
Cisco® Communication Manager Administration v12.5 (CMA)

Overview

Communications Manager Administration for Version 12.5 (CMA v12.5) is an instructor-led course presented to system administrators and customers involved with the day-to-day operation of the Cisco Unified Communications Manager product. This course introduces you to the CUCM system, the necessary procedures for administering IP Phones and Users, understanding the Dial Plan and implementing Features. In addition to instructor-led lectures and discussions, you will configure CUCM and Cisco IP Phones in the lab, either in a live classroom or WebEx remote classroom environment. While the Cisco Unified Communications Manager software used in the class is version 12.5.1, the course material applies to versions 8.x, 9.x, 10.x, 11.x, or 12.x. The concepts and the lab tasks are the same for most of the Cisco Unified Communications Manager software versions

Prerequisite Comments

Communications Manager Administration 12.5 does not have prerequisites. However, the following knowledge and skills allow the student to gain the most from the course:

An understanding of traditional digital PBX systems

An understanding of basic telephony concepts

Business-level competence using the Windows operating system

Business-level competence using different Internet browsers

The ability to understand, read and speak English in a business and technical context (the CMA v12.5 course is available only in English at this time)

Target Audience

The primary audience for this course is as follows:

Customers configuring and maintaining CUCM 8.x, 9.x, 10.x, 11.0, or 12.x.

PBX System Administrators transitioning to CUCM administration

IP networking professionals taking on responsibility for CUCM administration

Workers being cross-trained for CUCM administration coverage

The secondary audience for this course is as follows:

Cisco Unified Communications system channel partners and resellers

Course Objectives

Upon completing this course, the learner will be able to meet these overall objectives:

Demonstrate an overall understanding of the Cisco Unified Communications Manager (CUCM) 12.x (or earlier version) system and its environment

Configure CUCM to support IP Phones in multiple locations

Configure CUCM to route calls to internal and PSTN destinations

Configure User accounts and multi-level administration

Understand User Web Page functionality

Configure user features, including Hunt Groups, Call Pickup, and Call Park.

Understand the capabilities of and demonstrate the Bulk Administration Tool

Understand the SMART Licensing model for Cisco Unified Communications

Understand and demonstrate the use of the Unified Reporting tool

Understand and demonstrate the use of the Dialed Number Analyzer

Course Outline

1 - CUCM System Basics

- Introduction to IP Telephony
- Traditional Voice vs. IP Telephony
- Clustering Overview
- Intra-Cluster Communications
- CUCM Redundancy Options
- Deployment Models
- Campus (Single Site) Deployment
- Centralized Call Processing Deployment
- Distributed Call Processing Deployment
- Clustering over the IP WAN Call Processing Deployment
- Hybrid Call Processing Deployment

2 - Basics of CUCM Configuration

- Administrative Interfaces
- Administration and Serviceability
- Unified Reporting and the Enterprise License Manager
- Disaster Recovery System and Unified OS Administration
- Navigation Bar
- Command Line Interface
- Server Redundancy: CM Groups
- CM Group Configuration
- Date/Time Group
- Regions and Codecs
- Locations
- Device Pool Configuration
- Service Parameters Configuration
- Enterprise Parameters Configuration

3 - Supporting Phones and Users

- Configuring CUCM to Support Phones
- Cisco Unified IP Phone Model Ranges
- Specialized Cisco IP 89xx and 99xx phones
- Cisco Jabber Client
- Phone Button Templates
- Softkey Template
- Cisco IP Phone Registration
- Device Defaults
- Phone Configuration
- Manual Phone Configuration
- Auto-Registration
- Self-Provisioning
- Using the Bulk Administration Tool (BAT)
- Deploying new phones and users
- Overview of the Auto-Register Phone Tool

4 - Configuring CUCM to Support Users

- Understanding CUCM Users
- Manual User Creation
- User Import with BAT
- Importing Users with LDAP Sync
- LDAP Authentication
- Understanding User Administration
- Configuring User Administration
- Working with Access Control Groups
- Assigning End Users to Access Control Groups
- User Web Pages

5 - Understanding the Dial Plan

- Dial Plan Overview
- Introduction to the Dial Plan
- Understanding Dial Plan Components
- Route Lists, Route Groups and Devices
- Call Routing
- Understanding Digit Analysis

6 - Basics of Dial Plan Configuration

- Basics of the Dial Plan
- Dial Plan Configuration
- Translation Patterns
- Route Plan Report

7 - Advanced Dial Plan Configuration

- Understanding Digit Manipulation
- External Phone Number Masks
- Transformation Masks
- Discard Digits Instructions: PreDot

8 - Class of Control

- Overview of Class of Control
- Partitions and Calling Search Space
- Traditional vs. Line/Device Approach
- Configuring Partitions and CSSs
- Time of Day Routing
- PLAR Application
- Forced Authorization Codes

9 - CUCM Features

- Media Resources
- Overview of Media Resources
- Conference Bridge
- Music on Hold
- Transcoder
- Annunciator
- Overview of Media Resource Management
- Configuring Media Resources

10 - User Features

- Configuring Call Coverage in Cisco Unified Communications Manager
- Call Coverage in Cisco Unified Communications Manager
- Hunt Group Overview
- Hunt Group Configuration
- Final Forwarding
- Shared Lines
- Call Pickup
- Directed and Group Call Pickup
- Call Park

11 - Lab Outline

- Configuring the System to Support Cisco IP Phones
- Creating and Associating Users
- Configuring Basic Dial Plan Elements
- Configuring Complex Dial Plan Elements
- Implementing Class of Control
- Configuring Media Resources
- Configuring Hunt Groups and Call Coverage
- Configuring Call Pickup and Call Park
