

## **MOC 10969 B Active Directory Services with Windows Server**

### **Course Summary**

#### **Description**

Get Hands on instruction and practice administering Active Directory technologies in Windows Server 2012 and Windows Server 2012 R2 in this 5-day Microsoft Official Course. You will learn the skills you need to better manage and protect data access and information, simplify deployment and management of your identity infrastructure, and provide more secure access to data. You will learn how to configure some of the key features in Active Directory such as Active Directory Domain Services (AD DS), Group Policy, Dynamic Access Control (DAC), Work Folders, Work Place Join, Certificate Services, Rights Management Services (RMS), Federation Services, as well as integrating your on premise environment with cloud based technologies such as Windows Azure Active Directory. As part of the learning experience, you will perform hands-on exercises in a virtual lab environment.

#### **Objectives**

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

- Understand available solutions for identity management and be able to address scenarios with appropriate solutions.
- Deploy and administer AD DS in Windows Server 2012.
- Secure AD DS deployment.
- Monitor, troubleshoot and establish business continuity for AD DS services.
- Implement AD DS sites, configure and manage replication
- Implement and manage GPOs.
- Manage user settings with GPOs.
- Secure and provision data access using technologies such as Dynamic Access Control, Work Folders and Workplace Join
- Implement certification authority (CA) hierarchy with AD CS and how to manage CAs.
- Implement certificates.
- Implement and manage AD RMS.
- Implement and administer AD FS.
- Implement Windows Azure Active Directory.
- Implement and administer Active Directory Lightweight Directory Services (AD LDS).

#### **Topics**

- Overview of Access and Information Protection
- Advanced Deployment and Administration of AD DS
- Securing Active Directory Domain Services
- Monitoring, Managing, and Recovering AD DS
- Implementing and Administering AD DS Sites and Replication
- Implementing Group Policy
- Managing User Settings with Group Policy
- Implementing Secure Shared File Access
- Deploying and Managing Active Directory Certificate Services
- Deploying and Managing Certificates
- Implementing and Administering Active Directory Rights Management Services
- Implementing and Administering AD FS
- Implementing Windows Azure Active Directory
- Implementing and Administering AD LDS

## MOC 10969 B Active Directory Services with Windows Server Course Summary (cont'd)

### Audience

This course is intended for Information Technology (IT) professionals who have Active Directory Domain Services (AD DS) experience and are looking for a single course that will further develop knowledge and skills using Access and Information Protection technologies in Windows Server 2012 and Windows Server 2012 R2. This would typically include:

- AD DS administrators who are looking to further develop skills in the latest Access and Information Protection technologies with Windows Server 2012 and Windows Server 2012 R2.
- System or Infrastructure administrators with general AD DS experience and knowledge who are looking to build upon that core knowledge and cross-train into advanced Active Directory technologies in Windows Server 2012 and Windows Server 2012 R2
- IT Professionals who have taken the *10967A: Fundamentals of a Windows Server Infrastructure* course and are looking to build upon that Active Directory knowledge.

### Prerequisites

Before attending this course, students must have:

- Experience working with Active Directory Domain Services (AD DS)
- Experience working in a Windows Server infrastructure enterprise environment.
- Experience working with and troubleshooting core networking infrastructure technologies such as name resolution, IP Addressing, Domain Name System (DNS) and Dynamic Host Configuration Protocol (DHCP).
- Experience with Hyper-V and Server Virtualization concepts.
- An awareness and understanding of general security best practices.
- Experience working hands on with Windows Client operating systems such as Windows Vista, Windows 7 or Windows 8.

### Duration

Five days

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### Course Outline

#### I. Overview of Access and Information Protection

This module provides an overview of multiple Access and Information Protection (AIP) technologies and services what are available with Windows Server 2012 and Windows Server 2012 R2 from a business perspective and maps business problems to technical solutions. It also includes coverage of Forefront Identify Manager (FIM).

- A. Introduction to Access and Information Protection Solutions in Business
- B. Overview of AIP Solutions in Windows Server 2012
- C. Overview of FIM 2010 R2

#### Lab: Choosing an Appropriate Access and Information Protection Management Solution

- Analyze the Lab Scenario and Identify Business Requirements
- Propose a Solution

#### II. Advanced Deployment and Administration of AD DS

This module explains how to deploy AD DS remotely and describes the virtualization safeguards, cloning abilities and extending AD DS to the cloud.

- A. Deploying AD DS
- B. Deploying and Cloning Virtual Domain Controllers
- C. Deploying Domain Controllers in Windows Azure
- D. Administering AD DS

#### Lab: Deploying and Administering AD DS

- Deploying AD DS
- Deploying Domain Controllers by Performing Domain Controller Cloning
- Administering AD DS

#### III. Securing AD DS

This module describes the threats to domain controllers and what methods can be used to secure the AD DS and its domain controllers.

- A. Securing Domain Controllers
- B. Implementing Account Security
- C. Implementing Audit Authentication

#### Lab: Securing AD DS

- Implementing Security Policies for Accounts, Passwords, and Administrative Groups
- Deploying and Configuring an RODC

#### IV. Implementing and Administering AD DS Sites and Replication

This module explains how AD DS replicates information between domain controllers within a single site and throughout multiple sites. This module also explains how to create multiple sites and how to monitor replication to help optimize AD DS replication and authentication traffic.

- A. Overview of AD DS Replication
- B. Configuring AD DS Sites
- C. Configuring and Monitoring AD DS Replication

#### Lab: Implementing AD DS Sites and Replication

- Creating Subnets and Sites
- Deploying an Additional Domain Controller
- Configuring AD DS Replication
- Troubleshooting AD DS Replication

#### V. Implementing Group Policy

This module describes Group Policy, how it works, and how best to implement it within your organization.

- A. Introducing Group Policy
- B. Implementing and Administering GPOs
- C. Group Policy Scope and Group Policy Processing
- D. Troubleshooting the Application of GPOs

#### Lab: Implementing and Troubleshooting a Group Policy Infrastructure

- Creating and Configuring GPOs
- Managing GPO Scope
- Verifying GPO Application
- Managing GPOs
- Troubleshooting GPOs

#### VI. Managing User Settings with Group Policy

This module describes how to use GPO Administrative Templates, Folder Redirection, and Group Policy features to configure users' computer settings

- A. Implementing Administrative Templates
- B. Configuring Folder Redirection and Scripts
- C. Configuring Group Policy Preferences

#### Lab: Managing User Desktops with Group Policy

- Implementing Settings by Using Group Policy Preferences
- Configuring Folder Redirection

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### **Course Outline (cont'd)**

#### **VII. Deploying and Managing AD CS**

This module explain how to deploy and manage Certificate Authorities (CAs) with Active Directory Certificate Services (AD CS)

- A. Deploying CAs
- B. Administering CAs
- C. Troubleshooting, Maintaining, and Monitoring CAs

#### **Lab: Deploying and Configuring a Two-Tier CA Hierarchy**

- Deploying an Offline Root CA
- Deploying an Enterprise Subordinate CA

#### **VIII. Deploying and Managing Certificates**

This module describes certificate usage in business environments and explains how to deploy and manage certificates, configure certificate templates and manage enrolment process. This module also covers the deployment and management of smart cards.

- A. Using Certificates in a Business Environment
- B. Deploying and Managing Certificate Templates
- C. Managing Certificates Deployment, Revocation, and Recovery
- D. Implementing and Managing Smart Cards

#### **Lab: Deploying and Using Certificates**

- Configuring Certificate Templates
- Enrolling and using certificates
- Configuring and Implementing Key Recovery

#### **IX. Implementing and Administering AD RMS**

This module introduces Active Directory Rights Management Services (AD RMS). It also describes how to deploy AD RMS, how to configure content protection, and how to make AD RMS-protected documents available to external users.

- A. Overview of AD RMS
- B. Deploying and Managing an AD RMS Infrastructure
- C. Configuring AD RMS Content Protection
- D. Configuring External Access to AD RMS

#### **Lab: Implementing an AD RMS Infrastructure**

- Install and Configure AD RMS
- Configure AD RMS Templates
- Verifying AD RMS on Clients
- Configure AD RMS Monitoring and Reporting

#### **X. Implementing and Administering AD FS**

This module explains AD FS, and then provides details on how to configure AD FS in both a single organization scenario and in a partner organization scenario. This module also describes the Web Application Proxy feature in Windows Server 2012 R2 that functions as an AD FS proxy and reverse proxy for web-based applications

- A. Overview of AD FS
- B. Deploying AD FS
- C. Implementing AD FS for a Single Organization
- D. Deploying AD FS in a Business-to-Business Federation Scenario
- E. Extending AD FS to External Clients

#### **Lab: Implementing AD FS**

- Installing and Configuring AD FS
- Configure an Internal Application for AD FS
- Configuring AD FS for a Federated Business Partner
- Configuring Web Application Proxy

#### **XI. Implementing Secure Shared File Access**

This module explains how to use Dynamic Access Control (DAC), Work Folders, Work place Join and how to plan and implement these technologies.

- A. Overview of Dynamic Access Control
- B. Implementing DAC Components
- C. Implementing DAC for Access Control
- D. Implementing Access Denied Assistance
- E. Implementing and Managing Work Folders
- F. Implementing Workplace Join

#### **Lab: Implementing Secure File Access**

- Preparing for DAC Deployment
- Implementing DAC
- Validating and Remediating DAC
- Implementing Work Folders

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### Course Outline (cont'd)

#### **XII. Monitoring, Managing, and Recovering AD DS**

This module explains how to use tools that help monitor performance in real time, and how to record performance over time to spot potential problems by observing performance trends. This module also explains how to optimize and protect your directory service and related identity and access solutions so that if a service does fail, you can restart it as quickly as possible.

- A. Monitoring AD DS
- B. Managing the AD DS Database
- C. AD DS Backup and Recovery Options for AD DS and Other Identity and Access Solutions

##### **Lab: Monitoring AD DS**

- Monitoring AD DS with Performance Monitor

##### **Lab: Recovering Objects in AD DS**

- Backing Up and Restoring AD DS
- Recovering Objects in AD DS

#### **XIII. Implementing Windows Azure Active Directory**

This module explains the concepts and technologies in Windows Azure Active Directory and how to implement and integrate it within your organization

- A. Overview of Windows Azure AD
- B. Managing Windows Azure AD Accounts

##### **Lab: Implementing Windows Azure AD**

- Implementing Windows Azure AD for Office 365
- Implementing Windows Azure AD for a Cloud-Based Application

#### **XIV. Implementing and Administering AD LDS**

This module explains how to deploy and configure Active Directory Lightweight Directory Services (AD LDS)

- A. Overview of AD LDS
- B. Deploying AD LDS
- C. Configuring AD LDS Instances and Partitions
- D. Configuring AD LDS Replication
- E. Integrating AD LDS with AD DS

##### **Lab: Implementing and Administering AD LDS**

- Configuring AD LDS Instances and Partitions
- Configuring AD LDS Replication
- Synchronizing AD LDS with AD DS