

MOC 20345-2 B Designing and Deploying Microsoft Exchange Server 2016/2019

Course Summary

Description

This course provides experienced Exchange Server administrators with the knowledge to design and implement an Exchange Server 2016 messaging environment. Students will learn how to design and configure advanced components in an Exchange Server 2016 deployment such as site resiliency, advanced security, compliance, archiving, and discovery solutions. In addition, students will learn about coexistence with other Exchange organizations or Exchange Online, and migration from previous versions of Exchange Server. The course will provide guidelines, best practices, and considerations that will help students optimize their Exchange Server deployment.

Objectives

By the end of the course, students will be able to:

- Plan for Exchange Server deployments.
- Plan and deploy Exchange Server hardware, virtualization, mailbox databases, and public folders.
- Plan message transport in Exchange Server.
- Plan and deploy Client Access services in Exchange Server.
- Design and implement a highly available Exchange Server environment.
- Maintain Exchange Server by using Managed Availability and Desired State Configuration (DSC).
- Plan for messaging security and design and implement Active Directory Rights Management Services (AD RMS) and Microsoft Azure RMS in Exchange Server.
- Design and implement message retention and archiving.
- Design and implement data loss prevention policies, In-Place Hold, and eDiscovery.
- Design and implement messaging coexistence among Exchange Server organizations.
- Plan and implement the upgrade from previous versions of Exchange Server to Exchange Server 2019.
- Plan a hybrid Exchange deployment.

Topics

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| • Planning Exchange Server 2016 Deployments | • Designing Messaging Security |
| • Planning and Deploying Exchange Server 2016 Mailbox Services | • Designing and Implementing Message Retention |
| • Planning and Deploying Message Transport | • Designing Messaging Compliance |
| • Planning and Deploying Client Access | • Designing and Implementing Messaging Coexistence |
| • Designing and Implementing High Availability | • Upgrading to Exchange Server 2016 |
| • Maintaining Exchange Server 2016 | • Planning a Hybrid Exchange Server Deployment |

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Course Summary (cont.)

Audience

The audience for this course includes IT professionals who are experienced messaging administrators, messaging architects, or consultants. This course is designed for people in an enterprise environment who are responsible for designing and deploying Exchange Server solutions, including environments that contain previous versions of Exchange Server or Exchange Online. Students taking this course are expected to have experience with Exchange Server 2019 or previous versions of Exchange Server.

Prerequisite

In addition to professional experience, students who attend this training should already have the following technical knowledge:

- Attended course 20345-1B: Administering Exchange Server 2016/2019, or have equivalent knowledge.
- Minimum two years of experience working with any version of Exchange Server.
- Minimum of six months of experience working with Exchange Server 2013 or Exchange Server 2016.
- Minimum of two years of experience administering the Windows Server operating system, including Windows Server 2019 or Windows Server 2016.
- Minimum two years of experience working with Active Directory Domain Services (AD DS).
- Minimum of two years of experience working with name resolution, including Domain Name System (DNS).
- Experience working with certificates, including public key infrastructure (PKI) certificates.
- Experience working with Windows Powershell.

Duration

Five Days

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Course Outline

I. Planning Exchange Server deployments

This module explains the requirements and considerations for planning an Exchange Server deployment.

- A. New features in Exchange Server 2019
- B. Gathering business requirements for an Exchange Server deployment
- C. Planning for an Exchange Server deployment
- D. Designing a Unified Messaging (UM) deployment

Lab : Planning Exchange Server 2019 deployments

- Evaluating an existing messaging infrastructure
- Identifying requirements
- Discussion: Deployment design for Exchange Server 2019

II. Planning and deploying Exchange Server Mailbox services

This module explains how to plan and deploy Exchange Server hardware, virtualization, mailbox databases, and public folders.

- A. Planning Exchange Server hardware requirements
- B. Planning Exchange Server for virtualization and Microsoft Azure integration
- C. Planning and implementing public folders

Lab : Planning and implementing Exchange virtualization, mailbox databases, and public folders

- Planning for virtualization
- Planning for mailbox databases
- Implementing mailbox databases
- Planning and implementing public folders

III. Planning message transport

This module explains how to plan and implement mail routing internally from

and to the Internet, and transport-related tasks in the organization.

- A. Designing message routing
 - B. Designing transport services
 - C. Designing the message-routing perimeter
 - D. Designing transport compliance
- Lab : Planning and deploying message transport
- Planning for a redundant and secure message transport
 - Planning for transport compliance
 - Implementing transport compliance

IV. Planning and deploying client access

This module explains how to plan and implement Exchange Server clients, client access, Microsoft Office Online Server, and coexistence of Microsoft SharePoint with Exchange Server. It also explains the design and implementation of external client access.

- A. Planning for Exchange Server clients
- B. Planning for client access
- C. Planning and implementing Office Online Server
- D. Planning and implementing coexistence of SharePoint 2019 with Exchange Server 2019

E. Designing external client access
Lab : Planning and deploying client access solutions

- Planning and configuring namespaces
- Planning and configuring client access services options
- Planning and deploying Office Online Server
- Planning and implementing reverse proxy

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Course Outline (cont.)

V. Designing and implementing high availability

This module explains how to plan and implement high availability for Exchange Server. It also explains how to plan for load balancing. Finally, it explains how to plan and implement site resilience.

- A. Planning high availability for Exchange Server
- B. Planning for load balancing
- C. Planning for site resilience

Lab : Designing and implementing site resilience

- Creating a lag database copy
- Recovering data from a lagged database copy
- Implementing site resilience
- Validating site resilience

VI. Maintaining Exchange Server

This module explains how to maintain Exchange Server by using Managed Availability and (DSC).

- A. Using Managed Availability to improve high availability
- B. Implementing DSC

Lab : Maintaining Exchange Server 2016

- Using Windows PowerShell to investigate and configure Managed Availability
- Implementing DSC

VII. Designing messaging security

This module explains how to plan for messaging security, and how to design and implement AD RMS and Azure RMS in an Exchange Server organization.

- A. Planning messaging security
- B. Designing and implementing AD RMS and Azure RMS

Lab : Designing messaging security

- Implementing AD RMS
- Integrating AD RMS with Exchange Server

- Creating a message transport rule to protect email
- Protecting an email with AD RMS

VIII. Designing and implementing message retention and archiving

This module explains the purpose of archiving and messaging records management. It also explains how to design and implement In-Place archiving and message retention.

- A. Overview of archiving and messaging records management
- B. Designing In-Place Archiving
- C. Designing and implementing message retention

Lab : Designing and implementing message retention

- Designing message retention and archiving
- Implementing message retention and archiving

IX. Designing and implementing messaging compliance

This module explains how to design and implement data loss prevention policies, In-Place Hold, and In-Place eDiscovery.

- A. Designing and implementing data loss prevention
- B. Designing and implementing In-Place Hold
- C. Designing and implementing In-Place eDiscovery

Lab : Designing and implementing messaging compliance

- Designing messaging compliance
- Implementing data loss prevention
- Implementing In-Place eDiscovery
- Comparing messaging policy and compliance options

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Course Outline (cont.)

X. Designing and implementing messaging coexistence

This module explains how to design and implement federation. It also explains how to design coexistence between Exchange Server organizations. Finally, it explains how to design and implement cross-forest mailbox moves.

- A. Designing and implementing federation
- B. Designing coexistence between Exchange organizations
- C. Designing and implementing cross-forest mailbox moves

Lab : Implementing messaging coexistence

- Implementing message-routing coexistence
- Migrating user mailboxes

Microsoft Azure Active Directory (Azure AD) Connect, a hybrid development, and advanced functionality for hybrid deployments.

- A. Basics of a hybrid deployment
- B. Planning and implementing a hybrid deployment
- C. Implementing Azure AD Connect
- D. Implementing a hybrid deployments
- E. Implementing advanced functionality for hybrid deployments

Lab : Designing the integration with Exchange Online

- Creating a plan for hybrid Exchange deployment

XI. Upgrading to Exchange Server 2019

This module provides an overview of the options you have when choosing to implement Exchange Server 2019, and provides details on how to upgrade an existing Exchange Server 2013 or Exchange Server 2016 organization to Exchange Server 2019..

- A. Planning an upgrade from previous Exchange Server versions
- B. Implementing the upgrade from previous Exchange Server versions

Lab : Upgrading from Exchange Server 2013 to Exchange Server 2019

- Documenting the Exchange Server 2013 organization
- Deploying Exchange Server 2019
- Upgrading from Exchange Server 2013 to Exchange Server 2019
- Removing Exchange Server 2013

XII. Planning a hybrid Exchange Server deployment

This module explains the basics of a hybrid deployment and how to plan for authentication in a hybrid deployment. It also explains how to implement