

## **Designing a Messaging Infrastructure using Microsoft Exchange Server 2007**

Course 5053A: Three days; Instructor-Led

### **Introduction**

This three-day instructor-led course provides students with the knowledge and skills to design a messaging infrastructure. Students will learn to assess an existing infrastructure and determine technical and business requirements for both new Microsoft Exchange Server 2007 deployments and migrations. Students will create a design that addresses security, architecture, scalability, coexistence, and client access needs. They also will learn strategies for gaining approval for designs from stakeholders.

### **Audience**

This course is intended for people with three or more years experience working with previous Exchange Server versions and experience implementing Exchange Server 2007. Most students will have managed enterprise-level Exchange Server organizations. Students are expected to be new to participating in designing Exchange Server 2007 deployments on the job or to be planning to design Exchange Server 2007 deployments in the near future. Students may have done some design for Exchange 2000 Server or Exchange Server 2003 deployments, but want to learn how to design Exchange Server 2007 environments. Students will also have experience in designing and managing Active Directory directory services and network infrastructure deployments.

### **At Course Completion**

After completing this course, students will be able to:

- Gather business and technical requirements for a messaging infrastructure.
- Design an Active Directory directory service and message routing infrastructure.
- Design the hardware and system configuration for Exchange servers.
- Design security for the messaging environment.
- Design strategies for coexistence and interoperability.
- Design a strategy for upgrading to Exchange Server 2007.
- Design messaging policies.
- Obtain approval for a messaging infrastructure design.

### **Prerequisites**

Before attending this course, students must have:

- Must understand hardware concepts. For example, what redundant array of independent disks (RAID) is, what a storage area network (SAN) is, processor options, memory requirements, how disk input/output (I/O) functions and the limitations of disk I/O, and storage options for Exchange server. The differences in addressable memory spaces between 32- and 64-bit architectures.
- Must have extensive detailed knowledge of Active Directory concepts and design principles. For example, site replication, integrated authentication, schema extension, Domain Name System (DNS), group and organization unit structure and inheritance, etc....

#### **AVANTUS TRAINING PTE LTD**

79 Robinson Road #15-04 CPF Building Singapore 068897

Sales Hotline: (65)64163078

Email: [enquiries@AvantusTraining.com](mailto:enquiries@AvantusTraining.com)

[www.AvantusTraining.com](http://www.AvantusTraining.com)

- Working experience with designing and implementing Active Directory in Windows Server 2003.
- Must understand Exchange architecture. For example, the purpose of server roles, functions of specific server roles, how message routing and queuing works in Exchange, standard messaging protocols (Simple Mail Transfer Protocol [SMTP], Internet Message Access Protocol version 4rev1 [IMAP4], Post Office Protocol version 3 [POP3]), how Exchange replicates data stores, client access methods, and so on.
- Working experience with Exchange 2000 Server or Exchange Server 2003 and Exchange Server 2007. For example, must have installed, maintained, and supported a production Exchange environment.
- Must already know how to use:
  - Exchange System Manager
  - Exchange Best Practice Analyzer (ExBPA)
  - Microsoft Office Visio (to create infrastructure diagrams)
- Familiarity and experience with a Windows scripting or command-line scripting.

## Course Outline

### Module 1: Gathering Requirements for a Messaging Infrastructure

This module explains how to gather business and technical requirements for a messaging system.

#### Lessons

- Gathering Business Requirements
- Identifying Additional Requirements
- Analyzing the Current Messaging Environment
- Creating a Requirements Document

#### Lab: Gathering Requirements for a Messaging Infrastructure

- Exercise 1: Evaluating an Existing Messaging Infrastructure
- Exercise 2: Creating a Requirements Document
- Exercise 3: Discussion: Real-World Best Practices for Setting Budget Expectations

After completing this module, students will be able to:

- Gather business requirements for a Microsoft Exchange Server 2007 deployment.
- Identify project stakeholders and non-business requirements.
- Analyze the current messaging environment.
- Create a requirements document.

### Module 2: Designing Active Directory and Message Routing

This module explains how to design an Active Directory and message routing infrastructure.

#### Lessons

- Designing an Active Directory Infrastructure
- Designing Message Routing
- Designing the Message Routing Perimeter

#### Lab: Designing Active Directory and Message Routing

- Exercise 1: Designing a Message Routing Topology
- Exercise 2: Designing a Messaging Perimeter

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- Exercise 3: Discussion: Improving an Active Directory and Message Routing Design

After completing this module, students will be able to:

- Design an Active Directory infrastructure that is optimized for Exchange Server 2007.
- Design a message routing topology.
- Design the messaging routing perimeter.

### **Module 3: Designing Exchange Servers**

This module explains how to design Exchange Server configurations.

#### **Lessons**

- Designing Mailbox Servers
- Designing Non-Mailbox Servers
- Designing a Public Folder Architecture
- Designing a Lab Environment

#### **Lab: Designing Exchange Servers**

- Exercise 1: Planning an Exchange Server Deployment
- Exercise 2: Defining Test Lab Requirements

After completing this module, students will be able to:

- Design Mailbox server configurations.
- Design configurations for other servers running Exchange Server 2007.
- Design a public folder architecture.
- Design a test lab.

### **Module 4: Designing Security for a Messaging Environment**

This module explains how to design security for a messaging environment.

#### **Lessons**

- Designing an Administrative Model
- Designing Message Security
- Designing Antivirus and Anti-spam Solutions

#### **Lab: Designing Security for a Messaging Environment**

- Exercise 1: Designing an Administrative Model
- Exercise 2: Designing Message Security
- Exercise 3: Designing Antivirus and Anti-spam Solutions

After completing this module, students will be able to:

- Design an administrative model for Exchange Server 2007.
- Design messaging security.
- Design antivirus and anti-spam solutions.

### **Module 5: Designing Messaging Policies**

This module explains how to design messaging policies for an Exchange Server 2007 organization.

#### **Lessons**

- Designing Exchange Recipient and Message Policies
- Designing Mobile Device Policies
- Designing Messaging Policies for Compliance

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## Lab: Designing Messaging Policies

- Exercise 1: Designing Messaging Policies

After completing this module, students will be able to:

- Design policies for Exchange recipients and message delivery.
- Design policies for mobile devices.
- Design messaging policies for compliance.

## Module 6: Designing Coexistence and Interoperability Strategies with Other Messaging Systems

This module explains how to design Exchange coexistence and messaging system interoperability strategies.

### Lessons

- Overview of Coexistence and Interoperability with Other Messaging Systems
- Designing a Coexistence Strategy with Previous Exchange Versions
- Designing an Interoperability Strategy with Other Messaging Systems

## Lab: Designing Coexistence and Interoperability Strategies with Other Messaging Systems

- Exercise 1: Designing a Coexistence Strategy with Exchange 2000 Server
- Exercise 2: Designing an Interoperability Strategy

After completing this module, students will be able to:

- Describe the Exchange coexistence and interoperability scenarios and terminology.
- Design a coexistence strategy with previous Exchange Server versions.
- Design an interoperability strategy with other messaging systems.

## Module 7: Designing an Exchange Server 2007 Upgrade Strategy

This module explains how to design a strategy for upgrading to Exchange Server 2007.

### Lessons

- Overview of Available Upgrade Strategies
- Designing a Transition From Previous Versions of Exchange
- Designing a Migration From Other Messaging Systems

## Lab: Designing an Upgrade Strategy

- Exercise 1: Discussion: Reviewing the Exchange Server 2007 Design
- Exercise 2: Designing an Upgrade Strategy

After completing this module, students will be able to:

- Describe the Exchange upgrade terminology and strategies.
- Design a transition strategy for upgrading from previous Exchange Server versions.
- Design a migration strategy for upgrading from other messaging systems.

## Module 8: Obtaining Approval for a Messaging Infrastructure Design

This module explains how to obtain approval for a messaging infrastructure design.

### Lessons

- Preparing to Obtain Approval
- Presenting and Finalizing a Design

## Lab: Obtaining Messaging

## Approval for a Infrastructure

## Design

- Exercise 1: Presenting a Messaging Infrastructure Design
- Exercise 2: Discussion: Characteristics of Effective Design Review Processes

After completing this module, students will be able to:

- Prepare for the design approval meeting.
- Present and finalize an Exchange Server 2007 design.