



2731 – MIIS

Deploying and Managing Microsoft Identity Integration Server (MIIS) 2003

Introduction

This four-day, instructor-led course provides students with an understanding of how Microsoft Identity Integration Server 2003 can be used to synchronize identity data across multiple sources according to business rules.

Audience

A successful deployment of MIIS 2003 involves a wide range of skill sets from individuals in different roles. This course is intended for systems engineers, architects, and developers who will be part of a team responsible for implementing MIIS 2003. Each should have thorough experience in Microsoft Windows 2000 or Windows Server 2003, with some understanding of Microsoft SQL Server and directories and a working knowledge of programming languages. An awareness of the business issues surrounding the management of employee data and familiarity with related technologies such as Lotus Notes or Novell eDirectory will be beneficial.

At Course Completion

After completing this course, students will be able to:

- Configure a metaverse schema.
- Active Directory
- Create management agents for a number of external sources, including Microsoft Active Directory forest, Active Directory in Application Mode (ADAM), and SQL Server – in a basic configuration.
- Configure management agents, including connector filters, join rules and attribute flow for straightforward scenarios.
- Configure and verify data flow.
- Create and debug simple rules extensions.
- Provision and control Active Directory and ADAM accounts, including groups with Exchange enablement.
- Manage passwords using Windows Management Instrumentation (WMI) and Web applications.
- Backup and restore MIIS.
- Manage MIIS using WMI.
- Understand the security implications of an MIIS installation, and ensure a basic level of security.

Prerequisites

Before attending this course, students must have:

- Familiarity with the following technologies:
- Windows Server 2003
- Active Directory
- Lightweight Directory Access Protocol (LDAP)
- Databases (both flat and relational)
- A programming language such as Microsoft Visual Basic
- Completed Course 2279, Planning, Implementing and Maintaining a Microsoft Windows 2003 Server Active Directory Infrastructure, or have equivalent knowledge



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Microsoft Certified Professional Exams

No Microsoft Certified Professional exams are associated with this course currently.

Course Materials

The student kit includes a comprehensive workbook and other necessary materials for this class.

Course Outline

Module 1: IdM Systems and Microsoft Identity Integration Server 2003

This module provides an overview of Identity Management (IdM) Systems, and the concepts and architecture of MIIS 2003.

Lessons

- The purpose of an Identity Management System
- The Metadirectory and other features of MIIS 2003
- MIIS 2003 Overview
- Essential MIIS Concepts and Terminology

Lab 01: Exploring the MIIS Classroom Installation

- Verifying the Classroom Configuration

After completing this module, students will be able to:

- Describe the purpose of an IdM System and of a metadirectory
- Describe the features and architecture of MIIS 2003
- Understand the concepts and terminology involved

Module 2: Introducing the Identity Manager

This module provides an overview of the Identity Manager ? the MIIS 2003 administration tool.

Lessons

- Using the Identity Manager
- The Management Agents Tool
- The Metaverse Search Tool
- The Operations Tool
- Other Identity Manager Tools

Lab 02: Import and Run and HR MA

- Importing a Management Agent
- Running a Management Agent Import
- Performing Simple Metaverse Searches

After completing this module, students will be able to:

- Find their way around the Identity Manager
- Import a Management Agent
- Import data from SQL Server
- Search the metaverse

Module 3: Introduction to Management Agents

This module introduces Management Agents and Run Profiles in some detail.



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Lessons

- The 'Staging Steps' of Management Agent Configuration
- The 'Synchronization Steps' of Management Agent Configuration
- Run Profiles
- Delta Imports

Lab 03A: Configuring a File-based MA

- Creating a Text File MA
- Creating an Import Run Profile

Lab 03B: Delta Imports

- Create a Delta View in SQL Server
- Configure an MA for Delta Import

After completing this module, students will be able to:

- Create and configure a Management Agent
- Configure Run Profiles
- Understand the purpose of Delta imports

Module 4: Data Flow in Microsoft Identity Integration Server 2003

This module examines in detail how data flows in MIIS 2003. It lifts the lid on the synchronization engine, also considering export flow and precedence. Finally it covers manual operations like preview and manual joining.

Lessons

- Staging, Synchronization and Export
- Inbound and Outbound Synchronization
- When do rules run?
- The Connector Space and Preview
- Holograms and Synchronization
- Exports
- The Metaverse Schema: Metaverse Design
- Manual Joining and Disconnection

Lab 04A: Staged and Synchronization Run Profiles

- Creating Staged and Synchronization Runs
- Previewing the Effect of Synchronization

Lab 04B: Export Attribute Flow

- Export Attribute Flow
- Export Run Profiles

Lab 04C: Metaverse Design, Creating a SQL Server Management Agent

- Adding Metaverse Attributes
- Creating a SQL Server Management Agent

Lab 04D: Experimenting with Joins, Connectors and Disconnectors

- Manual joining
- Manual disconnecting

After completing this module, students will be able to:

- Understand how the synchronization engine works
- Configure Management Agents attribute flow rules for import and export
- Configure a metaverse schema
- Understand the need for, and perform, manual joining



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Module 5: Introducing Programming Aspects

This module introduces the programmable aspects of MIIS 2003.

Lessons

- Windows Management Instrumentation (WMI)
- Introducing WMI
- Managing Microsoft Identity Integration Server 2003 (MIIS 2003) using WMI
- Rules Extensions
- Introducing Rules Extensions
- Examples of Rules Extensions
- Debugging Rules Extensions

Lab 05A: Scheduling MA Using WMI

- Creating and Modifying Scripts
- Scheduling a Script

Lab 05B: Using an MA Rules Extension

- Configuring Rules Extension Rules
- Creating a Rules Extension

Lab 05C: Debugging a Rules Extension .DLL

- Setting and Using Breakpoints in a .DLL
- Configuring Simple Logging

After completing this module, students will be able to:

- Control Management Agent runs through WMI
- Have an appreciation of when and where to use rules extensions
- Create simple rules extension flow rules

Module 6: Installation and System Management

This module covers a range of administrative and design considerations, including backup and restore, security, best practices, and so on.

Lessons

- Preparing for Installation
- Data Security
- Installation and Uninstallation
- Implementation Considerations
- Best Practices
- Additional Tools
- Troubleshooting

Lab 06: Backup and Restore

- Backing Up Encryption Keys
- Backing Up Configuration and Data
- Restoring
- Locking down the Service Account

After completing this module, students will be able to:

- Backup and restore MIIS 2003 data and configuration
- Implement basic security
- Plan for an implementation, including best practices



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Module 7: Provisioning

This module explains how to perform simple provisioning and deprovisioning of objects.

Lessons

- Provisioning Scenarios and Concepts
- Metaverse Rules Extensions
- Basic Provisioning Steps
- Deprovisioning
- Techniques and Examples

Lab 07A: Simple Provisioning

- Creating a Metaverse Extension DLL
- Setting Up Simple Provisioning

Lab 07B: Deprovisioning

- Setting Up Simple Deprovisioning

After completing this module, students will be able to:

- Create a metaverse rules extension
- Configure MIIS for simple provisioning and deprovisioning

Module 8: Working with Active Directory

This module applies what has been learned so far to Active Directory and ADAM. It also introduces the management of groups.

Lessons

- Active Directory and Microsoft Exchange Server with Microsoft Identity Integration Server 2003 (MIIS 2003)
- How to Configure an Active Directory MA
- ADAM with MIIS 2003
- How to Configure an ADAM MA
- Managing Groups

Lab 08A: Active Directory

- Preparing Data Required for Provisioning
- Creating an Active Directory MA
- Creating a DLL for Provisioning Active Directory
- Controlling Active Directory Account Status

Lab 08B: ADAM

- Creating a Simple ADAM MA
- Provisioning ADAM Accounts

Lab 08C: Groups

- Provisioning Groups

Lab 08D: Populating Groups

- Importing Group Memberships from SQL Server
- Provisioning Group Objects with Memberships

After completing this module, students will be able to:

- Create an Active Directory management agent
- Create an ADAM management agent
- Provision Active Directory accounts and groups (including Exchange)
- Manage Active Directory accounts



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Module 9: Password Management

This module introduces MIIS password management and synchronization.

Lessons

- Password Management Overview
- Integrated Password Management
- Managing Passwords Using Windows Management Instrumentation (WMI)
- Managing Passwords Using the Provided Web Applications
- Admin (help desk) password reset
- User (self-service) password change

Lab 09: Managing Passwords

- Installing Password Management
- Configuring Password Management

After completing this module, students will be able to:

- Implement password management

Module 10: Other Management Agents and Typical Scenarios

This module covers the management agents not explicitly covered elsewhere in the course and goes on to cover some typical MIIS 2003 scenarios.

Lessons

- Notes on MAs not explicitly covered in the course
- Sun ONE (iPlanet), Lotus Notes, Novell eDirectory
- Microsoft Windows NT 4.0, Microsoft Exchange Server 5.5
- Interchange format files such as Attribute Value Pair
- Oracle
- Typical Scenarios
- White Pages
- Address List Synchronization
- Multiple Hub
- Data-driven and Administrated Provisioning

After completing this module, students will be able to:

- Understand typical issues relating to various management agents
- Understand some typical MIIS 2003 scenarios

Course Duration

- 4 Days
- include equipment, training material, lunch and refreshments



Learning Solutions