# MOC 6430 Planning for Windows Server 2008 Servers

## Course Summary

### Description

This course is intended for IT pros who are interested in the knowledge and skills necessary to plan a Windows Server 2008 operating system infrastructure. This course is aimed at server administrators and is not a “how-to” course; therefore, it has a significant number of planning exercises with less focus on hands-on exercises than some courses. The course content and exercises direct you toward making decisions and providing guidance to others. This course reflects the decision-making tasks that a server administrator undertakes.

### Objectives

At the end of this course, students will be able to:

- Plan for both Windows Server 2008 installation and upgrade from a previous version of Windows Server to Windows Server 2008.
- Plan and implement network connectivity in Windows Server 2008 by using IPv4-related technologies and plan a migration strategy to IPv6.
- Plan the deployment of Active Directory–related services in Windows Server 2008.
- Apply the design considerations for implementing group policy.
- Plan the configuration of different applications services in Windows Server 2008.
- Create a plan for file and print services to meet an organization’s printing, file storage, and access needs.
- Create a plan to secure the Windows Server 2008 environment.
- Create local and remote administration strategies for administering a Windows Server 2008 environment.
- Create a monitoring plan for the Windows Server 2008 environment.
- Create a plan that will help mitigate the effects of various disaster scenarios on the IT infrastructure.
- Create a plan for using virtualization in a Windows Server 2008 environment.

### Topics

- Planning Windows Server 2008 Deployment
- Planning Network Infrastructure for Windows Server 2008
- Planning for Active Directory
- Planning for Group Policy
- Planning Application Servers
- Planning File and Print Services
- Planning Server and Network
- Planning Server Administration
- Planning and Implementing Monitoring and Maintenance
- Planning High Availability and Disaster Recovery
- Planning Virtualization

### Audience

This course is intended for a server administrator who:

- Is moving from a technical-specialist role to a decision-making role.
- Wants to acquire the necessary knowledge to be able to plan for Windows Server 2008 servers.

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## Course Summary (cont'd)

**Prerequisites**

Before attending this course, students must have:

- Skills equivalent to course 6418A (deployment)–Installation and configuration of Windows Server 2008, Windows Deployment Services, Active Directory directory service upgrades
- Skills equivalent to course 6420A (networking fundamentals)– TCP/IP configuration, server administration, network and data security
- Skills equivalent to course 6421A (core network infrastructure training)– Domain Name System (DNS) configuration, Windows Internet Name Service (WINS) configuration, IPv6 transition, remote access, network policies, Network Access Protection (NAP), Distributed File System (DFS)
- Skills equivalent to course 6424A (Active Directory fundamentals)– Configure Active Directory Domain Services (AD DS), configure Active Directory Lightweight Directory Services (AD LDS), configure Active Directory Certificate Services (AD CS), configure Active Directory Federation Services (AD FS), create users and groups
- Skills equivalent to course 6425A (core Active Directory training)– Configure AD DS security, trusts, sites, replication, Group Policy
- Up to one year experience implementing server plans

**Duration**

Three days

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## Course Outline

I. **Planning Windows Server 2008 Deployment**
This module explains how to plan the deployment of Windows Server 2008 servers.

A. Overview of Change Management
B. Planning a Single-Server Installation
C. Performing a Single-Server Installation
D. Automating Windows Server Deployment

**Lab: Planning Windows Server 2008 Deployment**

- Exercise 1: Creating a Planning Flowchart for a Windows Server 2008 Deployment
- Exercise 2: Planning a Windows Server 2008 Deployment

**After completing this module, students will be able to:**

- Describe how change management affects a deployment project
- Plan the deployment of a single computer running Windows Server 2008
- Describe how to perform a single-server installation
- Determine how to automatically deploy Windows Server 2008

**II. Planning Network Infrastructure for Windows Server 2008**
This module explains how to plan the network infrastructure for Windows Server 2008 servers.

A. Planning IPv4 Addressing
B. Planning for Name Resolution Services
C. Determining the Need for WINS
D. Planning a Perimeter Network
E. Planning an IPv4 to IPv6 Transition Strategy

**Lab: Planning Network Infrastructure for Windows Server 2008**

- Exercise 1: Determining an Appropriate Network Addressing Scheme
- Exercise 2: Planning the Placement of Network Servers
- Exercise 3: Implementing the Planned Network Services

**After completing this module, students will be able to:**

- Plan an IPv4 addressing strategy.
- Plan the deployment and configuration of DNS servers.
- Determine how to handle NetBIOS names within your organization.
- Place appropriate servers in your perimeter network.
- Plan an IPv4 to IPv6 transition strategy

**III. Planning for Active Directory**
This module explains how to plan the Active Directory environment.

A. Selecting a Domain and Forest Topology
B. Selecting a Domain and Forest Functional Level
C. Planning Identity and Access Services in Active Directory
D. Implementing Active Directory in the Physical Network

**Lab: Implementing Active Directory in the Physical Network**

- Exercise 1: Selecting a Forest Topology
- Exercise 2: Planning Active Directory for a Branch Network
- Exercise 3: Deploying a Branch Domain Controller

**After completing this module, students will be able to:**

- Select an appropriate Active Directory topology.
- Configure the domain and forest functional level.
- Describe Active Directory identity and access services.
- Configure Active Directory to support your physical network.

**IV. Planning for Group Policy**
This module explains how to plan for Group Policy in a Windows Server 2008 network

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## Course Outline (cont'd)

A. Planning Group Policy Application
B. Planning Group Policy Processing
C. Planning the Management of Group Policy Objects
D. Planning the Management of Client Computers

**Lab: Planning for Group Policy**

- Exercise 1: Creating a Group Policy Plan
- Exercise 2: Implementing Group Policy

**After completing this module, students will be able to:**

- Plan group policy application.
- Plan group policy processing.
- Plan the management of group policy objects.
- Plan the management of client computers.

**V. Planning Application Servers**

This module explains how to plan for application servers in a Windows Server 2008 network.

A. Overview of Application Servers
B. Supporting Web-Based Applications
C. Supporting SQL Server Databases
D. Deploying Client Applications
E. Planning Terminal Services

**Lab: Planning Application Servers**

- Exercise 1: Creating a Plan for Application Servers
- Exercise 2: Implementing Windows SharePoint Services
- Exercise 3: Implementing Terminal Services

**After completing this module, students will be able to:**

- Describe application servers.
- Plan support for Web-based applications.
- Plan support for SQL Server databases.
- Plan the deployment of client applications.
- Plan the implementation of Terminal Services.

**VI. Planning File and Print Services**

This module explains how to plan for File and Print services in your Windows Server 2008 environment.

A. Planning and Deploying the File Services Role
B. Managing Storage
C. Planning and Implementing the Distributed File System
D. Planning and Implementing Shared Printing

**Lab: Planning File and Print Services**

- Exercise 1: Planning File and Print Services for a Branch Office
- Exercise 2: Implementing File and Print Services in a Branch Office

**After completing this module, students will be able to:**

- Plan and deploy the Windows Server 2008 File Services role
- Manage storage effectively
- Implement an appropriate Distributed File System infrastructure
- Implement shared printing

**VII. Planning Server and Network Security**

This module explains how to plan for server and network security in a Windows Server 2008 network.

A. Overview of Defense-in-Depth
B. Planning for Windows Firewall with Advanced Security
C. Planning Protection Against Viruses and Malware
D. Managing Remote Access
E. Planning for Network Access Protection (NAP)

**Lab: Planning Server and Network Security**

- Exercise 1: Creating a Plan for Server and Network Security
- Exercise 2: Implementing Windows Firewall Rules

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## Course Outline (cont'd)

**After completing this module, students will be able to:**

- Describe Defense-in-Depth
- Plan for Windows Firewall with Advanced Security
- Plan protection against viruses and malware
- Manage remote access
- Plan for NAP

**VIII. Planning Server Administration**

This module explains how to plan for effective administration of a Windows Server 2008 network.

A. Selecting the Appropriate Administration Tool
B. Planning Server Core Administration
C. Delegating Administration

**Lab: Planning Server Administration**

- Exercise 1: Planning for Branch Office Administration
- Exercise 2: Delegating Administration to Branch Office Personnel

**After completing this module, students will be able to:**

- Select an appropriate administrative tool for a given situation.
- Determine where to deploy Server Core servers.
- Delegate administrative tasks.

**IX. Planning and Implementing Monitoring and Maintenance**

This module explains how to plan for and implement monitoring and maintenance in a Windows Server 2008 network.

A. Planning Monitoring Tasks
B. Calculating a Server Baseline
C. Tools for Monitoring Server Performance
D. Planning Software Updates

**Lab: Planning and Implementing Monitoring and Maintenance**

- Exercise 1: Evaluating Performance Metrics
- Exercise 2: Monitoring Performance Metrics
- Exercise 3: Configuring Data Collector Sets
- Exercise 4: Evaluating Trends

**After completing this module, students will be able to:**

- Plan monitoring tasks.
- Calculate a server performance baseline.
- Select the appropriate monitoring and maintenance tool.
- Plan software updates.

**X. Planning High Availability and Disaster Recovery**

This module explains how to plan for high availability and disaster recovery in a Windows Server 2008 environment.

A. Choosing a High-Availability Solution
B. Planning a Backup and Restore Strategy

**Lab: Planning High Availability and Disaster Recovery**

- Exercise 1: Planning for Branch Office High Availability and Data Recovery
- Exercise 2: Implementing the High Availability and Disaster Recovery Plan

**After completing this module, students will be able to:**

- Select a high-availability solution.
- Select an appropriate backup and restore strategy.

**XI. Planning Virtualization**

This module explains how to plan virtualization to increase the efficiency and availability of applications and services.

A. Overview of Server Virtualization
B. Business Scenarios for Server Virtualization
C. Overview of System Center Virtual Machine Manager
D. Planning Host Resources

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## Course Outline (cont'd)

**Lab: Planning Virtualization**

- Exercise 1: Creating a Virtualization Plan
- Exercise 2: Implementing Virtualization (Optional)

**After completing this module, students will be able to:**

- Describe virtualization and the technologies that can be used to implement virtualization.
- Describe the business scenarios for virtualization.
- Describe how System Center Virtual Machine Manager can be used to manage a virtual environment.
- Plan host resources.

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