

# Windows Server Hybrid Administrator Associate Certification Training (AZ-800 & AZ-801)

This intermediate-level Server Hybrid Administrator Associate training covers the AZ-800 and AZ-801 exams, required to earn the Windows Server Hybrid Administrator Associate certification. The AZ-800 is the first half of Microsoft's overall Windows Server Hybrid Administrator Associate. The AZ-800 is the exam someone should take if they're focused on administering servers and workloads that run on Windows Server, whether on-premises or in hybrid environments.

[CBT Nuggets course material](#) →

## WEEK 1

### Introducing and Installing Active Directory

152 min.

Overview	1
Course Supplemental Files	1
What is Active Directory?	9
What's New in Active Directory?	9
Installing Active Directory	27
Installing a New Tree or Child Domain	15

### Active Directory Management Tools and Read-Only Domain Controllers

Overview	1
Active Directory Management Tools	21
Installing AD DS Management Tools	9
Read-Only Domain Controller Overview	14
RODC Installation and Configuration	23

### Domain Controllers in Azure and Flexible Single Master Operation

Overview	1
Domain Controllers in Azure	19

## WEEK 2

154 min.

Flexible Single Master Operation Part One	19
Flexible Single Master Operations Part Two	9
Transfer a FSMO Role	20
Seize a FSMO	12

## Domain/Trust Relationships

Overview	1
Domain Relationships	11
Trusts and Direction	11
Create a Trust	18
Verify a Trust and Selective Authentication	9

## Active Directory Sites and Replication

Overview	1
Intrasite Replication	5
Intersite Replication	21
Advanced Site Topics	15

### WEEK 3

158 min.

Replication Quiz	6
------------------	---

## Manage User Accounts and Join Computers to a Directory

Overview	1
Supplemental File	1
User Account Basics	11
Edit a User Account	10
Automate User Account Creation	13
Limitations of Joining Computers to AD	7
Use Commands to Join a Domain	12

## Managing Groups in Active Directory

Overview	1
Introducing Active Directory Groups	5

Default Active Directory Group Accounts	7
Group Scope	14
Use PowerShell to Manage Groups	14
Implement Group Managed Service Accounts	14

## Implement the Azure AD Connectors

Overview	1
Introducing Azure AD Connect	8
Synchronize the Azure AD Connect Tool	17
Password Hashes	13

### WEEK 4

161 min.

Azure AD Connect Health	8
Synchronization Service Manager	7
Implement Azure AD Connect Cloud Sync	15

## Integrate AD DS, Azure AD, and Azure AD DS

Overview	1
Integrate AD DS, Azure AD, and Azure AD DS	1
Why and When to Use Azure AD DS	9
Deploy the Managed Domain in Azure	15
Configure VNet DNS Settings	6
Join an Azure VM to the Managed Domain	9
Remote Server Admin Tools	6
Fix Azure AD Connect	5
Other Security Considerations for Azure AD DS	8
Summarize Azure AD DS Integration	1

## Implement Group Policy in AD DS

Overview	1
Introduction to Group Policy	16
Group Policy Processing	15
Group Policy Scope of Management	19
Processing Adjustments	17

## WEEK 5

156 min.

Processing Adjustments: WMI and Security Filtering	6
--	---

## Implement Group Policy Preferences in AD DS

Overview	1
Group Policy Preferences Overview Part 1	10
Group Policy Preferences Overview Part 2	15
See Group Policy Preferences in Action	17
How to Survive Red Light, Green Light	9

## Advanced Group Policy Preferences and Azure AD DS Policy

Overview	1
The Action CRUD Modes	7
Manage Preferences Common Settings	14
Implement Item-Level Targeting	11
Enumerating Policy Settings and Configuring the Central Store	14
Implement Group Policy in Azure AD DS	10

## Manage Windows Servers in a Hybrid Environment

Overview	1
Manage Windows Servers in a Hybrid Environment	1

Windows Admin Center	7
Installing Windows Admin Center Gateway	9
Adding Servers to Windows Admin Center	8
Configure PowerShell Remoting	12

## WEEK 6

153 min.

Configuring CredSSP and Kerberos Second Hop Remoting	14
--	----

## Monitor and Manage Windows Server 2022

Overview	1
Introducing Windows Server Monitoring and Management	3
Install Windows Admin Center	10
Add Inventory to Windows Admin Center	11
Connect WAC to Azure	6
Manage Servers from WAC	15
Powershell Remoting	9
Kerberos Constrained Delegation	9
Summarizing Windows Server Management	1

## Manage Windows Servers and Workloads by Using Azure services

Overview	1
Manage Windows Servers and workloads by using Azure services	2
Using Azure Arc to Manage Servers	11
Assigning Azure Policy to an Azure Arc Server	6
Installing Log Analytics Agent on Arc Servers	7
Implementing Azure Automation on Arc Servers	12

Scheduling Runbooks on Arc Servers 7

### Hyper-V Enhanced Session, PowerShell, and Nesting

Overview 1

Enable VM Enhanced Session Mode 14

Implement PowerShell Remoting 10

## WEEK 7

157 min.

Implement PowerShell Direct 7

Enable Hyper-V Nesting 12

Hyper-V Quiz Review: Enhanced Session, PowerShell, and Nesting 3

### Hyper-V Memory, Integration Services, Discrete Device Assignment, and Resource Groups

Overview 1

Configure VM Memory 11

Configure Integration Services 13

Configure Discrete Device Assignment 11

Configure VM Resource Groups 10

### Hyper-V CPU Groups, Hypervisor Scheduling, and Checkpoints

Overview 1

Configure CPU Groups 21

Configure Hypervisor Scheduling 17

Standard and Production Checkpoints 12

Implementing Checkpoints 11

## Hyper-V Replica and Clustering

Overview 1

Introducing Hyper-V Replica 6

Implement Hyper-V Replica 17

## WEEK 8

153 min.

Clustering Overview 16

Clustering Demo 22

### Hyper-v VHD(X) Files, Network Adapters, Teaming, and Switches

Overview 1

VHD and VHDX Files 9

Configure VHDX Files 18

Configure Hyper-V Switch 18

Configure NIC Teaming 12

### Create and Manage Containers

Overview 1

Introduction to Containers 17

Install Docker and Pull Images 10

Run a Container 7

Run a Container Website 5

Specify a Container Isolation Mode 7

Configure Container Networking 8

## WEEK 9

152 min.

Manage Containers in Windows Admin Center 7

## Manage Azure VMs that Run Windows Server

Overview	1
Manage Data Disks	10
Resize Azure VMs	9
Resize Azure VMs with CLI	4
Continuous Delivery for Azure Virtual Machines	10
Configure Connections to VMs - RDP and SSH	8
Configure Connections to VMs - Bastion	7
Network Summary	7

## Implement DNS on Windows Server 2022

Overview	1
Introducing DNS on Windows Server 2022	1
How DNS Works	10
Setting Up DNS	11
DNS Record Types	11
DNS Zones	11
Reverse Lookup Zones	5
DNSSEC	12
Summarizing DNS on Windows Server	1

## Implement Hybrid DNS in Azure and Windows Server

Overview	1
Introducing Azure Hybrid Name Resolution	2
Understand Azure-hosted DNS	7
Deploy Azure-hosted DNS	9
Understand Locally Hosted DNS	4

Implement Locally hosted DNS	8
Understand Hybrid Multi-Vnet DNS in Azure	5
Implement Hybrid Multi-Vnet DNS in Azure	11
Summarizing Hybrid DNS with Azure and Windows Server	1

## Implement Windows Server DHCP

Overview	1
Introducing DHCP on Windows Server 2022	1
How DHCP Works	11
Installing DHCP	8
Deploy Scopes and Options	12
DHCP Reservations	4
DHCP Failover	9
Integrate DHCP with DNS	5
Summarizing DHCP on Windows Server	1

## Implement and Manage IPAM

Overview	1
Introducing IPAM	2
Install and Set Up IPAM	31
Manage DHCP	12
Manage DNS	13
Summarizing IPAM	3

## Deploy Classic VPNs to Azure

Overview	1
Introducing Remote Connectivity to Azure	2
The Point of VPNs	12

## WEEK 11

156 min.

Deploy the VNet	8
Deploy the VNet Gateway	6
Deploy the Local Network Gateway	5
Deploy the S2S Connection	7
Point to Site VPNs	11
Summarizing VPNs	1

### Implement Network Policy Server on Windows Server 2022

Overview	1
Introducing NPS	1
What RADIUS Really Does	12
Connection Request Policies	13
Network Policies	10
The 802.1X Wizard	7
RADIUS Groups	14
Summarizing NPS	1

### Implement Advanced Hybrid Networking Solutions with Azure

Overview	1
Introducing Advanced Hybrid Networking with Azure and Windows Server	1
Azure Network Adapter	7
Azure Relay	15
Azure Extended Networks	1
Azure Virtual WAN	16
Summarizing Advanced Hybrid Networks	1

## Configure and Manage Azure File Sync

Overview	1
Introducing Azure File Sync	2
How Azure File Sync Works	11

## WEEK 12

155 min.

Deploy the Resources in Azure	8
Install Prereqs and Run Assessment Checks	9
Install the Agent	7
Configure the Sync Group	11
Summarizing Azure File Sync	1

### Create and Manage File Shares

Overview	1
Creating and Managing File Shares	2
The Real Point of File Shares	13
The Old School Method	11
The New School Method	13
File Share vs NTFS Permissions	8
Now Do it With Powershell	8
Summarizing File Shares	1

### Implement BranchCache and DFS

Overview	1
Introducing DFS	1
How DFS Works	11
Installing Roles and Deploying Namespaces	16
Configure Replication	14
Namespace Failover	5

Site Awareness 12

## WEEK 13

151 min.

Deploy BranchCache 15

Summarizing DFS and BranchCache 1

### Configure Windows Server Storage

Overview 1

Introducing Windows Server Storage 1

Disks, Volumes, and Filesystems 20

Storage Spaces 21

Data Deduplication 12

Storage Replica 20

Summarizing Windows Server Storage 1

### Use Windows Defender to Secure Windows Server Operating System

Overview 1

Not Your Granddad's Windows Defender 4

Create Windows Defender Application Control Policies 15

Deploy WDAC Policies 6

Preparing for Windows Defender for Endpoints Deployment 7

Onboarding Endpoints 17

Enable Windows Defender Credential Guard 6

Summarizing Windows Defender 1

## WEEK 14

### Secure Windows Operating Systems

162 min.

Overview 1

Introducing Securing Windows OSs 2

Exploit Protection 13

SmartScreen 6

Account Policies 10

User Rights Assignment Policies 9

Security Options 11

Audit Options 5

Summarizing Securing Windows OSs 1

### Secure Hybrid Active Directory Infrastructure

Overview 1

Introducing Securing Hybrid Active Directory Infrastructure 1

Multi-Factor Authentication 12

Multi-Factor Authentication Setup 7

MFA Service Configuration 6

RBAC Concepts 9

Working with RBAC 6

Privileged Identity Management 10

Azure Application Proxy 10

Summarizing Securing Hybrid Active Directory 1

### Use Azure to Monitor Windows Security

Overview 1

Introducing Azure Tools for Securing Windows 5

The Big Picture for Azure Security 14

Microsoft Defender for Cloud 18

## WEEK 15

159 min.

Microsoft Sentinel 12

### Secure Windows Server Networking

Overview 1

Introducing Windows Server Network Security 2

Windows Defender Firewall and Connectivity Rules 13

Digging into Domain Isolation 8

Create the GPO Objects 8

Exempt ICMP Traffic 3

Authentication Exemptions 6

Configure IPsec 10

Create the Connection Security Rule 6

Verify the Security Associations 4

Summarizing Windows Server Network Security 1

### Secure Windows Server Storage

Overview 1

Introducing Securing Windows Server Storage 2

Setting up Bitlocker on Windows PCs 7

Unlocking an Encrypted Hard Drive 4

BitLocker Enterprise Solutions 11

Configure a Key Vault for Azure Hard Drive Encryption 11

Encrypt an Azure VM from the Portal 7

Use Azure CLI to Encrypt a VM 5

Use Powershell to Encrypt a VM 7

Summarizing Windows Device Hard Drive Encryption 1

## Implement Failover Clustering

Overview 1

Implementing Windows Server Failover Clustering 2

Failover Clustering Designs and Requirements 23

## WEEK 16

159 min.

Create and Initialize an iSCSI Target 23

Deploy the Failover Cluster 13

Hybrid Quorum Configuration 5

### Manage and Maintain Failover Clusters

Overview 1

Introducing Failover Cluster Management and Maintenance 2

What's New in Windows Server 2022 13

Cluster-Aware Updating 10

Rolling OS Upgrades 12

Adding Roles to the FCI 10

Managing Clusters via Windows Admin Center 8

### Implement Stretch Clusters Across Azure Regions

Overview 1

Introducing Stretch Clusters 2

Azure Multi-Region Replication Design and Requirements 14

Scaffold the Base Resources 20

Implement VNet Peering and Install Roles 13

Create the Clusters 10

## WEEK 17

180 min.

Enable S2D	8
Implement Storage Replica between Clusters	10

### Implement Storage Spaces Direct

Overview	1
Introducing HCI with S2D	2
Understand the Point of HCI	16
Understand Networking Requirements for S2D	23
Prepping Nodes for HCI	15
Implement S2D and CSVs	8
Deploy a VM	4
Manage S2D with WAC	6

### Manage backup and recovery for Windows Server

Overview	1
Introducing Hybrid Backups with Azure	2
Consider Your Backup Objectives	10
Using Hyper-V Checkpoints	7
Backup an Azure VM	10
Restore an Azure VM	12
Backup a Local VMWare VM with MABS	43

## WEEK 18

158 min.

### Implement Azure Site Recovery

Overview	1
Introducing Azure Site Recovery	2
Understand Azure Site Recovery Objectives	11

Replicate an Azure VM - The Easy Way	14
Replicate an Azure VM - The Old Way	8
Prepare for VMWare VM Replication	17
Deploy the Azure Site Recovery Appliance	21
Perform a Failover to Azure	9

### Implement Hyper-V Replicas

Overview	1
Introducing Hyper-V Replicas	2
Planning for Hyper-V Replicas	21
Configuring Hyper-V Replica Settings	10
Virtual Machine Replication	12
Perform a Failover	10
Summarizing Hyper-V Replicas	1

### Migrate On-Premises Storage Solutions to Azure

Overview	1
Introducing Storage Migrations	2
The Storage Migration Plan of Attack	12

## WEEK 19

156 min.

Picking the Right Tool	11
Perform a File Storage Migration with File Sync	17
Perform a Blob Storage Migration with AzCopy	11
Other Kinds of Storage to Consider	9
Summarizing Storage Migrations to Azure	1

## Use Azure Migrate to Migrate VMWare VMs to Azure

Overview	1
Migrate VMWare VMs to Azure IaaS	5
Deploy and Configure the Azure Migrate Appliance in vCenter	19
Perform the Inventory Discovery	8
Perform a Migration Assessment	8
Begin Replication and Test Migrations	13
Perform the Migration	8
Summarizing VMWare Migration	1

## Migrate Windows Server Workloads to Windows Server 2022

Overview	1
Introducing Windows Server Migrations	3
Migrate to a Windows Server 2022 Hyper-V Host	9
Migrate IIS Web Apps to Windows Server 2022	17
Migrate a Fileshare with Robocopy to Windows Server 2022	12

### WEEK 20

160 min.

Migrate a Print Server to Windows Server 2022	5
Migrate a DHCP Server to Windows Server 2022	10
Summarizing Windows Server Migrations	1

## Migrate an ASP.NET Core Web App on IIS to Azure

Overview	1
Migrate a Web App from IIS to Azure	3
The Path to Migration	10
Prep Windows Server for ASP.NET Core Hosting	15

Deploy the Web App to IIS	18
Download the Migration Assistance Tool	5
Perform the Migration	8
Summarizing Migrating Web Apps to Azure	1

## Migrate Active Directory Domain Services to Windows Server 2022

Overview	1
Introducing AD DS Migration to Windows Server 2022	2
Planning Your Migration to Windows Server 2022	8
Prep Your Environment for Migration	9
Migrate FSMO Master Roles	14
Decom the Old Server	6
Upgrade the Domain and Forest	5
Summarizing AD DS Upgrades	2

## Migrate a Domain to a New Forest with ADMT

Overview	1
Introducing Interforest Migrations	3
Establish Interforest Connectivity	11
Create the Admin Account	6
Configure SID History Migration	12

### WEEK 21

159 min.

Install SQL, ADMT, and PES	15
Perform the Migration	14
Summarizing Interforest Domain Migrations	1

## Monitor Windows Server with OS Tools and Azure

Overview	1
Introducing Windows Monitoring	2
Working with Perfmon	14
Working with Event Logs	9
Monitoring with Windows Admin Center	16
Exploring System Insights	9
Monitoring Systems with Azure	9
Summarizing Windows Monitoring	1

## Troubleshoot Windows Server and Hybrid Networking

Overview	1
Troubleshooting Windows and Hybrid Networking	1
Troubleshooting Methodologies	19
Validate Routing and Connectivity	13
Capture Packets in Windows Admin Center	8
Troubleshoot DHCP Issues	12
Troubleshoot DNS Issues	12

## WEEK 22

137 min.

Troubleshoot Azure Networking with Network Watcher	8
--	---

## Troubleshoot Azure Virtual Machines

Overview	1
Troubleshooting Azure Virtual Machines	1
Trouble with Deploying an Azure VM	12
Trouble with Booting a VM	8
Trouble with VM Performance	10
Trouble with VM Connectivity	7

Trouble with the VM Extension	9
Trouble with Disk Encryption	7

## Troubleshoot Active Directory

Overview	1
Introducing Active Directory Troubleshooting	1
Digging into Event Viewer	11
Event Tracing with tracelog.exe	15
Understand Domain Controller Replication	13
Digging into Replication with PowerShell	9
Getting Quick Replication Status and More with Dcdiag.exe	10
Utilizing Repadmin.exe	11