

20742J: Implementing and Administrating Active Directory

Course length: 3 day(s)

Course Description

This three-day instructor-led remote course is created from the 5-day MOC course- 20742: Identity with Windows Server 2016. The 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. Students will receive the full 5-day course kit (digital book and virtual labs) as a part of their enrollment.

Audience Profile

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 current versions of Windows Server.
- 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 current versions of Windows Server.

The secondary audience for this course includes IT professionals who are looking to consolidate their knowledge about AD DS and related technologies, in addition to IT professionals who want to prepare for the 70-742 exam.

Prerequisites

Before attending this course, students must have:

- Some exposure to and experience with AD DS concepts and technologies in Windows Server 2012 or Windows Server 2016.
- Basic experience with the Windows PowerShell command-line interface.
- Experience working with and configuring Windows Server 2012 or Windows Server 2016
- 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.

Course Content (Modules in grey will not be covered in class discussions)

Module 1: Installing and configuring domain controllers

This module covers the features and choices available in Windows Server 2016 for installing AD DS on a server, and it provides an overview of domain controllers.

- Describe AD DS and its main components.
- Describe the purpose and roles of domain controllers.
- Describe the considerations for deploying domain controllers.
- Deploy a domain controller.

Module 2: Managing objects in AD DS

This module describes how to use both graphical tools and Windows PowerShell to manage user and computer accounts and groups. It covers how to manage an enterprise network by performing bulk operations to modify object attributes.

- Manage user accounts in AD DS
- Manage groups in AD DS.
- Manage computer objects in AD DS.
- Use Windows PowerShell for AD DS administration.
- Implement and manage OUs.
- Administer AD DS.

Module 3: Advanced AD DS infrastructure management

This module describes the key components of an advanced AD DS environment, and it explains how to install and configure an advanced AD DS deployment.

- Describe the components of advanced AD DS deployments.
- Deploy a distributed AD DS environment.
- Configure AD DS trusts.

Module 4: Implementing and administering AD DS sites and replication

In this module you will learn how AD DS replicates information between domain controllers within a single site and throughout multiple sites. You also will learn how to create multiple sites and how to monitor replication to help optimize AD DS replication and authentication traffic.

- Describe how AD DS replication works.
- Configure AD DS sites to help optimize authentication and replication traffic.
- Configure and monitor AD DS replication.

Module 5: Implementing Group Policy

This module will explain what Group Policy is and describe how it works and how best to implement it in your organization.

- Explain what Group Policy is.
- Implement and administer GPOs.
- Describe Group Policy scope and Group Policy processing.
- Troubleshoot GPO application.



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Module 6: Managing user settings with Group Policy

In this module, you will learn about administrative templates and using them to configure settings. You also will learn about configuring the Folder Redirection feature, and using GPOs to manage software, and apply and configure scripts. This module also covers the different Group Policy preferences and explains how you can use them to manage settings.

- Implement administrative templates.
- Configure Folder Redirection, software installation, and scripts.
- Configure Group Policy preferences.

Module 7: Securing Active Directory Domain Services

In this module, you will learn how to understand the threats to domain controllers and the methods that you can use to secure AD DS and its domain controllers.

- Secure domain controllers.
- Implement account security.
- Implement audit authentication.
- Configure managed service accounts (MSAs).

Module 8: Deploying and managing AD CS

In this module, you will learn about deploying and managing certification authority (CA).

- Deploy CAs.
- Administer CAs.
- Troubleshoot and maintain CAs.

Module 9: Deploying and managing certificates

In this module, you will learn how to deploy and manage certificates, configure certificate templates, and manage the enrollment process. In addition, you will learn about using certificates in business environments and about deploying and managing smart cards.

- Deploy and manage certificate templates.
- Manage certificate deployment, revocation, and recover.
- Use certificates in a business environment.
- Implement and manage smart cards.

Module 10: Implementing and administering AD FS

In this module, you will learn how to use Active Directory Federation Services (AD FS) to manage your own user accounts.

- Describe AD FS.
- Explain how to deploy AD FS.
- Explain how to implement AD FS for a single organization.
- Explain how to extend AD FS to external clients.
- Implement single sign-on (SSO) to support online services.



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Module 11: Implementing and administering AD RMS

This module introduces you to Active Directory Rights Management Services (AD RMS). It describes how to deploy AD RMS and how to configure content protection.

- Describe AD RMS.
- Deploy and manage an AD RMS infrastructure.
- Configure AD RMS content protection.

Module 12: Implementing AD DS synchronization with Microsoft Azure AD

In this module, you will learn how to plan, prepare, and implement directory synchronization between local AD DS and Azure AD. This module covers how to prepare an on-premises environment for directory synchronization, install and configure directory synchronization, and manage identities after you enable directory synchronization.

- Plan and prepare for directory synchronization.
- Implement directory synchronization by using Microsoft Azure Active Directory Connect (Azure AD Connect).
- Manage identities with directory synchronization.

Module 13: Monitoring, managing, and recovering AD DS

In this module, you will learn about the technologies and tools that are available to help you ensure the health and reliability of AD DS. You will explore tools that help you monitor performance in real time, and you will learn to record performance over time to spot potential problems by observing performance trends. You also will learn how to optimize and protect your directory service and related identity and access solutions, so that if a service does fail, you can restart it as quickly as possible.

- Monitor AD DS.
- Manage the Active Directory database.
- Describe the backup and recovery options for AD DS and other identity and access solutions.