

Configuring Windows Server Hybrid Advanced Services (AZ-801T00)

Duration: 4 days

Audience: Professionnel TI

Who is this training for?

This four-day course is intended for Windows Server Hybrid Administrators who have experience working with Windows Server and want to extend the capabilities of their on-premises environments by combining on-premises and hybrid technologies. Windows Server Hybrid Administrators who already implement and manage on-premises core technologies want to secure and protect their environments, migrate virtual and physical workloads to Azure IaaS, enable a highly available, fully redundant environment, and perform monitoring and troubleshooting.

Training objectives

By the end of this course, students will be able to:

- Harden the security configuration of the Windows Server operating system environment
- Improve hybrid security using Azure Security Center, Azure Sentinel, and Windows Update Management
- Apply security features to protect critical resources

Summary

This course teaches IT Professionals to configure advanced Windows Server services using on-premises, hybrid, and cloud technologies. The course teaches IT Professionals how to leverage the hybrid capabilities of Azure, how to migrate virtual and physical server workloads to Azure IaaS, and how to secure Azure VMs running Windows Server. The course also teaches IT Professionals how to perform tasks related to high availability, troubleshooting, and disaster recovery. The course highlights administrative tools and technologies including Windows Admin Center, PowerShell, Azure Arc, Azure Policy, Azure Monitor, Azure Update Manager, Microsoft Defender for Identity, Microsoft Defender for Cloud, and IaaS virtual machine administration.

Course outline

Learning Path 1 – Secure Windows Server on-premises and hybrid infrastructures (Windows Server security)

- Module 1: Secure Windows Server user accounts
- Module 2: Hardening Windows Server
- Module 3: Windows Server Update Management

Learning Path 1 – Secure Windows Server on-premises and hybrid infrastructures (Implementing security solutions in hybrid scenarios)

- Module 1: Implement Windows Server IaaS VM network security
- Module 2: Audit the security of Windows Server IaaS Virtual Machines
- Module 3: Manage Azure updates
- Module 4: Create and implement application allowlists with adaptive application control
- Module 5: Configure BitLocker disk encryption for Windows IaaS Virtual Machines
- Module 6: Implement change tracking and file integrity monitoring for Windows IaaS VMs

Learning Path 2 – Implement Windows Server high availability

- Module 1: Introduction to Cluster Shared Volumes
- Module 2: Implement Windows Server failover clustering
- Module 3: Implement high availability of Windows Server VMs
- Module 4: Implement Windows Server File Server high availability
- Module 5: Implement scale and high availability with Windows Server VM

Learning Path 3 – Implement disaster recovery in Windows Server on-premises and hybrid environments (Disaster recovery in Windows Server)

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Module 1: Implement Hyper-V Replica

- Module 2: Protect your on-premises infrastructure from disasters with Azure Site Recovery

Learning Path 3 – Implement disaster recovery in Windows Server on-premises and hybrid environments (Implementing recovery services in hybrid scenarios)

- Module 1: Implement hybrid backup and recovery with Windows Server IaaS
- Module 2: Protect your Azure infrastructure with Azure Site Recovery
- Module 3: Protect your virtual machines by using Azure Backup

Learning Path 4 – Migrate servers and workloads in on-premises and hybrid environments (Upgrade and migrate in Windows Server)

- Module 1: Active Directory Domain Services migration
- Module 2: Migrate file server workloads using Storage Migration Service
- Module 3: Migrate Windows Server roles

Learning Path 4 – Migrate servers and workloads in on-premises and hybrid environments (Implementing migration in hybrid scenarios)

- Module 1: Migrate on-premises Windows Server instances to Azure IaaS virtual machines
- Module 2: Upgrade and migrate Windows Server IaaS virtual machines
- Module 3: Containerize and migrate ASP.NET applications to Azure App Service

Learning Path 5 – Monitor and troubleshoot Windows Server environments (Server and performance monitoring in Windows Server)

- Module 1: Monitor Windows Server performance
- Module 2: Manage and monitor Windows Server event logs

- Module 3: Implement Windows Server auditing and diagnostics
- Module 4: Troubleshoot Active Directory

Learning Path 5 – Monitor and troubleshoot Windows Server environments (Implementing operational monitoring in hybrid scenarios)

- Module 1: Monitor Windows Server IaaS Virtual Machines and hybrid instances
- Module 2: Monitor the health of your Azure virtual machine by using Azure Metrics Explorer and metric alerts
- Module 3: Monitor performance of virtual machines by using Azure Monitor VM Insights
- Module 4: Troubleshoot on-premises and hybrid networking
- Module 5: Troubleshoot Windows Server Virtual Machines in Azure

Approach and methodology

Practical and structured approach combining focused theory and guided workshops. Participants progressively explore advanced Windows Server hybrid services through hands-on exercises inspired by real-world IT scenarios, promoting immediate application of the concepts learned.

They learn how to secure on-premises and hybrid infrastructures, implement high availability and disaster recovery solutions, migrate workloads to Azure, and monitor Windows Server environments using Microsoft technologies.

Led by a Microsoft Certified Trainer (MCT), the training emphasizes interactivity and the development of practical skills that can be directly applied to the administration of modern hybrid infrastructures.

Prerequisites

Students should have the following knowledge and experience before attending this course:

- Experience with managing Windows Server operating system and Windows Server workloads in on-premises scenarios, including AD DS, DFS, Hyper-V, and File and Storage Services
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Basic understanding of security-related technologies (firewalls, encryption, multi-factor authentication, SIEM/SOAR).

- An understanding of the following concepts as related to Windows Server and hybrid technologies: High Availability and Disaster Recovery, automation, monitoring, and troubleshooting.
- An awareness of basic security best practices and a basic knowledge of Azure Active Directory.

Recommendations

- Have a good experience with Windows Server
- Understand the basics of networks (IP, DNS, DHCP)
- Have notions of virtualization (Hyper-V)
- Know the fundamentals of computer security

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