Cisco Training - HD Telepresence

CIPT1: Implementing Cisco Unified Communications Manager Part 1 v8.0

Master Cisco Unified Communications Manager in this latest version (v8.0). Perform post-installation tasks, implement Media Gateway Control Protocol and H.323 gateways, and build dial plans to place on-net and off-net phone calls.

$3,795.00

- 5 Days
- Promotional and package discounts may apply
- Related Courses:
- CVOICE
- CIPT 2
- TVOICE

Upcoming Dates

Course Description

Implementing Cisco Unified Communications Manager, Part 1 (CIPT1) v8.0 is a 5-day course that prepares you for implementing a Cisco Unified Communications Manager solution at a single-site environment. This course focuses primarily on Cisco Unified Communications Manager Version 8.0, which is the call routing and signaling component for the Cisco Unified Communications solution. You will perform post-installation tasks, configure Cisco Unified Communications Manager, implement Media Gateway Control Protocol (MGCP) and H.323 gateways, and build dial plans to place on-net and off-net phone calls. You will also implement media resources, Cisco IP Phone Services, Cisco Unified Communications Manager native presence, and Cisco Unified Mobility.

Course Outline

Module 1: Introduction to Cisco Unified Communications Manager

Lesson 1: Understanding Cisco Unified Communications Manager Architecture

- Cisco Unified Communications Overview
- Cisco Unified Communications Manager Overview
- Cisco Unified Communications Manager Hardware Requirements
- Cisco Unified Communications Manager Operating System
- Cisco Unified Communications Manager Database
- Cisco Unified Communications Manager Licensing Model Overview

Lesson 2: Understanding Cisco Unified Communications Manager Deployment and Redundancy Options

- Cisco Unified Communications Manager Deployment Options Overview
- Cisco Unified Communications Manager Single-Site Deployment
- Cisco Unified Communications Manager Multisite Deployment with Centralized Call Processing
- Cisco Unified Communications Manager Multisite Deployment with Distributed Call Processing
- Cisco Unified Communications Manager Multisite Deployment with Clustering over the WAN
- Cisco Unified Communications Manager Deployment on Virtualized Servers

- Cisco Unified Communications Manager Call-Processing Redundancy

Module 2: Administering Cisco Unified Communications Manager

Lesson 1: Managing Services and Initial Configuration of Cisco Unified Communications Manager

- Cisco Unified Communications Manager Initial Configuration Overview
- Cisco Unified Communications Manager Network Configuration Options Overview
- Cisco Unified Communications Manager NTP and DHCP Considerations
- DNS Considerations
- Cisco Unified Communications Manager Network and Feature Services
- Cisco Unified Communications Manager Enterprise Parameters and Enterprise Phone Configuration
- Cisco Unified Communications Manager Service Parameters

Lesson 2: Managing User Accounts in Cisco Unified Communications Manager

- Cisco Unified Communications Manager User Accounts Overview
- Managing User Accounts Using the Administration GUI
- Cisco Unified Communications Manager BAT Overview
- Managing User Accounts Using Cisco Unified Communications Manager BAT
- LDAP Overview

Module 3: Single-Site On-Net Calling

Lesson 1: Understanding Endpoints in Cisco Unified Communications Manager

- Cisco Unified Communications Manager Endpoints Overview
- Cisco IP Phone Boot Sequence
- H.323 Endpoint Support in Cisco Unified Communications Manager
- SIP Third-Party IP Phone Support in Cisco Unified Communications Manager

Lesson 2: Implementing IP Phones

- Endpoint Configuration Tools and Elements Overview
- IP Phone Autoregistration
- Configuring Autoregistration
- Cisco Unified Communications Manager BAT and Auto-Register Phone Tool
- Using Cisco Unified Communications Manager BAT for Adding Phones to Cisco
- UnifiedCommunications Manager
- Manually Adding Phones to Cisco Unified Communications Manager

Module 4: Single-Site Off-Net Calling

Lesson 1: Implementing PSTN Gateways in Cisco Unified Communications Manager

- Gateway Review
- MGCP Gateway Implementation
- H.323 Gateway Implementation
- SIP Gateway Implementation

Lesson 2: Configuring Cisco Unified Communications Manager Call-Routing Components

- Dial Plan Components
- Endpoint Addressing
- Cisco Unified Communications Manager Call-Routing Overview
- Cisco Unified Communications Manager Digit Analysis

- Special Call-Routing Features
- Cisco Unified Communications Manager Path Selection
- Cisco Unified Communications Manager Path-Selection Configuration

Lesson 3: Using Partitions and CSSs to Implement Calling Privileges for On-Net Calls

- Calling Privileges Overview
- Partitions and CSSs
- Example of Partitions and CSSs
- Partition and CSS Considerations

Lesson 4: Implementing Cisco Unified Communications Manager Digit Manipulation

- Cisco Unified Communications Manager Digit Manipulation Overview
- Cisco Unified Communications Manager Digit-Manipulation Flow
- Cisco Unified Communications Manager Digit-Manipulation Configuration Elements Overview
- Cisco Unified Communications Manager External Phone Number Masks
- Cisco Unified Communications Manager Translation Patterns
- Cisco Unified Communications Manager Transformation Masks
- Cisco Unified Communications Manager Digit Stripping and Digit Prefixes
- Cisco Unified Communications Manager Significant Digits
- Cisco Unified Communications Manager Global Transformations
- Cisco Unified Communications Manager Incoming Number Settings

Lesson 5: Implementing Gateway Selection and PSTN Access Features

- Calling-Privileges Applications Overview
- Implementing Time Schedules and Time Periods
- Implementing Gateway Selection and CoS
- Implementing 911 and Vanity Numbers
- Implementing Carrier Selection Based on Time of Day
- CMC and FAC
- Implementing CMC and FAC

Lesson 6: Implementing Call Coverage in Cisco Unified Communications Manager

- Cisco Unified Communications Manager Call-Coverage Support
- Shared Lines
- Call Hunting
- Call-Hunting Scenarios
- Call-Hunting Configuration

Module 5: Media Resources

Lesson 1: Implementing Media Resources in Cisco Unified Communications Manager

- Media Resources Overview
- Cisco Unified Communications Manager Media Resources Support
- Conference Bridge Overview
- Conference Bridge Media Resource Configuration
- Meet-Me Conference Configuration
- MOH Overview
- MOH Configuration
- Annunciator Overview and Configuration
- Media Resources Access-Control Overview
- Media Resources Access-Control Configuration

Module 6: Feature and Application Implementation

Lesson 1: Configuring Cisco IP Phone Services

- Cisco IP Phone Services Overview
- Cisco IP Phone Services Redundancy
- Cisco IP Phone Services Configuration
- Cisco IP Phone Services Subscriptions

Lesson 2: Configuring Cisco Unified Communications Manager Native Presence

- Cisco Unified Communications Manager Native Presence Overview
- Cisco Unified Communications Manager Native Presence Operation
- Cisco Unified Communications Manager Native Presence Access Control
- Cisco Unified Communications Manager Native Presence Implementation

Lesson 3: Configuring Cisco Unified Mobility

- Cisco Unified Mobility Overview
- Cisco Unified Mobility Call Flows
- Cisco Unified Mobility Implementation Requirements
- Cisco Unified Mobility Considerations
- Cisco Unified Mobility Configuration

Labs:

- Lab 2-1: Configuring Cisco Unified Communications Manager Initial Settings
- Lab 2-2: Managing User Accounts in Cisco Unified Communications Manager
- Lab 3-1: Implementing IP Phones
- Lab 4-1: Implementing PSTN Gateways
- Lab 4-2: Configuring Cisco Unified Communications Manager Call-Routing Components
- Lab 4-3: Implementing Digit Manipulation
- Lab 4-4: Implementing Calling Privileges in Cisco Unified Communications Manager
- Lab 4-5: Implementing Call Coverage in Cisco Unified Communications Manager
- Lab 5-1: Implementing Media Resources
- Lab 6-1: Configuring Cisco Unified Communications Manager Native Presence
- Lab 6-2: Configuring Cisco Unified Mobility

Audience

This course is designed for Network Administrators, Network Engineers, and Systems Engineers Anyone working towards CCNA Voice Certification.

Prerequisites

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

- Working knowledge of fundamental terms and concepts of computer networking, including LANs, WANs, and IP switching and routing
- Ability to configure and operate Cisco routers and switches and to enable VLANs and DHCP
- Basics of digital interfaces, PSTN, and VoIP
- Fundamental knowledge of converged voice and data networks
- Ability to configure Cisco IOS gateways with traditional and VoIP call legs
- Knowledge gained from attending authorized prerequisite Cisco courses: ICND 1 & ICND 2 or CCNAX, ICOMM, and CVOICE

What You Will Learn

After completing this course, you will be able to:

- Describe Cisco Unified Communications Manager, including its functions, architecture, deployment and redundancy options, and how to install or upgrade
- Perform Cisco Unified Communications Manager initial configuration and user management
- Configure Cisco Unified Communications Manager to support on-cluster calling
- Implement PSTN access in Cisco Unified Communications Manager and to build a dial plan in a single-site Cisco Unified Communications Manager deployment
- Implement Cisco Unified Communications Manager media resources
- Implement Cisco Unified Communications Manager features and applications