

Administering Configuration Manager, Part I: Fundamentals and Asset Management

Course: 55313

Length: 3 Days

55313A is the Community Courseware equivalent in conjunction with 55314A supercedes retired MOC Course 20703-1. This three-day, instructor-led course is the first of a two-part Community Courseware replacement for 20703-1. Written by a former SCCM MOC author with over 20 years of experience teaching SMS/SCCM/MEM, this course is intended for IT professionals who are interested in expanding their knowledge about and technical skills in the management of Windows computers and other devices by using Microsoft Endpoint Configuration Manager Current Branch version 2203. In this course, students will learn Configuration Manager fundamentals and day-to-day asset-management tasks, such as gathering and reporting hardware inventory and software metering information. Students will also learn about the site system roles and other features required to deploy the Configuration Manager client software and how to prepare for implementing the change-management features of Configuration Manager.

About This Course

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Prerequisites

- Windows client and Windows Server administration skills.
- An understanding of Windows networking fundamentals, including common protocols, routing, and IP addressing.
- Basic Active Directory-management skills.
- A basic understanding of common Windows Server roles, features, and services.
- An introductory-level understanding of Windows commands, scripting, and PowerShell syntax.
- An introductory-level understanding of public key infrastructure (PKI) security concepts.

Audience Profile

This course is intended for experienced IT professionals who are responsible for desktop and device management in medium-sized, large, and enterprise organizations and who have at least six months of experience managing

Windows computers in a workplace environment or who have completed course WS-011: Windows Server 2019 Administration.

At Course Completion

- Describe the features of Configuration Manager, explain where it fits within the Microsoft Endpoint Manager suite framework, and identify the changes since System Center Configuration Manager version 1810.
- Navigate the Configuration Manager console and explain where each of the major features of Configuration Manager can be configured.
- Install and use the Configuration Manager console and CMTrace.
- Prepare the Configuration Manager infrastructure for client deployment, including the configuration of boundaries and boundary groups, resource discovery,

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resource collections, and the relevant site system roles.

- Explain the various deployment methods for the Configuration Manager client, select a client-deployment method appropriate for the organization's environment, and implement the selected method.
- Configure Configuration Manager client settings.
- Monitor Configuration Manager client health.
- Implement asset-management features of Configuration Manager, including hardware and software inventory, Asset Intelligence, and software metering.
- Create and use data and status message queries and perform real-time device queries by using CMPivot.
- Implement and use reporting features in Configuration Manager.

Course Details

Module 1: Microsoft Endpoint Manager and Configuration Manager

This module introduces the Microsoft Endpoint Manager suite and Configuration Manager. It also explains the various asset-management, change-management, and administrative features in Configuration Manager. The module introduces the Configuration Manager console, including its installation, and the support tools included with Configuration Manager, including CMTrace.

Lessons

- Microsoft Endpoint Manager and Features of Configuration Manager
- Configuration Manager Concepts and Fundamentals
- The Configuration Manager Console, CMTrace, and Other Tools

Lab 1: Installing and Using the Configuration Manager Console and CMTrace

- Installing the Configuration Manager Console
- Using the Configuration Manager Console
- Using CMTrace

After completing this module, students will be able to:

- Describe the features of Configuration Manager and explain where it fits within the Microsoft Endpoint Manager suite framework.
- Navigate the Configuration Manager console and explain where each of the major features of Configuration Manager can be managed.
- Install and use the Configuration Manager console and CMTrace.

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Module 2: Infrastructure Preparation for Client Deployment and Management

This module explains how to prepare the Configuration Manager infrastructure for deploying the Configuration Manager client software and the subsequent management of client devices. The module covers Active Directory integration, resource discovery, resource collections, and the configuration of boundaries and boundary groups.

Lessons

- Configuration Manager integration with Active Directory
- User and System Resource Discovery
- Resource Collections
- Boundaries and Boundary Groups

Lab 1: Configuring Active Directory Integration, Discovery, and Collections

- Verifying the Configuration of Active Directory Integration
- Configuring Resource Discovery Methods
- Creating Collections

Lab 2: Configuring Boundaries and Boundary Groups

- Configuring and Discovering Boundaries
- Configuring Boundary Groups

After completing this module, students will be able to:

- Explain the Configuration Manager infrastructure configuration requirements for client deployment.
- Configure Configuration Manager/Active Directory integration.
- Configure user and system resource discovery.
- Configure boundaries and boundary groups.

Module 3: The Configuration Manager Client

This module introduces the Configuration Manager client and explains its functions in Configuration Manager

operations. It discusses the platforms and operating systems for which the Configuration Manager client is available. The module also explains the various client-installation methods and the site system roles and other infrastructure requirements for each of those methods. Finally, the module explains client settings and monitoring client health.

Lessons

- Configuration Manager Client Fundamentals
- Client Installation
- Client Settings
- Client Health

Lab 1: Installing the Configuration Manager Client

- Configuring Roles and Settings for Client Installation
- Installing the Configuration Manager Client
- Monitoring the Client Installation Process

Lab 2: Configuring Client Settings and Monitoring Client Health

- Configuring and Verifying Client Settings
- Verifying Client Health

After completing this module, students will be able to:

- Explain the various deployment methods for the Configuration Manager client, select a client deployment method appropriate for the organization's environment, and implement the selected method.
- Configure client settings for the Configuration Manager client.
- Monitor Configuration Manager client health.

Module 4: Asset Management in Configuration Manager

This module explains how to configure and manage the asset-management features of Configuration Manager. It covers hardware inventory and legacy software inventory,

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including file collection; Asset Intelligence; and software metering. It also explains how to monitor and troubleshoot the various client and server processes involved in asset management and how to secure inventory collection.

Lessons

- Introduction to Asset Management Features
- Hardware Inventory
- Software Inventory
- Asset Intelligence
- Software Metering

Lab 1: Configuring and Managing Hardware and Software Inventory Collection

- Configuring Hardware Inventory
- Configuring Software Inventory and File Collection
- Testing Inventory Collection and Reviewing Results

Lab 2: Configuring Asset Intelligence

- Implementing the Asset Intelligence Synchronization Point
- Configuring Asset Intelligence Reporting Classes
- Importing Software License Data

Lab 3: Configuring and Managing Software Metering

- Configuring Software Metering
- Generating and Summarizing Software Metering Data

After completing this module, students will be able to:

- Describe the asset-management features of Configuration Manager.
- Implement hardware and software inventory, including file collection.
- Implement Asset Intelligence.
- Implement software metering.

Module 5: Queries and Reports

This module explains how to use queries and reports in Configuration Manager. It introduces data query concepts and explains how to create and run queries to retrieve data from the Configuration Manager database. The module also covers status message queries, which can provide process-status and component-health information. The module introduces the CMPivot feature for performing real-time queries on client devices. Finally, the module introduces SQL Server Reporting Services (SSRS), covers how to configure SSRS prior to implementing reporting in Configuration Manager, and explains how to run reports on-demand, create report subscriptions, and configure report security.

Lessons

- Data and Status Message Queries
- Real-time CMPivot Queries
- Reports

Lab 1: Creating and Running Queries

- Creating a Simple-value Query
- Creating a Prompted-value Query
- Creating a Subselected-value Query
- Copying, Modifying, and Using a Status Message Query

Lab 2: Using CMPivot

- Using Basic Functions of CMPivot
- Using CMPivot to Analyze the Current State of a Device
- Creating Collections Based on CMPivot Results

Lab 3: Implementing and Using Configuration Manager Reporting

- Configuring SQL Reporting Services
- Implementing a Reporting Services Point
- Running Reports
- Subscribing to Reports

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After completing this module, students will be able to:

- Create and use data and status message queries.
- Perform real-time device queries by using CMPivot.
- Implement and use reporting features in Configuration Manager.