

# **Administering Cisco Unified Communications Manager and Unity Connection (ACUCM with AUC)**

**Modality:** Virtual Classroom

**Duration:** 5 Days

**CLC:** 38 Units

## **About this Course:**

This intermediate-level 5 days course is designed for Networking Professionals and Administrators and provides a comprehensive overview of the Cisco Unity Connection Manager System. The concepts relating to IP Telephony Configuration & Systems are elaborated in detail. Covering both the basics and advanced concepts of Cisco Unified Communications, this course helps professionals nurture the skillset required to pursue a career as a Cisco Unified Communications Administrator earning \$72,762 annually.

This course also sheds light on advanced concepts such as Users & Phone Creation, Clustering, Digit Manipulation, Route Plans, Phone Features, and Media Resources. Professionals also learn the art of proficiently administering both Level 1 and Level 2 supports. Encompassing a wide range of practical lab exercises, professionals get to configure MCP gateways and inter-cluster trunks.

Administering Cisco Unity Connection (AUC) core functionalities are elaborated in this course including the key configuration settings and administrative options. Through this course, professionals develop the skills needed to automate day-to-day operations through the Cisco Unity Connection System.

## **Course Objectives:**

The core objective of this course is to help professionals gain a better understanding and develop a sound knowledge of the following key concepts:

- Understanding Features & Services of Cisco Unified Communication Manager
- User Web Interface & Configuration and Media Resources Essentials
- Cisco Unity Connection Call Processing and Route Plan
- BAT Applications and Fundamental Phone Features
- High Availability & Redundancy Configuration in Enterprise Networks
- Cisco Unity Connection Reports, Applications, Features, Options, & Tools

## **Audience:**

- Data System & Phone Network Administrators
- IT Support Officers & Entry-Level Engineers
- Networking Engineering Professionals & Helpdesk Support Staff

## **Prerequisites:**

Professionals planning to enroll in the Administering Cisco Unified Communications Manager and Unity Connection v11 (ACCUM-AUCv11) course must comply with these prerequisites:

- Windows Desktop Environment Essentials
- Key Concepts of Computer Networking such as LAN, IP Switching & Routing, & WAN
- Familiarity with Cisco Unified Communication Manager
- Foundational Knowledge of PSTN Technologies and Voice-Mail Administration

## **Course Outline:**

### **ACUCM 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 Multicloud 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

## 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

## 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

## 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

## ACUCM v10.x Lab Outline

This guide includes these activities:

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

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

## **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
- 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

### Lesson 3: Using the DRS

- Disaster Recovery System
- Configuring Backups
- Performing Restore Operations

## AUC v10.x Lab Outline

This guide includes these labs:

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