

# Workshop: Exchange Server High Availability

## Workshop

*This Workshop will provide participants with the necessary knowledge how to plan, setup, and configure Microsoft Exchange Server 2016 high available infrastructure and provides hands-on experience with Exchange Server 2016.*

### **Target Audience:**

*This course is an advanced course for Exchange Server 2016 and is targeted at the IT staff who have designed, deployed, administered and managed an Exchange Server (2013 or 2016 highly recommended) infrastructure for at least one full year.*

*The basic concepts and know-how of the product will not be covered in this course. It is expected that attendees will already possess that knowledge.*

## Overview

The Exchange Server High Availability workshop provides participants with the knowledge and skills necessary to setup and configure Exchange Server 2016 in a High Availability environment. The workshop instructor will integrate information from field experience and Microsoft's best practices. This workshop contains Level 300 content. Please review the target-audience information and contact your Microsoft Services representative to ensure that this workshop is appropriate to the student's experience and technical expertise.

### Key Features and Benefits

Knowledgeable trainers and high quality hands-on labs facilitate solid understanding of core technologies covered in this course, including latest innovations and features like Managed Availability, AutoReseed, Dynamic Quorum and others.

### Technical Highlights

After completing this course, you will be able to:

- Understand Architecture of Exchange server roles and components
- Understand High Availability features in Exchange Server 2016
- Understand and configure different options and settings related to Exchange 2016 High Availability
- Understand how to approach appropriate troubleshooting scenarios

## Hardware Requirements:

To participate in the course, students need to have access to a workstation that meets or exceeds the following minimum hardware and software requirements.

If you are attending an Open Enrollment, the hardware will be provided for you. Contact your TAM if:

- You need the necessary hardware to be provided.
- You are coordinating a dedicated delivery for your organization and required hardware.
- You are interested in having the virtual environment hosted in the cloud.

## Requirements:

Each Student needs:

- One Windows Server 2012 R2 with Hyper-V.
- Quad core AMD/Intel processor with virtualization extensions and 16GB RAM (or more).
- 300 Gb of free disk space
- SSD disks are preferred, or at least 2 drives are highly recommended

# Syllabus

This Workshop runs for four full days. Students should anticipate consistent start and end times for each day. Early departure on any day is not recommended.

Every module will contain troubleshooting techniques.

**Module 1: High Availability Overview:** This module provides an overview of High Availability Concepts and Exchange 2016 High Availability features.

**Module 2: Understanding Client Access Server role in High Availability:** This module will cover the architecture components required to achieve High Availability for Client Access Role in Exchange 2016, describes load balancing options and client connectivity.

**Module 3: Understanding Transport High Availability:** This module will cover the architecture of Transport services and different High Availability features (throttling and resource management, load balancing and fault tolerance options with message routing, options for third party servers and devices, Shadow Redundancy, SafetyNet).

**Module 4: Understanding Mailbox High Availability:** This module provides information about the mailbox high availability features, including concepts around Continuous Mailbox Availability and Database Availability Groups.

**Module 5: Managed Availability:** This module will cover Managed Availability feature - integration of built-in monitoring and recovery actions with the Exchange high availability platform.

**Module 6: Planning, Deployment and Management of Exchange 2016 High Availability Features:** This module will cover the Planning Deployment and Management tasks to successfully implement a Database Availability Group (DAG) with Exchange 2016 and provides understanding of various Failover and Switchover Scenarios, Exchange Native Data Protection and Preferred Architecture, corresponding troubleshooting options and recommendations.

**Practical skills:** Workshop contains a lot of labs and highly focused on providing practical skills on troubleshooting, configuration and demonstration of high availability features, including:

- SafetyNet resubmission
- DAG configuration including AutoReseed
- Managed Availability troubleshooting
- Demonstration of Loose Truncation
- Dynamic Quorum
- Lagged Copy Activation
- Datacenter Switchover

and others.