

## **MOC 50383 B Upgrading Identity Lifecycle Manager 2007 to Forefront Identity Manager 2010**

### **Course Summary**

#### **Description**

This course equips participants already acquainted with Microsoft Identity Lifecycle Manager 2007 (ILM) with the additional knowledge and skills they need to plan for a Microsoft Forefront Identity Manager 2010 (FIM) deployment.

#### **Objectives**

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

- Understand FIM concepts and components.
- Understand the scenarios for which FIM is appropriate.
- Manage users, groups, policy, and credentials through the FIM Portal.
- Synchronize identity data between the FIM Portal and other systems such as Active Directory.
- Incorporate other data sources such as HR feeds.
- Understand the issues involved in loading existing data (initial load and disaster recovery).
- Understand the technical architecture of FIM.
- Configure security for different levels of user.
- Extend the schema to incorporate new objects and attributes.
- Modify the interface, including look and feel, new or modified forms, and navigation.
- Understand the features, tools, and issues that will be important when operating, auditing, and troubleshooting FIM in a production environment.
- Incorporate custom workflows.

#### **Topics**

- Introducing Microsoft Forefront Identity Manager 2010
- Key Concepts
- User and Group Management
- Synchronizing Objects That Originate in the FIM Portal
- Synchronizing Objects Originating in Other Systems
- Managing Credentials with FIM
- Architecture, Installation, and Deployment
- Portal Configuration and Schema Model
- Operation, Monitoring, and Troubleshooting
- More Complex Workflows and MPRs

#### **Audience**

This course is intended for Systems Engineers, Developers, or Architects who need to gain a good understanding of how Forefront Identity Manager 2010 can be applied to manage identity information across a number of directories or databases.

#### **Prerequisites**

Before attending this course, students must have:

- Good working knowledge of ILM 2007 or Microsoft Identity Integration Server 2003 (MIIS) (equivalent to having attended Microsoft Learning Course 2731A: Deploying and Managing Microsoft Identity Integration Server 2003, and then being involved in an implementation).
- A sound understanding of the purpose and workings of Active Directory.
- A sound understanding of the purpose and workings of Microsoft Exchange Server.
- A sound understanding of the purpose and workings of Microsoft SQL Server.

#### **Duration**

Four days

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### Course Outline

#### I. Introducing Microsoft Forefront Identity Manager 2010

This module provides a tour of many of the built-in features of FIM explored through the user experience. It explores with the FIM interface and high level architecture, and covers the business need that FIM addresses.

- A. Lesson 1: Introducing FIM
- B. Lesson 2: The User Management and User Experience
- C. Lesson 3: Group Management

#### Lab: The User Management and User Experience

#### Lab: Simple Group Management

- Exercise 1: Log on and take a look at the environment
- Exercise 2: Create a contractor
- Exercise 3: Edit your new user, and try logging on
- Exercise 4: Add another user and see different permissions being applied

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

- Understand the additional identity management requirements that FIM addresses (as compared to ILM 2007).
- Understand the very high level architecture of FIM.
- Operate FIM as a user, understanding the high level functionality.

#### II. Key Concepts

This module introduces and explores the key concepts: sets, activities, workflows and policies, how permissions are granted, how workflows are triggered, and different types of workflow.

- A. Lesson 1: Policies, Sets, Workflows – Concepts, Design Philosophy
- B. Lesson 2: Policies – Permission-granting (Only) MPRs
- C. Lesson 3: Workflow MPRs

#### Lab: Permission-granting MPRs

- Exercise 1: A look at a permission-granting MPR and some sets
- Exercise 2: Permission-granting MPRs for self-service
- Exercise 3: Make some changes to permission-granting MPRs

#### Lab: Workflow MPRs

- Exercise 1: Examine some workflows
- Exercise 2: Examine some other MPRs
- Exercise 3: Modify a workflow MPR
- Exercise 4: Work out who can remove whom from groups

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

- Understand how sets, workflows, and management policy rules (MPRs) are used to manage requests.
- Make simple modifications to permissions and other MPR features.

#### III. User and Group Management

This module provides detailed coverage of users and groups, including data entry; interesting attributes; different types of groups; group expiration, renewal, and ownership; the relationship with groups in Active Directory and other systems; and limitations.

- A. Lesson 1: Users and the Portal
- B. Lesson 2: Groups and the Portal

#### Lab: More about Users

- Exercise 1: Examine the attributes of a user account

#### Lab: More about Groups

- Exercise 1: Groups calculated on other groups

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### Course Outline (cont'd)

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

- Manage users in the FIM Portal, including sources of user objects, entering data, searching, and attributes, etc.
- Manage groups in the FIM Portal, including the different types of groups and how they relate to Active Directory.
- Understand the part that MPRs play in managing users and groups.

#### IV. Synchronizing Objects That Originate in the FIM Portal

This module begins with a reminder of how synchronization works in ILM 2007. Then it covers how FIM can be used to provision, manage, and deprovision AD and other sources; how FIM attributes authority and precedence; how to create codeless outbound inbound rules; and the coexistence of classic and codeless rules.

- A. Lesson 1: Declarative Synchronization Rules Overview
- B. Lesson 2: Outbound Declarative Sync Rules
- C. Lesson 3: Inbound Synchronization
- D. Lesson 4: Managing Active Directory without Code

#### Lab: Outbound Synchronization

- Exercise 1: Investigate AD provisioning
- Exercise 2: Investigate the AD outbound synchronization rule
- Exercise 3: Add another outbound flow to AD

#### Lab: Inbound Synchronization

- Exercise 1: Investigate and modify inbound synchronization

#### Lab: Managing Active Directory Without Code

- Exercise 1: Make the DNs depend on department
- Exercise 2: Enabling/disabling/deprovisioning an AD account according to user status

- Exercise 3 (Optional interactive): Use an additional rule for disabling accounts

#### Lab: Adding and Provisioning a New Source

- Exercise 1: Creating a New Source and provisioning it with Accounts

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

- Understand the benefits and limitations of synchronization rules (versus "classic" rules).
- Implement inbound and outbound synchronization rules.
- Configure synchronization rules to manage Active Directory.

#### V. Synchronizing Objects Originating in Other Systems

In this module synchronization is further explored, including the various scenarios in which FIM can be used; sources that are authoritative for objects, such as HR Feeds; the inclusion of sources that are not authoritative for objects, such as telephone systems; data discovery issues such as joining and data cleansing; and disaster recovery issues.

- A. Lesson 1: Scenarios
- B. Lesson 2: Incorporating Objects from Another Source
- C. Lesson 3: Non-authoritative Sources and Initial Loads

#### Lab: Incorporate HR Data

- Exercise 1: Importing the employees and creating user accounts for them in the FIM portal
- Exercise 2: Create and import an inbound sync rule for the HR Data
- Exercise 3: Configure the outbound flow and synchronize
- Exercise 4: Final configuration of precedence, etc.

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### Course Outline (cont'd)

#### Lab: Cleanse and Join Existing Data

- Exercise 1: Telephone data

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

- Understand the scenarios that involve *inclusion in or migration to* the FIM Portal.
- Configure FIM for load and migration of existing data.
- Respond appropriately to joining and data cleansing challenges.

#### VI. Managing Credentials with FIM

This module deals with password issues: password reset and the relationship with ILM 2007 password management and synchronization.

- Lesson 1: FIM Password Management
- Lesson 2: Password Self-service Reset
- Lesson 3: Synchronizing Passwords – PCNS
- Lesson 4: FIM Certificate Management

#### Lab: Password Self-service

- Exercise 1: Verify and modify the environment
- Exercise 2: Modify the configuration for password registration and reset
- Exercise 3: Testing password registration and reset
- Exercise 4: Configuring password reset lockout

#### Lab: Configuring PCNS

- Exercise 1: Configuring PCNS

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

- Configure self-service password reset (and lockout) for chosen portal users.
- Configure password synchronization across systems.
- Identify where Certificate Management might be appropriate.

#### VII. Architecture, Installation, and Deployment

This module covers simple installation, in addition to likely production topologies, how to scale it, and other considerations (such as upgrade and migration).

- Lesson 1: Architecture
- Lesson 2: Synchronization Service: Changes Since ILM 2007
- Lesson 3: FIM Installation
- Lesson 4: Deployment Topologies

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

- Understand the architecture of FIM and the new features that have been added to the synchronization engine.
- Understand how FIM is installed, and the various possible topologies.

#### VIII. Portal Configuration and Schema Model

This module covers interface configuration, including look and feel and navigation. The portal schema model is also considered: objects, attributes, bindings and validations; use of XPath and search scopes; usage keywords; localization, etc.; how to extend the schema; and the relationship with the metaverse schema.

- Lesson 1: Portal Configuration Basics
- Lesson 2: Visualizing Resources
- Lesson 3: Resource Types, Attributes, and Bindings
- Lesson 4: Typical Steps for Extending Schema

#### Lab: Portal Customization

Exercise 1: Portal branding

#### Lab: Extending the Schema

- Exercise 1: Add a new customer resource type
- Exercise 2: New sets
- Exercise 3: Create a search scope for customers

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### Course Outline (cont'd)

- Exercise 4: Create RCDs and navigation bar links
- Exercise 5: Import the new resources to the metaverse
- Exercise 6: Provision customers into AD as contacts
- Exercise 7 (Optional interactive): Additional features

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

- Configure the portal, including home page, navigation bar, and search scopes.
- Configure the visualization of resources such as users and groups.
- Extend the schema to include new attributes, and new resource types.

#### **IX. Operation, Monitoring, and Troubleshooting**

This module looks at all the sources of information in FIM, including: ILM 2007 features (MV and CS search, event log, operations tool, etc.); managing requests and approvals; and auditing and reporting. Then it covers operational issues such as managing run cycles, backup procedures, monitoring activity, etc.

- Lesson 1: Operations
- Lesson 2: Managing MPRs and Requests
- Lesson 3: Other Sources of Information

#### **Lab: Examining the Cmdlets**

- Exercise 1: Export data
- Exercise 2: Compare data states

#### **Lab: Examining Requests**

- Exercise 1: Examine the requests concerning group membership changes
- Exercise 2: Construct and use a search scope to examine requests falling in a time period

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

- Use the additional features of FIM (versus ILM 2007) for operation, monitoring, and troubleshooting.
- Manage and troubleshoot requests.
- Use Windows PowerShell cmdlets for exporting and importing FIM Portal configuration.

#### **X. More Complex Workflows and MPRs**

This module covers more complex workflows using functions and parameters, temporal (time-based) events, expiration, notification, and delayed actions. It examines Windows Workflow Foundation workflows and how to import them.

- Lesson 1: Time-based MPRs
- Lesson 2: Workflow Functions and Parameters
- Lesson 3: Custom Workflow Activities

#### **Lab: Time-based MPRs**

- Exercise 1: Time-based features

#### **Lab: Using Functions and Parameters**

- Exercise 1: Random password generation and notification
- Exercise 2: Generate attribute values

#### **Lab: Developing a Custom Workflow Activity**

- Exercise 1: Calling a simple WF activity from FIM
- Exercise 2: Add pre-built activities to your custom activity
- Exercise 3: Install a fully integrated custom activity

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

- Create and manage time-based groups, sets, and MPRs.
- Create and use workflow parameters.
- Import workflow activities.
- Create a simple workflow activity.