

## 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

[Register Online](#)

Schedule

Class Length: 3 Days

G2R = "Guaranteed to Run" | OLL = "Online LIVE"  
ILT = "Instructor-Led-Training"

*This course is not currently available on the public schedule. Please contact us using the information in the footer below to inquire about future dates or to schedule a private class.*

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

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### 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