

INTRODUCTION

This five-day instructor-led course provides to teach Active Directory Technology Specialists with the knowledge and skills to configure Active Directory Domain Services in a distributed environment, implement Group Policies, perform backup and restore, and monitor and troubleshoot Active Directory related issues.

AUDIENCE

This course is intended for Active Directory Technology Specialists, Server Administrators, and Enterprise Administrators who want to learn how to implement Active Directory in a distributed environment, secure domains by using Group Policies, back up, restore, monitor, and troubleshoot Active Directory configuration to ensure trouble-free operation.

PREREQUISITES

Before attending this course, students must have:

- Basic understanding of networking
- Intermediate understanding of network operating systems
- An awareness of security best practices
- Basic knowledge of server hardware
- Some experience creating objects in Active Directory
- Basic concepts of backup and recovery in a Windows Server environment

COURSE OUTLINE

MODULE 1: INTRODUCING ACTIVE DIRECTORY DOMAIN SERVICES

This module explains how to install and configure Active Directory Domain Services and install and configure a read-only domain controller.

Lessons

- Lesson 1: Overview of Active Directory, Identity, and Access
- Lesson 2: Active Directory Components and Concepts
- Lesson 3: Install Active Directory Domain Services

Lab: Install an AD DS DC to Create a Single Domain Forest

- Perform Post-Installation Configuration Tasks
- Install a New Windows Server 2008 Forest with the Windows Interface
- Raise Domain and Forest Functional Levels

MODULE 2: ADMINISTERING ACTIVE DIRECTORY SECURELY AND EFFICIENTLY

This module explains how to work securely and efficiently in Active Directory.

Lessons

- Work with Active Directory Administration Tools
- Custom Consoles and Least Privilege



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- Find Objects in Active Directory
- Use Windows PowerShell to Administer Active Directory

Lab: Administer Active Directory Using Administrative Tools

- Perform Administrative Tasks by Using Administrative Tools
- Create a Custom Active Directory Administrative Console
- Perform Administrative Tasks with Least Privilege, Run As Administrator, and User Account Control

Lab: Find Objects in Active Directory

- Find Objects in Active Directory
- Use Saved Queries

Lab: Use Windows PowerShell to Administer Active Directory

- Use PowerShell Cmdlets to Administer Active Directory

MODULE 3: MANAGING USERS AND SERVICE ACCOUNTS

This module explains how to manage and support user accounts in Active Directory.

Lessons

- Create and Administer User Accounts
- Configure User Object Attributes
- Automate User Account Creation
- Create and Configure Managed Service Accounts

Lab: Create and Administer User Accounts

- Create User Accounts
- Administer User Accounts

Lab: Configure User Object Attributes

- Examine User Object Attributes
- Manage User Object Attributes
- Create Users from a Template

Lab: Automate User Account Creation

- Export and Import Users with CSVDE
- Import Users with LDIFDE

Lab: Create and Administer Managed Service Accounts

- Create and Associate a Managed Service Account

MODULE 4: MANAGING GROUPS

This module explains how to create, modify, delete, and support group objects in Active Directory.



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Lessons

- Overview of Groups
- Administer Groups
- Best Practices for Group Management

Lab: Administer Groups

- Implement Role-Based Management by Using Groups
- (Advanced Optional) Explore Group Membership Reporting Tools
- (Advanced Optional) Understand “Account Unknown” Permissions

Lab: Best Practices for Group Management

- Implement Best Practices for Group Management

MODULE 5: MANAGING COMPUTER ACCOUNTS

This module explains how to create and configure computer accounts.

Lessons

- Create Computers and Join the Domain
- Administer Computer Objects and Accounts
- Perform an Offline Domain Join

Lab: Create Computers and Join the Domain

- Join a computer to the Domain with the Windows Interface
- Secure Computer Joins
- Manage Computer Account Creation

Lab: Administer Computer Objects and Accounts

- Administer Computer Objects Through Their Life Cycle
- Administer and Troubleshoot Computer Accounts

Lab: Configure an Offline Domain Join

- Configure an Offline Domain Join

MODULE 6: IMPLEMENTING A GROUP POLICY INFRASTRUCTURE

This module explains what Group Policy is, how it works, and how best to implement Group Policy in your organization.

Lessons

- Understand Group Policy
- Implement GPOs
- Deeper Look at Settings and GPOs
- Group Policy Preferences
- Manage Group Policy Scope



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- Group Policy Processing
- Troubleshoot Policy Application

Lab: Implement Group Policy

- Create, Edit, and Link GPOs

Lab: Explore Group Policy Settings and Features

- Use Filtering and Commenting
- Manage Administrative Templates

Lab: Managing Group Policy Preferences

- Configure Group Policy Preferences
- Verify the Application of Group Policy Preferences

Lab: Manage Group Policy Scope

- Configure GPO Scope with Links
- Configure GPO Scope with Filtering
- Configure Loopback Processing

Lab: Troubleshoot Policy Application

- Perform RSoP Analysis
- Use the Group Policy Modeling Wizard
- View Policy Events

MODULE 7: MANAGING ENTERPRISE SECURITY AND CONFIGURATION WITH GROUP POLICY SETTINGS

This module explains how to manage security and software installation and how to audit files and folders.

Lessons

- Delegate the Support of Computers
- Manage Security Settings
- Manage Software with GPSI
- Auditing
- Software Restriction Policy and AppLocker

Lab: Delegate the Support of Computers

- Configure the Membership of Administrators by Using Restricted Groups

Lab: Manage Security Settings

- Manage Local Security Settings
- Create a Security Template

Lab: Manage Software with GPSI

- Deploy Software with GPSI



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- Upgrade Applications with GPSI

Lab: Audit File System Access

- Configure Permissions and Audit Settings
- Configure Audit Policy
- Examine Audit Events

Lab: Configure Application Control Policies

- Configure Application Control Policies

MODULE 8: SECURING ADMINISTRATION

This module explains how to administer Active Directory Domain Services Securely.

Lessons

- Delegate Administrative Permissions
- Audit Active Directory Administration

Lab: Delegate Administration

- Delegate Permission to Create and Support User Accounts
- View Delegated Permissions
- Remove and Reset Permissions

Lab: Audit Active Directory Changes

- Audit Changes to Active Directory Using Default Audit Policy
- Audit Changes to Active Directory Using Directory Service Changes Auditing

MODULE 9: IMPROVING THE SECURITY OF AUTHENTICATION IN AN AD DS DOMAIN

This module explains the domain-side components of authentication, including the policies that specify password requirements and the auditing of authentication-related activities.

Lessons

- Configure Password and Lockout Policies
- Audit Authentication
- Configure Read-Only Domain Controllers

Lab: Configure Password and Account Lockout Policies

- Configure the Domain's Password and Lockout Policies
- Configure a Fine-Grained Password Policy

Lab: Audit Authentication

- Audit Authentication

Lab: Configure Read-Only Domain Controllers



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- Exercise 1: Install an RODC
- Exercise 2: Configure Password Replication Policy
- Exercise 3: Manage Credential Caching

MODULE 10: CONFIGURING DOMAIN NAME SYSTEM

This module explains how to implement DNS to support name resolution both within your AD DS domain and outside your domain and your intranet.

Lessons

- Review of DNS Concepts, Components, and Processes
- Install and Configure DNS in an AD DS Domain
- Integration of AD DS, DNS, and Windows
- Advanced DNS Configuration and Administration

Lab: Installing the DNS Service

- Add the DNS Server Role
- Configure Forward Lookup Zones and Resource Records

Lab: Advanced Configuration of DNS

- Enable Scavenging of DNS Zones
- Create Reverse Lookup Zones
- Explore Domain Controller Location
- Configure Name Resolution for External Domains

MODULE 11: ADMINISTERING AD DS DOMAIN CONTROLLERS

This module explains how to add Windows Server 2008 domain controllers to a forest or domain, how to prepare a Microsoft Windows Server 2003 forest or domain for its first Windows Server 2008 DC, how to manage the roles performed by DCs, and how to migrate the replication of SYSVOL from the File Replication Service (FRS) used in previous versions of Windows to the Distributed File System Replication (DFS-R) mechanism that provides more robust and manageable replication.

Lessons

- Domain Controller Installation Options
- Install a Server Core DC
- Manage Operations Masters
- Configure DFS-R Replication of SYSVOL

Lab: Install Domain Controllers

- Create an Additional DC with the Active Directory Domain Services Installation Wizard
- Add a Domain Controller from the Command Line
- Remove a Domain Controller
- Create a Domain Controller from Installation Media



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Lab: Install a Server Core DC

- Perform Post-Installation Configuration on Server Core
- Create a Domain Controller with Server Core

Lab: Transfer Operations Masters Roles

- Identify Operations Masters
- Transfer Operations Masters Roles

Lab: Configure DFS-R Replication of SYSVOL

- Observe the Replication of SYSVOL
- Prepare to Migrate to DFS-R
- Migrate SYSVOL Replication to DFS-R
- Verify DFS-R Replication of SYSVOL

MODULE 12: MANAGING SITES AND ACTIVE DIRECTORY

This module explains how to create a distributed directory service that supports domain controllers in portions of your network that are separated by expensive, slow, or unreliable links.

Lessons

- Configure Sites and Subnets
- Configure the Global Catalog and Application Partitions
- Configure Replication

Lab: Configure Sites and Subnets

- Configure the Default Site
- Create Additional Sites

Lab: Configure the Global Catalog and Application Partitions

- Configure a Global Catalog
- Configure Universal Group Membership
- Examine DNS and Application Directory Partitions

Lab: Configure Replication

- Create a Connection Object
- Create Site Links
- Move Domain Controllers into Sites
- Designate a Preferred Bridgehead Server
- Configure Intersite Replication

MODULE 13: DIRECTORY SERVICE CONTINUITY

This module explains about the technologies and tools that are available to help ensure the health and longevity of the directory service. You will explore tools that help you monitor performance in real time, and you will learn to log performance over time so that you can keep an eye on performance trends in order to spot potential problems.

Lessons

- Monitor Active Directory
- Manage the Active Directory Database
- Active Directory Recycle Bin
- Back Up and Restore AD DS and Domain Controllers

Lab: Monitor Active Directory

- Monitor Real-Time Performance Using Task Manager and Resource Monitor
- Use Reliability Monitor and Event Viewer to Identify Performance-Related Events
- Monitor Events on Remote Computers with Event Subscriptions
- Attach Tasks to Event Logs and Events
- Monitor AD DS with Performance Monitor
- Work with Data Collector Sets

Lab: Manage the Active Directory Database

- Perform Database Maintenance
- Work with Snapshots and Recovering a Deleted User

Lab: Using Active Directory Recycle Bin

- Enable Active Directory Recycle Bin
- Restore Deleted Objects with Active Directory Recycle Bin

Lab: Back Up and Restore Active Directory

- Back Up Active Directory
- Restore Active Directory and a Deleted OU

MODULE 14: MANAGING MULTIPLE DOMAINS AND FORESTS

This module explains how to raise the domain and forest functionality levels within your environment, how to design the optimal AD DS infrastructure for your enterprise, how to migrate objects between domains and forests, and how to enable authentication and resources access across multiple domains and forests.

Lessons

- Configure Domain and Forest Functional Levels
- Manage Multiple Domains and Trust Relationships
- Move Objects between Domains and Forests

Lab: Administer a Trust Relationship



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- Configure Functional Levels and DNS
- Create a Trust Relationship
- Validate a Trust Relationship
- Assign Permissions to Trusted Identities
- Implement Selective Authentication