



BUILDING TRAINING SOLUTIONS
FOR THE IT WORLD

Implementing Cisco Unified Communications Manager Part 1 v8.0

Days: 5
Format: Instructor-Led
Class Code: CIPT1
Certification Exams: None
Certification Track: None

Recommended Course Sequence

Knowledge of prerequisites noted below.

Course content is subject to change without notice.

Course Description:

Implementing Cisco Unified Communications Manager, Part 1 (CIPT1) v8.0 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.

Target Audience:

- Network Administrators, Network Engineers, and Systems Engineers
- Anyone who has their CCNA Voice and/or is working towards their CCNP 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 & 2 or CCNA Boot camp, ICOMM, and CVOICE

Course Objectives:

After completing this course, students 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

Implementing Cisco Unified Communications Manager Part 1 v8.0

Course Outline

Module 1: Introduction to Cisco Unified Communications Manager

Lesson 1: Understanding Cisco Unified Communications Manager Architecture
<ul style="list-style-type: none">■ 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
<ul style="list-style-type: none">■ 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

Module 2: Administering Cisco Unified Communications Manager

Lesson 1: Managing Services and Initial Configuration of Cisco Unified Communications Manager
<ul style="list-style-type: none">■ 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
<ul style="list-style-type: none">■ Cisco Unified Communications Manager User Accounts Overview

Implementing Cisco Unified Communications Manager Part 1 v8.0

- 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 Auto registration
- Configuring Auto registration
- Cisco Unified Communications Manager BAT and Auto-Register Phone Tool
- Using Cisco Unified Communications Manager BAT for Adding Phones to Cisco Unified Communications 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

Implementing Cisco Unified Communications Manager Part 1 v8.0

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

Implementing Cisco Unified Communications Manager Part 1 v8.0

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