

# IDENTITY WITH WINDOWS SERVER (55344)

Course Code: 821581

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This five-day instructor-led course teaches IT professionals 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. Additionally, this course teaches students how to deploy other Active Directory server roles, such as Active Directory Federation Services (AD FS) and Active Directory Certificate Services (AD CS).

Although this course and the associated labs are written for Windows Server 2022, the skills taught will also be backwards compatible for Server 2016 and Server 2019. The course and labs also focus on how to administer Windows Server using not only the traditional tools such as PowerShell and Server manager, but also Windows Admin Center.

## What You'll Learn

### At Course Completion

- Install and configure domain controllers.
- Manage objects in AD DS by using graphical tools and Windows PowerShell.
- Implement AD DS in complex environments.
- Implement and administer Active Directory Rights Management Services (AD RMS).
- 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 synchronization between AD DS and Azure AD.
- Monitor, troubleshoot, and establish business continuity for AD DS services.

## Who Needs to Attend

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. This would typically include:

- AD DS administrators who are looking to train in identity and access technologies with Windows Server 2016, Windows Server 2019 or Windows Server 2022.
- 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, Windows Server 2019 or Windows Server 2022.

### Prerequisites

- Some exposure to and experience with Active Directory concepts and technologies in Windows Server.
- Experience working with and configuring Windows Server.
- 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 basic server virtualization concepts.
- An awareness of basic security best practices.
- Hands-on working experience with Windows client operating systems such as Windows 10 or Windows 11.
- Basic experience with the Windows PowerShell command-line interface.

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CLASSROOM LIVE

\$2,995 CAD

5 Day

## Classroom Live Outline

### **Module 1: Installing and configuring domain controllers**

This module describes the features of AD DS and how to install domain controllers (DCs). It also covers the considerations for deploying DCs.

#### **Lessons**

- Overview of AD DS
- Overview of AD DS domain controllers
- Deploying a domain controller

### **Module 2: Managing objects in AD DS**

This module describes how to use various techniques to manage objects in AD DS. This includes creating and configuring user, group, and computer objects)

#### **Lessons**

- Managing user accounts
- Managing groups in AD DS
- Managing computer objects in AD DS
- Using Windows PowerShell for AD DS administration
- Implementing and managing OUs

### **Module 3: Advanced AD DS infrastructure management**

This module describes how to plan and implement an AD DS deployment that includes multiple domains and forests. The module provides an overview of the components in an advanced AD DS deployment, the process of implementing a distributed AD DS environment, and the procedure for configuring AD DS trusts.

#### **Lessons**

- Overview of advanced AD DS deployments
- Deploying a distributed AD DS environment
- Configuring AD DS trusts

## **Module 4: Implementing and administering AD DS sites and replication**

This module describes how to plan and implement an AD DS deployment that includes multiple locations. The module explains how replication works in a Windows Server AD DS environment.

### **Lessons**

- Overview of AD DS replication
- Configuring AD DS sites
- Configuring and monitoring AD DS replication

## **Module 5: Implementing Group Policy**

This module describes how to implement a GPO infrastructure. The module provides an overview of the components and technologies that compose the Group Policy framework.

### **Lessons**

- Introducing Group Policy
- Implementing and administering GPOs
- Group Policy scope and Group Policy processing
- Troubleshooting the application of GPOs

## **Module 6: Managing user settings with Group Policy**

This module describes how to configure Group Policy settings and Group Policy preferences. This includes implementing administrative templates, configuring folder redirection and scripts, and configuring Group Policy preferences.

### **Lessons**

- Implementing administrative templates
- Configuring Folder Redirection, software installation, and scripts
- Configuring Group Policy preferences

## **Module 7: Securing Active Directory Domain Services**

This module describes how to configure domain controller security, account security, password security, and Group Managed Service Accounts (gMSA).

### **Lessons**

- Securing domain controllers
- Implementing account security
- Implementing audit authentication
- Configuring managed service accounts

## **Module 8: Deploying and managing AD CS**

This module describes how to implement an AD CS deployment. This includes deploying, administering, and troubleshooting CAs.

### **Lessons**

- Deploying CAs

- Administering CAs
- Troubleshooting and maintaining CAs

### **Module 9: Deploying and managing certificates**

This module describes how to deploy and manage certificates in an AD DS environment. This involves deploying and managing certificate templates, managing certificate revocation and recovery, using certificates in a business environment, and implementing smart cards.

#### **Lessons**

- Deploying and managing certificate templates
- Managing certificate deployment, revocation, and recovery
- Using certificates in a business environment
- Implementing and managing smart cards

### **Module 10: Implementing and administering AD FS**

This module describes AD FS and how to configure AD FS in a single-organization scenario and in a partner-organization scenario.

#### **Lessons**

- Overview of AD FS
- AD FS requirements and planning
- Deploying and configuring AD FS
- Web Application Proxy Overview

### **Module 11: Implementing and administering AD RMS**

This module describes how to implement an AD RMS deployment. The module provides an overview of AD RMS, explains how to deploy and manage an AD RMS infrastructure, and explains how to configure AD RMS content protection.

#### **Lessons**

- Overview of AD RMS
- Deploying and managing an AD RMS infrastructure
- Configuring AD RMS content protection

### **Module 12: Implementing AD DS synchronization with Microsoft Azure AD**

This module describes how to plan and configure directory syncing between Microsoft Azure Active Directory (Azure AD) and on-premises AD DS. The module describes various sync scenarios, such as Azure AD sync, AD FS and Azure AD, and Azure AD Connect.

#### **Lessons**

- Planning and preparing for directory synchronization
- Implementing directory synchronization by using Azure AD Connect
- Managing identities with directory synchronization.

### **Module 13: Monitoring, managing, and recovering AD DS**

This module describes how to monitor, manage, and maintain AD DS to help

achieve high availability of AD DS.

## **Lessons**

- Monitoring AD DS
- Managing the Active Directory database
- Active Directory backup and recovery options for AD DS and other identity and access solutions

## Classroom Live Labs

### **Lab: Deploying and administering AD DS**

- Deploying AD DS
- Deploying domain controllers by performing domain controller cloning
- Administering AD DS

### **Lab: Managing AD DS objects**

- Creating and managing groups in AD DS
- Creating and configuring user accounts in AD DS
- Managing computer objects in AD DS

### **Lab: Administering AD DS**

- Delegate administration for OUs
- Creating and modifying AD DS objects with Windows PowerShell

### **Lab: Domain and trust management in AD DS**

- Implementing forest trusts
- Implementing child domains in AD DS

### **Lab: Implementing AD DS sites and replication**

- Modifying the default site
- Creating additional sites and subnets
- Configuring AD DS replication
- Monitoring and troubleshooting AD DS replication

### **Lab: Implementing a Group Policy infrastructure**

- Creating and configuring GPOs
- Managing GPO scope

### **Lab: Troubleshooting Group Policy infrastructure**

- Verify GPO application
- Troubleshooting GPOs

### **Lab: Managing user settings with GPOs**

- Using administrative templates to manage user settings
- Implement settings by using Group Policy preferences
- Configuring Folder Redirection
- Planning Group Policy (optional)

### **Lab: Securing AD DS**

- Implementing security policies for accounts, passwords, and administrative groups
- Deploying and configuring an RODC
- Creating and associating a group MSA

**Lab: Deploying and configuring a two-tier CA hierarchy**

- Deploying an offline root CA
- Deploying an enterprise subordinate CA

**Lab: Deploying and using certificates**

- Configuring certificate templates
- Enrolling and using certificates
- Configuring and implementing key recovery

**Lab: Implementing AD FS**

- Configuring AD FS prerequisites
- Installing and configuring AD FS
- Configuring an internal application for AD
- Configuring AD FS for federated business partners

**Lab: Implementing an AD RMS infrastructure**

- Installing and configuring AD RMS
- Configuring AD RMS templates
- Using AD RMS on clients

**Lab: Configuring directory synchronization**

- Preparing for directory synchronization
- Configuring directory synchronization
- Managing Active Directory users and groups and monitoring directory synchronization

**Lab: Recovering objects in AD DS**

- Backing up and restoring AD DS
- Recovering objects in AD DS

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VIRTUAL CLASSROOM LIVE

\$2,995 CAD

5 Day

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Aug 31 - Sep 4, 2026 | 9:00 AM - 5:00 PM EDT

Oct 5 - 9, 2026 | 9:00 AM - 5:00 PM EDT

Nov 30 - Dec 4, 2026 | 9:00 AM - 5:00 PM EST

Dec 14 - 18, 2026 | 9:00 AM - 5:00 PM EST



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PRIVATE GROUP TRAINING

5 Day

Visit us at [www.globalknowledge.com](http://www.globalknowledge.com) or call us at 1-866-716-6688.

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