ACUCM w/AUC: Administering Cisco Unified Communications Manager and Unity Connection

Course ID#: 1575-958-ZZ-W

Hours: 35

Course Content

Course Description:

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 focuses on Cisco Unified Communications Manager version 8.x. All labs are using CUCM 10.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. Administering Cisco Unity Connection (AUC) describes Cisco Unity Connection administration features, options, and configuration settings as they apply to the administrator.

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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.

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

Topics:

Module 1:
- Palatino Linotype 11

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

- Communications Manager and Unity Connection
- 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

Module 2: Defining the Basic Configuration, continued

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
- Communications Manager and Unity Connection
- 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
- Communications Manager and Unity Connection
- 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
- Communications Manager and Unity Connection
- Conference Bridge
- Media Termination Points
- Transcoder
- Music on Hold
- Annunciator

Lesson 2: Exploring Media Resource Mgmt

- 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

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

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Module 1: Introduction to Cisco Unity Connection, continued

Lesson 3: Understanding Call Handlers, Users, and Call Flow

- Call Processing
- Default Call Handlers
- Handlers—Function and Purpose
- Communications Manager and Unity Connection
- 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

- Communications Manager and Unity Connection
- 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