

Administering Cisco Unified Communication Manager and Unity Connection (ACUCM+AUC)

COURSE OVERVIEW:

Administering Cisco Unified Communications Manager (ACUCM) 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.

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.

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 WILL BENEFIT FROM THIS COURSE?

The primary audience includes:

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

The secondary audience includes:

- 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

PREREQUISITES:

To fully benefit from this course, students should have the following prerequisite skills and knowledge:

- Basic knowledge of IP and networking or voice networks is suggested, but not required
- Basic knowledge of the Windows desktop environment
- Basic understanding of fundamental terms and concepts of computer networking, including LANs, WANs, and IP switching and routing.
- Basic knowledge of traditional PSTN operations and technologies, including PBX and voice-mail administration tasks
- Basic understanding of Cisco Unified Communications Manager

Sunset Learning Enhancements to the ACUCM+AUC Course:

Students of the ACUCM course often ask for information regarding what monitoring and reporting tools are available for the Cisco Unified Communications Manager system. In response to this need, Sunset Learning Institute has enhanced the ACUCM course with a supplemental coursebook and labs focusing on CUCM reporting and monitoring. The CUCM reporting and Call Detail Record reporting will enable operations staff to generate informational, system and billing reports. Familiarity with the Real-Time Monitoring Tool will allow staff to monitor, search and report ongoing CUCM operations.

COURSE OBJECTIVES:

After completion of 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

ACUCM COURSE OUTLINE:**Module 1: Introduction to IP Telephony****Lesson 1: Exploring IP Telephony**

- 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 Multicluster 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
- 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

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

Labs for ACUCM:

- Lab 2-1: Performing General Administration
- Lab 2-2: Configuring Basic Settings
- Lab 2-3: Backing Up and Restoring a Publisher
- Lab 3-1: Creating and Associating Users
- Lab 4-1: Configuring the System to Support Cisco IP Phones
- Lab 4-2: Using the Cisco Unified Communication Manager BAT
- Lab 5-1: Configuring Basic Dial Plan Elements
- Lab 6-1: Configuring Complex Dial Plan Elements
- Lab 6-1: Implementing Calling Privileges and Restrictions
- Lab 8-1: Configuring Media Resources
- Lab 9-1: Configuring User Features
- Lab 9-2: Configuring Hunt Groups and Call Coverage

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

Lesson 4: Managing Distribution Lists

- Distribution Lists—System Distribution Lists
- Distribution Lists—Private Distribution Lists

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

Labs for AUC:

- Lab 1-1: Verifying Connectivity and Call Flow
- Lab 1-2: Verifying and Configuring Call Handlers
- Lab 1-3: Working with Users and Extensions in Voice Mail
- Lab 2-1: Preparing to Configure Users and Contacts
- Lab 2-2: Managing Users and Contacts
- Lab 2-3: Managing Multiple Users
- Lab 3-1: Implementing the Dial Plan
- Lab 3-2: Understanding User Features
- Lab 3-3: Implementing Integrated Messaging and User Features
- Lab 4-1: Implementing an Audiotext Application
- Lab 4-2: Using Cisco Unity Connection Tools and Reports

Sunset Learning Exclusive Additional Material: Cisco Unified Communications Solutions Maintenance

Lesson 1: Understanding Cisco Unified Communications Manager Reports

- Generating Reports on Cisco Unified Communications Manager
- Analyzing Generated Reports

Lesson 2: Understanding the Call Detail Record Analysis and Reporting Tool (CAR)

- Cisco Unified Communications Manager CAR Tool Overview
- CDR Management and System Settings
- Generating CDR Reports
- Lesson 3: Monitoring the System with Cisco Unified Real-Time Monitoring Tool (RTMT)
- Cisco Unified RTMT Overview
- Monitoring the System with Cisco Unified RTMT
- Monitoring Cisco Unified Communications Manager with Cisco Unified RTMT

Labs:

- Lab 1: Generating Cisco Unified Communications Manager Reports
- Lab 2: Generating Cisco Unified Communications Manager CAR Tool Reports
- Lab 3: Monitoring the System with Cisco Unified RTMT

SUNSET LEARNING INSTITUTE (SLI) DIFFERENTIATORS:

Sunset Learning Institute (SLI) has been an innovative leader in developing and delivering authorized technical training since 1996. Our goal is to help our customers optimize their cloud technology investments by providing convenient, high quality technical training that our customers can rely on. We empower students to master their desired technologies for their unique environments.

What sets SLI apart is not only our immense selection of trainings options, but our convenient and consistent delivery system. No matter how complex your environment is or where you are located, SLI is sure to have a training solution that you can count on!

Premiere World Class Instruction Team

- All SLI instructors have a four-year technical degree, instructor level certifications and field consulting work experience.
- Sunset Learning has won numerous Instructor Excellence and Instructor Quality Distinction awards

Enhanced Learning Experience

- The goal of our instructors during class is ensure students understand the material, guide them through our labs and encourage questions and interactive discussions.

Convenient and Reliable Training Experience

- You have the option to attend classes at any of our established training facilities or from the convenience of your home or office with the use of our HD-ILT network (High Definition Instructor Led Training)
- All Sunset Learning Institute classes are guaranteed to run – you can count on us to deliver the training you need when you need it!

Outstanding Customer Service

- Dedicated account manager to suggest the optimal learning path for you and your team
- Enthusiastic Student Services team available to answer any questions and ensure a quality training experience