

6419 – Configuring, Managing and Maintaining Windows Server 2008

Vendor Course Code: MS6419

Course Length: 5 days

Overview: This five-day instructor-led 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 2008 and R2 environment. This course covers the core skills required by anyone working with Windows Server 2008 Servers.

Skills Gained: After completing this course, students will be able to:

- Describe the Windows Server 2008 environment including the roles, features, and the tools used to perform effective server management.
- Manage the DNS and DHCP server infrastructure roles.
- Configure secure and efficient access to file services.
- Configure and manage Distributed File Systems.
- Manage file resources by using File Server Resource Manager.
- Configure and secure Remote Access.
- Manage Active Directory Domain Services.
- Configure Active Directory object administration and Domain Trust.
- Create and manage Group Policy objects.
- Configure user and computer settings by using Group Policy.
- Implement security settings by using Group Policy.
- Provide efficient network access for remote offices.
- Monitor and maintain Windows Server 2008.
- Manage Windows Server 2008 backup, restore, and recovery.

Key Topics:

Module 1: Overview of the Windows Server 2008 Management

In this module, students learn the Windows Server 2008 environment including the roles, features, and the tools used to perform effective server management.

Lessons

Lesson 1: Understanding the Windows Server 2008 Environment

Lesson 2: Overview of Windows Server 2008 Server Roles and Features

Lesson 3: Windows Server 2008 Administration Tools

Lesson 4: Managing Windows Server 2008 Server Core

Lab : Managing Server Roles in a Windows Server 2008 Environment

Exercise 1: Determining Server Roles and Installation Types

Exercise 2: Installing Windows Server 2008 Server Roles and Features

Exercise 3: Managing Windows Server 2008 Server Core

After completing this module, students will be able to:

- Describe the considerations for implementing and managing a Windows Server 2008 environment.
- Explain Windows Server 2008 server roles and features.
- Describe Windows Server 2008 administration tools.
- Manage Windows Server 2008 Server Core.

Module 2: Managing Windows Server 2008 Infrastructure Roles

In this module, students learn about IPv6 addressing and how to install and configure the DNS and DHCP server infrastructure roles.

Lessons

Lesson 1: Understanding IPv6 Addressing
Lesson 2: Overview of the Domain Name System Server Role
Lesson 3: Configuring DNS Zones
Lesson 4: Overview of the DHCP Server Role
Lesson 5: Configuring DHCP Scopes and Options

Lab : Lab A: Installing and Configuring the DNS Server Role
Exercise 1: Installing and Configuring the DNS Server Role
Exercise 2: Configuring Primary Zones and Resource Records
Exercise 3: Monitoring and Troubleshooting DNS

Lab : Lab B: Installing and Configuring the DHCP Server Role
Exercise 1: Installing and authorising the DHCP Server Role
Exercise 2: Configuring DHCP Scopes and Options

After completing this module, students will be able to:

- Describe IPv6 addressing.
- Describe the features and concepts related to the DNS server role.
- Configure DNS zones.
- Describe the features and concepts related to the DHCP server role.
- Configure DHCP Scopes and options.

Module 3: Module 3: Configuring Access to File Services

In this module, students learn how to configure secure and efficient access to file services.

Lessons

Lesson 1: Overview of Access Control
Lesson 2: Managing NTFS File and Folder Permissions
Lesson 3: Managing Permissions for Shared Resources
Lesson 4: Determining Effective Permissions

Lab : Managing Access to File Services
Exercise 1: Planning a Shared Folder Implementation (Discussion)
Exercise 2: Implementing a Shared Folder Implementation
Exercise 3: Evaluating the Shared Folder Implementation

After completing this module, students will be able to:

- Describe the concept of access control for file services.
- Manage NTFS file system and folder permissions.
- Manage permissions for shared resources.
- Determine effective permissions.

Module 4: Configuring and Managing Distributed File System

In this module, students will learn how to configure and manage a Distributed File System infrastructure

Lessons

Lesson 1: Distributed File System Overview
Lesson 2: Configuring DFS Namespaces
Lesson 3: Configuring DFS Replication

Lab : Installing and Configuring Distributed File System
Exercise 1: Installing the Distributed File System Role Service
Exercise 2: Creating a DFS Namespace
Exercise 3: Configuring Folder Targets and Folder Replication
Exercise 4: Viewing Diagnostic Reports for Replicated Folders

After completing this module, students will be able to:

- Describe the Distributed File System.
- Configure DFS Namespaces.
- Configure DFS Replication.

Module 5: Managing File Resources by Using File Server Resource Manager

In this module, students will learn how to use File Server Resource Manager to assist in data storage capacity management.

Lessons

Lesson 1: Overview of File Server Resource Manager

Lesson 2: Configuring Quota Management

Lesson 3: Implementing File Screening

Lesson 4: Managing Storage Reports

Lesson 5: Implementing Classification Management and File Management Tasks

Lab : Lab A: Installing FSRM and Implementing Quota Management

Exercise 1: Installing the FSRM Role Service

Exercise 2: Configuring Storage Quotas

Lab : Lab B: Configuring File Screening and Storage Reports

Exercise 1: Configuring File Screening

Exercise 2: Generating Storage Reports

Lab : Lab C: Configuring Classification and File Management Tasks

Exercise 1: Configuring Classification Management

Exercise 2: Implementing File Management Tasks

After completing this module, students will be able to:

- Describe File Server Resource Manager.
- Configure quota management.
- Implement file screening.
- Implement classification management and file management tasks.
- Manage storage reports.

Module 6: Configuring and Securing Remote Access

In this module, students will learn how to secure remote access using features such as a Virtual Private Networks, Network Access Protection (NAP), and DirectAccess.

Lessons

Lesson 1: Configuring a Virtual Private Network Connection

Lesson 2: Overview of Network Policies

Lesson 3: Integrating Network Access Protection with VPNs

Lesson 4: Configuring VPN Enforcement by Using NAP

Lesson 5: Overview of DirectAccess

Lesson 6: Deploying DirectAccess

Lab : Lab A: Implementing a Virtual Private Network

Exercise 1: Configuring Routing and Remote Access as a VPN Remote

Exercise 2: Configuring a Custom Network Policy

Lab : Lab B: Implementing NAP into a VPN Remote Access Solution

Exercise 1: Configuring NAP Components

Exercise 2: Configuring Client Settings to support NAP

Lab : Lab C: Implementing DirectAccess

Exercise 1: Reviewing the Existing Infrastructure Configuration

Exercise 2: Configuring Infrastructure Services for DirectAccess

Exercise 3: Configuring the DirectAccess Server and Verifying Connectivity

After completing this module, students will be able to:

- Configure a VPN connection.
- Explain network policies.
- Integrate NAP with VPNs.
- Configure and monitor NAP.
- Describe DirectAccess.

Module 7: Managing Active Directory Domain Services

In this module, students will learn about the Active Directory infrastructure and how to manage AD DS objects.

Lessons

Lesson 1: Overview of the Active Directory Infrastructure
Lesson 2: Working with Active Directory Administration Tools
Lesson 3: Managing User Accounts
Lesson 4: Managing Computer Accounts
Lesson 5: Managing Groups
Lesson 6: Using Queries to Locate Objects in AD DS

Lab : Lab A: Creating and Managing User and Computer Accounts
Exercise 1: Creating and Configuring User Accounts
Exercise 2: Creating and Configuring Computer Accounts

Lab : Lab B: Managing Groups and Locating Objects in AD DS
Exercise 1: Implementing Role-Based Management Using Groups
Exercise 2: Finding Objects in Active Directory

After completing this module, students will be able to:

- Explain the Active Directory infrastructure.
- Work with Active Directory Administration Tools.
- Manage user accounts.
- Manage computer accounts.
- Manage groups.
- Use queries to locate objects in AD DS.

Module 8: Configuring Active Directory Object Administration and Domain Trust

In this module, students will learn how to configure and manage AD DS object permissions; and configure trust between AD DS domains.

Lessons

Lesson 1: Configuring Active Directory Object Administration
Lesson 2: Configuring Active Directory Trusts

Lab : Lab A: Configuring Active Directory Delegation
Exercise 1: Delegating Control of AD DS Objects
Exercise 2: Creating Managed Service Accounts in AD DS

Lab : Lab B: Administer Trust Relationships
Exercise 1: Administering a Trust Relationship

After completing this module, students will be able to:

- Configure Active Directory object administration.
- Configure Active Directory trusts.

Module 9: Creating and Managing Group Policy Objects

In this module, students will learn how to create and manage Group Policy Objects (GPOs).

Lessons

Lesson 1: Overview of Group Policy
Lesson 2: Configuring the Scope of Group Policy Objects
Lesson 3: Managing Group Policy Objects
Lesson 4: Evaluating and Troubleshooting Group Policy Processing

Lab : Lab A: Creating and Configuring GPOs
Exercise 1: Creating and Configuring Group Policy Objects
Exercise 2: Managing the Scope of GPO Application

Lab : Lab B: Creating and Configuring GPOs
Exercise 1: Verifying GPO Application
Exercise 2: Managing GPOs
Exercise 3: Delegating Administrative Control of GPOs

Lab : Lab C: Troubleshooting Group Policy
Exercise 1: Troubleshooting incorrect policy settings – Scenario 1

Exercise 2: Troubleshooting incorrect policy settings – Scenario 2

After completing this module, students will be able to:

- Explain Group Policy.
- Configure the scope of GPOs.
- Manage GPOs.
- Evaluate and troubleshoot Group Policy processing.

Module 10: Using Group Policy to Configure User and Computer Settings

In this module, students will understand the specific settings that can be managed using Group Policy.

Lessons

Lesson 1: Using Group Policy to Configure Folder Redirection and Scripts

Lesson 2: Using Administrative Templates to Manage Users and Computers

Lesson 3: Deploying Software by Using Group Policy

Lesson 4: Deploying Group Policy Preferences

Lab : Lab A: Configuring Logon Scripts and Folder Redirection with Group Policy

Exercise 1 Using a Group Policy Logon Script to Map a Network Drive

Exercise 2: Using Group Policy to Redirect Folders

Lab : Lab B: Configuring Administrative Templates

Exercise 1: Configuring Administrative Templates

Lab : Lab C: Deploying Software Using (Group Policy)

Exercise 1: Deploying a Software Package Using Group Policy

Lab : Lab D: Deploying Group Policy Preferences

Exercise 1: Configure Group Policy Preferences

After completing this module, students will be able to:

- Use Group Policy to configure folder redirection and scripts.
- Use Administrative Templates to manage users and computers.
- Deploy software using Group Policy.
- Deploy Group Policy preferences.

Module 11: Implementing Security Settings Using Group Policy

In this module, students will learn how to secure network clients using Group Policy.

Lessons

Lesson 1: Overview of Security Settings

Lesson 2: Implementing Fine-Grained Password Policies

Lesson 3: Restricting Group Membership and Access to Software

Lab : Lab A: Implementing Security Using Group Policy

Exercise 1: Configuring Account and Security Policy

Exercise 2: Implementing Fine-Grained Password Policies

Lab : Lab B: Configuring Restricted Groups and Application Control Policies

Exercise 1: Configuring Restricted Groups

Exercise 2: Configuring Application Control Policies

After completing this module, students will be able to:

- Understand security settings.
- Implement Fine-Grained Password Policies.
- Restrict group membership and access to software.

Module 12: Providing Efficient Network Access for Remote Offices

In this module, students will learn solutions that can be implemented to provide efficient remote office network access.

Lessons

Lesson 1: Overview of Remote Office Requirements
Lesson 2: Implementing Read-Only Domain Controllers
Lesson 3: Implementing BranchCache

Lab : Lab A: Deploying a Read-Only Domain Controller
Exercise 1: Installing an RODC
Exercise 2: Configuring Password Replication Policy and Credential Caching

Lab : Lab B: Deploying BranchCache
Exercise 1: Configuring BranchCache in Distributed Cache Mode
Exercise 2: Configuring BranchCache in Hosted Cache Mode

After completing this module, students will be able to:

- Explain remote office requirements.
- Implement Read-Only Domain Controllers.
- Implement BranchCache.

Module 13: Monitoring and Maintaining Windows Server 2008

In this module, students will learn how to plan for and implement performance baselines and perform server monitoring using monitoring tools.

Lessons

Lesson 1: Planning Maintenance Tasks
Lesson 2: Calculating a Server Baseline
Lesson 3: Interpreting Performance Counters
Lesson 4: Selecting Appropriate Monitoring Tools

Lab : Creating a Baseline of Performance Metrics
Exercise 1: Determining Performance Metrics
Exercise 2: Configuring a Performance Baseline
Exercise 3: Viewing Performance using Monitoring Tools

After completing this module, students will be able to:

- Plan monitoring tasks.
- Calculate server baselines.
- Interpret performance counters.
- Select appropriate monitoring tools.

Module 14: Managing Windows Server 2008 Backup, Restore, and Recovery

In this module, students will learn how to plan for and identify backup and restore strategies and to identify steps needed to recover from server startup issues.

Lessons

Lesson 1: Planning and Implementing File Backups on Windows Server 2008
Lesson 2: Planning and Implementing File Recovery
Lesson 3: Recovering Active Directory
Lesson 4: Troubleshooting Windows Server Startup

Lab : Lab A: Implementing Windows Server Backup and Recovery
Exercise 1: Evaluating the Existing Backup Plan
Exercise 2: Implementing a Recovery Plan

Lab : Lab B: Recovering Active Directory Objects
Exercise 1: Enabling Active Directory Recycle Bin
Exercise 2: Restoring a Deleted Active Directory Object

After completing this module, students will be able to:

- Plan and implement backup on Windows Server 2008.
- Plan and implement server restore.
- Describe Active Directory recovery methods.
- Troubleshoot Windows Server startup.

Target Audience:

Candidates for this course are information technology (IT) professionals who work in medium to large organisations. The primary candidate is a Windows Server administrator who operates Windows Servers on a daily basis and who requires the skills for configuring, managing, and maintaining servers installed with Windows Server 2008, including the Release 2 (R2) edition. Candidates are typically responsible for day-to-day management of the server operating system and various server roles such as DHCP, DNS, file and print services, directory services, and software distribution. This course may also be considered in combination with other exam preparation materials for candidates wishing to prepare for MCTS and MCITP certification in Windows Server 2008.

Prerequisites:

Before attending this course, in addition to their professional experience, students must have:

- At least one year experience operating Windows Servers in the area of account management, server maintenance, server monitoring, or server security.
- Certification related to the Microsoft Technology Associate (MTA) Networking Fundamentals, Security Fundamentals, and Windows Server Administration Fundamentals designations, or equivalent knowledge as outlined in course 6420B: Fundamentals of Windows Server 2008.
- A+, Server+, hardware portion of Network+, or equivalent knowledge.
- Working knowledge of networking technologies.
- Intermediate understanding of network operating systems.
- 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.