

# **Managing and Maintaining a Microsoft Windows Server 2003 Environment**

*Course 2273—Five Days (Classroom) Instructor-Led*

## ***Introduction***

This course provides students with the knowledge and skills that are required to manage accounts and resources, maintain server resources, monitor server performance, and safeguard data in a Microsoft Windows Server™ 2003 environment.

This is the first course in the Systems Administrator and Systems Engineer tracks for Windows Server 2003 and serves as the entry point for other courses in the Windows Server 2003 curriculum.

## ***Audience***

This course is intended for individuals who are employed as or seeking employment as a systems administrator or systems engineer.

## ***At Course Completion***

After completing this course, students will be able to:

- Create and populate organizational units with user and computer accounts.
- Manage user and computer accounts.
- Create and manage groups.
- Manage access to resources.
- Implement printing.
- Manage printing.
- Manage access to objects in organizational units.
- Implement Group Policy.
- Manage the user and computer environment by using Group Policy.
- Audit accounts and resources.
- Prepare to administer server resources.
- Configure a server to monitor system performance.
- Monitor system performance.
- Manage device drivers by configuring device driver signing and restoring a device driver.
- Manage hard disks.
- Manage data storage.
- Manage disaster recovery.
- Maintain software by using Microsoft Software Update Services.

## ***Prerequisites***

Before attending this course, students must have:

- CompTIA A+ certification, or equivalent knowledge and skills.
- CompTIA Network+ certification, or equivalent knowledge and skills.

## **Microsoft Certified Professional Exams**

This course will help the student prepare for the following Microsoft Certified Professional exam:

- [Exam 70-290](#): Managing and Maintaining a Microsoft Windows Server 2003 Environment

## **Student Materials**

The student kit contains these items:

- Printed student workbooks.
- Windows Server 2003 Enterprise Edition, 180-day evaluation version.

## **Course Outline**

### **Part 1: Managing a Microsoft Windows Server 2003 Environment**

#### **Module 1: Introduction to Administering Accounts and Resources**

This module explains how to administer accounts and resources on computers running Microsoft Windows Server 2003 software in a networked environment.

#### **Lessons**

- Multimedia: Introduction to Administering Accounts and Resources
- The Windows Server 2003 Family
- Logging on to Windows Server 2003
- Installing and Configuring Administrative Tools
- Creating User Accounts
- Creating Computer Accounts
- Creating an Organizational Unit

#### **Lab A: Creating Accounts and Organizational Units**

- Creating an Organizational Unit Hierarchy
- Creating Computer Accounts
- Creating User Accounts

After completing this module, students will be able to:

- Describe features of the Windows 2003 Server family.
- Log on to Windows Server 2003.
- Install and configure administrative tools.
- Create user accounts.
- Create computer accounts.
- Create an organizational unit.

#### **Module 2: Managing User and Computer Accounts**

This module explains how to modify user and computer accounts on computers running Microsoft Windows Server 2003 in a networked environment.

### **Lessons**

- Modifying Users and Computer Account Properties
- Enabling and Unlocking User and Computer Accounts
- Creating a User Account Template
- Locating User and Computer Accounts in Active Directory
- Saving Queries
- Resetting User and Computer Accounts
- Moving Domain Objects

### **Lab A: Managing User and Computer Accounts**

- Searching for and Moving User Accounts
- Searching for and Moving Computer Accounts
- Searching for and Enabling User Accounts

After completing this module, students will be able to:

- Modify user and computer account properties.
- Enable and unlock user and computer accounts.
- Create a user account template.
- Locate user and computer accounts in the Active Directory® directory service.
- Save queries.
- Reset user and computer accounts.
- Move domain objects.

### **Module 3: Managing Groups**

This module explains how to perform various administrative functions by using groups.

### **Lessons**

- Creating Groups
- Managing Group Membership
- Strategies for Using Groups
- Modifying Groups
- Using Default Groups
- Best Practices for Managing Groups

### **Lab A: Creating and Managing Groups**

- Creating and Managing Groups

After completing this module, students will be able to:

- Create groups.

- Manage group membership.
- Apply strategies for using groups.
- Modify groups.
- Manage default groups.

#### **Module 4: Managing Access to Resources**

This module explains how to enable resource access with permissions, manage access to files and folders by using permissions, and manage permission inheritance.

##### **Lessons**

- Overview of Managing Access to Resources
- Managing Access to Shared Folders
- Managing Access to Files and Folders Using NTFS Permissions
- Determining Effective Permissions
- Managing Access to Shared Files Using Offline Caching

##### **Lab A: Managing Access to Resources**

- Configuring Access for Manufacturing Personnel
- Configuring Access for Marketing Personnel
- Configuring Access for Purchasing Personnel

After completing this module, students will be able to:

- Manage access to resources.
- Manage access to shared folders.
- Manage access to files and folders by using NTFS permissions.
- Determine effective permissions.
- Manage access to shared files by using offline caching.

#### **Module 5: Implementing Printing**

This module explains how to implement printing in a Windows Server 2003 environment.

##### **Lessons**

- Multimedia: Introduction to Printing in the Windows Server 2003 Family
- Installing and Sharing Printers
- Managing Access to Printers Using Shared Printer Permissions
- Managing Printer Drivers
- Implementing Printer Locations

##### **Lab A: Implementing Printing**

- Install Printers
- Browse Network Printers with Locations

After completing this module, students will be able to:

- Explain the printing process in the Windows Server 2003 family.
- Install and share printers.
- Manage access to printers by using shared printer permissions.
- Manage printer drivers.
- Implement printer locations.

## **Module 6: Managing Printing**

This module explains how to set up a network-wide printing strategy to meet the needs of users and troubleshoot installation or configuration problems.

### **Lessons**

- Changing the Location of the Print Spooler
- Setting Printer Priorities
- Scheduling Printer Availability
- Configuring a Printing Pool

### **Lab A: Managing Printing**

- Creating Printing Pools
- Setting Printer Priorities and Availability

After completing this module, students will be able to:

- Change the location of the print spooler.
- Set printing priorities.
- Schedule printer availability.
- Configure a printing pool.

## **Module 7: Managing Access to Objects in Organizational Units**

This module explains the permissions available for managing access to Active Directory objects, how to move objects between organizational units in the same domain, and how to delegate control of an organizational unit.

### **Lessons**

- Multimedia: The Role of the Organizational Unit
- Modifying Permissions for Active Directory Objects
- Delegating Control of Organizational Units

### **Lab A: Managing Access to Objects in Organizational Units**

- Delegating Administrative Control
- Documenting Security of an Object Created in an Organizational Unit

After completing this module, students will be able to:

- Identify the role of organizational units.
- Modify permissions for Active Directory objects.

- Delegate control of organizational units.

### **Module 8: Implementing Group Policy**

This module explains the purpose and function of Group Policy in a Microsoft Windows Server 2003 environment. It also explains how to implement Group Policy objects (GPOs) and manage GPOs.

#### **Lessons**

- Implementing GPOs
- Implementing GPOs on a Domain
- Managing the Deployment of Group Policy

#### **Lab A: Implementing a GPO**

- Creating and Linking GPOs
- Configuring Group Filtering on GPOs
- Configuring the Enforcement of GPOs
- Configuring the Blocking of GPOs

After completing this module, students will be able to:

- Implement a local GPO.
- Implement GPOs on a domain.
- Manage the deployment of Group Policy.

### **Module 9: Managing the User Environment by Using Group Policy**

This module explains how to use Group Policy to configure Folder Redirection, Microsoft Internet Explorer connectivity, and the desktop.

#### **Lessons**

- Configuring Group Policy Settings
- Assigning Scripts with Group Policy
- Configuring Folder Redirection
- Determining Applied GPOs

#### **Lab A: Using Group Policy Reports**

- Creating a Group Policy
- Generating a Group Policy Modeling Report
- Generating a Group Policy Results Report

After completing this module, students will be able to:

- Configure Group Policy settings.
- Assign scripts with Group Policy.
- Configure Folder Redirection.
- Determine applied GPOs.

## **Module 10: Introduction to Security in Windows Server 2003**

This module explains how to use Group Policy to configure Folder Redirection, Microsoft Internet Explorer connectivity, and the desktop.

### **Lessons**

- Overview of Security in Windows Server 2003
- Using Security Templates to Secure Computers
- Testing Computer Security Policy
- Configuring Auditing
- Managing Security Logs

### **Lab A: Managing Security Settings**

- Creating a Custom Template
- Testing a Custom Template
- Deploying a Custom Template by Using a GPO
- Configuring and Testing Security Audits of Organizational Units

After completing this module, students will be able to:

- Provide an overview of security in Windows Server 2003.
- Use security templates to secure computers.
- Test computer security policy.
- Configure auditing.
- Manage security logs.

## **Part 2: Maintaining a Microsoft Windows Server 2003 Environment**

### **Module 1: Preparing to Administer a Server**

This module explains how to administer a server. It describes how to manage servers remotely, what tools to use, and the rights and permissions that are needed to administer a server.

### **Lessons**

- Administering a Server
- Configuring Remote Desktop to Administer a Server
- Managing Remote Desktop Connections

### **Lab A: Preparing to Administer a Server**

- Creating a Shared Folder on a Remote Computer
- Defragmenting a Disk on a Remote Computer
- Connecting to a Remote Console Session
- Creating Shortcuts to Administration Tools

After completing this module, students will be able to:

- Explain the tasks, tools, and rights that are required to administer a server.
- Configure Remote Desktop for Administration and client preferences.
- Manage remote desktop connections.

## **Module 2: Preparing to Monitor Server Performance**

This module explains how to monitor server performance by using performance tools, configure and manage performance logs, configure and manage alerts, and manage system monitor views.

### **Lessons**

- Introduction to Monitoring Server Performance
- Performing Real-Time and Logged Monitoring
- Configuring and Managing Counter Logs
- Configuring Alerts

### **Lab A: Preparing to Monitor Server Performance**

- Selecting the Appropriate Monitoring Technique

After completing this module, students will be able to:

- Establish a performance baseline.
- Perform real-time and logged monitoring.
- Configure and manage counter logs.
- Configure alerts.

## **Module 3: Monitoring Server Performance**

This module explains how to collect performance data by monitoring primary server subsystems. It also covers how to identify system bottlenecks by using the Performance console and Task Manager in Microsoft Windows Server 2003.

### **Lessons**

- Monitoring Server Memory
- Monitoring Processor Usage
- Monitoring Disks
- Monitoring Network Usage

### **Lab A: Monitoring Server Performance**

- Starting Performance with Administrative Controls
- Configuring System Monitor to Track High CPU Usage
- Creating and Configuring an Alert in Performance Logs and Alerts to Track High CPU Usage
- Enabling the Messenger Service
- Testing the High CPU Usage Alert

After completing this module, students will be able to:

- Explain how the four primary server subsystems affect server performance.
- Monitor server memory.
- Monitor processor usage.
- Monitor disks.
- Monitor network usage.
- Identify the guidelines for using counters and thresholds.
- Describe the best practices for monitoring server performance.

#### **Module 4: Maintaining Device Drivers**

This module explains how to maintain device drivers.

##### **Lessons**

- Configuring Device Driver Signing Options
- Using Device Driver Rollback

##### **Lab A: Maintaining Device Drivers**

- Viewing the Current File Signature Verification Setting
- Modifying the Default Setting
- Adding a Computer to the Organizational Unit
- Verifying the New File Signature Verification Setting

After completing this module, students will be able to:

- Configure device driver signing.
- Restore the previous version of a device driver.

#### **Module 5: Managing Disks**

This module explains how to manage disks and how to use the tools to manage and set up disks.

##### **Lessons**

- Preparing Disks
- Managing Disk Properties
- Managing Mounted Drives
- Converting Disks
- Creating Volumes
- Importing a Foreign Disk

##### **Lab A: Managing Disks**

- Mounting Drive E to D:\Graphics
- Changing Drive Letter D to X
- Removing Mounted Drive E

- Changing Drive Letter X to D

After completing this module, students will be able to:

- Initialize and partition a disk.
- View and update disk properties.
- Manage mounted drives.
- Create volumes on a disk.
- Convert a disk from basic to dynamic and from dynamic to basic.
- Import disks.

### **Module 6: Managing Data Storage**

This module explains the Encrypting File System (EFS), which contributes to the safe storage of data and helps to keep the network from harm. It also explains how to administer disk quotas.

#### **Lessons**

- Managing File Compression
- Configuring File Encryption
- Implementing Disk Quotas

#### **Lab A: Managing Data**

- Configuring Disk Quota Entries
- Exporting Disk Quota Entries
- Importing Disk Quota Entries
- Compressing a Folder
- Encrypting a Folder

After completing this module, students will be able to:

- Manage NTFS file compression.
- Configure file encryption.
- Implement disk quotas.

### **Module 7: Managing Disaster Recovery**

This module explains how to plan for a computer disaster and how to use the features of Windows Server 2003 to prevent a disaster or recover when one occurs.

#### **Lessons**

- Preparing for Disaster Recovery
- Backing Up Data
- Scheduling Backup Jobs

- Restoring Data
- Recovering from Server Failure
- Selecting Disaster Recovery Methods

### **Lab A: Managing Disaster Recovery**

- Installing the Recovery Console
- Backing Up the System State Data
- Creating a Windows Startup Disk
- Recovering from a Corrupt Registry
- Recovering from a Corrupt Boot File

After completing this module, students will be able to:

- Prepare for disaster recovery.
- Back up data.
- Schedule backup jobs.
- Restore data.
- Configure a shadow copy.
- Recover from server failure.
- Select a disaster recovery method.

### **Module 8: Maintaining Software by Using Software Update Services**

This module explains how to use Microsoft Software Update Services to manage and distribute critical software updates that resolve known security vulnerabilities and other stability issues.

#### **Lessons**

- Introduction to Software Update Services
- Installing and Configuring Software Update Services
- Managing a Software Update Services Infrastructure

### **Lab A: Maintaining Software by Using Software Update Services**

- Creating a Group Policy Object to Configure Automatic Updates
- Preparing Sample Software Update Packages for Your Clients
- Verifying the Updates Are Available to the Clients

After completing this module, students will be able to:

- Explain Microsoft Software Update Services.
- Install and configure client computers to use Software Update Services.
- Install and configure servers to use Software Update Services.
- Manage the Software Update Services infrastructure.