

2400-Implementing & Managing Microsoft Exchange Server 2003

Introduction

This five-day, instructor-led course provides students with the knowledge and skills that are needed to update and support a reliable, secure messaging infrastructure. This infrastructure is used for creating, storing, and sharing information by using Microsoft Exchange Server 2003 in a medium-sized to large-sized (250 to 5,000 seats) messaging environment. This course offers a significant amount of hands-on practices, discussions, and assessments that assist students in becoming proficient in the skills that are needed to update and support Exchange Server 2003.

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Audience

This course is intended for messaging support professionals who work in medium-to-large environments (250 to 5,000 seats) with multiple physical locations, mixed-client connection protocols, and wireless and Internet messaging connectivity.

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At Course Completion

After completing this course, students will be able to:

- Perform a clean installation of Exchange Server 2003 and verify that the installation was successful.
- Describe the process for upgrading to Exchange Server 2003 from Exchange 2000.
- Configure and manage Exchange Server 2003.
- Manage interoperability between Exchange Server 2003 and Exchange 2000.
- Secure Exchange Server 2003.
- Manage recipients.
- Manage public folders.
- Manage address lists.
- Implement and manage client access with Internet protocols.
- Manage client configuration and connectivity.
- Manage routing.
- Manage mobile devices with Exchange Server 2003.
- Manage data storage and hardware resources.
- Plan for disaster and disaster recovery.
- Back up and restore Exchange.
- Perform preventive maintenance.
- Migrate users from Exchange Server 5.5 to a separate Exchange Server 2003 organization.

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Prerequisites

Before attending this course, students must have:

- Working knowledge of Microsoft Windows Server™ 2003.

- Working knowledge of networking, including Transmission Control Protocol/Internet Protocol (TCP/IP), Domain Name System (DNS), and Internet Information Services (IIS).
- Working knowledge of Internet protocols, including Post Office Protocol version 3 (POP3) or Internet Message Access Protocol version 4 (IMAP4), Simple Mail Transfer Protocol (SMTP), Hypertext Transfer Protocol (HTTP), and Network News Transfer Protocol (NNTP).
- In addition, it is recommended, but not required, that students have completed:
 - [Course 2274](#): Managing a Microsoft Windows Server 2003 Environment, or equivalent knowledge
 - [Course 2275](#): Maintaining a Microsoft Windows Server 2003 Environment, or equivalent knowledge
 - [Course 2276](#): Implementing a Microsoft Windows Server 2003 Network Infrastructure: Network Hosts, or equivalent knowledge
- Knowledge of Exchange Server 5.5 or Exchange 2000 Server is beneficial but not necessary.

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Microsoft Certified Professional Exams

This course will help students prepare for the following Microsoft Certified Professional exam:

- [Exam 70-284](#): Implementing and Managing Microsoft Exchange Server 2003

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Course Materials

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

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Course Outline

Module 1: Installing and Upgrading to Exchange Server 2003

A requirement of a messaging administrator may be to install Exchange Server 2003 on newly acquired hardware. Because of this requirement, it is necessary for the administrator to know how to perform a clean installation of Exchange Server 2003. The administrator also needs to know how to install and use the tools that are needed to manage Exchange Server 2003. Because of the complexity involved in upgrading to Exchange Server 2003 from previous versions of Exchange, the administrator may not be required to perform any upgrade tasks; however, it is still beneficial for the administrator to understand the overall upgrade process.

Installing Exchange Server 2003 and the accompanying administrative tools comprise only the first step in getting a production server functioning correctly. The final two tasks to get a production server to function correctly are covered in Modules 2 and 3.

Lessons

- Installing Exchange Server 2003
- Installing Exchange Server 2003 in a Clustered Environment
- Installing and Using Exchange Management Tools and Utilities
- Upgrading from Exchange 2000 Server to Exchange Server 2003
- Discussion: Installing and Upgrading to Exchange Server 2003

Practices

- Installing Exchange Server 2003
- Installing Exchange Server 2003 in a Clustered Environment
- Installing Windows Support Tools
- Creating a Custom MMC
- Choosing Exchange Management Tools and Utilities

After completing this module, students will be able to:

- Install Exchange Server 2003.
- Install Exchange Server 2003 in a clustered environment.
- Install and use Exchange management tools.
- Upgrade to Exchange Server 2003 from Exchange 2000.

Module 2: Configuring and Managing Exchange Server 2003

After administrators install Exchange Server 2003, they must configure the server to run in their messaging environment. Configuration tasks include setting up Exchange policies to simplify administration, and configuring Exchange Server so that the administrator can proactively manage server performance. If administrators use both Exchange Server 2003 and Exchange 2000 Server in their messaging environment, they must also effectively manage this mixed environment.

This module describes how to configure and manage a newly-installed server running Exchange Server 2003 by using the tools that are in Exchange Server 2003 and in the Windows Server 2003 family.

Lessons

- Creating and Applying Exchange Policies
- Configuring Exchange Server 2003 for Proactive Management
- Adding, Removing, and Updating Exchange Servers
- Managing Exchange Server 2003 in a Mixed Environment
- Discussion: Configuring and Managing Exchange Server 2003

Practices

- Creating a System Policies container
- Creating and applying recipient policies
- Creating a new storage group and a new store
- Configuring resource monitoring on an Exchange server
- Configuring notifications by using Exchange System Manager
- Configuring performance logs
- Configuring alerts by using Performance Logs and Alerts
- Configuring message tracking
- Configuring SMTP logging
- Adding an SMTP virtual server
- Applying a hot fix

After completing this module, students will be able to:

- Create and apply Exchange policies to simplify administration.
- Configure Exchange Server 2003 to proactively manage server performance.
- Add, remove, and update Exchange servers.
- Manage Exchange Server 2003 in a mixed environment.

Module 3: Securing Exchange Server 2003

After installing and configuring Exchange Server 2003, the administrator will need to secure the Exchange Server. Securing the Exchange Server is the final step of the three-step process of installing a new Exchange server in the actual environment. (Modules 1 and 2 constitute the first two steps in this overall process.) Securing Exchange Server 2003 involves implementing antivirus strategies, implementing digital signatures and encryption features, and configuring firewalls, as well as setting administrative permissions.

Lessons

- Preparing for and Protecting Against Viruses
- Securing Mailboxes
- Implementing Digital Signature and Encryption Capabilities
- Configuring Firewalls
- Configuring Administrative Permissions
- Allowing Only Required Services to Run on Exchange Server 2003
- Discussion: Securing Exchange Server 2003

Practices

- Configuring Exchange to enable connection filtering
- Blocking e-mail addresses and domains
- Implementing digital signature and encryption capabilities on Exchange
- Creating an Administrative Group
- Delegating control of an Administrative Group
- Configuring custom security permissions

After completing this module, students will be able to:

- Prepare Exchange Servers to combat viruses.
- Secure mailboxes.
- Implement digital signature and encryption features.
- Configure firewalls.
- Configure administrative permissions.
- Allow only required services to run on Exchange Server 2003.

Module 4: Managing Recipients

Exchange Server 2003 recipients include Exchange users, contacts, and groups. Because Exchange Server 2003 maintains its directory information in the Microsoft Active Directory® directory service, an administrator manages Exchange recipients by using Active Directory Users and Computers. Additionally, an administrator can use scripting utilities to make bulk changes to the Exchange recipient information that is stored in Active Directory.

Lessons

- Introduction to Exchange Recipients
- Creating, Deleting, and Modifying Users and Contacts
- Managing Mailboxes
- Managing Mail-Enabled Groups
- Discussion: Managing Recipients

Practices

- Deciding which Exchange recipient type and scope to use
- Creating a mailbox
- Deleting an Exchange mailbox
- Modifying an e-mail address
- Using scripts to automate mailbox administration
- Hiding a mailbox
- Reconnecting a mailbox to a new Active Directory account
- Configuring storage limits on individual mailboxes
- Configuring Send on Behalf permissions by using Active Directory Users and Computers
- Moving mailboxes by using Exchange Task Wizard
- Configuring Active Directory Users and Computers to forward e-mail
- Creating a mail-enabled group
- Creating Mail-Enabled Groups and Query-Based Distribution Groups
- Configuring permissions on distribution group usage

After completing this module, students will be able to:

- Describe Exchange recipients and explain the messaging capability of the different Active Directory groups.
- Create, delete, and modify users and contacts.
- Manage mailboxes.
- Manage mail-enabled groups.

Module 5: Managing Public Folders

Public folders are an integral part of the Exchange Server 2003 messaging system. Public folders enable users in an Exchange organization to share information by using a variety of file formats. Managing public folders involves managing public folder data, as well as network access to public folders. An Exchange administrator's primary tool for managing public folders is Exchange System Manager.

Lessons

- Managing Public Folder Data
- Managing Network Access to Public Folders
- Publishing An Outlook 11 Form
- Discussion: Managing Public Folders

Practices

- Creating a custom MMC for public folder management
- Creating a general-purpose public folder tree
- Granting permission to create top-level folders
- Creating public folders in Exchange System Manager
- Configuring client permissions to access a public folder
- Replicating a public folder to a different server
- Creating a public folder index and enabling client search of the index
- Relocating index files
- Creating an organizational forms library

After completing this module, students will be able to:

- Manage public folder data.
- Manage network access to public folders.
- Create and publish a Microsoft Office Outlook® 11 form.

Module 6: Managing Address Lists

Users who use Exchange Server as their e-mail server typically search for other e-mail users in their company by using the global address list (GAL), which includes all the e-mail messaging recipients, including contacts with external addresses and distribution groups, in the Exchange organization. Administrators use Exchange System Manager in Exchange Server 2003 to simplify management of address lists. Administrators also use Exchange System Manager to create custom address lists that meet users' specific needs and that help them find e-mail addresses faster.

Lessons

- Introduction to Address Lists
- Managing and Customizing Address Lists
- Discussion: Managing Address Lists

Practices

- Creating and Customizing Address Lists
- Creating an offline address list
- Customizing display names by using the ADSI Edit snap-in
- Forcing Recipient Update Service to update the GAL

After completing this module, students will be able to:

- Explain when to use different types of address lists.
- Manage and customize address lists.

Module 7: Implementing and Managing Client Access with Internet Protocols

Outlook Web Access enables users to gain access to their mailboxes by using an Internet browser. Outlook Web Access also allows users access to data that is in public folders, network shared folders, and on company intranets.

Lessons

- Introduction to Internet Client Access Protocols

- Implementing a Front-End and Back-End Server Topology
- Implementing and Managing Outlook Web Access
- Discussion: Implementing and Managing Client Access with Internet Protocols

Practices

- Choosing Internet Clients and Exchange Technologies
- Configuring a Secure Front-End Server
- Configuring SSL Between the Client and the Front-End Server

After completing this module, students will be able to:

- Implement front-end and back-end servers.
- Implement and manage Outlook Web Access.

Module 8: Managing Client Configuration and Connectivity

Frequently, users ask messaging administrators to assist them with configuring their e-mail software or setting up specific collaborative features. This module introduces client configuration and connectivity concepts and demonstrates the common tasks that are associated with configuring and customizing Outlook 2003, including performing calendaring tasks in Outlook 2003, and installing and configuring Microsoft Outlook Express.

Lessons

- Configuring and Customizing Outlook 2003
- Performing Calendaring Tasks in Outlook 2003
- Installing and Configuring Outlook Express
- Discussion: Managing Client Configuration and Connectivity

Practices

- Configuring Outlook to connect to Exchange 2003
- Configuring rules and Out of Office messages
- Granting permission to a delegate to access mailbox information
- Scheduling a meeting
- Creating a group schedule
- Using WebDAV to connect Outlook Express to Exchange
- Adding an e-mail or news account in Outlook Express
- Showing and hiding IMAP folders

After completing this module, students will be able to:

- Configure and customize Outlook 2003.
- Perform common calendaring tasks in Outlook 2003.
- Install and configure Outlook Express.

Module 9: Managing Routing

Messaging administrators assemble servers running Exchange Server 2003 into routing groups to control message traffic and to help Exchange route messages more efficiently. Configuring routing groups and managing their connectivity to the Internet are important parts of an administrator's day-to-day job.

Lessons

- Explaining How Message Routing Works in an Exchange Organization
- Configuring Routing in an Exchange Organization
- Explaining Internet Connectivity Concepts and Protocols
- Managing Connectivity to the Internet
- Discussion: Managing Routing

Practices

- Deciding on the Best Way to Connect Routing Groups
- Creating a Routing Group
- Creating a Routing Group Connector
- Using the Monitoring and Status tool to monitor server, connector, and resource status
- Explaining Internet Connectivity Concepts and Protocols
- Creating an MX record for the Exchange server
- Creating and configuring an SMTP connector
- Restricting user accounts from sending Internet E-mail
- Configuring Exchange to use an SMTP relay host
- Configuring the SMTP connector to override relay settings on the SMTP virtual server
- Configuring Exchange to pull e-mail from another server by using ETRN

After completing this module, students will be able to:

- Explain how message routing works in an Exchange organization.
- Configure routing in an Exchange organization.
- Explain Internet connectivity concepts and protocols.
- Manage connectivity to the Internet.

Module 10: Managing Mobile Devices with Exchange Server 2003

This module introduces students to the new mobility feature of Exchange Server 2003.

Lessons

- Managing Mobility Components
- Provisioning Users for Mobile Access
- Discussion: Managing Mobile Devices with Exchange Server 2003

Practices

- Securing Outlook Mobile Access by Configuring SSL on the Virtual Directory
- Using Internet Explorer version 6.0 to Connect to your Inbox

After completing this module, students will be able to:

- Manage mobility components.
- Provision users for mobile access.

Module 11: Managing Data Storage and Hardware Resources

To manage and optimally use Exchange data storage, messaging administrators must understand how Exchange Server 2003 stores data and what storage technologies it uses. Administrators must

also understand what effects hardware components have on Exchange performance and the steps that they can take to improve performance.

Lessons

- Managing Data Storage
- Managing Disk Space
- Managing Hardware Upgrades
- Discussion: Managing Data Storage and Hardware Resources

Practices

- Enabling circular logging on a storage group
- Choosing the best RAID level for your environment
- Configuring Exchange Performance Settings

After completing this module, students will be able to:

- Manage data storage.
- Manage disk space.
- Manage hardware upgrades.

Module 12: Planning for and Recovering from Disasters

The importance of preparing for the disaster recovery of the messaging system cannot be overemphasized. This module discusses not only how to create a planning document for disaster recovery, but it also explains the various procedures that are involved in backing up and restoring the messaging system.

Lessons

- Planning for Disaster Recovery
- Backing Up Exchange Server 2003
- Restoring Exchange Server 2003 Stores
- Restoring Exchange Server 2003 Servers
- Discussion: Planning for and Recovering from Disasters

Practices

- Planning for Disaster Recovery
- Performing an Online Backup of a Storage Group
- Starting the Volume Shadow Copy Service
- Regenerating a full-text index
- Using the Mailbox Recovery Center to Reconnect Deleted and Mailboxes
- Restoring a Mailbox Store from Backup
- Using Outlook Web Access to restore deleted messages
- Restoring mailbox data by using a Recovery Storage Group

After completing this module, students will be able to:

- Create a plan for disaster recovery in the Exchange environment.
- Back up Exchange Server 2003.
- Restore Exchange Server 2003 stores.

- Restore Exchange Server 2003 servers.

Module 13: Performing Preventive Maintenance

Preventative maintenance is the key to ensuring the availability and reliability of the messaging system. By categorizing and scheduling maintenance tasks accordingly, a messaging administrator can approach their administrative tasks in an organized, systematic manner.

Lessons

- Performing Daily Exchange Maintenance
- Performing Scheduled Exchange Maintenance
- Performing On-Demand Exchange Maintenance
- Discussion: Performing Preventive Maintenance

Practices

- Checking Event Viewer for potential issues
- Checking Monitoring and Status for potential issues
- Verifying that queues have no long-term undelivered messages
- Generating a performance report and looking for trends
- Checking the SMTP log for problems
- Checking for over-limit mailboxes
- Cleaning mailboxes
- Managing the Badmail folder
- Configuring the Postmaster mailbox that will receive NDRs
- Defragmenting an Exchange store
- Verifying a mailbox store by using Isinteg.exe

After completing this module, students will be able to:

- Perform daily Exchange maintenance.
- Perform scheduled Exchange maintenance.
- Perform on-demand Exchange maintenance.

Module 14: Migrating Users from Exchange Server 5.5 to Exchange Server 2003

Because it is common for companies to merge, many messaging administrators must implement messaging deployment plans to support the merging of established messaging systems. This module teaches administrators how to migrate the Exchange Server 5.5 messaging system of a company running a Microsoft Windows NT® 4.0 domain into the Exchange Server 2003 messaging system of another company running Windows Server 2003 and Active Directory. These same steps can also be used to merge two organizations that use either Exchange 2000 or Exchange 2003.

Lessons

- Populating Active Directory with Windows NT 4.0 User and Group Accounts
- Connecting the Exchange 5.5 Directory to Active Directory
- Moving Mailbox and Public Folder Contents into an Exchange Server 2003 Organization
- Discussion: Migrating Users from Exchange Server 5.5 to Exchange Server 2003

Practices

- Creating a trust between a Windows NT 4.0 domain and an Active Directory domain
- Installing ADMT
- Migrating user accounts using ADMT
- Migrating group accounts using ADMT
- Migrating Exchange 5.5 mailbox ACLs using ADMT
- Verifying a successful user and group account migration
- Installing the Active Directory Connector (ADC)
- Configuring resource mailbox properties
- Configuring an inter-organizational connection agreement
- Verifying synchronization
- Organizing objects in Active Directory
- Moving Mailboxes from Exchange 5.5 to Exchange 2003
- Replicating public folders from Exchange 5.5 to Exchange 2003

After completing this module, students will be able to:

- Populate Active Directory with Windows NT 4.0 user and group accounts.
- Connect the Exchange 5.5 directory to Active Directory.
- Move mailbox and public folder contents into an Exchange Server 2003 organization.