

M55630A - Managing Windows Environments with Group Policy

Duration

4 Days

Level

300 - Advanced

Vendor

Microsoft, Group Policy

Legacy MOC Code

M50255A

Course

Overview

This 4-day course is intended to provide you with the knowledge and skills to plan, implement, maintain, and troubleshoot an Active Directory Group Policy environment.

Audience

Profile

This course is aimed at IT professionals who are responsible for implementing, supporting, and troubleshooting on-premises compute environments based around Active Directory and Group Policy.

By completing this course, you'll be able to:

- Remotely manage devices
- Implement Local Group Policy Processing
- Implement Active Directory
- Plan and implement OUs
- Plan Group Policy
- Implement a Group Policy infrastructure
- Understand, configure, and troubleshoot Group Policy Processing
- Manage apps with Group Policy

- Manage user settings with Group Policy
- Implement and manage preferences
- Configure security with Group Policy
- Maintain Windows 11 with Group Policy
- Manage and Troubleshoot GPOs

Course

Outline

Module 1: Implementing local and remote management

In this module, students learn about the skills and tools needed to manage Windows 11 and Windows Server locally – both using the administrative consoles and the command line.

Module outline:

Lesson 1: Overview of Windows 11 and Windows Server local management tools

- Overview of Windows 11 and Windows Server local management tools
- Implementing command line administration
- Implementing remote administration
- Using Windows Admin Center

Lesson 2: Implementing command line administration

- Overview of Windows PowerShell
- Windows PowerShell ISE
- Overview of PowerShell Remoting
- Running remote commands

Lesson 3: Implementing remote administration

- Overview of Remote Server Administration Tools
- Implementing Remote Desktop

Lesson 4: Using Windows Admin Center

- What is Windows Admin Center?

- Installing Windows Admin Center
- Using Windows Admin Center

Lab: Implementing local and remote management

Module 2: What is Local Group Policy?

In this module, students learn about the fundamentals of local GPO processing, and how to configure standalone workstations using local GPO.

Module outline:

Lesson 1: Overview of Local Group Policies

- Opening the Local Group Policy management editor
- Multiple local group policies

Lesson 2: Local Group Policy Processing

- Local order of precedence
- How domain-joined computers impact the process

Lab: Implementing local Group Policy

Module 3: Administering Active Directory

In this module, students are introduced to AD DS, learning about sites, subnets, replication, and domain controllers.

Module outline:

Lesson 1: AD DS fundamentals

- What are the components of AD DS?
- What is the AD DS schema?
- What is an AD DS forest?
- What is an AD DS domain?
- What are OUs?
- Overview of administration tools

Lesson 2: Domain controllers

- What is a domain controller?

- What is a global catalog?
- Overview of domain controller SRV records
- Sites and SRV records
- AD DS sign-in process
- Managing FSMO roles
- Installing a domain controller

Lesson 3: How AD DS replication works

- What are AD DS partitions?
- Characteristics of AD DS replication
- How replication works within a site
- How SYSVOL replication works

Lesson 4: What are sites and subnets?

- What are AD DS sites?
- Why implement additional sites?
- How replication works between sites
- What is the ISTG?
- Overview of SRV records
- How client computers locate domain controllers within sites

Lesson 5: Configuring and monitoring AD DS replication

- What are AD DS site links?
- What is universal group membership caching?
- Managing intersite replication
- Tools for monitoring and managing replication

Lab: Implementing and administering AD DS

Module 4: Working with OUs

In this module, students learn what an OU is, and how to create them. They will also learn how to migrate users, groups, and devices to the appropriate OU – both during domain join and after.

Module outline:

Lesson 1: Planning OUs

- Choosing an OU strategy
- OU hierarchy considerations

Lesson 2: Implementing OUs

- Creating OUs
- Delegating AD DS permissions

Lab: Creating and managing OUs

Module 5: Overview of Group Policy

In this module, students learn about the management tools available for administering GPOs. They'll also learn about the difference between settings and preferences, client-side extensions, and administrative templates.

Module outline:

Lesson 1: Introducing Group Policy

- Tools for managing Group Policy
- Group Policy fundamentals.
- Overview of Group Policy management
- Hierarchy of the Group Policy Management Editor
- Group Policy Client service and client-side extensions
- Group policy refresh
- What are domain-based GPOs?
- GPO storage

Lesson 2: Group Policy administration fundamentals

- Benefits of using Group Policy

- Creating Group Policy Objects
- Overview of GPO application
- What are starter GPOs?

Lab: Creating a GPO

Module 6: Implementing a Group Policy infrastructure

In this module, students learn about how to implement an appropriate Group Policy infrastructure.

Module outline:

Lesson 1: Managing GPOs

- Common GPO management tasks
- Delegating administration of Group Policy

Lesson 2: Implementing administrative templates

- What are administrative templates?
- Overview of the central store

Lab: Implementing a Group Policy infrastructure

Module 7: Managing Group Policy Processing

In this module, students learn about the default behavior for GPO processing and how to change that behavior. They'll learn to use the various GPO management tools.

Module outline:

Lesson 1: How GPOs are processed

- Overview of GPO processing
- What are GPO links?
- Group Policy Processing Order
- Conflict Resolution
- Loopback policy processing
- Considerations for slow links and disconnected systems

Lesson 2: Changing GPO processing behavior

- Changing GPO application through link order
- Changing GPO application with enforcement
- Changing GPO application with Block inheritance
- Using filtering to modify Group Policy scope
- How to enable or disable GPOs and GPO nodes

Lab: Managing Group Policy Processing

Module 8: Managing apps

In this module, students learn how to deploy and update apps using GPO. They'll also learn how to restrict which apps users can run by implementing AppLocker

Module outline:

Lesson 1: Managing Win32 apps

- Windows 11 system architecture
- Types of app
- Deploying apps to Windows 11
- What is AppLocker?
- Microsoft Defender Device Guard and Microsoft Defender Application Control

Lesson 2: Managing UWP apps

- What is the Microsoft Store?
- Restricting access to the Microsoft Store

Lab: Managing apps

Module 9: Managing user settings

In this module, students learn how best to configure the user environment. This will involve implementing UEV, folder redirection, offline file access, and UAC.

Module outline:

Lesson 1: Managing user profiles

- What is user state?
- Overview of user profiles

- What is UE-V?

Lesson 2: Synchronizing user data with Folder Redirection

- What is Folder Redirection?
- Implementing Folder Redirection
- Troubleshooting Folder Redirection

Lesson 3: Implementing scripts

- Group Policy settings for applying scripts
- Setup steps for scripts
- Assign the relevant script to your GPO

Lab: Managing user settings

Module 10: Managing preferences

In this module, students learn about the difference between settings and preferences, and how to configure the latter.

Module outline:

Lesson 1: Implementing preferences

- What are Group Policy preferences?
- Group Policy preferences processing
- Available preferences
- Configure preferences

Lesson 2: Using item-level targeting

- What is Item-Level targeting?
- Configuring targeting

Lab: Managing preferences

Module 11: Configuring security

In this module, students learn about the core security features of Windows 11. They'll also learn how to configure those settings with Group Policy

Module outline:

Lesson 1: Managing user security

- Implementing Account Policies
- Implementing User Rights Assignment
- Implementing Security Options
- Implementing User Account Control
- Using security templates
- Modifying the security settings of domain controllers

Lesson 2: Deploying certificates

- What is AD CS?
- Managing PKI with Group Policy
- What are certificates and certificate templates?
- Overview of certificate autoenrollment

Lesson 3: Implementing Windows 11 security

- Overview of Windows 11 security features
- What are the common network security threats?
- Configuring Windows Defender Firewall
- Implementing BitLocker

Lab: Configuring security

Module 12: Maintaining Windows 11

In this module, students learn about keeping Windows 11 up to date. They will also learn how to implement Desired State Configuration.

Module outline:

Lesson 1: Overview of Windows Update

- What are the available Servicing Channels?
- How can you apply updates?
- Windows Server Update Services

Lesson 2: Updating Windows

- Configuring Windows Update settings
- Using Group Policy to configure Windows updates

Lab: Maintaining Windows 11

Module 13: Troubleshooting GPOs

In this module, students learn about how to maintain GPOs and, when needed, how to resolve problems with the application of GPOs on their users' devices.

Module outline:

Lesson 1: Group Policy processing review

- How Group Policy applies
- An approach to resolving GPO application failures
- Available troubleshooting tools

Lesson 2: Identifying and resolving Group Policy application issues

- Using Resultant Set of Policy
- Examining Group Policy event logs
- Detecting Group Policy health issues

Lab: Managing and Troubleshooting GPOs