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**Learning Style:** Virtual Classroom

**Technology:** Microsoft

**Difficulty:** Intermediate

**Course Duration:** 5 Days

## Managing Windows Environments with Group Policy (MS-50255)



## About this Course:

Here you are going to learn how to contain the costs and increase the pace of your network efficiency. The student will inquire how to integrate the administration of an enterprise's IT infrastructure with group policy, and the control and management of computer systems and domain users operating Windows Clients and Windows Server. Additionally, developing group policies, executing administrative and security templates, and examining the most appropriate practices for software packages deployment. In short, students acquire the learning and experience on how to optimize the networks and systems, uncover suitable practices for software deployment, and execute security and administrative templates at the enterprise level.

## Course Objectives:

- Characteristics and functionalities of Group Policies
- Using management tools related to Group Policy for security policies management
- Craft an infrastructure of Group Policy
- Group Policy processing architecture
- The backing, importing, restoring, and copying of Group Policy objects from Group Policy
- Management console
- Using Windows PowerShell for Group Policy management
- Using Group Policy to execute security
- Altering the environment of desktop with Group Policy
- Configuring Folder Redirection and roaming profiles
- Designating and publishing of software packages
- Incorporation of policies related to software restriction and AppLocker
- Creation and deployment of administrative templates
- Configuration of Group Policies preferences

## Audience:

- This course is primarily intended for employees catering enterprise networking for help desk assistance, network design, and system administrative procedures.

## Prerequisite:

- Sound knowledge and experience related to Microsoft Windows Server 2008/2012 environments and a basic knowhow of Active Directory.

## Course Outline:

## **Module 1: Introduction to Configuration Management**

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

### **Lessons**

- 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

### **Lab : Introducing Configuration Management**

- Viewing the Policies of a Domain Joined Server
- Preparing Windows 8.1 Client for Domain Policies
- Preparing Windows 7 for Domain Policies
- Define configuration management
- List the ways you can use configuration management in Windows
- Describe the new Group Policy features available in the latest versions of Windows

## **Module 2: 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.

### **Lessons**

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

### **Lab : Using Group Policy Management Tools**

- Working with Multiple Local Policies
- Installing RSAT on a Member Server
- Installing the GPMC on Windows 8.1 Client
- Basic Group Policy Management
- Installing the GPMC on Windows 7
- Describe the advantages of using domain policies instead of local policies
- List the capabilities of the Group Policy Management Console
- Describe the requirements for installing the Group Policy Management Console
- Explain how to use the different GPMC features to create and manage policies
- Describe the elements of the gpupdate command

## **Module 3: 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.

## **Lessons**

- 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

## **Lab : Designing a Group Policy Infrastructure**

- Creating an OU Structure for Group Policy
- Delegating GPO Management
- Creating Starter GPOs
- Installing and Configuring the AGPM
- Describe the four stages of implementing Group Policy
- Explain how to plan Group Policy in accordance with a company's requirements
- Describe the guidelines that you should follow when you create new GPOs
- Explain how to manage Group Policy by delegating administration and setting permissions

## **Module 4: 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.

## **Lessons**

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

## **Lab : Understanding the Group Policy Processing Architecture**

- Working with Multiple GPO Levels
- Using the Block Inheritance and Enforce Options
- Implementing Security Filtering
- Creating a WMI Filter
- Working with Loopback Processing
- Describe the Active Directory components that you can use to deploy Group Policy
- Explain the order in which Group Policy is deployed in Active Directory
- Describe the methods that are available to modify Group Policy processing

## **Module 5: 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.

## **Lessons**

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

## **Lab : Troubleshooting and Backing Up GPOs**

- Using Tools for Troubleshooting
- Backing Up and Restoring GPOs
- Describe the Group Policy troubleshooting tools
- Describe the GPMC tools that have RSoP functionality
- Describe the GPO logging tools used to obtain more detail about the GPO processing issues
- Explain how to back up, restore, import, and copy GPOs using the GPMC
- Explain how to build migration tables

## **Module 6: 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.

## **Lessons**

- Exploring the Windows Security Architecture
- Securing User Accounts
- Exploring Security Policies
- Windows Firewall with Advanced Security
- Implementing Domain Security

## **Lab : Securing Windows Using Group Policy**

- Using the Security Compliance Manager
- Configuring Enterprise Auditing through Group Policy
- Configuring Restricted Groups
- Using Security Templates
- Creating a Windows Firewall Policy
- Describe the Windows security architecture
- Explain how to secure user accounts with Group Policy
- Explain how to harden computer accounts
- Explain how to control the domain security policy with a GPO

## **Module 7: 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 might intrude upon the environment.

## **Lessons**

- Managing UAC Settings
- Defending Against Malware
- Using AppLocker to Restrict Software
- Implementing Windows 8 App Security Settings

## **Lab : Implementing Application Security Using Group Policy**

- Implementing UAC
- Using Windows Defender
- Using AppLocker to Restrict Software
- Windows 8.1 Client Lock Screen and App Policies
- Describe UAC
- Describe the AppLocker features
- Explain the features of Windows 8 Apps

## **Module 8: 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.

## **Lessons**

- 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
- New Settings for Windows 8 Client and Windows Server 2012

## **Lab : Configuring the Desktop Environment with Group Policy**

- Using Logon Scripts
- Configuring Desktop Settings
- Managing Windows Components
- Configuring Printers with Group Policy
- Managing Network Settings
- Describe the startup, shutdown, logon, and logoff scripts and settings.
- Identify the many ways to control the user desktop, Start menu, and taskbar settings
- Explain how to restrict the Control Panel settings
- Explain how to restrict operations that users can perform in Windows

- Explorer, Windows Internet Explorer, and Remote Desktop Services
- Explain how to configure the printer management and pruning settings
- Describe the network settings

## **Module 9: Implementing User State Virtualization**

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

### **Lessons**

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

### **Lab : Implementing User State Virtualization**

- Preparing for Folder Redirection, Offline Files, and UE-V
- Configuring Folder Redirection
- Managing Offline Files
- Implementing User Experience Virtualization
- Explain how to redirect user folders to a server
- Describe the Offline Files feature
- Explain the purpose of User Ex