

TOC: Windows Server Administration and Active Directory

Summary

This custom course provides comprehensive training in Microsoft Windows Server Administration and Active Directory, equipping learners with the skills to install, configure, manage, and maintain Windows Server environments. Participants learn to administer Active Directory Domain Services (AD DS), manage users, groups, organizational units (OUs), and Group Policy, configure networking services, implement security best practices, and perform backup, recovery, and troubleshooting. The course also covers server roles, storage management, virtualization, authentication, authorization, and Active Directory replication, preparing learners to efficiently manage secure and reliable enterprise IT infrastructures.

Prerequisites

- Basic knowledge of computer hardware and operating systems.
- Familiarity with Microsoft Windows.
- Understanding of basic networking concepts, including IP addressing, DNS, DHCP, and TCP/IP.
- Basic knowledge of file systems, user accounts, and permissions.
- Familiarity with command-line tools (Command Prompt or PowerShell) is helpful but not mandatory.
- Basic IT support or system administration experience is beneficial but not required for beginner-level courses.

These prerequisites help learners understand Windows Server installation, server management, Active Directory Domain Services (AD DS), Group Policy, user and computer administration, and network services more effectively.

Content

Course 1: M10969B — Active Directory Services in Windows Server

Module 1: Overview of Access and Information Protection

- Lesson 1: Introduction to Access and Information Protection Solutions in Business
- Lesson 2: Overview of AIP Solutions in Windows Server 2012
- Lesson 3: Overview of FIM 2010 R2
- Lab: Choosing an Appropriate Access and Information Protection Management Solution

Module 2: Advanced Deployment and Administration of AD DS

- Lesson 1: Deploying AD DS
- Lesson 2: Deploying and Cloning Virtual Domain Controllers
- Lesson 3: Deploying Domain Controllers in Windows Azure
- Lesson 4: Administering AD DS
- Lab: Deploying and Administering AD DS

Module 3: Securing AD DS

- Lesson 1: Securing Domain Controllers
- Lesson 2: Implementing Account Security
- Lesson 3: Implementing Audit Authentication
- Lab: Securing AD DS

Module 4: Implementing and Administering AD DS Sites and Replication

- Lesson 1: Overview of AD DS Replication
- Lesson 2: Configuring AD DS Sites
- Lesson 3: Configuring and Monitoring AD DS Replication
- Lab: Implementing AD DS Sites and Replication

Module 5: Implementing Group Policy

- Lesson 1: Introducing Group Policy
- Lesson 2: Implementing and Administering GPOs
- Lesson 3: Group Policy Scope and Group Policy Processing
- Lesson 4: Troubleshooting the Application of GPOs
- Lab: Implementing and Troubleshooting a Group Policy Infrastructure

Module 6: Managing User Settings with Group Policy

- Lesson 1: Implementing Administrative Templates
- Lesson 2: Configuring Folder Redirection and Scripts
- Lesson 3: Configuring Group Policy Preferences
- Lab: Managing User Desktops with Group Policy

Module 7: Deploying and Managing AD CS

- Lesson 1: Deploying CAs
- Lesson 2: Administering CAs
- Lesson 3: Troubleshooting, Maintaining, and Monitoring CAs
- Lab: Deploying and Configuring a Two-Tier CA Hierarchy

Module 8: Deploying and Managing Certificates

- Lesson 1: Using Certificates in a Business Environment
- Lesson 2: Deploying and Managing Certificate Templates
- Lesson 3: Managing Certificates Deployment, Revocation, and Recovery
- Lesson 4: Implementing and Managing Smart Cards
- Lab: Deploying and Using Certificates

Module 9: Implementing and Administering AD RMS

- Lesson 1: Overview of AD RMS
- Lesson 2: Deploying and Managing an AD RMS Infrastructure
- Lesson 3: Configuring AD RMS Content Protection
- Lesson 4: Configuring External Access to AD RMS
- Lab: Implementing an AD RMS Infrastructure

Module 10: Implementing and Administering AD FS

- Lesson 1: Overview of AD FS
- Lesson 2: Deploying AD FS
- Lesson 3: Implementing AD FS for a Single Organization
- Lesson 4: Deploying AD FS in a Business-to-Business Federation Scenario
- Lesson 5: Extending AD FS to External Clients
- Lab: Implementing AD FS

Module 11: Implementing Secure Shared File Access

- Lesson 1: Overview of Dynamic Access Control
- Lesson 2: Implementing DAC Components
- Lesson 3: Implementing DAC for Access Control
- Lesson 4: Implementing Access Denied Assistance
- Lesson 5: Implementing Workplace Join
- Lab: Implementing Secure File Access

Module 12: Monitoring, Managing, and Recovering AD DS

- Lesson 1: Monitoring AD DS
- Lab A: Monitoring AD DS
- Lesson 2: Managing the AD DS Database
- Lesson 3: AD DS Backup and Recovery Options for AD DS and Other Identity and Access Solutions
- Lab B: Recovering Objects in AD DS

Module 13: Implementing Windows Azure Active Directory

- Lesson 1: Overview of Windows Azure AD
- Lesson 2: Managing Windows Azure AD Accounts
- Lab: Implementing Windows Azure AD

Module 14: Implementing and Administering AD LDS

- Lesson 1: Overview of AD LDS
- Lesson 2: Deploying AD LDS
- Lesson 3: Configuring AD LDS Instances and Partitions
- Lesson 4: Configuring AD LDS Replication
- Lesson 5: Integrating AD LDS with AD DS
- Lab: Implementing and Administering AD LDS

Course 2: Windows Server Administration

Module 1: Windows Server Administration

- Overview of Windows Server administration principles and tools
- Introducing Windows Server
- Overview of Windows Server Core

Module 2: Identity Services in Windows Server

- Overview of AD DS
- Deploying Windows Server domain controllers
- Overview of Azure AD
- Implementing Group Policy
- Overview of AD CS

Module 3: Network Infrastructure Services in Windows Server

- Deploying and managing DHCP
- Deploying and managing DNS services
- Deploying and managing IPAM

Module 4: File Server and Storage Management in Windows Server

- Volumes and file systems in Windows Server
- Implementing sharing in Windows Server
- Implementing Storage Spaces in Windows Server
- Implementing Data Deduplication
- Implementing iSCSI
- Deploying DFS

Module 5: Hyper-V Virtualization and Containers in Windows Server

- Hyper-V in Windows Server
- Configuring VMs
- Securing virtualization in Windows Server
- Containers in Windows Server
- Overview of Kubernetes

Module 6: High Availability in Windows Server

- Defining levels of availability
- Creating and configuring failover clusters
- Overview of stretch clusters
- High availability and disaster recovery solutions with Hyper-V VMs

Module 7: Disaster Recovery in Windows Server

- Hyper-V Replica
- Backup and restore infrastructure in Windows Server

Module 8: Windows Server Security

- Credentials and privileged access protection in Windows Server
- Hardening Windows Server
- JEA in Windows Server
- Securing and analyzing SMB traffic
- Windows Server update management

Module 9: RDS in Windows Server

- Overview of RDS
- Configuring a session-based desktop deployment
- Overview of personal and pooled virtual desktops

Module 10: Remote Access and Web Services in Windows Server

- Overview of RAS in Windows Server
- Implementing VPNs
- Implementing NPS
- Implementing Always On VPN
- Implementing Web Server in Windows Server

Module 11: Server and Performance Monitoring in Windows Server

- Overview of Windows Server monitoring tools
- Using Performance Monitor
- Monitoring event logs for troubleshooting

Module 12: Upgrade and Migration in Windows Server

- AD DS migration
- Storage Migration Service
- Windows Server Migration Tools