

## KOENIG SOLUTIONS • COURSE OUTLINE

# Administering Microsoft Configuration Manager M55348B

Learn to deploy, configure and manage devices, applications, updates and compliance using Microsoft Endpoint Configuration Manager.

**5 Days**

40 HOURS

**13**

MODULES

**49**

TOPICS

**49**

HANDS-ON ACTIVITIES

## COURSE OVERVIEW

The Administering Microsoft Endpoint Configuration Manager (MECM) 55348AC course is designed to equip IT professionals with the skills needed to efficiently manage devices and applications across an enterprise environment. Through a comprehensive set of modules, learners will explore the architecture, administrative tools, and various functionalities of Configuration Manager. Hands-on labs provide practical experience in tasks such as Deploying and monitoring clients, Managing software updates, Implementing Endpoint Protection, and Overseeing compliance settings. By the end of the course, participants will have a solid understanding of how to use Configuration Manager to maintain control over IT infrastructure, ensuring that systems are up-to-date, secure, and performing optimally. Key takeaways include Managing software inventory, Application deployment, and Securing data access. The course also covers the latest features introduced in Microsoft Endpoint Configuration Manager, keeping professionals current with the evolving landscape. This MECM course is essential for those looking to strengthen their skills in managing a modern workplace's devices and services.

## Who Should Attend

The Administering Microsoft Endpoint Configuration Manager 55348AC course is designed for IT professionals responsible for managing endpoints in a networked environment.

**Systems Administrators**

**Configuration Manager Administrators**

**Network Managers**

**IT Managers with a focus on infrastructure management**

**Desktop Support Technicians**

**Enterprise Desktop Administrators**

**IT Professionals seeking to learn about Configuration Manager and Microsoft Endpoint Manager**

**Security Administrators responsible for managing endpoint protection and compliance**

**Infrastructure Architects who plan and design endpoint management solutions**

**Help Desk Technicians aiming to expand their skillset into systems management and troubleshooting**

**Professionals preparing for Microsoft certification exams related to Microsoft Endpoint Configuration Manager**

### LEARNING OBJECTIVES

- Explain Configuration Manager architecture and administrative tools
- Create and run queries, reports and CMPivot scripts
- Configure boundaries, boundary groups and resource discovery
- Deploy and manage the Configuration Manager client
- Manage hardware, software inventory and software metering
- Deploy and manage applications and Windows apps
- Implement Endpoint Protection and advanced threat policies
- Plan and deploy operating system images

# 13 Modules, 49 Topics

01

## Managing Computers and Mobile Devices in the Enterprise

*This module describes the features of Configuration Manager that you can use to perform complex management tasks, including the following tasks; Hardware and software inventory, Application management, Operating system deployment, Settings management, Software update management, Remote client troubleshooting, and Protection from malware. Microsoft System Center Configuration Manager (Configuration Manager) provides various features that can help you manage devices and users both on-premises and in the cloud. Organizations that use Configuration Manager find that they can provide more effective IT services in relation to software deployment, settings management, and asset management. This module introduces you to the primary features, architecture, and management tools used with Configuration Manager. This module also provides a foundation that relates to all other features and management tasks discussed in the modules that follow this one.*

### TOPICS

- Overview of systems management by using enterprise management solutions
- Overview of the Configuration Manager architecture
- Overview of the Configuration Manager administrative tools
- Tools for monitoring and troubleshooting a Configuration Manager site

02

2 Activities

Activity

Activity

## Analyzing Data Using Queries, Reports, and CMPivot

*The Microsoft Endpoint Configuration Manager database stores a large amount of data about the resources in your environment. You might not always want to perform all management tasks on all resources simultaneously. Therefore, to help you locate devices or user objects in your environment that meet specific criteria, you can create queries. You then can use these queries to create collections or to find additional information about specific resources. This module describes queries and methods of creating and running them. In addition to queries, you can run reports to view various types of information related to your Configuration Manager environment. To run Configuration Manager reports, you must install and configure a reporting services point, which this module details. This module also covers CMPivot, which allows you to collect and view real-time data on all the connected devices in your environment. It will enable you to make real-time decisions.*

### TOPICS

- Introduction to queries
- Configuring SQL Server Reporting Services
- Analyzing the real-time state of a device by using CMPivot

## Preparing the Configuration Manager Management Infrastructure

*You can manage computer and user resources within a Microsoft Endpoint Configuration Manager (Configuration Manager) environment only when Configuration Manager has discovered these resources and assigned them to a site. In this module, you will learn about boundaries and boundary groups that help create logical network locations containing computer devices that you need to manage in your Configuration Manager infrastructure. You can use these boundary configurations for automatic site assignment and to help clients find content and services from associated site systems. You will also learn about the discovery processes that you can use to identify computers, users, and the network infrastructure within your network environment. You will then learn about collections that support logical groupings of resources. You use these groupings for management tasks, such as targeting software updates, managing application deployments, or deploying compliance settings to resources.*

### TOPICS

- Configuring site boundaries and boundary groups
- Configuring resource discovery
- Organizing resources using device and user collections

## Deploying and Managing the Configuration Manager Client

*You can install the Microsoft Endpoint Configuration Manager (Configuration Manager) client software on windows-based devices such as servers, workstations, and laptops. You then can manage these devices and perform operations such as reporting hardware and software inventory information, installing and updating software, and configuring settings required for compliance. Configuration Manager provides several options for installing the client software. This module explains the supported operating systems and devices, software requirements, and different methods for installing the client software. This module also describes some of the default and custom client settings that you can configure. After installing the client software, you can configure client settings and control how the various client components interact between the managed device and the Configuration Manager environment.*

### TOPICS

- Overview of the Configuration Manager client
- Deploying the Configuration Manager client
- Configuring and monitoring client status
- Managing client settings and performing management operations

**05**

Activity

Activity

4 Activities

## Managing Inventory for PCs and Applications

*This module provides an overview of inventory collection, and explains how you can manage the information collected. You also will learn about the process of collecting hardware and software inventory, initiating inventory cycles, and initiating and securing inventory collection. This module also covers the use of software metering to monitor program usage, and the configuration and management of Asset Intelligence.*

### TOPICS

Overview of inventory collection · Configuring hardware and software inventory · Managing inventory collection · Configuring software metering · Configuring and managing Asset Intelligence

**06**

2 Activities

## Distributing and Managing Content Used for Deployments

*Microsoft Endpoint Configuration Manager (Configuration Manager) clients obtain content, such as packages, applications, software updates, and even operating system images, from a content infrastructure made up of distribution points and peer cache sources. In this module, you will review the content distribution and management features, configure distribution points, and learn how to distribute and monitor content. You also will perform content validation and content prestaging.*

### TOPICS

- Preparing the infrastructure for content management
- Distributing and managing content on distribution points

**07**

2 Activities

2 Activities

3 Activities

## Deploying and Managing Applications

*In this module, you will learn about the methods for creating, deploying, and managing applications with Configuration Manager. You also will learn to use the Software Center and the Application Catalog to install available applications. You will learn about managing deployments on unconventional applications.*

### TOPICS

Overview of application management · Creating applications · Deploying applications · Managing applications · Deploying and managing Windows apps

## Maintaining Software Updates for Managed PCs

*This module explains how to use the software updates feature in Configuration Manager to implement an end-to-end management process for the complex task of identifying, deploying, and monitoring Microsoft and third-party software updates to your Configuration Manager clients.*

### TOPICS

- The software updates process
- Preparing a Configuration Manager site for software updates
- Managing software updates
- Configuring automatic deployment rules
- Monitoring and troubleshooting software updates
- Enabling third-party updates

## Implementing Defender Protection for Managed PCs

*This module explains how to use the security-related features provided by Configuration Manager to help protect client computers from malware threats, and to configure specific Windows Defender Firewall settings for clients. Based on Endpoint Protection functionality, Endpoint Protection in Configuration Manager supports the deployment, management, and monitoring of antimalware policies, Windows Defender Firewall settings, Windows Defender Application Guard policies, Windows Defender Exploit Guard policies, and Windows Defender Application Control policies on client computers.*

### TOPICS

- Overview of Endpoint Protection in Configuration Manager
- Configuring, deploying, and monitoring Endpoint Protection policies
- Configuring and deploying advanced threat policies

## Managing Compliance and Secure Data Access

*Many enterprise organizations require systems, such as servers, laptops, desktop computers, and mobile devices, to meet specific configuration and compliance requirements. Compliance settings in Configuration Manager can play a key role in identifying existing configurations, discovering systems that have adverse configuration changes, and remediating these settings automatically when necessary. Compliance settings also can help control how users manage and access data in the enterprise network environment. For computers that run Windows 8 and newer operating systems, you can manage data using folder redirection, offline files, and roaming profiles. You also can control access to data using remote connection profiles, virtual private network (VPN) profiles, Wi-Fi profiles, and certificate profiles. This module describes the compliance settings that you can manage using Configuration Manager. You will learn to use these settings to maintain configuration requirements and to provide secure data access to enterprise resources.*

### TOPICS

Overview of Compliance Settings · Configuring compliance settings · Viewing compliance results · Managing resource and data access

## Managing Operating System Deployment

*This module explains how to use the operating system deployment feature in Configuration Manager to create operating system images that you can deploy to unmanaged computers and those managed by Configuration Manager. There are several scenarios in which you can deploy operating systems by using Configuration Manager, including when you are working with new systems or when you are upgrading existing ones. Operating system deployment uses both Configuration Manager and Windows components to manage and deliver operating system images. You can configure settings on a reference computer prior to capturing an image of its operating system or by using task sequences that Configuration Manager creates after you deploy the image to a target system. This module also explains how to use Configuration Manager to create a strategy for operating-system deployments. And also, it explains how to manage Windows as a service.*

### TOPICS

- An overview of operating system deployment
- Preparing a site for operating system deployment
- Deploying an operating system
- Managing Windows as a service

## Managing and Maintaining a Configuration Manager Site

*This module describes role-based administration, Remote Tools, and the site maintenance tasks that you can manage by using Configuration Manager. This module also describes how to back up and recover a Configuration Manager site system and use the recommendation(s) from Management Insights to simplify administration.*

### TOPICS

- Configuring role-based administration
- Configuring Remote Tools
- Overview of Configuration Manager site maintenance and Management Insights
- Backing up and recovering a Configuration Manager site
- Updating the Configuration Manager infrastructure

## What's New in Microsoft Endpoint Configuration Manager

*This module describes the features that have been released since Configuration Manager 2012.*

### TOPICS

- What's new in Microsoft Endpoint Manager covering each semi annual release

# Practise What You Learn

| #  | MODULE                                                        | ACTIVITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 01 | Managing Computers and Mobile Devices in the Enterprise       | <b>LAB1: EXPLORING THE CONFIGURATION MANAGER TOOLS</b> <ul style="list-style-type: none"> <li>■ Exploring the Configuration Manager Tools</li> <li>■ Searching in the Configuration Manager console</li> <li>■ Using Windows PowerShell with Configuration Manager</li> <li>■ Using Configuration Manager Service Manager to manage components</li> <li>■ Monitoring site and component status</li> <li>■ Reviewing log files by using the Configuration Manager Trace tool</li> </ul>                                                                          |
| 02 | Analyzing Data Using Queries, Reports, and CMPivot            | <b>LAB 1: CREATING AND RUNNING QUERIES</b> <ul style="list-style-type: none"> <li>■ Creating data queries</li> <li>■ Creating subselect queries</li> </ul> <b>Lab2: Configuring SSRS:</b> Configuring a reporting services point<br><b>Lab3: Analyzing the real-time state of a device by using CMPivot:</b> Using CMPivot to Analyze the current state of devices                                                                                                                                                                                              |
| 03 | Preparing the Configuration Manager Management Infrastructure | <b>LAB1: CONFIGURING BOUNDARIES AND RESOURCE DISCOVERY</b> <ul style="list-style-type: none"> <li>■ Configuring boundaries, boundary groups, and fallback relationships</li> <li>■ Configuring Active Directory discovery methods</li> </ul> <b>LAB2: CONFIGURING USER AND DEVICE COLLECTIONS</b> <ul style="list-style-type: none"> <li>■ Creating a device collection</li> <li>■ Creating a user collection</li> <li>■ Configuring a maintenance window</li> </ul>                                                                                            |
| 04 | Deploying and Managing the Configuration Manager Client       | <b>Lab2: Configuring and monitoring client status:</b> Configuring and monitoring client health status<br><b>LAB3: MANAGING CLIENT SETTINGS</b> <ul style="list-style-type: none"> <li>■ Configuring client settings</li> <li>■ Performing management operations</li> </ul> <b>LAB1: DEPLOYING THE MICROSOFT ENDPOINT CONFIGURATION MANAGER CLIENT SOFTWARE</b> <ul style="list-style-type: none"> <li>■ Preparing the site for client installation</li> <li>■ Deploying the Configuration Manager client software by using client push installation</li> </ul> |
| 05 | Managing Inventory for PCs and Applications                   | <b>Lab 1: Configuring and managing inventory collection:</b> Configuring and managing hardware inventory<br><b>Lab 2: Configuring software metering:</b> Configuring software metering<br><b>LAB3: CONFIGURING AND MANAGING ASSET INTELLIGENCE</b> <ul style="list-style-type: none"> <li>■ Preparing the site for Asset Intelligence</li> <li>■ Configuring Asset Intelligence</li> <li>■ Monitoring license agreements by using Asset Intelligence</li> <li>■ Viewing Asset Intelligence reports</li> </ul>                                                   |

| #  | MODULE                                                 | ACTIVITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 06 | Distributing and Managing Content Used for Deployments | <b>LAB1: DISTRIBUTING AND MANAGING CONTENT FOR DEPLOYMENTS</b> <ul style="list-style-type: none"> <li>■ Installing a new distribution point</li> <li>■ Managing content distribution</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 07 | Deploying and Managing Applications                    | <b>LAB1: CREATING AND DEPLOYING APPLICATIONS</b> <ul style="list-style-type: none"> <li>■ Creating applications with requirements</li> <li>■ Deploying applications</li> </ul> <b>LAB2: MANAGING APPLICATION SUPERSEDEENCE AND REMOVAL</b> <ul style="list-style-type: none"> <li>■ Managing application supersedence</li> <li>■ Uninstalling the Excel Viewer application</li> </ul> <b>LAB3: USING CONFIGURATION MANAGER TO DEPLOY WINDOWS APPS</b> <ul style="list-style-type: none"> <li>■ Configuring support for sideloadng Windows apps</li> <li>■ Configuring a Windows app</li> <li>■ Deploying Windows apps to user</li> </ul> |
| 08 | Maintaining Software Updates for Managed PCs           | <b>Lab1: Configuring the site for software updates:</b> Configuring and synchronizing the software update point<br><b>LAB2: DEPLOYING AND MANAGING SOFTWARE UPDATES</b> <ul style="list-style-type: none"> <li>■ Determining software update compliance</li> <li>■ Deploying software updates to clients</li> <li>■ Configuring automatic deployment rules</li> </ul>                                                                                                                                                                                                                                                                    |
| 09 | Implementing Defender Protection for Managed PCs       | <b>LAB1: IMPLEMENTING ENDPOINT PROTECTION</b> <ul style="list-style-type: none"> <li>■ Configuring the Endpoint Protection point and client settings</li> <li>■ Configuring and deploying Endpoint Protection policies</li> <li>■ Monitoring Endpoint Protection</li> </ul> <b>Lab2: Implementing advanced threat policies:</b> Creating and deploying advanced threat protection policies                                                                                                                                                                                                                                               |
| 10 | Managing Compliance and Secure Data Access             | <b>LAB1: MANAGING COMPLIANCE SETTINGS</b> <ul style="list-style-type: none"> <li>■ Managing configuration items and baselines</li> <li>■ Viewing compliance settings and reports</li> <li>■ Configuring remediation in compliance settings</li> <li>■ Using compliance information to create collections</li> </ul>                                                                                                                                                                                                                                                                                                                      |
| 11 | Managing Operating System Deployment                   | <b>LAB1: PREPARING THE SITE FOR OPERATING-SYSTEM DEPLOYMENT</b> <ul style="list-style-type: none"> <li>■ Managing the site system roles used to support operating system deployment</li> <li>■ Managing packages to support operating system deployment</li> </ul> <b>LAB2: DEPLOYING OPERATING-SYSTEM IMAGES FOR BARE-METAL INSTALLATIONS</b> <ul style="list-style-type: none"> <li>■ Preparing the operating system image</li> <li>■ Creating a task sequence to deploy an image</li> <li>■ Deploying an image</li> </ul>                                                                                                             |

| #  | MODULE                                                | ACTIVITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12 | Managing and Maintaining a Configuration Manager Site | <p><b>LAB1: CONFIGURING ROLE-BASED ADMINISTRATION</b></p> <ul style="list-style-type: none"> <li>■ Configuring a new scope for Toronto administrators</li> <li>■ Configuring a new administrative user</li> </ul> <p><b>LAB3: MAINTAINING A CONFIGURATION MANAGER SITE</b></p> <ul style="list-style-type: none"> <li>■ Configuring maintenance tasks in Configuration Manager</li> <li>■ Configuring the Backup Site Server task</li> <li>■ Recovering a site from a backup</li> </ul> <p><b>LAB2: CONFIGURING REMOTE TOOLS</b></p> <ul style="list-style-type: none"> <li>■ Configuring the Remote Tools client settings and permissions</li> <li>■ Managing desktops by using Remote Control</li> </ul> |

#### WHAT IS INCLUDED

## Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

#### ABOUT KOENIG

## Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

#### FLEXIBLE DELIVERY

## Learn the Way That Suits You

Classroom Training

Live Online Classes (ILO)

Fly-Me-A-Trainer (FMAT)

Flexi (Self-Paced)

1-on-1 Training

## Ready to Get Started?

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