

# Course 6419A: Configuring, Managing and Maintaining Windows Server 2008 Servers

## About this Course

This five-day instructor-led course combines five days worth of instructor-led training content from the Network Infrastructure Technology Specialist, Active Directory Technology Specialist, and IT Professional Server Administrator courses of Windows Server 2008 to provide 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 2008 environment. This course covers the core skills required by anyone working with Windows Server 2008 Servers.

## Audience Profile

This course is intended for Windows Server administrators who operate Windows Servers on a daily basis and want to learn the skills for configuring, managing, and maintaining the core technical areas of Windows Server 2008.

## At Course Completion

After completing this course, students will be able to:

- Describe the different administrative tools and tasks in Windows Server 2008.
- Configure AD DS user and computer accounts.
- Create Groups and Organizational Units.
- Manage access to shared resources in an AD DS environment.
- Configure Active Directory Objects and Trusts.
- Create and configure Group Policy Objects.
- Configure user and computer environments by using Group Policy.
- Implement security by using Group Policy.
- Configure and analyze server security and security update compliance.
- Configure and manage storage technologies included with Windows Server 2008.
- Configure and manage Distributed File System.
- Configure Network Access Protection.
- Configure availability of network resources.
- Monitor and Maintain servers running Windows Server 2008.
- Manage a Windows Server 2008 Backup and Restore.

## Prerequisites

Before attending this course, students must have:

- At least one year experience operating Windows Servers in the area of account management, server maintenance, server monitoring, or server security.
- A+, Server+, hardware portion of Net+, and familiarity with Windows (client side).
- Working knowledge of networking technologies.
- Intermediate understanding of network operating systems.
- Working experience with Windows Server 2003 and Windows Server 2008.
- Basic knowledge of Active Directory.
- An understanding of security concepts and methodologies (for example, corporate policies).
- Basic knowledge of TCP/IP.
- Basic knowledge of scripting tools such as Powershell and WMI.

## Course Outline

### Module 1: Introduction to Administrative Tasks in Windows Server 2008 Environment

The module explains Server Roles, Active Directory, the Windows Server 2008 Administrative Tools and Remote Desktop.

Lessons

- Server Roles

- Overview of Active Directory
- Using Windows Server 2008 Administrative Tools
- Using Remote Desktop for Administration

Lab: Administering Windows Server 2008

- Configuring Remote Desktop for Administration

After completing this module, students will be able to:

- Describe server roles and how they are categorized.
- Describe the characteristics of Active Directory components.
- Describe common Windows Server 2008 Administrative Tools.
- Describe how to use Remote Desktop for Administration

## **Module 2: Creating Active Directory Domain Services User and Computer Objects**

This module explains how to manage user accounts, create computer accounts and manage AD DS objects.

Lessons

- Managing User Accounts
- Creating Computer Accounts
- Automating AD DS Object Management
- Using Queries to Locate Objects in AD DS

Lab: Creating AD DS User and Computer Accounts

- Creating and Configuring User Accounts
- Creating and Configuring Computer Accounts
- Automating the Management of AD DS Objects

After completing this module, students will be able to:

- Configure AD DS user accounts.
- Configure AD DS computer accounts.
- Automate AD DS Object Management.
- Use queries to search AD DS.

## **Module 3: Creating Groups and Organizational Units**

This module introduces groups and how to manage them.

Lessons

- Introduction to Groups
- Managing Groups
- Creating Organizational Units

Lab: Creating an OU Infrastructure

- Creating AD DS Groups
- Planning an OU Hierarchy (Discussion)
- Creating an OU Hierarchy

After completing this module, students will be able to:

- Describe the options for creating groups.
- Configure groups in AD DS.
- Configure OUs in AD DS.

## **Module 4: Managing Access to Resources in Active Directory Domain Services**

The module explains how to manage access and assign and manage permissions.

Lessons

- Managing Access Overview
- Assigning Permissions to Shared Resources
- Managing NTFS File and Folder Permissions
- Determining Effective Permission

Lab: Managing Access to Resources

- Planning a Shared Folder Implementation (Discussion)
- Implementing a Shared Folder Implementation
- Evaluating the Shared Folder Implementation

After completing this module, students will be able to:

- Describe how access management works in AD DS.
- Assign permissions to shared folders.
- Configure permissions using NTFS.
- Determine effective permissions.

### **Module 5: Configuring Active Directory Objects and Trusts**

This module explains how to delegate administrative access to AD DS objects and how to configure AD DS Trusts.

Lessons

- Delegating Administrative Access to AD DS Objects
- Configuring AD DS Trusts

Lab: Configuring Active Directory Delegation and Trusts

- Delegating Control of AD DS Objects
- Configuring AD DS Trusts

After completing this module, students will be able to:

- Delegate administrative access to Active Directory objects.
- Configure Active Directory trusts.

### **Module 6: Creating and Configuring Group Policy**

This module explains how to configure and manage Group Policy Objects.

Lessons

- Overview of Group Policy
- Configuring the Scope of Group Policy Objects
- Evaluating the Application of Group Policy Objects
- Managing Group Policy Objects
- Delegating Administrative Control of Group Policy

Lab: Creating and Configuring GPOs

- Creating Group Policy Objects
- Managing the Scope of GPO Application
- Verifying GPO Application
- Managing GPOs
- Delegating Administrative Control of GPOs

After completing this module, students will be able to:

- Describe Group Policy.
- Configure the application scope for Group Policy Objects.
- Evaluate the application of Group Policy Objects.
- Manage Group Policy Objects.
- Delegate administrative control of Group Policy Objects.

### **Module 7: Configuring User Environments Using Group Policy**

This module explains how to configure user environments using group policy.

**Lessons**

- Configuring Group Policy Settings
- Configuring Scripts and Folder Redirection Using Group Policy
- Configuring Administrative Templates
- Configuring Group Policy Preferences
- Deploying Software Using Group Policy
- Introduction to Group Policy Troubleshooting
- Troubleshooting Group Policy Application
- Troubleshooting Group Policy Settings

Lab: Configuring User Environments Using Group Policy

- Configuring Scripts and Folder Redirection
- Configuring Administrative Templates
- Configuring Preferences

- Verifying GPO Application

After completing this module, students will be able to:

- Configure Group Policy settings.
- Configure scripts and folder redirection by using Group Policy.
- Configure administrative templates.
- Configure Group Policy Preferences.
- Deploy software by using Group Policy.
- Troubleshoot Group Policy Application.
- Troubleshoot Group Policy Settings.

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

This module explains how to configure security policies, implement password policies, restrict access to software and user security templates.

Lessons

- Configuring Security Policies
- Implementing Fine-Grained Password Policies
- Restricting Group Membership and Access to Software
- Managing Security Using Security Templates

Lab: Implementing Security Using Group Policies

- Configuring Domain Security Settings
- Implementing Fine-Grained Password Policies
- Configuring Restricted Groups and Software Restriction Policies
- Configuring Security Templates
- Verifying the Security Configuration

After completing this module, students will be able to:

- Configure security policies.
- Implement fine-grained password policies.
- Restrict group membership and access to applications by using security policies.
- Apply security policies by using security templates

### **Module 9: Configuring Server Security Compliance**

This module explains how to secure a windows infrastructure, configure an audit policy, manage WSUS and plan for a security update.

Lessons

- Securing a Windows Infrastructure
- Configuring an Audit Policy
- Overview of Windows Server Update Services
- Managing WSUS
- Planning for Security Update Management

Lab: Configuring Server Security Compliance

- Configuring Windows Software Update Services

After completing this module, students will be able to:

- Secure a server role within a windows infrastructure.
- Configure an audit policy.
- Describe the use of Windows Server Update Services.
- Manage updates using WSUS.
- Plan for security update management by using Windows Server Update Services (WSUS).

### **Module 10: Configuring and Managing Storage Technologies**

This module explains how to manage storage using File Server Resource Manager, configure quota management, implement file screening and manage storage reports.

Lessons

- Windows Server 2008 Storage Management Overview
- Managing Storage Using File Server Resource Manager
- Configuring Quota Management
- Implementing File Screening

- Managing Storage Reports
- Troubleshooting Storage Issues

Lab: Configuring and Managing Storage Technologies

- Installing the FSRM Role Service
- Configuring Storage Quotas
- Configuring File Screening
- Generating Storage Reports

After completing this module, students will be able to:

- Describe storage management solutions included in Windows Server 2008.
- Manage storage using FSRM.
- Configure quota management using FSRM.
- Implement file screening using FSRM.
- Manage storage reports.
- Troubleshoot storage issues.

### **Module 11: Configuring and Managing Distributed File System**

This module explains how to configure DFS namespaces and replication.

Lessons

- DFS Overview
- Configuring DFS Namespaces
- Configuring DFS Replication

Lab: Configuring DFS

- Installing the Distributed File System Role Service
- Creating a DFS Namespace
- Configuring Folder Targets and Folder Replication
- Viewing Diagnostic Reports for Replicated Folders

After completing this module, students will be able to:

- Describe the distributed file system.
- Manage DFS namespaces.
- Configure DFS replication.

### **Module 12: Configuring Network Access Protection**

This module explains how to configure, monitor and troubleshoot NAP.

Lessons

- Overview of Network Access Protection
- How NAP Works
- Configuring NAP
- Monitoring and Troubleshooting NAP

Lab: Configuring NAP for DHCP and VPN

- Configuring NAP for DHCP Clients
- Configuring NAP for VPN Clients

After completing this module, students will be able to:

- Describe the benefits and uses of NAP.
- Describe how NAP works in various access scenarios.
- Configure NAP.
- Monitor and troubleshoot NAP.

### **Module 13: Configuring Availability of Network Resources**

This module explains how to configure shadow copies and provide server and service availability.

Lessons

- Configuring Shadow Copies
- Providing Server and Service Availability

Lab: Configuring Availability of Network Resources

- Configuring Shadow Copying
- Configuring and Testing Network Load Balancing

After completing this module, students will be able to:

- Configure shadow copies.
- Provide server and service availability.

### **Module 14: Monitoring and Maintaining Windows Server 2008 Servers**

This module explains how to monitor and maintain Windows Server 2008 servers.

#### Lessons

- Planning Monitoring Tasks
- Calculating a Server Baseline
- Measuring Performance Objects
- Analyzing key performance counters
- Selecting Appropriate Monitoring Tools
- Planning Notification Methods
- Overview of Windows Server 2008 Maintenance Tasks
- Automating Windows Server 2008 Maintenance

#### Lab: Identifying Windows Server 2008 Monitoring Requirements

- Evaluating Performance Metrics
- Monitoring Performance Metrics
- Configuring Data Collector Sets
- Evaluating Trends
- Monitoring Extension Exercise
- Automating Maintenance Tasks

After completing this module, students will be able to:

- Plan monitoring tasks.
- Determine an appropriate server baseline.
- Determine objects and counters to monitor based on server role.
- Analyze key performance counters.
- Select appropriate monitoring tools.
- Identify appropriate notification methods.
- Create a server management task schedule for Windows Server 2008.
- List automated maintenance tools for Windows Server 2008.

### **Module 15: Managing Windows Server 2008 Backup and Restore**

This module explains how to back up and restore Windows Server 2008 servers.

#### Lessons

- Planning Backups with Windows Server 2008
- Planning Backup Policy on Windows Server 2008
- Planning a Server Restore Policy
- Planning an EFS Restore Policy
- Verifying Restored Data

#### Lab: Planning Windows Server 2008 Restore

- Evaluating Backup Data
- Planning a Restore
- Investigating a Failed Restore
- Restoring System State Data

After completing this module, students will be able to:

- Create a backup and recovery plan by using Windows Server Backup.
- Develop a backup policy for Windows Server Backup.
- Create a server restore plan.
- Create a plan for restoring Encrypting File System (EFS) files.
- Verify the restore procedure.