyper-V Replica

Manage Windows Server VMs in Azure

- Manage storage for Windows Server VMs in Azure
- Manage capacity, including resizing and VM scale sets

- Manage availability sets and zones
- Manage just-in-time (JIT) VM access and Azure Bastion
- Manage Azure Virtual Machines network configuration

Module 04: Implement and manage an on-premises and hybrid networking infrastructure

Implement on-premises and hybrid name resolution

- Integrate domain name system (DNS) with AD DS
- Create and manage DNS zones and records
- Configure DNS forwarding and conditional forwarding
- Configure DNS name resolution in a hybrid environment
- Implement DNS policies
- Implement DNS security extensions (DNSSEC)

Manage IP addressing in on-premises and hybrid scenarios

- Implement and configure the Dynamic Host Configuration Protocol (DHCP) server role
- Troubleshoot IP addressing in hybrid environments
- Create and manage DHCP scopes
- Create IP reservations
- Implement high availability for DHCP

Module 05: Manage storage and file services

Configure and manage Azure Files

- Create and manage Azure file shares
- Manage permissions for Azure file shares
- Configure and manage Azure File Sync
- Monitor Azure File Sync
- Migrate Distributed File System (DFS) to Azure File Sync
- Migrate from file shares to Azure Files

Configure and manage Windows Server file shares

- Configure access to Windows Server file shares
- Configure File Server Resource Manager (FSRM)
- Implement and configure DFS
- Configure Server Message Block (SMB) over QUIC
- Configure SMB settings and management

Configure Windows Server storage

- Configure disks and volumes
- Configure and manage Storage Spaces
- Implement and manage Storage Spaces Direct
- Configure and manage Storage Replica
- Configure Data Deduplication
- Configure SMB direct (SMB over Remote Direct Memory Access [RDMA])

- Configure Storage QoS
- Select and configure file systems, including NTFS and ReFS
- Configure and manage iSCSI
- Manage BitLocker Drive Encryption
- Manage and recover encrypted volumes

Module 06: Secure Windows Server infrastructure

Secure Windows Server operating system

- Configure and manage exploit protection
- Configure and manage Application Control for Windows
- Configure and manage Credential Guard
- Configure Microsoft Defender SmartScreen
- Implement operating system security by using Group Policies
- Manage Windows Server security baseline by using OSConfig
- Implement Windows Local Administrator Password Solution
- Configure and manage Defender for Servers
- Manage Windows Firewall, including connection security rules

Secure AD DS

- Configure password policies
- Implement Microsoft Entra Password Protection for AD DS
- Manage protected users
- Harden domain controllers
- Restrict access to domain controllers
- Configure security options for user accounts
- Configure security options for built-in administrative groups
- Manage AD delegation
- Manage authentication protocols and methods for AD DS

Module 07: Monitor and troubleshoot Windows Server environments

Monitor by using Windows Server tools and Azure services

- Monitor by using Performance Monitor
- Create and configure data collector sets
- Monitor servers and configure alerts by using Windows Admin Center
- Analyze by using the System Insights feature of Windows Server
- Manage event logs
- Configure data collection rules for Azure Monitor
- Create alerts
- Monitor Azure Virtual Machines performance by using VM Insights

Troubleshoot Windows Server issues

- Troubleshoot connectivity issues
- Troubleshoot name resolution
- Troubleshoot Windows Update

- Troubleshoot Time service
- Troubleshoot performance issues
- Troubleshoot VM and Azure Arc extension issues
- Troubleshoot disk encryption issues
- Troubleshoot storage issues

Troubleshoot Active Directory

- Restore objects from AD Recycle Bin
- Recover AD database by using Directory Services Restore Mode
- Recover SYSVOL
- Troubleshoot AD replication
- Troubleshoot on-premises AD
- Troubleshoot Kerberos and authentication issues
- Troubleshoot secure channel and computer account trust issues

Your course overview ends here.
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