

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

Duration: 4 days

Audience: Professionnel TI

Who is this training for?

This four-day course is designed for hybrid Windows Server administrators who have experience using 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 are already implementing and managing on-premises core technologies want to secure and protect their environments, migrate virtual and physical workloads to Azure IaaS, enable a highly available and fully redundant environment, and perform monitoring and troubleshooting tasks. Each learning path is seen from 2 perspectives: Management on Windows Server in the workplace and Windows Server management on the Azure cloud.

Training objectives

- 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 how to configure advanced Windows Server services using on-premises, hybrid, and cloud technologies. You'll learn how to take advantage of Azure's hybrid capabilities, migrate virtual and physical server workloads to Azure IaaS, and secure Azure VMs running Windows Server. This course also explains how to perform tasks related to high availability, troubleshooting, and disaster recovery. This course highlights administrative tools and technologies such as Windows Admin Center, PowerShell, Azure Arc, Azure Automation Update Management, Microsoft Defender for Identity, Azure Security Center, Azure Migrate, and Azure Monitor.

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: Strengthen Windows Server Security
- Module 3: Secure Windows Server DNS
- Module 4: Managing Windows Server Updates

Learning Path 1: Securing Windows Server On-Premises and Hybrid Infrastructures (Implement Security Solutions in Scenarios)

- Module 1: Implement network security for Windows Server IaaS VMs
- Module 2: Audit security for Windows Server IaaS VMs
- Module 3: Manage Azure updates
- Module 4: Configure BitLocker disk encryption for Windows IaaS VMs

Learning path 2: Implement high availability for Windows Server

- Module 1: Implement a Windows Server Failover Cluster
- Module 2: Implement High Availability for Windows Server Virtual Machines
- Module 3: Implement Scale and High Availability with Windows Server Virtual Machines
- Module 4: Implement High Availability for Windows Server File Servers

Learning Path 3: Implement Disaster Recovery in Windows Server On-Premises and Hybrid Environments

- Module 1: Implement Hyper-V Replica
- Module 2: Protect on-premises infrastructure from disasters with Azure Site Recovery

Learning path 3: Implement disaster recovery in on-premises and hybrid Windows Server environments (Implement recovery services in hybrid scenarios)

- Module 1: Implement hybrid backup and recovery with Windows Server IaaS
- Module 2: Protect Azure infrastructure with Azure Site Recovery

- Module 3: Protect VMs with Azure Backup

Learning path 4: Migrate servers and workloads to on-premises and hybrid environments (Upgrade and migrate in Windows Server)

- Module 1: Migrate Active Directory Domain Services
- 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 (Implement Migrations 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 apps to Azure App Service

Learning Path 5: Monitor and troubleshoot Windows Server environments (Server Monitoring and Performance 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 (Implement Operational Monitoring in Hybrid Scenarios)

- Module 1: Monitor Windows Server IaaS VMs and Hybrid Instances
- Module 2: Monitor the Health of Azure VMs Using Azure Metrics Explorer and Metric Alerts
- Module 3: Monitor VM performance using Azure Monitor VM Insights
- Module 4: Troubleshoot on-premises and hybrid networking issues
- Module 5: Troubleshoot Windows Server VMs in Azure

Approach and methodology

Practical and structured approach combining focused theory and guided workshops. Participants gradually configure and administer advanced Windows Server hybrid services through real-world exercises inspired by professional scenarios, promoting immediate application of learning. They learn how to integrate on-premises environments with Azure, manage identity, security, and hybrid services, and optimize infrastructure operations. Led by a Microsoft certified trainer, the training focuses on interactivity and the development of directly transferable technical skills to manage complex hybrid environments in a professional context.

Prerequisites

- Experience managing the Windows Server operating system and Windows Server workloads in on-premises scenarios, including AD DS, DNS, DFS, Hyper-V, and file and storage services
- Experience with common Windows Server management tools
- Basic knowledge of key Microsoft compute, storage, networking, and virtualization technologies
- Experience and understanding of core networking technologies, such as IP addressing, name resolution, and Dynamic Host Configuration Protocol (DHCP)
- Experience working with and understanding of Microsoft Hyper-V and core server virtualization concepts
- Awareness of security best practices
- Fundamentals of security technologies (firewall, encryption, multi-factor authentication, SIEM/SOAR)
- Basic knowledge of local resiliency of Windows compute and storage technologies Server (failover clustering, Storage Spaces)
- Basic experience implementing and managing IaaS services in Microsoft Azure
- Basic knowledge of Azure Active Directory • Hands-on experience working with Windows client operating systems, such as Windows 10 or Windows 11
- Basic experience with Windows PowerShell
- Knowledge of the following concepts that are related to Windows Server technologies: High Availability & Disaster Recovery, Automation, Monitoring, Troubleshooting

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