

KOENIG SOLUTIONS • COURSE OUTLINE

MS-50255 Managing Windows Environments with Group Policy

Learn to design, deploy and troubleshoot Group Policy to secure, configure and automate Windows environments with GPMC and PowerShell.

5 Days

40 HOURS

13

MODULES

59

TOPICS

47

HANDS-ON LABS

COURSE OVERVIEW

The MS-50255 Managing Windows Environments with Group Policy course is a comprehensive group policy training program designed to equip IT professionals with the skills needed to effectively manage and automate the configuration of Windows operating systems using Group Policy. The course covers a wide range of topics, from the basics of configuration management to advanced techniques for troubleshooting and securing Windows environments. Participants will delve into Group Policy's features, learn to use the Group Policy Management Console (GPMC), design a Group Policy infrastructure, and understand the intricacies of Group Policy processing. Additionally, the course provides insights into securing Windows, implementing Application security, configuring the desktop environment, User state virtualization, and Software deployment. PowerShell Scripting and Desired State Configuration (DSC) are also key components of the curriculum, offering powerful tools for automation and maintenance. Upon completing this group policy course, learners will have a solid foundation for managing Group Policy objects (GPOs) effectively and ensuring their Windows environments are secure, compliant, and optimized for user productivity.

Who Should Attend

The MS-50255 course offers in-depth training on managing Windows environments using Group Policy, ideal for IT professionals.

Systems Administrators

IT Managers

Network Administrators

Desktop Support Technicians

Windows Server Administrators

Active Directory Engineers

Group Policy Specialists

IT Professionals looking to enhance their automation and policy management skills

Security Administrators responsible for securing Windows environments

Infrastructure Architects designing Group Policy strategies

Technical Consultants who assist organizations in optimizing their IT environments

Compliance Officers managing corporate governance and compliance with IT standards

IT Support Staff who need to understand the working and troubleshooting of Group Policies

Systems Engineers focusing on desktop and user environment configurations

LEARNING OBJECTIVES

- Explain configuration management concepts using Group Policy
- Apply Group Policy Management Console tools to manage policies
- Plan and design a Group Policy infrastructure
- Analyse the architecture of Group Policy processing
- Troubleshoot and back up Group Policy objects
- Implement security settings for users, computers and applications
- Configure desktop environment and user state virtualization settings
- Deploy software packages and scripts using Group Policy

COURSE SYLLABUS

13 Modules, 59 Topics

01

3 Labs

Introduction to Configuration Management

This module describes the basis of what configuration management is and how it functions.

TOPICS

- Configuration Management Overview
- Configuration Management Using Group Policy
- Group Policy Features Introduced with Later Versions of Windows
- Using Windows PowerShell in the Configuration Management Process

02**3 Labs**

Using Group Policy Management Tools

This module describes the differences between local and domain policies and the Group Policy management tools you can use to manage these policies. This module also describes the Group Policy refresh process and how to manually force a refresh ahead of the default interval.

TOPICS

Local and Domain Policies · Using Group Policy Management Console · Understanding Group Policy Refresh

03**4 Labs**

Designing a Group Policy Infrastructure

This module details the steps a successful Group Policy deployment should follow, linking your design to how your company can best use the features. Essential network components and security design are also defined.

TOPICS

- Design Stages for a Group Policy Infrastructure
- Planning your Group Policy Design
- Designing Your Group Policy Solution
- Deploying Your Group Policy Solution
- Managing Your Group Policy Solution

04**5 Labs**

Understanding the Architecture of Group Policy Processing

This module details the concepts that you must grasp in order to troubleshoot Group Policy. The module also describes the options that are available to change the standard Group Policy processing sequence.

TOPICS

- Group Policy Components in AD DS
- Understanding the Group Policy Deployment Order
- Modifying Group Policy Processing

05**3 Labs**

Troubleshooting and Backing Up GPOs

This module explains how to use the RSoP tools to determine whether policies are being processed in the correct manner. This module discusses how to use the available tools to troubleshoot policy issues; back up, restore, import, copy, and search for GPOs; and migrate GPOs from one domain to another.

TOPICS

- Using Group Policy Troubleshooting Tools
- Integration of RSoP Functionality
- Group Policy Logging Options
- Backing Up, Restoring, Importing, and Copying GPOs
- Building Migration Tables

06**5 Labs**

Securing Windows Using Group Policy

This module defines the Windows security model and describes the process of using Group Policy to implement user account, computer account, and domain security.

TOPICS

- Exploring the Windows Security Architecture
- Securing User Accounts
- Exploring Security Policies
- Windows Firewall with Advanced Security
- Implementing Domain Security
- Security Policy Options for Window Client and Windows Server

07**4 Labs**

Implementing Application Security Using Group Policy

This module describes the process of securing applications in a Windows environment. It also explains how to implement UAC (User Account Control) to help prevent users from running unauthorized software, reducing the likelihood that viruses, Trojan horses, or spyware that might intrude upon the environment.

TOPICS

Managing UAC Settings · Defending Against Malware · Using AppLocker to Restrict Software · Implementing Windows App Security Settings

Configuring the Desktop Environment with Group Policy

This module explains many of the settings that are available to configure and restrict the user desktop environment, such as Control Panel restrictions, Start Menu settings, and Windows Explorer configuration.

TOPICS

- Exploring Script Types and Controlling Script Execution
- Defining the Desktop, Start Menu, and Taskbar Settings
- Defining the Control Panel Settings
- Defining the Windows Components Settings
- Configuring the Printer Management and Pruning Settings
- Defining the Network Settings
- Discovering the new Group Policy Settings

Implementing User State Virtualization

This module explains the different options available to maintain the user's personal files and settings.

TOPICS

Configuring Folder Redirection · Managing Offline Files · Implementing User Experience Virtualization · OneDrive for Business

Assigning and Publishing Software Packages

This module explains how to use Group Policy for deploying software.

TOPICS

- Using MSI Packages to Distribute Software
- Using Group Policy as a Software Deployment Method
- Deploying Software
- Setting Up Distribution Points
- Using the Systems Center Configuration Manager to Distribute Software

Configuration Management with Windows PowerShell

This module explains how to navigate and use basic Windows PowerShell commands and how to use Windows PowerShell to manage Group Policy. It also explains how you can use PowerShell logon scripts with Group Policy.

TOPICS

Introducing Windows PowerShell · Using Windows PowerShell · Writing PowerShell Scripts · Windows PowerShell Library for Group Policy · Windows PowerShell-Based Logon Scripts

12

3 Labs

Implementing PowerShell Desired State Configuration

This module will describe what DSC is all about and how to implement DSC to manage systems on the network.

TOPICS

Introducing Group Policy Preferences · Comparing Preferences and Policy Settings · Options for Applying Preferences · Configure Preference Settings

13

2 Labs

Configuring Group Policy Preferences

This module describes the function of Group Policy Preferences. You will learn how to combine Preferences and Policies, and how Preferences are different from Policies.

TOPICS

Introducing Group Policy Preferences · Comparing Preferences and Policy Settings · Options for Applying Preferences · Configuring Preferences Settings

HANDS-ON LABS

Practise What You Learn

#	MODULE	ACTIVITY
01	Introduction to Configuration Management	■ Boot and join the lab virtual machines to the domain ■ Explore the default Policy Settings ■ Explore Windows 10 and Windows Server 2016 interface
02	Using Group Policy Management Tools	■ Working with Multiple Local Policies ■ Installing the GPMC on various Windows operating systems ■ Basic Group Policy Management techniques
03	Designing a Group Policy Infrastructure	■ Creating an OU Structure for Group Policy ■ Delegating GPO Management ■ Creating Starter GPOs ■ Using the AGPM to manage policies
04	Understanding the Architecture of Group Policy Processing	■ Working with Multiple GPO Levels ■ Using the Block Inheritance and Enforce Options ■ Implementing Security Filtering ■ Creating a WMI Filter ■ Working with Loopback Processing

#	MODULE	ACTIVITY
05	Troubleshooting and Backing Up GPOs	■ Using Tools for Troubleshooting ■ Backing Up and Restoring GPOs ■ Use Command Line Tools to Perform GPO Maintenance
06	Securing Windows Using Group Policy	■ Using the Security Compliance Manager ■ Managing Auditing with a GOP ■ Create and Test Restricted Groups ■ Implement Security Templates ■ Creating a Windows Firewall Policy
07	Implementing Application Security Using Group Policy	■ Implementing UAC ■ Using AppLocker to Restrict Software ■ Configure Windows Defender with Group Policy ■ Windows 8.1 Client Lock Screen and App Policies
08	Configuring the Desktop Environment with Group Policy	■ Using Logon Scripts ■ Configuring Desktop Settings ■ Managing Windows Components ■ Configuring Printers with Group Policy ■ Managing Network Settings
09	Implementing User State Virtualization	■ Preparing for Folder Redirection, Offline Files, and UE-V ■ Configuring Folder Redirection ■ Managing Offline Files ■ Implementing User Experience Virtualization
10	Assigning and Publishing Software Packages	■ Creating a Shared Directory Structure on a Server ■ Creating a Custom MSI package ■ Repackaging an Existing Install Package ■ Deploying Software Packages with a GPO
11	Configuration Management with Windows PowerShell	■ Exploring the Windows PowerShell ■ Using Windows PowerShell to Manage GPOs
12	Implementing PowerShell Desired State Configuration	■ Write a PowerShell Desired State Configuration Script ■ Create a DSC ■ Implement DSC
13	Configuring Group Policy Preferences	■ Implementing Computer Preferences ■ Implementing User Preferences

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

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✉ info@koenig-solutions.com