



Identity with Windows Server 2016

Course 20742B

5 Days

Instructor-led, Hands on

Introduction

This five-day instructor-led course teaches IT Pros how to deploy and configure Active Directory Domain Services (AD DS) in a distributed environment, how to implement Group Policy, how to perform backup and restore, and how to monitor and troubleshoot Active Directory–related issues with Windows Server 2016 and 2019. Additionally, this course teaches how to deploy other Active Directory server roles such as Active Directory Federation Services (AD FS) and Active Directory Certificate Services (AD CS).

This course is primarily intended for existing IT professionals who have some AD DS knowledge and experience and who aim to develop knowledge about identity and access technologies in Windows Server 2016. This would typically include:

AD DS administrators who are looking to train in identity and access technologies with Windows Server 2016 or newer.

System or infrastructure administrators with general AD DS experience and knowledge who are looking to cross-train in core and advanced identity and access technologies in Windows Server 2016 and 2019.

Prerequisites

In addition to professional experience, students who attend this training should already have the following technical knowledge:

- Some exposure to and experience with AD DS concepts and technologies in Windows Server 2016 and newer.
- Experience working with and configuring Windows Server 2016 and newer
- Experience and an understanding of core networking technologies such as IP addressing, name resolution, and Dynamic Host Configuration Protocol (DHCP).
- Experience working with and an understanding of Microsoft Hyper-V and basic server virtualization concepts.
- An awareness of basic security best practices.
- Hands-on working experience with Windows client operating systems such as Windows 7, Windows 8, Windows 8.1, or Windows 10.
- Basic experience with the Windows PowerShell command-line interface.

Course Objectives

Upon completion of this course, attendees will be able to:

- Install and configure domain controllers.
- Manage objects in AD DS by using graphical tools and Windows PowerShell.

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- Implement AD DS in complex environments.
- Implement AD DS sites, and configure and manage replication.
- Implement and manage Group Policy Objects (GPOs).
- Manage user settings by using GPOs.
- Secure AD DS and user accounts.
- Implement and manage a certificate authority (CA) hierarchy with AD CS.
- Deploy and manage certificates.
- Implement and administer AD FS.
- Implement and administer Active Directory Rights Management Services (AD RMS).
- Implement synchronization between AD DS and Azure AD.
- Monitor, troubleshoot, and establish business continuity for AD DS services.

Course Outline

Module 1: Installing and configuring domain controllers

- Lesson 1: Overview of AD DS
- Lesson 2: Overview of AD DS domain controllers
- Lesson 3: Deploying a domain controller
 - Lab: Deploying and administering AD DS

Module 2: Managing objects in AD DS

- Lesson 1: Managing user accounts
- Lesson 2: Managing groups in AD DS
- Lesson 3: Managing computer objects in AD
 - Lab A: Managing AD DS objects
- Lesson 4: Using Windows PowerShell for AD DS administration
- Lesson 5: Implementing and managing OUs
 - Lab B: Administering AD DS

Module 3: Advanced AD DS infrastructure management

- Lesson 1: Overview of advanced AD DS deployments
- Lesson 2: Deploying a distributed AD DS environment
- Lesson 3: Configuring AD DS trusts
 - Lab: Domain and trust management in 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 AD DS synchronization with Microsoft Azure AD

- Lesson 1: Planning and preparing for directory synchronization
- Lesson 2: Implementing directory synchronization by using Azure AD Connect
- Lesson 3: Managing identities with directory synchronization
 - Lab: Configuring directory synchronization

Module 6: Implementing Group Policy

- Lesson 1: Introducing Group Policy
- Lesson 2: Implementing and administering GPOs
- Lesson 3: Group Policy scope and Group Policy processing
 - Lab A: Implementing a Group Policy infrastructure
- Lesson 4: Troubleshooting the application of GPOs
 - Lab B: Troubleshooting Group Policy infrastructure
- Module Review and Takeaways

Module 7: Managing user settings with Group Policy

- Lesson 1: Implementing administrative templates
- Lesson 2: Configuring Folder Redirection, software installation, and scripts
- Lesson 3: Configuring Group Policy preferences
 - Lab: Managing user settings with Group Policy
- Module Review and Takeaways

Module 8: Securing Active Directory Domain Services

- Lesson 1: Securing domain controllers
- Lesson 2: Implementing account security
- Lesson 3: Implementing audit authentication
- Lesson 4: Configuring managed service accounts
 - Lab: Securing AD DS

Module 9: Monitoring, managing, and recovering AD DS

- Lesson 1: Monitoring AD DS
- Lesson 2: Managing the Active Directory database
- Lesson 3: Active Directory backup and recovery options for AD DS and other identity and access solutions
 - Lab: Recovering objects in AD DS