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## Administering Cisco Unified Communications (Call Manager)

DURATION: 5 DAYS

COURSE CODE: ACUCC

FORMAT: LIVE/VIRTUAL

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### COURSE DESCRIPTION

This one of kind Cisco UC in-depth course takes student from initial endpoint configuration to a full solution deployment using all of the Cisco UC Components. Students will have extensive labs in which they will Administer and troubleshoot a Cisco 12.5 UC Deployment.

Participants will gain in-depth practical knowledge with exercises on administering and troubleshooting of all Cisco UC Components.

### PREREQUISITES

An understanding of IP networking concepts (CCNA-level)

An understanding of traditional digital PBX systems

An understanding of basic telephony concepts

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### SOFTWARE APPLICATIONS

Cisco Unified Communications Manager (CUCM)

Cisco Unified Communications Manager IM and Presence (IMP)

Cisco Unity Connection

Cisco Emergency Responder

Cisco Paging Server

Cisco Expressway (MRA)

Cisco Unified Contact Center Express (UCCX)

Cisco Meeting Server (CMS)

## COURSE OUTLINE

### 1. Tools for Managing UC Collaboration 12.5

- Prime Collaboration Deployment Manager Overview 12.5
- Bulk Admin Tool (BAT)
- Importing and Exporting Settings
- Importing and Exporting Users
- Importing and Exporting Phones
- Phone Migrations
- Unsupported IP Phone Models
- CUCM Upgrades
- Loading COP Files

### 2. Unified Communication Manager 12.5

- Cisco Smart Licensing
- Cisco Unified Communication Manager Overview
- Cisco UCM Configuration
- Redundancy
- Services
- Service Parameters
- Enterprises Parameters
- User Configuration
- LDAP Integration
  - Synchronization
  - Authentication
  - Attribute Mapping
  - Filters
- Endpoint Configuration
- Creating and Modifying Phone and Configuration
- Call Routing
- Implementing Calling Privileges
- Partitions and CSSs Configuration
- Implementing Extension Mobility
- Media Resources
- Cisco Meeting Server
- Troubleshooting UCM Features
- CAR (CDR Accounting and Reporting) Tool Reports
- Dialed Number Analyzer
- RTMT
- Log Collection
- Use RTMT to View Performance Counters
- Troubleshooting Common Endpoint Registration Issues
- Disaster Recovery System
- Remote Site Redundancy

### 3. Gateway

- Gateway Overview

- Cisco H323 Gateways
- Cisco MGCP Gateways
- Cisco IOS SIP Gateways
- Troubleshooting IOS Gateways

### 4. Cisco Emergency Responder (CER) 12.5

- CER Overview
- Emergency Notifications
- CER Redundancy and Clustering
- Integration with CUCM
- Cisco Emergency Responder Administration Interfaces
- Configuring Users and Role-Based System Access
- Configuring Cisco Emergency Responder
- Notification by IP Subnet
- SNMP Overview
- Adding new switches
- Notification by Switch Port

### 5. Cisco Unified Communications Mobile and Remote Access (MRA)

- MRA Overview
- Expressway Edge
- MRA Licensing
- MRA Components
- Certificates

### 6. Integrating Cisco Unified IM and Presence 12.5

- IM&P and Jabber Overview
- Configure Service Discovery
- DNS Record Requirements
- Install Cisco Jabber
- Cisco Jabber in Softphone Mode
- Set Up Cisco Jabber in Full UC Mode
- Integrating CUCM and IM&P
- Configuring CUCM Services for Jabber
- Troubleshooting Jabber

### 7. Integrating Cisco Unity Connection 12.5

- Cisco Unity Connection Overview
- Cisco Unity Connection Integration Using SIP
- Cisco Unity Connection Call Handlers
- Configuring Search spaces and Partitions
- Cisco Unity Connection Administration
- Cisco Unity Connection Integration Troubleshooting Tools
- RTMT
- Using Port Monitor to Troubleshoot Voice Mails
- Cisco Unity Audiotext Application
- Unified Messaging

## COURSE OUTLINE (CONTINUED)

### 8. Cisco Meeting Server (CMS)

- Introduction to Cisco Meeting Server
- Configuring CMS
- Configuring Meetings with CMS
- Configuring Spaces with CMS
- Scheduling Meeting with TMS

- Cisco Unified IP Phone Status Messages
- Cisco Unified IP Phone Network Configuration

### 9. Cisco UCCX

- Cisco Unified Contact Center Express Overview
- Cisco Unified Contact Center Express Administration
- Agents
- Skills
- Queues
- Basic Scripting (Overview)
- Finesse
- Reporting
- CUIC

### 10. Cisco Paging Server (InformaCast)

- InformaCast Overview
- InformaCast Administration
- IP Phone Paging
- Analog Paging
- Multicast Requirements
- Using InformaCast

### 11. Troubleshooting

- Using Troubleshooting Methodology
- Analyze the Troubleshooting Process
- Troubleshooting Methodology in Complex Environments
- Define the Problem
- Gather Facts
- Consider Possibilities
- Create an Action Plan
- Implement an Action Plan
- Observe Results
- Restart the Problem-Solving Process
- Document Facts
- Using Troubleshooting and Monitoring Tools
- Cisco Unified Serviceability
- Cisco Unified RTMT Performance Monitor and Data Logging
- Trace File Collection
- Troubleshooting Common Gateway and Endpoint Registration Issues
- IP Phone Initialization
- Common DHCP-Related and TFTP-Related Issues
- Using Ping to Cisco IP Phones

## LABS

### CUCM LABS

- Smart Licensing
- TLS Versions and Requirements
- Registering Phones and Configuring End Users
- Configure Partitions and CSS for Accessing Directory Numbers
- Implementing Call Coverage
- Implement Call Hunting in Cisco Unified Communications Manager
- Implementing PSTN Calling Using MGCP Gateways
- Integrate a Cisco IOS MGCP Gateway with Cisco Unified Communications Manager
- Implement Inbound and Outbound PSTN Calling
- Implementing PSTN Calling Using H.323 Gateways
- Implement Inbound and Outbound PSTN Calling Using SIP Gateways
- Add an SIP Gateway in Cisco Unified Communications Manager
- Implementing Annunciators and MOH
- Implement Annunciator and MOH
- Implementing Conference Bridges
- Implement Cisco Unified Communications Manager Conference Bridge Media Resources

### UNITY CONNECTION LABS

- Integrating Cisco Unity Connection with Cisco Unified Communications Manager
- Change the Phone for the next section
- Integrate Cisco Unity Connection with Cisco PLM
- Configure Cisco Unified Communications Manager for a SIP Integration
- Discover Call Routing in Cisco Unity Connection Partition and Search Spaces
- Configure Call Forward Based on Call Classification
- Back Up Cisco Unity Connection
- Configuring Cisco Unity Connection Users
- Modularize and Automate User Creation
- Access User Pages and Web Inbox
- Manage User Greetings
- Mailbox Quotas and Message Aging
- Configuring Cisco Unity Connection System Settings
- Integrate Cisco Unity Connection with the LDAP Server
- Import Users from the Cisco Unified Communications Manager
- Test Voice Messaging Behavior
- Implementing Cisco Unity Connection Call Management
- Create a Dial Plan and Set Up Site-Specific Directory Handler

- Create an Interview Call Handler
- Configure a New Auto-Attendant
- Configuring Cisco Unified Messaging
- Enable Integrated Messaging
- Configure Unified Messaging
- Secure Messaging
- Monitor a SIP Call Flow

### CISCO UNIFIED COMMUNICATIONS IM AND PRESENCE (IMP) 12.5

- Integrate Cisco Unified Communications IM and Presence with Cisco Unified Communications Manager
- Set Up Cisco Unified Communications Manager for Presence Integration
- Set Up Cisco Unified Communications IM and Presence
- Configure Service Discovery
- Configure Cisco Unified Communications IM and Presence Features and Implement Cisco Jabber
- Set Up Cisco Jabber in Full UC Mode
- You verified that video calls and desktop sharing were successfully tested
- Use Jabber Config File Generator to Enable Features
- You verified that offline messages cannot be sent
- Enable Voice Messaging in Cisco Jabber
- Use RTMT to View Performance Counters
- Configure LDAP and UDS Directory Access
- Provisioning with Cisco Prime Collaboration

### CISCO UNIFIED CONTACT CENTER EXPRESS (UCCX) 12

- Add a Call Control Group
- Add a Cisco Media Termination Dialog Control Group
- Add a Cisco Unified CCX Script Application
- Add a Cisco Unified CM Telephony Trigger
- Call and test a newly configured application
- Assign an IPCC Extension to your agent phone
- Observe the RmCm Provider Information
- Associate the agent phone with the RmCm Provider
- Create a Resource Group
- Create a Skill
- Assign a Resource Group and Skills to your agent
- Create a Contact Service Queue
- Display the Agent-based Routing settings
- Make team assignments for your agent
- Start the Finesse Agent Desktop
- Modify your application to use the icd.aef script
- Use a skills based CSQ to route calls

## LABS (CONTINUED)

### CISCO MEETING SERVER (CMS)

- Configure a Meeting
- Configure Spaces
- Use TMS to Schedule meetings
- Configure End Users

### CISCO PAGING SERVER

- Explore and Administer the Cisco Paging Server

### CISCO EMERGENCY RESPONDER (CER) 12.5

- Explore and Administer the Cisco Emergency Responder

### CISCO MOBILE REMOTE ACCESS (MRA)

- Setup Mobile Remote Access