



# Administering Cisco Unified Communications Manager (ACUCM)

Course ID#: 1575-959-ZZ-W

Hours: 21

## Course Content

### Course Description:

ACUCM provides system administrators and networking professionals with an understanding of the Cisco Unified Communications Manager System. The course teaches the concepts of IP telephony based in system administration, including its function, features, and configuration. This is an entry-level course that begins with the basic concepts of IP telephony and very quickly moves the learner forward into an understanding of system concepts: clustering, creation of phones and users, route plans, digit manipulation, media resources, and phone features, which are all important to supporting IP telephony in the enterprise network. The course focuses on Cisco Unified Communications Manager version

8.x.

The course is geared to individuals that will be using and managing the system and performing administration for Level 1 and Level 2 support. Level 1 support is geared toward supporting phone users and making moves, adds, and changes to the desktop phone environment. Level 2 support is oriented to supporting changes in the organization, such as opening new office locations or relocating departments. The course does not cover issues of initial deployment, new cluster deployment or international deployments. Also, the course does not cover issues with the underlying network that involve routers, switches, or Cisco IOS software configuration.

This course includes various lab exercises to apply what was learned in each preceding lesson. Labs begin with a newly installed publisher and subscriber. The only element that is preconfigured is two MGCP gateways, for the headquarters (HQ) and branch (BR), and an intercluster trunk pointing to the neighbor's pod. Therefore, the student will become familiar with all the various concepts through configuration of the elements in the lab environment.

### Prerequisites:

Basic knowledge of IP and networking or voice networks is suggested but not required.

Basic Knowledge of the Windows desktop environment.



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## Topics:

### Module 1: Introduction to IP Telephony

#### Lesson 1: Exploring IP Telephony

- Traditional Voice versus IP Telephony
- Clustering Overview
- Intracluster Communications
- Cisco Unified Communications Manager Clusters
- Clustering Options
- Platform Requirements

#### Lesson 2: Describing Deployment Models

- Single-Site Deployment
- Centralized Call-Processing Deployment
- Distributed Call-Processing Deployment
- Distributed Single-Cluster Call-Processing Deployment
- Hybrid Call-Processing Deployment
- New Advanced Multicenter Options

#### Lesson 3: Understanding Advanced Multisite Features

- Need for CAC
- Deploying AAR
- Survivable Remote Site Telephony
- SRST Failover

### Module 2: Defining the Basic Configuration

#### Lesson 1: Logging In to Cisco Unified Communications Manager

- Logging In to Cisco Unified CM Administration and Cisco Unified
- Serviceability
- Logging In to Cisco Unified Operating System Administration and the DRS
- Navigation Menu
- Command-Line Interface

#### Lesson 2: Examining Basic Server Configuration

- Server Configuration—Eliminating DNS Reliance
- Configuring Enterprise Parameters

#### Lesson 3: Describing Multilevel Administration

- Configuring Multilevel Administration
- Creating End Users
- Creating Roles
- Creating User Groups
- Assigning Users to User Groups

#### Lesson 4: Configuring DRS Backup and Restore Procedures

- DRS Backup Procedures
- DRS Restore Procedures

### Module 3: User Administration

#### Lesson 1: Understanding User Configuration

- Understanding User Management
- Configuring Users

#### Lesson 2: Using the User Web Pages

- Understanding the User Web Pages
- Using the User Web Pages

### Module 4: Exploring Phone Registration and Cisco Unified IP Phones

#### Lesson 1: Configuring System Parameters

- Cisco Unified CM Configuration
- Cisco Unified Communications Manager Group Configuration
- Phone NTP Configuration
- Date/Time Group
- Codecs and Regions



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- Location Configuration
- Device Pool Configuration
- DHCP Service Configuration
- Device Defaults Configuration
- Clusterwide Parameters
- Licensing

## Lesson 2: Supporting Cisco Unified IP Phones

- Cisco Unified IP Phones Overview
- Specialized Cisco Unified IP 7900 Series Phones
- Phone Button Templates
- Softkey Templates

## Lesson 3: Exploring Phone Registration and IP Phone Communications

- Cisco Unified IP Phone Registration
- Cisco Unified IP Phone Configuration

## Lesson 4: Utilizing the Bulk Administration Tool (BAT)

- Overview of Cisco Unified Communications Manager BAT
- Cisco Unified Communications Manager TAPS

## Module 5: Basic Route Plan Configuration

### Lesson 1: Implementing Dial Plan Connectivity

- Organizational Dial Plan
- Trunks
- Gateways

### Lesson 2: Creating Route Plans

- Dial Plan Overview
- Route Pattern Overview
- Digit Collection
- Call Routing

## Module 6: Route Filters and Digit Manipulation

### Lesson 1: Configuring Translation Patterns and Route Filters

- Translation Patterns
- The 9.@ Pattern
- Route Filters
- Lesson 2: Implementing Digit Manipulation
- Discard Digits Instruction
- Transformation Masks
- Route Plan Report

## Module 7: Class of Control

### Lesson 1: Defining Class of Control

- Overview of Class of Control
- Partitions
- CSS Configuration
- PLAR Application

### Lesson 2: Using Class of Control Features

- Call Restriction
- Time of Day Routing
- Traditional vs. Line/Device Approach

## Module 8: Understanding Media Resources

### Lesson 1: Defining Media Resources

- Overview of Media Resources
- Conference Bridge
- Media Termination Points
- Transcoder
- Music on Hold
- Annunciator

### Lesson 2: Exploring Media Resource Management

- MRG Management
- Configuring MRGs
- Configuring MRGLs



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## Module 9: Features and Services

### Lesson 1: Describing Basic Features

- Call Park
- Call Pickup
- Cisco Call Back
- Shared Lines with Barge and Privacy

### Lesson 2: Exploring Hunt Groups

- Hunt Group Overview
- Line Group Configuration
- Hunt List Configuration
- Hunt Pilot Configuration
- Final Forwarding

### Lesson 3: Describing Phone Services

- Cisco IP Phone Services
- Cisco Phone Services Configuration