

## Course Outline

### Administering Cisco Unified Communications Manager & Unity Connection Course ACUCM with AUC: 5 days Instructor Led

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#### About this course

Administering Cisco Unified Communications Manager (ACUCM with AUC) is a 5-day training program that provides system administrators and networking professionals with an understanding of the Cisco Unified Communications Manager System. This 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. This UC training course focuses on Cisco Unified Communications Manager v12 x. All labs are using CUCM v12.x.

This online Cisco IT class 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.

Our online Cisco training 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.

Administering Cisco Unity Connection (AUC) describes Cisco Unity Connection administration features, options, and configuration settings as they apply to the administrator. The course presents Cisco Unity Connection with the focused goal of providing the administrators with the necessary skills to perform their day-to-day job functions using the Cisco Unity Connection system.

Students that require skills beyond administration where engineering, integration, and networking skills are required should consider the Implementing Cisco Unity Connection (IUC) course.

#### Who Should Attend

The primary audiences for this course are:

- Phone network administrators
- Data system administrators
- Entry-level network engineers
- Administrators
- IT support personnel
- Helpdesk support staff

The secondary audience includes:

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- Learners looking to gain a technical overview of Cisco Unified Communications Manager
- Learners who need a preparatory course before taking Implementing Cisco Unified Communications IP Telephony Part 1 (CIPT1) and Implementing Cisco Unified Communications IP Telephony Part 2 (CIPT2)
- Introduction to Cisco Unity Connection for Network Engineering Staff Personnel

### At course completion

After completing this course, students will be able to:

- Describe the Cisco Unified Communications Manager network, service, and features
- Understand the importance of and configuration of redundancy and high availability in the enterprise network
- Describe user configuration and the user web interface
- Explain basic phone options and the use of BAT
- Explain the route plan and on-net/off-net calling
- Describe the various media resources, including conferencing and MOH
- Describe the basic phone features and use of hunt groups
- Explain the function of Cisco Unity Connection and the various interfaces that are used to access the system
- Describe the components that are required for user call processing by Cisco Unity Connection
- Implement the various features and options that are available to users in Cisco Unity Connection
- Use the various applications, tools, and reports that are available in Cisco Unity Connection

### Course Outline

Module 1: Introduction to IP Telephony

- Lesson 1: Exploring IP Telephony
  - Traditional Voice versus IP Telephony
  - Clustering Overview
  - Intracluster Communications
  - Traditional Voice versus IP Telephony
  - Clustering Overview
  - Intracluster Communications
- 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

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

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- 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

### Module 7: Class of Control

- Lesson 1: Defining Class of Control
  - Overview of Class of Control
  - Partitions
  - CSS Configuration
  - PLAR Application

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- 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

### 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

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### ACUCM v10.x Lab Outline:

- Lab 0: Connection and Orientation to the NterOne Voice Lab Environment
- Lab 1: Configuring Cisco Unified Communications Manager Initial Settings
- Lab 2: Backing Up Cisco Unified Communications Manager Using the Disaster Recovery System
- Lab 3. Managing User Accounts in Cisco Unified Communications Manager

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- Lab 4: Implementing IP Phones
  - Lab 5: Implementing PSTN Gateways
  - Lab 6: Configuring Cisco Unified Communications Manager Call-Routing Components
  - Lab 7: Implementing Digit Manipulation
  - Lab 8: Implementing Calling Privileges in Cisco Unified Communications Manager
  - Lab 9: Implementing Cisco Unified Border Element (CUBE) for calls to and from the Actual PSTN
  - Lab 10: Implementing Media Resources
  - Lab 11: Implementing Call Coverage in Cisco Unified Communications Manager
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AUC Course Outline:

### Module 1: Introduction to Cisco Unity Connection

- Lesson 1: Overview of Cisco Unity Connection
  - Understanding Cisco Unity Connection
  - Cisco Unity Connection Integration
  - Active-Active, High-Availability Deployment
  - Digital Networking Deployment Model
- Lesson 2: Navigating Cisco Unity Connection
  - Accessing Cisco Unity Connection
  - Logging into Cisco Unity Connection Applications
  - Cisco Unified Serviceability and Cisco Unity Connection Serviceability
  - Cisco Unity Connection Administration
  - Port Configuration for Telephony Integration
  - General Configuration
- Lesson 3: Understanding Call Handlers, Users, and Call Flow
  - Call Processing
  - Default Call Handlers
  - Handlers—Function and Purpose
  - Default Call Handler Flow
  - Call Handler Configuration
  - Incoming Call Flows
  - Cisco Unity Connection Incoming Call Flow
  - Message Retrieval
  - Incoming Call Processing Components
  - Call Routing—Direct or Forwarded
  - Call Routing—Direct
  - Call Routing—Forwarded
  - Configuration of Users
  - Implementation of Call Routing
  - Implementation of Call Routing—Direct
  - Implementation of Call Routing—Forwarded
  - Directory Handlers
  - Directory Handlers Configuration

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- Interview Handlers
- Interview Handlers Configuration

### Module 2: Configuration of Users and Contacts

- Lesson 1: Explaining Users and Contacts
  - Understanding Users
  - Preparing to Configuring Users
  - Configuring Authentication Rules
  - Configuring CoS
  - Configuring Schedules and Holidays
- Lesson 2: Managing Multiple Users
  - Configuring Multiple Users
  - Importing Users Using AXL
  - Importing Users Using LDAP
  - Importing Users Using BAT
  - Reviewing Users

### Module 3: Implementation of Features

- Lesson 1: Implementing the Dial Plan
  - Dial Plan Components
  - Dial Plan Configuration
- Lesson 2: Understanding User Features
  - Reviewing User Features
- Lesson 3: Accessing Voice Messaging and User Features
  - Accessing Voice Messaging
  - Phone View
  - Implementing Cisco Unity Connection VMO
  - Accessing Voice Messaging Using RSS Feeds
  - Implementing Secure Messaging

### Module 4: Use of Cisco Unity Connection Applications, Tools and Reports

- Lesson 1: Designing an Audiotext Application
  - Audiotext Application Design
  - Audiotext Application Configuration
  - Greeting Administrator
  - Greeting Administrator Configuration
- Lesson 2: Using Cisco Unity Connection Tools and Reports
  - Using the Bulk Edit Feature
  - Using Task Management
  - Cisco Unity Connection Reports

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- Lesson 3: Using the DRS
    - Disaster Recovery System
    - Configuring Backups
    - Performing Restore Operations
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### AUC v10.x Lab Outline:

- Lab 0: Connection and Orientation to the NterOne Voice Lab Environment
- Lab 1: Configuring Cisco Unified Communications Manager (CUCM) Initial Settings
- Lab 2: Implementing Cisco Unified Border Element (CUBE) for calls to and from the Actual PSTN
- Lab 3: Verifying Cisco Unity Connection Default Services
- Lab 4: Integrating Cisco Unity Connection with Cisco Unified Communications Manager
- Lab 5: Implementing Unity Connection Voice Mailboxes
- Lab 6: Unity Connection User Features
- Lab 7: Implementing the Unity Connection Dial Plan
- Lab 8: Understanding User Features
- Lab 9: Using Cisco Unity Connection Tools and Reports