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Collaboration / Telepresence Training Solutions from one of the Leading Providers of Telepresence Training

Administering Cisco Unified Communications 12.x / 14.0 (ACUCC)

This is a 5 day hands-on one of a 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.x / 14.0 UC Deployment.

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

The software applications that are covered in this course include:

- Cisco Unified Communications Manager (CUCM) 12.x / 14.0
- Cisco Unified Communications Manager IM and Presence (IMP) 12.x / 14.0
- Cisco Unity Connection 12.x / 14.0
- Cisco Emergency Responder 12.x / 14.0
- Cisco Paging Server 12.x / 14.0
- Cisco Expressway (MRA) 12.x / 14.0
- Cisco Unified Contact Center Express (UCCX) 12.x / 14.0

Why Attend with Current Technologies CLC

- Our Instructors are the top 10% rated by Cisco
- Our Lab has a dedicated 1 Gig Fiber Connection for our Labs
- Our Labs run up to Date Code for all our courses

Course Outline

Module 0: Introductions

- Introductions
- Lesson 1: Introductions
 - o Topic List
 - o Learner Skills and Knowledge
 - o Course Goal
 - Webex Basics
 - Cisco Icons and Symbols
 - o Introductions
- Lesson 2: Understanding Cisco Endpoints

Course Duration 5 days Course Price \$4,395.00 or 43 CLCs Methods of Delivery • Instructor Led • Virtual ILT • On-Site Course Hours 9:00 am to 6:00 PM

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- Cisco Software Support Service (SWSS)
- o Business Edition 4000 Overview
- Business Edition 6000
- BE4000 Appliance at a Glance
- o Cisco Collaboration Architecture
- Locating Documentation (1)
- Module Summary

Module 1: Tools for Managing UC Collaboration 12.x / 14.0

- Module Introduction
 - o Topic List
- Lesson 1: Cisco Prime Collaboration Deployment Manager Overview 12.x / 14.0
 - Complete Lifecycle Management (1)
 - Cisco Prime Collaboration Assurance Features (1)
 - o Cisco Prime Collaboration Assurance and Analytics Business Analytics Features
 - Cisco Prime Collaboration Provisioning
 - Automated System Provisioning
 - Packaging Standard and Advanced
 - o Summary
 - Lesson 2: Utilizing the Bulk Administration Tool (BAT)
 - o Overview of Cisco Unified Communications Manager BAT
 - Activate Bulk Provisioning Service
 - o Start, Stop and Restart Bulk Provisioning Service
 - Cisco Unified Communications Manager BAT Procedures (1)
 - Phone Template Settings
 - Add a Line to the Template (1)
 - \circ $\;$ Add a Second Line to the Template
 - Download the bat.xlt
 - Open Bat.xlt in Excel
 - Select the Tab for item the you want to Create
 - \circ $\;$ Choose Fields to be Imported
 - Enter Phone Information and Export Bat File
 - Upload Exported File from Excel
 - Select File and Specify Target and Type
 - Validate Uploaded Phones
 - o Insert Phones
 - Specify Insert Phone Details
 - Confirm Phone Import with Job Scheduler
- Lesson 3: Migrating Phones
 - o Export Utility
 - o Migrating Existing Phone Configuration to a Different Phone Model
 - Migrating Phones Phone Template (1)
- Lesson 4: Self Provisioning
 - Configuring Self-Provisioning
 - Configure the Universal Device Templates (1)
- Lesson 5: OS Command Line Tools

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- Access the CLI
- o Reset Application Administrator Password via CLI
- Reset OS Platform Administrator Password
- o Create Additional OS Users
- Set the WebAPP Session Timeout
- Check the CUCM IP Information
- o Ping
- Check, Stop, and Restart, Services
- Lesson 6: Loading Cisco Option Packages (COP)
 - Downloading Cisco Option Files (COP)
 - Use SFTP Server to Serve Files
 - Loading a COP File into CUCM
 - o Install COP File
- Module Summary

Module 2: Cisco Unified Communication Manager 12.x / 14.0

- Module Introduction
 - Topic List
- Lesson 1: Understanding Smart Licensing
 - Cisco Smart Software Licensing
 - o Smart Account
 - Create a Smart Account
 - Virtual Account
 - Deployment Options
 - Ordering in Cisco Commerce Workspace (CCW)
 - Migrating/Upgrading Classic Licenses to Smart
 - Registering a Device on CSSM
 - o Token Creation in Cisco Smart Software Manager
 - License Management: CSSM (1)
 - Smart Licensing in CUCM 12.x and above
 - CUCM: Evaluation Mode
 - CUCM: Register (Transport Setting)
 - CUCM: Register Product (with Token)
 - CSSM: Create Token (if not already available)
 - CUCM: License Management (Registered, Authorized)
 - CSSM: License Management (In Compliance)
 - CSSM: License Management (Out of Compliance)
 - Cisco Smart Software Licensing Management
 - License Management on Subscriber Node
- Lesson 2: Cisco Unified Communication Manager Overview
 - o Overview of the Cisco Unified Computing System Solution
 - o Cisco Unified Communications Manager High Availability
 - Database Replication and User-Facing Features
 - o Intracluster Communication
- Lesson 3: Understanding Administrator Interfaces
 - o Cisco Unified Communications Manager Administrator Interfaces
 - o Cisco Unified Communications Manager Serviceability

- Cisco Unified Communications Manager Services
- o Cisco Unified Communications Manager Operating System
- Lesson 4: Deploying Endpoints and Users
 - o Comparison of Endpoints Supported by Cisco Unified Communications Manager
 - Endpoint Configuration Elements
 - Cisco Unified Communications Manager User Accounts (1)
 - o Cisco Unified Communications Manager User Management Options
 - $\circ \quad \text{End Users}$
 - Manual End User Configuration Page
 - o Cisco Unified Communications Manager LDAP Support
 - LDAP Integration: Synchronization (1)
 - LDAP Integration: Authentication (1)
 - LDAP Integration Features: Attribute Mapping (1)
 - End-User Data Storage Locations
 - LDAP Integration Feature: Filters (1)
 - LDAP Synchronization Configuration Procedure
 - o Activate Cisco DirSync Service
 - Configure the LDAP System
 - Configure the LDAP Directory (1)
 - o Verify LDAP Synchronization
 - LDAP Synchronization User Attributes
 - o LDAP Authentication Configuration
 - o LDAP Authentication Verification
 - o LDAP Custom Filter
 - LDAP Custom Filter Verification
- Lesson 5: Implementing Endpoints and Features
 - o IP Phone Registration Process Overview
 - o Network Time Protocol
 - Special Functions Used by Cisco IP Phones
 - Cisco SCCP IP Phone Startup Process
 - o VLAN Discovery Process
 - IP Phone DHCP Configuration
 - DHCP Server Feature Support Overview
 - TFTP Device Configuration XML File
 - SCCP IP Phone Registration
 - Cisco SIP Phone Startup Process
 - o Cisco Unified Communications Manager Network Configuration
 - Service Activation
 - o DHCP Server
 - o DHCP on Cisco Unified Communications Manager Express
 - o IP Phone Configuration Requirements in Cisco Unified Communications Manager
 - o Cisco Unified Communications Manager Group
 - Device Pools
 - o Templates
 - IP Phone Configuration
 - Manual Cisco IP Phone Configuration
 - Add the IP Phone
 - Configure SCCP IP Phone Settings

- Configure Directory Number
- Apply the Configuration
- Lesson 6: Implementing Endpoint Addressing and Call Routing
 - Endpoint Addressing
 - Endpoint Addressing by Numbers
 - Endpoint Addressing by URIs
 - o Cisco Unified Communications Manager Call Routing Overview
 - o Sources of Call-Routing Requests (Entities Requiring Call-Routing Table Lookups
 - Call-Routing Table Entries (Call-Routing Targets)
 - o Cisco Unified Communications Call-Routing Logic
 - o Digit-by-Digit Analysis of Numbers Not Received In a Single Block
 - o Variable-Length Patterns, Overlapping Patterns, and Urgent Priority
 - Overlaps and Interdigit Timeout
 - o Urgent Priority
- Lesson 7: Implementing Calling Privileges
 - o Calling Privileges Overview
 - Calling-Privilege Requirement PSTN Example
 - Calling-Privileges Configuration Elements
 - Partitions and CSSs
 - Partition <None> and CSS <None>
 - o Analogy: Locks and Key Rings
 - Partitions and CSS Example
 - Partition and CSS Considerations
 - Phones Have a Device CSS and Line CSS
 - Example with IP Phone Line CSS and Device CSS
 - Partition and CSS Configuration
 - o Summary
- Lesson 8: MoH in Cisco Unified Communications Manager
 - $\circ \quad \text{Music on Hold} \\$
 - o MOH Support in Cisco Unified Communications Manager
 - o MOH Sources
 - MOH Server Capacity
 - o Unicast and Multicast MOH Characteristics
 - o Multicast MOH
 - MOH Configuration
 - Media Resource Access Control Overview
 - Media Resource Access Control Characteristics
 - o Components of Media Resource Access Control
 - Media Resource Access Control Example
 - Conference Bridge Selection
 - Conference Bridge Selection Configuration
 - Media Resource Access Control Configuration
- Lesson 9: Implementing Conference Bridges
 - o Cisco Unified Communications Manager Audio Conference Bridge
 - o Cisco Unified Communications Manager Software Audio Conference Bridge
- Lesson 10: Unified Communication Manager with Cisco Meeting Server Configuration
 - o Cisco Collaboration Preferred Architecture
 - Virtualization

- Cisco Unified Communications on the Cisco Unified Computing System (UCS)
- Cisco Business Edition 7000 (BE7000)
- Core Applications
- Collaboration Endpoints
- Ad Hoc Conference with CMS
- o Configuration required on the Cisco Unified Communications Manager
- Upload The CUCM Certificate
- Configuring a Non-Secure SIP Trunk
- o Destination Information for the SIP Trunk
- o Creating a Conference Bridge for Cisco Meeting Server
- o CUCM Certificates for Cisco Meeting Server
- o CUCM Media Resource Groups
- Media Resource Group Lists
- Applying Media Resource Group Lists
- Domain Based Routing
- Numeric Dialing
- Route Groups and Route Lists (1)
- \circ Summary
- Lesson 11: Understanding Cisco Unified Communications Manager CAR Analysis and Reporting Tool Reports
 - o Cisco Unified Communications Manager CAR Tool Overview
 - o Activate Cisco Unified Communications Manager CAR Services
 - o CDR Service Parameters
 - o Cisco Unified Communications Manager CAR Tool User Types
 - o CDR and CMR Architecture
 - Cisco Unified Communications Manager CAR Tool User Overview (1)
 - o Configure the Mail Parameters
- Lesson 12: Understanding Cisco Unified Communications Manager Reports
 - \circ $\,$ Cisco Unified Communications Manager CAR Tool User Overview
 - o Cisco Unified Communications Manager Reports Overview
 - Cisco Unified Reporting (1)
 - Cisco Unified Reporting Status Messages and Icons
- Lesson 13: Using Troubleshooting and Monitoring Tools
 - o Overview of Troubleshooting and Monitoring Tools
 - Cisco Unified Communications Manager Dialed Number Analyzer
 - o Cisco Unified Communications Manager Dialed Number Analyzer Output
 - o Route Plan Report
 - Cisco Unified RTMT Overview
 - Service Parameters
 - o Cisco Unified RTMT System Requirements
 - Enable a User for Cisco Unified RTMT Login
 - Cisco Unified RTMT Menu (1)
 - \circ $\,$ $\,$ Monitor the System with Cisco Unified RTMT $\,$
 - Performance
 - Alert Notification Configuration
 - Custom Alerts on Performance Counters
 - Cisco Unified RTMT Trace and Log Central
- Lesson 14: Understanding the Disaster Recovery System
 - Disaster Recovery System Overview

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- o Disaster Recovery System Architecture
 - Disaster Recovery System Menu
- Disaster Recovery System Components
- Back Up Cisco Unified Communications Solutions
 - o Scheduler
 - Backup Status
- Restore Cisco Unified Communications Solutions
 - Restore Wizard: Type of Restore (1)
- Module Summary

Module 3: Cisco Unified Gateways

- Module Introductions
 - o Topic List
- Lesson 1: Implementing PSTN Access Using MGCP Gateways
 - MGCP Gateway Implementation Overview
 - o Endpoint Identifiers
 - o MGCP Gateway Support in Cisco Unified Communications Manager
 - o Cisco Unified Communications Manager Configuration Server
 - o PRI Backhaul
 - o MGCP Gateway Implementation Considerations
 - o Implement an MGCP Gateway in Cisco Unified Communications Manager
 - o Integrate Cisco IOS MGCP Gateways with Cisco Unified Communications Manager
 - Cisco IOS MGCP Gateway Configuration Steps
 - Cisco IOS MGCP Gateway Configuration Example
 - o Configure Cisco IOS MGCP Gateway Fractional PRIs
 - o Path Selection
 - Path Selection Example
 - o Path Selection Configuration Elements in Cisco Unified Communications Manager
 - Route Group Functionality
 - o Local Route Groups
 - Multiple Local Route Groups
 - Local Route-Group Functionality
 - o Route List Configuration
 - Route Pattern Configuration Example
 - o Digit Manipulation Requirements with Multiple Paths
 - Digit Manipulation Configuration Elements (1)
 - Digit Manipulation Flow Example (Outgoing Call to PSTN)
 - Digit Manipulation Flow Example (Incoming Call from PSTN)
 - o Summary
- Lesson 2: Describing Cisco SIP Gateways
 - SIP Gateway Overview
 - SIP Gateway Configuration Example

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- o Dial Peer Overview
 - Main Components of VoIP and POTS Dial Peers (1)
 - Inbound Dial Peer Selection
 - Inbound Dial Peer Selection Example
 - Outbound Dial Peer Selection
 - Outbound Dial Peer Selection Example
- Main Digit Manipulation Mechanisms
- o Summary
- Lesson 3: Troubleshooting Common Gateway
 - o Cisco IOS MGCP Gateway Communications
 - Cisco IOS MGCP Gateway and Endpoint
 - o Cisco IOS MGCP Gateway Configuration Elements
 - o Cisco IOS MGCP Gateway Registration
 - Cisco IOS MGCP Gateway Registration Issues
 - Verify Cisco IOS MGCP Gateway Status (1)
 - Cisco IOS MGCP Gateway Monitoring Commands
 - o Cisco IOS MGCP Gateway Unsuccessful Registration
 - Cisco IOS SIP Trunk Communications
 - o Summary
- Module Summary

Module 4: Integrating Cisco Unity Connection 12.x / 14.0

- Module Introductions
 - $\circ\quad \text{Topic List}$
- Lesson 1: Unity Connection Overview
 - Single-Site and Multisite Deployment Model
 - Cisco Unity Connection Administration (1)
 - Cisco Unity Connection Integration Options
 - Cisco Unity Connection SIP Integration
 - Create a Sip Trunk Security Profile
 - Create a Sip Trunk (1)
 - o Voice Mail Pilot and Voice Mail Profile
 - o Route Pattern
 - Unity Connection SIP Integration
 - Unity Connection SIP Integration New Port Group
 - Cisco Unity Connection Integration Troubleshooting Tools (1)
 - Common Mistakes with SIP Integrations
 - Call Forward Options
 - Unity Connection Call Handlers
 - Call Handler Example
 - Caller Input
 - Caller Input Analysis (1)

- Call Handler Templates
- Default Call Handler Flow
- Operator Call Handler
- Operator Not Available
- Goodbye Call Handler
- Directory Handler Overview
- Directory Handler Search Results Behavior
- Interview Handler
- Cisco Unity Connection Call Routing (1)
 - Default Call-Routing Behavior
 - Direct Call Routing
 - Forwarded Call Routing
- Cisco Unity Connection Dial Plan
- Message Aging Policy and Mailbox Quotas
- Message Aging Policy
- Mailbox Quotas
- o Roles
- Lesson 2: Creating Users
 - o User-Creation Options
 - Understanding Users (1)
 - Preparing to Configure Users (1)
 - Configuring Authentication Rules (1)
 - Configuring Class of Service (1)
 - Configuring Schedules and Holidays (1)
 - Cisco Unity Connection User Templates
 - Cisco Unity Connection End Users
 - Voice Mailbox
 - Configuring User Templates (1)
 - Configuring Users
 - Add a New User
 - Edit Users
 - Import End Users from Cisco Unified Communications Manager
 - Imported User
 - Import Users from LDAP
 - o LDAP Directory
 - o Bulk Import Users
 - o Reviewing Users
 - o User Features
 - User Features Edit Password Settings (1)
 - User Features Roles
 - User Features MWI
 - o Transfer Rules and Greetings

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- User Features Transfer Rules
- User Features Message Settings
- User Features Caller Input
- User Features Edit Mailbox
- Notification Devices (1)
- User Features Alternate Extensions
- o User Features Alternate Names
- Lesson 3: Designing an Audiotext Application
 - Audiotext Application (Auto Attendant) Configuration (1)
 - Greeting Administrator (1)
 - Cisco Unity Connection Reports
 - Unity Connection Report Configuration
 - Unity Connection Cluster Management
 - Port Monitor Configuration
 - Port Monitor -RTMT
 - Port Monitor
 - Unified Messaging Terminology
 - Single Inbox High-Level Architecture
 - Single Inbox Functionality
 - Unified Messaging Benefits
- Module Summary

Module 5: Integrating Cisco Unified IM and Presence 12.x / 14.0

- Module Introductions
 - o Topic List
- Lesson 1: Cisco Unified Communications Manager IM and Presence Service Overview
 - o Cisco Unified Communications Manager IM and Presence Service Overview
 - o OVA Template for Cisco Unified Communications IM and Presence
 - o Cisco Unified Communications IM and Presence Cluster
 - Cisco Jabber Overview (1)
 - Service Discovery
 - Quality of Service
 - Cisco Jabber Port Usage (1)
 - o Summary
 - Lesson 2: Describing Cisco Unified Communications IM and Presence Components and Communication Flows
 - Cisco Jabber Information Flow in Deskphone Mode
 - o Cisco Jabber Information Flow in Softphone Mode
 - o Cisco Jabber in Phone-Only Mode
 - o Cisco Jabber and Voicemail
 - o Cisco Jabber and Conferencing
 - o Integration with LDAP for Cisco Jabber
 - Cisco Jabber Login Flow
 - Access for Cisco Jabber without VPN

- o Summary
- Lesson 3: Integrating Cisco Unified Communications IM and Presence
 - Set Up Cisco Unified Communications Manager for Presence
 - Checklist for Cisco Unified Communications Manager Setup
 - Cisco Jabber UC Services
 - Implementing Cisco Unified Communications IM and Presence
 - Checklist for Cisco Unified Communications IM and Presence Setup
 - Cisco Unified Communications IM and Presence Services
 - Cisco Jabber Service Discovery
 - Service Discovery: Domain
 - Service Discovery: Operating Mode (1)
 - Cisco UDS SRV Record
 - SRV Records
 - DNS SRV Record Priorities and Weights
 - Troubleshoot DNS SRV Entries
 - Methods of Installation
 - Create a Custom Installer (1)
 - o Summary
- Lesson 4: Configuring Cisco Unified Communications IM and Presence Features and Implementing Cisco Jabber
 - o Cisco Jabber in Phone-Only Mode
 - Configure Cisco Jabber in Softphone Mode
 - Cisco Jabber UC Services (1)
 - Visual Voicemail Interface for Cisco Jabber
 - o Cisco Jabber in Softphone Mode
 - Cisco Jabber Account Options
 - o Connection Status
 - LDAP Profile Test
 - o Voicemail Profile Test
 - o Enable End Users and Devices for CTI
 - o Cisco Jabber in Deskphone Mode
 - o Summary
- Lesson 5: Implementing Jabber on CUCM
 - Configure Cisco Unified Communications Manager for Cisco Jabber
 - Step 1: Automate the Jabber Client Configuration with SRV Records
 - Step 2: Define the Cisco Unified Communications Services
 - Step 3: Create a Service Profile
 - Step 4: End-User Configuration (1)
 - Step 5: Create Cisco Unified CSF Device (1)
 - Step 6: Associate the Cisco Unified CSF Device to the End User
 - Step 7: Define a SIP Trunk
 - Configure the Cisco Unified Communications Manager IM and Presence Server
 - Choose the SIP Publish Trunk
 - Set the Presence Gateway for Cisco Unified Communications Manager
- Lesson 6: Verifying and Troubleshooting Tools for Cisco Unified Presence Components
 - System Dashboard
 - Cisco Unified IM and Presence Reporting
 - System Troubleshooter (1)

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- o Cisco Jabber Connection Status
- End User Cannot Log into Cisco Jabber
- Trace Filter Settings
- o Summary
- Module Summary

Module 6: Cisco Unified Communications Mobile and Remote Access (MRA) 12.x / 14.0

- Module Introductions
 - Topic List
- Lesson 1: Cisco Expressway Series Deployment Options
 - Cisco Expressway
 - Terminology (1)
 - VCS vs Expressway
 - Expressway X8.9 Local Registration Support
 - Mobile and Remote Collaboration with Expressway
 - Cisco Jabber Remote Access Options
 - What can a Jabber client do with Expressway?
 - Fixed Endpoint Support
 - Expressway Firewall Traversal Basics
 - Cisco Expressway Licensing
 - Expressway Rich Media Session Licenses
- Lesson 2: Implementing Unified Communications Mobile and Remote Access
 - Unified Communications Mobile and Remote Access
 - Unified Communications Mobile and Remote Access Components Overview
 - Firewall Traversal
 - Firewall Port Details
 - Expressway & Jabber Service Discovery
 - o Unified Communications Mobile and Remote Access DNS Requirements
 - o Unified Communications Mobile and Remote Access Certificate Requirements
 - HTTPS Reverse Proxy
 - o Registering Cisco Jabber to Cisco Unified Communications Manager
 - Unified Communications Mobile and Remote Access Prerequisites
 - o Unified Communications Mobile and Remote Access Configuration Procedure
- Lesson 3: Expressway Server Certificates
 - Expressway Certs and Clustering
 - Expressway Certificate Signing Request (CSR)
 - Cert Subject Alternative Name (SAN) requirements
 - Expressway Trusted CA Certificates (1)
 - Module Summary

Module 7: Cisco Emergency Responder (CER) 12.x / 14.0

- Module Introductions
 - Topic List
- Lesson 1: Cisco Emergency Responder (CER)
 - E9-1-1 defined

- Legislation and Regulation
- o ANI & ALI Defined
- PS-ALI accounts
- Defining Phone Locations
- E9-1-1 for VoIP
- Using Ip Subnets
- E911 with IP Telephony- What could go wrong?
- o E911 with Cisco Emergency Responder
- o 911 in Enterprise Challenges
- Preparation (One Time)
- Local Notifications (Real Time)
- What is Cisco Emergency Responder?
- Cisco Emergency Responder 12.x
- o CER Cluster
- Clustering over the WAN
- Integration with UC Manager
- Locating Phones
- Cisco ER in Operation: Endpoint Location Example
- Lesson 2: Setup Cisco Unified Communications Manager
 - Create Phone Partition for Internal Phone
 - Create Phone Partition for E911
 - Create Phone Calling Search Space
 - Create Emergency Responder Calling Search Space
 - Create Emergency CTI Route Primary 911
 - Add a Directory Number to the Primary CTI RP911
 - Create Emergency CTI Route Secondary 912
 - Add a Directory Number to the Secondary CTI RP912
 - Create Emergency CTI Route ELIN 913 (The destination of all incoming calls from the PSAP)
 - Add a Directory Number to the ELN Callback
 - Create Required CTI Ports for CER to Call Security (1)
 - o Create a Cisco Unified Communications Manager Group for Cisco Emergency Responder
 - ELIN Numbers Emergency Calls and PSAP Callbacks
 - Create Route Patterns for ERLs (1)
 - Create Translation Patterns for ELINs
 - Create Translation Patterns for 9.911 / 911 (1)
 - o Create Emergency Responder Cisco Unified Communications Manager User
 - Cisco Emergency Responder Configuration
 - Login into Emergency Responder
 - o User Management
 - Server and Server Group Configuration
 - Telephony Settings
 - o Identify Cisco Unified Communications Manager Clusters
 - o Work with Emergency Responder Locations
 - Add Onsite Security Personnel
 - o Default ERL Creation
 - o Default ALI Information
 - o Configuring IP Subnet-based ERLs
 - Emergency Responder Switch Configuration

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- Set Up SNMPv2
- Set Up SNMPv3
- Identify LAN Switches
- Switch Port Configuration
- Module Summary

Module 8: Unified Contact Center Express (UCCX)

- Module Introductions
 - o Topic List
- Lesson 1: Unified Contact Center Express (UCCX) Architecture
 - Cisco Unified CCX Primary Functions
 - o Cisco Unified CCX Operating System and Browser Support
 - Cisco Unified CCX Environment
 - Cisco Unified CCX Deployment Models
 - Cisco Unified CCX Cluster Components
 - Single Server or First Node Server Setup
 - Cisco Unified CCX Administration
 - Cisco Unified Communications Manager Configuration Page (1)
 - System Parameters (1)
 - Language Management
 - Prompt Management (1)
 - Script Management
 - o Document Management
 - o Grammar Management
 - Application Management (1)
 - Cisco Unified CCX Subsystems
 - Cisco Unified Communications Manager Telephony Subsystem
 - RmCm Subsystem
 - Chat and Email Subsystem
 - Outbound Subsystem
 - Database Subsystem
 - Email Subsystem
 - Cisco Media Subsystem
 - MRCP ASR Subsystem
 - MRCP TTS Subsystem
 - o Administration Tools
 - Plug-ins
 - User Management (1)
 - Real-Time Reporting
 - Supervisor and User Web Pages
 - Supervisor Web Page (1)
 - User Web Page
 - Cisco Finesse Administration
 - Cisco Finesse Administration Console
 - Serviceability and Maintenance Summaries
 - Cisco Unified CCX Serviceability
 - Control Center

- Lesson 2: Introduction to Scripting
 - Cisco Unified CCX Script Editor Introduction
 - Installing the Cisco Unified CCX Script Editor
 - Knowing the Script Editor
 - Starting the Script Editor
 - Synchronize License with Cisco Unified CCX Engine
 - Cisco Unified CCX Script Editor Windows (1)
 - Script Management (1)
 - o Debugging a Script
 - Understanding Debugging
 - Reactive or Non-Reactive Debugging
 - Running a Debug Session (1)
 - Cisco Unified CCX Agent
 - Cisco Unified CCX Supervisor
 - Resource Groups (1)
 - Skills (1)
 - Contact Service Queues
 - o Teams
 - Finesse IP Phone Agent
 - Finesse IP Phone Agent Features
 - Finesse IP Phone Agent Interface (1)
 - Configuring Finesse IP Phone Agent (1)
 - Cisco Finesse
 - Sign in to Cisco Finesse
 - Finesse Agent Desktop (1)
 - Finesse Supervisor Desktop (1)
 - Agent Configuration (1)
 - Supervisor Configuration
 - Create Resource Groups
 - o Create Skills
 - Configure Resources
 - Configure Contact Service Queues (1)
 - Configure Teams
 - Lesson 3: Using Cisco Unified CCX Reports
 - Cisco Unified CCX Reporting Introduction
 - Three Types of Reports
 - Historical Reporting User Configuration
 - Abandoned Rates
 - Handled/Abandoned/Dequeued Markings
 - Cisco Unified Intelligence Center
 - Cisco Unified Intelligence Center Introduction
 - Historical Reporting Configurations (1)
 - Commonly Used Terms
 - Accessing Cisco Unified Intelligence Center
 - Reports Drawer
 - Viewing a Report (1)
 - $\circ \quad \text{Saving a Report}$
 - o Editing a Template

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- CSQ Activity Report Example
- Module Summary

Module 9: Troubleshooting

- Module Introductions
 - o Topic List
- Lesson 1: Overview of Troubleshooting and Monitoring Tools
 - o Cisco Unified Serviceability
 - Cisco Unified Communications Manager Traces
 - Trace Configuration Options
 - Trace Configuration
 - Cisco Unified Communications Manager Dialed Number Analyzer
 - o Cisco Unified Communications Manager Dialed Number Analyzer Output
 - Instructor Demo: Route Plan Report
 - Cisco Unified RTMT
 - Cisco Unified RTMT Alert Central
 - Custom Alerts on Performance Counters
 - Cisco Unified RTMT Syslog Viewer
 - Cisco Unified RTMT Trace and Log Central (1)
 - o Cisco Unified RTMT Performance Monitor and Data Logging
 - Cisco Unified Communications Manager Reporting Tool
 - Cisco IOS Troubleshooting Tools
 - Sniffer Traces
- Lesson 2: Troubleshooting Common Gateway and Endpoint Registration Issues
 - Cisco IOS MGCP Gateway Communications
 - o Cisco IOS MGCP Gateway and Endpoint
 - Cisco IOS MGCP Gateway Registration Issues
 - Verify Cisco IOS MGCP Gateway Status (1)
 - Cisco IOS MGCP Gateway Monitoring Commands
 - Cisco IOS H.323 Gateway and SIP Trunk Communications
- Module Summary

LAB OUTLINE

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 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

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- 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
- Configure Cisco Unified Communications Manager for a SIP Integration
- Discover Call Routing in 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.x / 14.0

- 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
- Enable Voice Messaging in Cisco Jabber
- Configure LDAP and UDS Directory Access
- Provisioning with Cisco Prime Collaboration

Cisco Unified Contact Center Express (UCCX) 12.x / 14.0

- Add a Call Control Group
- Add a Cisco Media Termination Dialog Control Group
- Add a Cisco Unified CCX Script Application

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- 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
- Use a skills based CSQ to route call

Cisco Meeting Server (CMS)

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