

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

Duration: 40 Hours (5 Days)

Overview

The 20345-2B: Designing and Deploying Microsoft Exchange Server 2016/2019 course is an advanced training program aimed at IT professionals who want to learn how to design and deploy Microsoft Exchange Server 2019 and MS Exchange 2016 environments. This course covers a comprehensive range of topics, from Planning deployments, Mailbox services, and Message transport, to implementing High availability and Security measures.Learners will gain in-depth knowledge of the new features in MS Exchange 2019, how to evaluate existing messaging infrastructures, plan for virtualization, implement client access services, and ensure Messaging compliance and security. The course also addresses Hybrid Exchange Server deployments, a crucial aspect for businesses integrating on-premises server environments with cloud services. By the end of the course, participants will be equipped with the skills required to upgrade, maintain, and optimize Exchange Server 2016/2019 deployments effectively.

Audience Profile

The course 20345-2B focuses on designing and deploying Microsoft Exchange Server 2016/2019, targeting IT professionals involved in messaging systems.

- Target Audience for Course 20345-2B:
- IT professionals responsible for the Exchange Server 2016/2019 messaging environment in an enterprise setting.
- Network and systems administrators tasked with planning, deploying, and managing Exchange Server deployments.
- Messaging architects who design and implement messaging solutions with Microsoft Exchange.
- IT consultants and specialists providing strategic guidance for Exchange Server infrastructure.
- Technical support engineers who assist with the Exchange Server implementation process.
- Infrastructure engineers who ensure the integration of Exchange Server with other systems.
- IT personnel looking to upgrade their skills from previous versions of Exchange Server to 2016/2019.
- Professionals preparing for Microsoft certification exams related to Exchange Server.
- IT managers overseeing the messaging infrastructure within their organization.
- Security officers responsible for maintaining the security and compliance of the Exchange Server environment.
- Cloud administrators who manage hybrid Exchange environments with a mix of on-premises and cloud components.

Course Syllabus

Module 1: Planning Exchange Server deployments

- This module explains the key features of Exchange Server and explains how to gather
- business requirements. It also explains how to plan for an Exchange Server deployment
- and the migration of Unified Messaging to Cloud Voicemail.



- New features in Exchange Server 2019
- Gathering business requirements for an Exchange Server deployment
- Planning for an Exchange Server deployment
- Planning the migration of Unified Messaging to Cloud Voicemail

Lab: Planning Exchange Server 2019 deployments

- Evaluating an existing messaging infrastructure
- Identifying requirements
- Discussion: Deployment design for Exchange Server 2019
- After completing this module, students will be able to:
- Describe the new features in Exchange Server 2019.
- Describe how to gather business requirements for an Exchange Server deployment.
- Plan an Exchange Server deployment.
- Plan how to migrate Exchange Server 2016 Unified Messaging (UM) to Cloud
- Voicemail.

Module 2: Planning and deploying Exchange Server Mailbox services

- This module explains how to plan and implement Exchange Server hardware, Exchange
- Server virtualization, Azure integration, and public folders.

Lessons

- Planning Exchange Server hardware requirements
- Planning Exchange Server for virtualization and Microsoft Azure integration
- Planning and implementing public folders

Lab: Planning and implementing Exchange Server mailbox servers, databases, and public folders

- Planning mailbox server configuration and location
- Planning for mailbox databases
- Implementing mailbox databases
- Planning and implementing public folders
- After completing this module, students will be able to:
- Plan and implement Exchange Server hardware.
- Plan for Exchange Server virtualization and Microsoft Azure integration.
- Plan and implement public folders.

Module 3: Planning message transport

- This module explains how to plan and implement mail routing internally as well as from and
- to the internet. This module also describes transport-related tasks in the organization.

Lessons

- Designing message routing
- Designing transport services
- Designing the message-routing perimeter
- Designing transport compliance

Lab: Planning message transport

• Planning for a redundant and secure message transport





- Planning for transport compliance
- Implementing transport compliance
- After completing this module, students will be able to:
- Design message routing.
- Design transport services.
- Design external message routing.
- Design and implement transport compliance.

Module 4: 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.

Lessons

- Planning for Exchange Server clients
- Planning for client access
- Planning and implementing Office Online Server
- Planning and implementing coexistence of SharePoint 2019 with Exchange Server 2019
- 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
- After completing this module, students will be able to:
- Plan for Exchange Server clients.
- Plan for client access.
- Plan and implement Office Online Server.
- Plan and implement SharePoint and with Exchange Server coexistence.
- Design external client access.

Module 5: 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.

Lessons

- Planning high availability for Exchange Server
- Planning for load balancing
- Planning for site resilience

Lab: Designing and implementing high availability

- Planning high availability and site resilience
- Creating a site-resilient DAG
- Validating site resilience
- Creating a lagged database copy
- Recovering data from a lagged database copy





- After completing this module, students will be able to:
- Plan high availability for an Exchange Server.
- Plan for load balancing in an Exchange Server deployment.
- Plan for site resilience in an Exchange Server deployment.

Module 6: Maintaining Exchange Server

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

Lessons

- Using Managed Availability to improve high availability
- Implementing DSC

Lab: Maintaining Exchange Server

- Using Windows PowerShell to investigate and configure Managed Availability
- Implementing DSC
- After completing this module, students will be able to:
- Use Managed Availability to improve high availability.
- Implement DSC.

Module 7: 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.

Lessons

- Planning messaging security
- Designing and implementing AD RMS and Azure RMS

Lab: Designing messaging security

- Planning messaging security
- Implementing AD RMS
- Integrating AD RMS with Exchange Server
- Creating a message transport rule to protect email
- After completing this module, students will be able to:
- Plan messaging security.
- Design and implement AD RMS and Azure RMS

Module 8: 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.

Lessons

- Overview of archiving and messaginng records management
- Designing In-Place Archiving
- Designing and implementing message retention

Lab: Designing and implementing message retention and archiving

• Designing message retention and archiving





- Implementing message retention and archiving
- After completing this module, students will be able to:
- Explain the purpose of archiving and messaging records management.
- Design and implement In-Place archiving.
- Design and implement message retention.

Module 9: Designing and implementing messaging compliance

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

Lessons

- Designing and implementing data loss prevention policies
- Designing and implementing In-Place Hold
- 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
- After completing this module, students will be able to:
- Design and implement data loss prevention.
- Design and implement In-Place Hold.
- Design and implement In-Place eDiscovery.

Module 10: 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.

Lessons

- Designing and implementing federation
- Designing coexistence between Exchange organizations
- Designing and implementing cross-forest mailbox moves

Lab: Implementing messaging coexistence

- Implementing message-routing coexistence
- Migrating user mailboxes
- After completing this module, students will be able to:
- Design and implement federation.
- Design the coexistence between Exchange Server organizations.
- Design and implement cross-forest mailbox moves.

Module 11: 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.



Lessons

- Planning an upgrade from previous Exchange Server versions
- 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
- After completing this module, students will be able to:
- Plan an upgrade to Exchange Server 2019.
- Implement the upgrade to Exchange Server 2019.

Module 12: 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 Microsoft Azure Active Directory
- (Azure AD) Connect, a hybrid development, and advanced functionality for hybrid
- deployments.

Lessons

- Basics of a hybrid deployment
- Planning and implementing a hybrid deployment
- Implementing Azure AD Connect
- Implementing a hybrid deployment
- Implementing advanced functionality for hybrid deployments

Lab: Planning a hybrid Exchange deployment

- Creating a plan for hybrid Exchange deployment
- After completing this module, students will be able to:
- Explain the basics of a hybrid deployment.
- Plan for authentication in a hybrid environment.
- Implement Azure AD Connect.
- Implement a hybrid deployment.
- Implement advanced functionality for hybrid deployments.

