Administer Windows Server Hybrid Core Infrastructure (AZ-800T00)

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 implement and manage on-premises and hybrid solutions such as identity, management, compute, networking, and storage in a Windows Server hybrid environment.

Training objectives

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

- Deploy and manage Active Directory Domain Services in on premises and hybrid environments
- Implement hybrid identity and manage Azure IaaS based domain controllers
- Administer Windows Server securely and perform core post installation configuration tasks
- Manage Windows Server workloads in hybrid scenarios using Azure Arc and remote administration tools
- Configure and manage Hyper V virtualization, virtual machines, containers, and Kubernetes orchestration

  Plan, deploy, and automate Windows Server IaaS virtual machines in Azure
- Implement and manage on premises and hybrid networking services including DHCP, DNS, IPAM, and remote access
- Configure and manage Windows Server storage, file services, Storage Spaces Direct, Data Deduplication, iSCSI, Storage Replica, and hybrid file server infrastructure with Azure File Sync

Summary

This course teaches IT Professionals how to manage core Windows Server workloads and services using on-premises, hybrid, and cloud technologies. The course teaches IT Professionals how to implement and manage on-premises and hybrid solutions such as identity, management, compute, networking, and storage in a Windows Server hybrid environment.

Course outline

Learning Path 1 — Deploy and manage identity infrastructure (Windows Server)

- Module 1 — Introduction to AD DS
- Module 2 — Manage AD DS domain controllers and FSMO roles
- Module 3 — Implement Group Policy Objects
- Module 4 — Manage advanced features of AD DS

Learning Path 1 — Deploy and manage identity infrastructure (Hybrid scenarios)

- Module 1 — Implement hybrid identity with Windows Server
- Module 2 — Deploy and manage Azure IaaS Active Directory domain controllers in Azure

Learning Path 2 — Manage Windows Servers and workloads in a hybrid environment (Windows Server administration)

- Module 1 — Perform Windows Server secure administration
- Module 2 — Describe Windows Server administration tools
- Module 3 — Perform post installation configuration of Windows Server
- Module 4 — Just Enough Administration in Windows Server

Learning Path 2 — Manage Windows Servers and workloads in a hybrid environment (Facilitating hybrid management)

- Module 1 — Administer and manage Windows Server IaaS virtual machines remotely
- Module 2 — Manage hybrid workloads with Azure Arc

Learning Path 3 — Manage virtualization and containers in a hybrid environment (HyperV virtualization in Windows Server)

- Module 1 — Configure and manage Hyper V
- Module 2 — Configure and manage Hyper V virtual machines
- Module 3 — Secure Hyper V workloads
- Module 4 — Run containers on Windows Server
- Module 5 — Orchestrate containers on Windows Server using Kubernetes

Learning Path 3 — Manage virtualization and containers in a hybrid environment (Deploying and configuring Azure VMs)

- Module 1 — Plan and deploy Windows Server IaaS virtual machines
- Module 2 — Customize Windows Server IaaS virtual machine images
- Module 3 — Automate the configuration of Windows Server IaaS virtual machines

Learning Path 4 — Implement and manage an onpremises and hybrid networking infrastructure (Network infrastructure services in Windows Server)

- Module 1 — Deploy and manage DHCP
- Module 2 — Implement Windows Server DNS
- Module 3 — Implement IP Address Management
- Module 4 — Implement remote access

Learning Path 4 — Implement and manage an onpremises and hybrid networking infrastructure (Implementing hybrid networking infrastructure)

- Module 1 — Implement hybrid network infrastructure
- Module 2 — Implement DNS for Windows Server IaaS virtual machines
- Module 3 — Implement Windows Server IaaS virtual machine IP addressing and routing

Learning Path 5 — Configure storage and file services (File servers and storage management in Windows Server)

- Module 1 — Manage Windows Server file servers
- Module 2 — Implement Storage Spaces and Storage Spaces Direct
- Module 3 — Implement Windows Server Data Deduplication
- Module 4 — Implement Windows Server iSCSI
- Module 5 — Implement Windows Server Storage Replica

Learning Path 5 — Configure storage and file services (Implementing a hybrid file server infrastructure)

- Module 1 — Implement a hybrid file server infrastructure (Overview of Azure file services)
- Module 1 (cont.) — Implement a hybrid file server infrastructure (Implementing Azure File Sync)

Approach and methodology

Practical and structured approach combining focused theory and guided workshops. Participants gradually administer the Windows Server Hybrid core infrastructure through real-world exercises inspired by business scenarios, promoting immediate application of learning.

They learn how to manage critical services, integrate on-premises environments with Azure, and ensure the security and availability of hybrid infrastructures.

Led by a Microsoft certified trainer, the training focuses on interactivity and the development of directly transferable technical skills to effectively manage hybrid environments in a professional context.

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

Experience and an understanding of core networking technologies such as IP addressing, name resolution, and Dynamic Host Configuration Protocol (DHCP)

Basic understanding of Azure hybrid technologies, including deployment and management of Windows Server IaaS VMs and Azure Active Directory

Experience with common Windows Server management tools, including Windows Admin Center, command line tools, and Windows PowerShell

Recommendations

- 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
- 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
- A basic experience with Windows PowerShell