

# 6436 – Designing a Windows Server 2008 Active Directory Infrastructure and Services

**Vendor Course Code:** MS6436

**Course Length:** 5 days

**Overview:** At the end of this five-day course, students will learn how to design an Active Directory Infrastructure in Windows Server 2008. Students will learn how to design Active Directory forests, domain infrastructure, sites and replication, administrative structures, group policies, and Public Key Infrastructures. Students will also learn how to design for security, high availability, disaster recovery, and migrations.

**Skills Gained:** After completing this course, students will be able to design an Active Directory infrastructure and services in Windows Server 2008.

## **Key Topics:**

### **Module 1: Designing an Active Directory Forest Infrastructure in Windows Server 2008**

This module explains how to design an Active Directory forest based on business and technical requirements.

#### Lessons

Determining Active Directory Forest Design Requirements  
Designing an Active Directory Forest  
Designing Active Directory Forest Trusts  
Managing the Active Directory Schema  
Understanding Windows Time Service

Lab: Designing an AD DS Forest Infrastructure in Windows Server 2008  
Designing an Active Directory Forest  
Designing and Implementing Active Directory Forest Trusts  
Designing and Implementing Active Directory Schema Changes

After completing this module, students will be able to:

- Determine Active Directory Forest Design Requirements
- Design an Active Directory Forest
- Design Active Directory Forest Trusts
- Manage the Active Directory Schema
- Understand Windows Time Service

### **Module 2: Designing an Active Directory Domain Infrastructure in Windows Server 2008**

This module explains how to design an Active Directory domain infrastructure based on business and technical requirements.

#### Lessons

Designing Active Directory Domains  
Designing the Integration of DNS Namespaces  
Designing the Placement of Domain Controllers  
Designing Active Directory Domain Trusts

Lab: Designing an Active Directory Domain Infrastructure in Windows Server 2008  
Designing Active Directory Domains  
Designing and Implementing DNS Namespace Integration  
Designing and Implementing Read-Only Domain Controller Security  
Designing and Implementing Active Directory Domain Trusts  
Discussion About Exercise 1-4 Results

After completing this module, students will be able to:

- Design Active Directory domains

- Design the integration of DNS namespaces
- Design the placement of domain controllers
- Design Active Directory domain trusts

### **Module 3: Designing Active Directory Sites and Replication in Windows Server 2008**

This module explains how to design Active Directory sites and replication roles.

#### Lessons

Designing Active Directory Sites

Designing Active Directory Replication

Design the Placement of Domain Controllers in Active Directory Sites

Lab: Designing AD DS Sites and Replication in Windows Server 2008

Designing and Implementing AD DS Sites

Designing and Implementing AD DS Replication

Designing the Placement of Domain Controllers

Discussions about Exercise 1-3 results

After completing this module, students will be able to:

- Design Active Directory sites
- Design Active Directory replication
- Design the placement of domain controllers in Active Directory sites

### **Module 4: Designing Active Directory Domain Administrative Structures**

This module explains how to design Active Directory domain administrative structures in Windows Server 2008.

#### Lessons

Planning an Active Directory Domain Administrative Structure

Designing Organisational Unit Structures

Designing an Active Directory Group Strategy

Planning for User and Computer Account Management

Lab: Designing AD DS Administrative Structures in Windows Server 2008

Designing and Implementing Organisational Units

Designing and Implementing AD DS Group Strategies

Automating User Account Management with Windows PowerShell

Discussions about Exercise 1-3 results

After completing this module, students will be able to:

- Plan an Active Directory domain administrative structure
- Design organisational unit structures
- Design an Active Directory group strategy
- Plan for User and Computer Account management

### **Module 5: Designing Active Directory Group Policy**

This module explains how to design Active Directory Group Policies in Windows Server 2008.

#### Lessons

Gathering Information for Group Policy Deployment

Designing Group Policy Settings

Designing Group Policy Processing

Designing Group Policy Management

Lab: Designing Active Directory Administrative Structures in Windows Server 2008

Designing and Implementing Group Policy Settings

Designing and Implementing Group Policy Application

Designing and Implementing Group Policy Management

Discussions About Exercise 1-3 Design Decisions

After completing this module, students will be able to:

- Gather information for designing the Group Policy deployment.
- Design Group Policy settings

- Design Group Policy processing
- Design Group Policy management

### **Module 6: Designing AD DS Security in Windows Server 2008**

This module explains how to design AD DS security in Windows Server 2008.

Lessons

Designing Active Directory Security Policies  
Designing Active Directory Domain Controller Security  
Designing Administrator Security and Delegation

Lab: Designing AD DS Security in Windows Server 2008  
Designing and Implementing Domain Security Policies  
Designing and Implementing Domain Controller Security Policies  
Designing and Implementing Administrator Security and Delegation  
Discussion: Designing Secure Build Procedures for Domain Controllers

After completing this module, students will be able to:

- Design Active Directory security policies
- Design Active Directory domain controller security
- Design administrator security and delegation

### **Module 7: Designing Active Directory High Availability in Windows Server 2008**

This module explains how to design Active Directory high availability and disaster recovery in Windows Server 2008

Lessons

Understanding Active Directory High Availability  
Designing an Active Directory High Availability Strategy

Lab: Designing AD DS Availability in Windows Server 2008  
Designing a High Availability Plan for AD DS  
Discussions About Exercise 1 Design Decisions

After completing this module, students will be able to:

- Understand Active Directory high availability
- Design an Active Directory high availability strategy

### **Module 8: Designing Active Directory Disaster Recovery in Windows Server 2008**

This module explains how to design Active Directory disaster recovery in Windows Server 2008.

Lessons

Designing an Active Directory Database Maintenance Strategy  
Designing an Active Directory Backup and Recovery Strategy  
Designing an Active Directory Monitoring Strategy

Lab: Designing Active Directory Disaster Recovery in Windows Server 2008  
Designing and Implementing a Domain Controller Maintenance Plan  
Designing and Implementing a Domain Controller Monitoring Plan  
Discussions About Exercise 1-2 Design Decisions

After completing this module, students will be able to:

- Design an Active Directory database maintenance strategy
- Design an Active Directory backup and recovery strategy
- Design an Active Directory monitoring strategy

### **Module 9: Designing Public Key Infrastructure in Windows Server 2008**

This module explains how to design Public Key Infrastructure in Windows Server 2008.

Lessons

Overview of PKI and Active Directory Certificate Services  
Designing a Certification Authority Hierarchy  
Designing Certificate Templates

## Designing Certificate Distribution and Revocation

Lab: Designing Public Key Infrastructure in Windows Server 2008  
Designing and Implementing a CA Hierarchy  
Designing and Implementing AD CS Certificate Templates  
Designing and Implementing Certificate Enrolment and Revocation  
Discussions About Exercises 1-3 Design Decisions

After completing this module, students will be able to:

- Describe PKI and Active Directory Certificate Services
- Design a Certification Authority hierarchy
- Design certificate templates
- Design certificate distribution and revocation

## **Module 10: Designing an AD RMS Infrastructure in Windows Server 2008**

This module explains how to design AD RMS infrastructure in Windows Server 2008.

### Lessons

Gathering Information for an Active Directory Rights Management Services (AD RMS) Design  
Designing AD RMS Clusters and Access  
Designing AD RMS Backup and Recovery

Lab: Designing an AD RMS Infrastructure in Windows Server 2008  
Designing AD RMS Clusters and Access  
Designing AD RMS Backup and Recovery  
Discussions About Exercises 1-2 Design Decisions

After completing this module, students will be able to:

- Gather information for an AD RMS design
- Design AD RMS Clusters and Access
- Design AD RMS Backup and Recovery

## **Module 11: Designing an Active Directory Federation Services Implementation in Windows Server 2008**

This module explains how to design an Active Directory Federation Services (AD FS) implementation.

### Lessons

Overview of an Active Directory Federation Services Design  
Designing a Business-to-Business Federation  
Designing Active Directory Federation Services Claims and Applications

Lab: Designing an Active Directory Federation Services Implementation in Windows Server 2008  
Designing Active Directory Federation Services Access to Applications in a Perimeter Network  
Designing Active Directory Federation Services Access to Partner Applications  
Designing Active Directory Federation Services for Partner Access to Applications in a Perimeter Network  
Discussions About Exercise 1-3 Design Decisions

After completing this module, students will be able to:

- Describe an AD FS design.
- Design a business-to-business federation.
- Design AD FS claims and applications.

## **Module 12: Designing an AD LDS Implementation**

This module explains how to design an AD LDS implementation.

### Lessons

AD LDS Deployment Scenarios  
Overview of an AD LDS Implementation Design  
Designing AD LDS Schema and Replication  
Integrating AD LDS with AD DS

Lab: Designing an AD LDS Implementation  
Designing and Configuring AD LDS Replication for Internal Applications  
Designing and Configuring AD LDS Replication for External Applications  
Designing Highly Available LDAP Services for Multiple Applications  
Discussions About Exercises 1-3 Design Decisions

After completing this module, students will be able to:

- Describe the AD LDS deployment scenarios
- Describe the AD LDS implementation design
- Design AD LDS schema and replication
- Integrate AD LDS with AD DS

### **Module 13: Designing Active Directory Migrations in Windows Server 2008**

This module explains how to design Active Directory migrations in Windows Server 2008.

Lessons

Choosing an Active Directory Migration Strategy  
Designing a Domain Upgrade Strategy  
Designing a Domain Restructure Strategy

Lab: Designing Active Directory Migrations in Windows Server 2008

Designing an Active Directory Migration Strategy  
Designing an Active Directory Migration Implementation Plan  
Discussions About Exercise 1-2 Design Decisions

After completing this module, students will be able to:

- Choose an Active Directory migration strategy
- Design a domain upgrade strategy
- Design a domain restructure strategy

### **Target Audience:**

The primary audience for this course includes Windows Server 2008 administrators who want to become Windows Server 2008 enterprise administrators and move into the role of designing Active Directory Domain Services (AD DS) environments. The primary audience for this course also includes Information Technology (IT) professionals, including Windows 2000 Server and Windows Server 2003 enterprise administrators who want to become Windows Server 2008 enterprise administrators.

The secondary audience for this course includes security architects, who want to know more about how to integrate the Windows Server 2008 technology into enterprise directories. The secondary audience also includes Active Directory technology specialists who want to understand design decisions.

### **Prerequisites:**

This course requires that students meet the following prerequisites:

- Completion of Microsoft Certified Technology Specialist (MCTS) Windows Server 2008 curriculum
- Knowledge of Windows Vista Terminal Services or Deployment Terminal Services