



Course Outline

Workshop 2011A: Troubleshooting Microsoft Exchange Server 2003

About This Workshop

This three-day instructor-led workshop provides students with the knowledge and skills to identify and resolve common Microsoft Exchange Server issues.

Microsoft Certification exams

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

Exam 70-284: Implementing and Managing Microsoft Exchange Server 2003

Workshop Materials

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

Audience Profile

This workshop is intended for the Systems Engineer already skilled in Exchange Server 2003 support tasks. Students should have one or more years of messaging and network experience supporting Exchange Server. The workshop format is also intended for students who best learn by doing.

Prerequisites

Before attending this workshop, students must have:

- Completed Course 2400, Implementing and Managing Exchange Server 2003
- or-
- Completed Course 2009, Upgrading Your Skills from Microsoft Exchange Server 5.5 to Microsoft Exchange Server 2003
- One or more years of messaging and network experience supporting Exchange Server

At Workshop Completion

After completing this workshop, students will be able to:

- Apply knowledge of a troubleshooting methodology to identify and resolve a problem.
- Identify and resolve network connectivity problems and problems arising from host resolution protocols.
- Identify and resolve problems with public folders and mailboxes.
- Identify and resolve front-end server and back-end server issues that cause problems with Outlook Web Access.
- Identify and resolve problems with Internet protocol virtual servers such as SMTP, IMAP, and POP.
- Identify and resolve connectivity problems between servers running Exchange Server 2003, between Exchange Server 2003 and other messaging systems, and problems with relay configurations.
- Identify and resolve problems with bandwidth, services, database corruption, service failures, disk space, and other server performance problems.
- Identify and resolve encryption and digital signature issues and problems caused by viruses.
- Identify and resolve problems related to migrating from Exchange Server 5.5 to Exchange Server 2003.
- Apply knowledge of troubleshooting methodology to create a troubleshooting strategy and identify the appropriate tools, processes, and procedures for each step of the strategy.



Course Outline

Workshop Outline

Session 1: Unit 1: Introduction to Troubleshooting Exchange Server 2003

This unit provides an overview of Exchange Server 2003, and introduces the troubleshooting methodology and tools that will be used in the labs for this workshop.

After completing this unit, students will be able to:

- Configure and prepare servers for basic troubleshooting.
- Analyze process and data flow in a flowchart.
- Access and apply information from a service request and other workshop components.
- Identify a problem and recommend a solution.

Session 2: Unit 2: Troubleshooting Network Connectivity

This unit identifies underlying network connectivity issues when messaging clients cannot access Exchange Server 2003.

After completing this unit, students will be able to:

- Identify the underlying causes when mail from one server is not received by recipients on another and resolve the problem.
- Identify the underlying causes when a user cannot connect to an Exchange server as a remote user and resolve the problem.
- Identify the underlying causes when no one in an organization can receive Internet e-mail and resolve the problem.

Session 3: Unit 3: Troubleshooting Public Folders and Mailboxes

This unit uses the architecture of public folders and mailboxes to identify underlying issues when a client does not receive e-mail messages in an Exchange 2003 environment.

After completing this unit, students will be able to:

- Identify the underlying causes a user cannot receive Internet e-mail to his e-mail address and resolve the problem.
- Identify the underlying causes when a user cannot send or receive Internet e-mail and resolve problem.
- Identify the underlying causes when a user is unable to post a message to a public folder and resolve problem.

Session 4: Unit 4: Troubleshooting Outlook Web Access and Outlook Mobile Access

This unit describes Outlook Web Access (OWA), and Outlook Mobile Access (OMA) identifies the issues with front end and back end servers that can prevent users from accessing OWA.

After completing this unit, students will be able to:

- Identify the underlying causes when a user cannot access OWA because of a security error.
- Identify the underlying causes when a user cannot access OWA because of an authentication error and resolve the problem.
- Identify the underlying causes when a user cannot access OMA and resolve the problem.

Session 5: Unit 5: Troubleshooting Client Connectivity

This unit describes the client applications that can connect to an Exchange server and the protocols that these client applications use. In this context, this unit identifies the underlying issues that can prevent client connectivity.

After completing this unit, students will be able to:

- Identify the underlying causes when a user is unable to send e-mail to the Internet from home using Outlook Express and resolve the problem.

Course Outline

- Identify the underlying causes when a user receives a "The connection to the server has failed" message and resolve the problem.
- Identify the underlying causes when a new user receives an error message when trying to connect to her mailbox and resolve problem.

Session 6: Unit 6: Troubleshooting Server Connectivity

This unit discusses common connectivity issues between different Exchange servers. Students will learn about common issues related to connectivity between Exchange sites, connectivity between an Exchange site and a third-party messaging systems, and connectivity between an Exchange site and the Internet.

After completing this unit, students will be able to:

- Troubleshoot message delivery between servers in the same routing group.
- Troubleshoot message delivery between servers in different routing groups.
- Troubleshoot message delivery between a Microsoft Exchange Server 2003 organization and another e-mail system.
- Troubleshoot message delivery between an Exchange Server 2003 organization and the Internet.

Session 7: Unit 7: Troubleshooting Server Performance

This unit describes common system problems that affect the performance of computers running Exchange Server 2003.

After completing this unit, students will be able to:

- Identify and resolve messaging problems related to performance problems in domain controllers and global catalog servers.
- Identify and resolve messaging performance problems caused by the running of scheduled applications.
- Troubleshoot messaging problems caused by hardware components in server systems.

Session 8: Unit 8: Troubleshooting Security Issues

This unit discusses security issues and potential vulnerabilities caused by improperly configured Exchange systems. The unit will also introduce students to S/MIME and describe how it signs and seals messages.

After completing this unit, students will be able to:

- Implement a Public Key Infrastructure (PKI) to manage the creation and distribution of digital certificates.
- Implement Secure Multipurpose Internet Mail Extensions (S/MIME) to encrypt or digitally sign e-mail messages sent from client to client. The encryption and digital signatures ensure that a message is secure and cannot be modified while it is transmitted on the network.
- Implement Secure Sockets Layer (SSL) to encrypt network traffic. With SSL, the actual network traffic that transmits e-mail messages is encrypted, so that even if the network packets were captured, they could not be read.

Session 9: Unit 9: Troubleshooting the Migration to Exchange 2003

This unit discusses problems that can result during the migration from Exchange Server 5.5 to Exchange Server 2003. The unit will describe the different types of migration and provide an overview of the migration process. The unit will also describe common migration issues, such as the inability to successfully run ForestPrep and DomainPrep, and issues related to using the Active Directory Migration Tool.

After completing this unit, students will be able to:

- Identify the underlying causes when a user cannot access their mailbox after a migration and resolve the problem.
- Identify the underlying causes when a user cannot send e-mail to the Exchange 5.5 organization during a migration and resolve the problem.



Course Outline

- Identify the underlying causes when a user cannot send e-mail to some users during a migration and resolve the problem.

Session 10: Unit 10: Troubleshooting an Exchange Server 2003 Organization

This unit provides a review of methodology used to troubleshoot Exchange Server 2003. The unit will also discuss high-level troubleshooting guidelines. The unit concludes with an instructor-facilitated, paper-based "challenge lab," in which students will work together to resolve Exchange-related issues in a case study-type format.

After completing this unit, students will be able to:

- Identify multiple issues affecting the messaging functionality within an organization.
- Troubleshoot the following:
 - Network connectivity
 - Public folders and mailboxes
 - Microsoft Outlook Web Access (OWA) and Outlook Mobile Access (OMA)
 - Client connectivity
 - Server connectivity
 - Server performance
 - Security issues
 - Migration from Exchange 5.5 to Exchange 2003