20345-2 – Designing and Deploying Microsoft Exchange Server 2016

Duration: **5 Days**

Overview:

The 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 organisations or Exchange Online, and migration from previous versions of Exchange Server. The course will provide guidelines, best practices, and considerations that will help students optimise their Exchange Server deployment.

Target Audience:

This course is intended for IT professionals who are experienced messaging administrators, messaging architects, or consultants. This course is designed for professionals in an enterprise environment who are responsible for designing and deploying Exchange Server 2016 solutions, including environments that contain previous versions of Exchange Server or Exchange Online. Students are expected to have experience with Exchange Server 2016 or previous versions of Exchange Server.

This course is also intended as preparation material for IT professionals who are looking to take the 70-345: Designing and Deploying Microsoft Exchange Server 2016 exam as part of the requirement for the MCSE: Microsoft Exchange Server 2016.

Module 1: Planning Exchange Server 2016 deployments

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

- **Lessons**
- New features in Exchange Server 2016
- Gathering business requirements for an Exchange Server 2016 deployment
- Planning for an Exchange Server deployment
- Designing a Unified Messaging (UM) deployment

- **Lab: Planning Exchange Server 2016 deployments**
- Evaluating an existing messaging infrastructure
- Identifying requirements
- Discussion: Deployment design for Exchange Server 2016

- **After completing this module, students will be able to:**
- Describe the new features in Exchange Server 2016
- Describe how to gather business requirements for an Exchange Server 2016 deployment
- Plan for an Exchange Server 2016 deployment
- Design a UM deployment

Module 2: Planning and deploying Exchange Server 2016 Mailbox services

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

- **Lessons**
- Planning Exchange Server hardware requirements
- Planning exchange server for virtualisation and Microsoft Azure integration
- Planning and implementing public folders

- **Lab: Planning and implementing Exchange virtualisation, mailbox databases, and public folders**
- Planning for virtualisation
- Planning for mailbox databases
- Implementing mailbox databases
- Planning and implementing public folders

- **After completing this module, students will be able to:**
- Plan for the Exchange Server hardware requirements
- Plan Exchange Server for virtualisation and Azure integration
- Plan and implement public folders

Module 5: Designing and implementing high availability

This module explains how to design and implement a highly available solution for Exchange Server 2016

- **Lessons**
- Planning high availability for Exchange Server 2016
- Planning for load balancing
- Planning for site resilience

- **Lab: Designing and implementing site resiliency**
- Creating a lag database copy
- Recovering data from a lagged database copy
- Implementing site resilience
- Validating site resilience

- **After completing this module, students will be able to:**
- Plan high availability for an Exchange Server 2016 deployment
- Plan for load balancing in an Exchange Server 2016 deployment
- Plan for site resilience in an Exchange Server 2016 deployment

Module 6: Maintaining Exchange Server 2016

This module explains how to maintain Exchange Server 2016 using managed Availability and Desired State Configuration (DSC)

- **Lessons**
- Using Managed Availability to improve high availability
- Implementing DSC

- **Lab: Maintaining Exchange Server 2016**
- Using Windows PowerShell to investigate and configure Managed Availability
- Implementing DSC

- **After completing this module, students will be able to:**
- Describe and configure Managed Availability in Exchange Server 2016
- Describe and implement DSC in Exchange Server 2016

Pre-requisites:

Before attending this course, students must have:

- A+ certification or equivalent knowledge
- Network+ certification or equivalent knowledge.
- Completed course 2028A, Basic Administration of Microsoft Windows 2000, or have equivalent knowledge of administrative tasks.

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

- Attended course 20345-1A: Administering Exchange Server 2016, or have equivalent knowledge.
- Minimum of 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 2012 R2.
- Minimum two years of experience working with Active Directory Domain Services (ADDS)
- 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.

Course Completion:

Upon completion of this course students will be able to:

- Plan for Exchange Server deployments
- Plan and deploy Exchange Server 2016 Mailbox Services
- Plan and Deploy message transport
- Plan and deploy client access
- Design and implement high availability
- Maintain Exchange Server 2016
- Design messaging security
- Design and implement message retention
- Design messaging compliance
- Design and implement messaging coexistence
- Upgrade to Exchange Server 2016
- Plan a hybrid Exchange Server deployment.

Module 3: Planning and deploying message transport

This module explains how to plan and implement mail routing internally from and to the internet, and transport-related tasks in the organisation.

- **Lessons**
- Designing message routing
- Designing transport services
- Designing the message-routing perimeter
- Designing and implementing transport compliance

- **Lab: Planning and deploying 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 message routing in a perimeter network
- Design and implement transport compliance

Module 4: Planning and deploying client access

This module explains how to plan for client connectivity and client access in Exchange Server 2016. This module also describes how to implement Microsoft Office Online Server, and the co-existence of SharePoint 2016 with Exchange.

- **Lessons**
- Planning for Exchange Server 2016 Clients
- Planning for client access
- Planning and implementing Office Online Server
- Planning and implementing coexistence of SharePoint 2016 with Exchange
- 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 2016 Server Clients
- Plan for client access
- Plan and implement Office Online Server
- Plan and implement SharePoint 2016 and with Exchange Server 2016 coexistence
- Design external client access

Module 7: Designing messaging security

This module explains how to plan for messaging security and design and implement Active Directory Rights Management Services (AD RMS) and Azure RMS in and Exchange Server organisation.

- **Lessons**
- Planning messaging security
- Designing and implementing AD RMS and Azure RMS integration

- **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

- **After completing this module, students will be able to:**
- Plan messaging security
- Design and implement AD RMS and Azure RMS integration

Module 8: Designing and implementing message retention

This module explains how to plan for archiving and message retention

- **Lessons**
- Overview of messaging records management and archiving
- Designing In-Place Archiving
- Designing and implementing message retention

- **Lab: Designing and implementing message retention**
- Designing message retention and archiving
- Implementing message retention and archiving

- **After completing this module, students will be able to:**
- Describe messaging records management and archiving.
- Design In-Place Archiving
- Design and implement message retention

Module 9: Designing messaging compliance

This module explains how to plan for and implement several Exchange features to help minimise data loss and monitor email traffic and content.

- **Lessons**
- Designing and implementing data loss prevention
- 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 plan and implement federation, design coexistence between Exchange organisations, and design and move mailboxes between different forests and Exchange organisations.

- **Lessons**
- Designing and implementing federation
- Designing coexistence between Exchange organisations
- 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 organisations
- Design and implement cross-forest mailbox moves

Module 11: Upgrading to Exchange Server 2016

This module explains how to plan and implement an upgrade from previous Exchange Server 2013 or Exchange Server versions to Exchange Server 2016.

- **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 2016**
- Documenting the Exchange Server 2013 organisation
- Deploying Exchange Server 2016
- Upgrading from Exchange Server 2013 to Exchange Server 2016
- Removing Exchange Server 2013

- **After completing this module, students will be able to:**
- Plan an upgrade to Exchange Server 2016
- Implement the upgrade to Exchange Server 2016

Module 12: Planning a hybrid Exchange Server Deployment

This module explains how to plan and implement a hybrid deployment for Exchange Server 2016

- **Lessons**
- Basics of a hybrid deployment
- Planning and implementing a hybrid deployment
- Implementing advanced functionality for hybrid deployments

- **Lab: Designing the integration with Exchange Online**
- Designing the integration with Exchange Online

- **After completing this module, students will be able to:**
- Describe the basics of a hybrid deployment
- Plan and implement a hybrid deployment
- Implement advanced functionality for hybrid deployments