

# **Implementing and Operating Cisco Collaboration Core Technologies (CLCOR) v1.0 - On Demand**

**Modality:** On Demand

**Duration:** 40 Hours

**CLC:** 15 Units

## **Course Information**

### **About this course:**

This course serves to prepare you for the Cisco CCNP Collaboration and CCIE Collaboration certifications. After successful completion you can apply for advanced-level roles focused on implementation and operation of Cisco collaboration solutions.

You will gain the knowledge and skills needed to implement and deploy core collaboration and networking technologies, including Cisco IOS XE gateway and media resources, call control, quality of service (QoS), infrastructure and design, protocols, codecs, and endpoints, and additional Cisco collaboration applications.

Upon completing this course, you will be fully prepared to take the Implementing Cisco Collaboration Core Technologies (350-801 CLCOR) exam, which is part of the new CCNP Collaboration, CCIE Collaboration, and the Cisco Certified Specialist - Collaboration Core certifications.

### **Course Objective:**

You will be equipped with the following abilities when you complete this course:

- Describe the Cisco Collaboration solutions architecture
- Integrate and troubleshoot Cisco Unified Communications Manager with Lightweight Directory Access Protocol (LDAP) Lightweight Directory Access Protocol for user synchronization and user authentication
- Implement Cisco Unified Communications Manager provisioning features
- Describe the different codecs and how they are used to transform analog voice into digital streams
- Describe a dial plan, and explain call routing in Cisco Unified Communications Manager
- Implement public switched telephone network (PSTN) access using MGCP gateways
- Implement a Cisco gateway for PSTN access
- Configure calling privileges in Cisco Unified Communications Manager
- Implement toll fraud prevention
- Compare the IP phone signaling protocols of Session Initiation Protocol (SIP), H323, Media Gateway Control Protocol (MGCP), and Skinny Client Control Protocol (SCCP)
- Describe how Mobile and Remote Access (MRA) is used to allow endpoints to work from outside the company
- Analyze traffic patterns and quality issues in converged IP networks supporting voice, video,

and data traffic

- Define QoS and its models
- Implement classification and marking
- Implement globalized call routing within a Cisco Unified Communications Manager cluster
- Implement and troubleshoot media resources in Cisco Unified Communications Manager
- Describe Cisco Instant Messaging and Presence (IM&P), including call flows and protocols
- Describe and configure endpoints and commonly required features
- Configure and troubleshoot Cisco Unity Connection integration
- Configure and troubleshoot Cisco Unity Connection call handlers
- Configure classification and marking options on Cisco Catalyst® switches

## Audience:

- Network engineers
- Systems engineers
- Students preparing to take the CCNP Collaboration certification
- Network administrators

## Prerequisite:

You should have the following knowledge and skills before taking this course:

- Working knowledge of fundamental terms of computer networking, including LANs, WANs, switching, and routing
- Basics of digital interfaces, PSTNs, and Voice over IP (VoIP)
- Fundamental knowledge of converged voice and data networks and Cisco Unified Communications Manager deployment

## Course Outline:

- **Describing the Cisco Collaboration Solutions Architecture**
- **Exploring Call Signaling over IP Networks Bullet**
- **Integrating Cisco Unified Communications Manager LDAP**
- **Implementing Cisco Unified Communications Manager Provisioning Features**
- **Exploring Codecs**
- **Describing Dial Plans and Endpoint Addressing**
- **Implementing MGCP Gateways**
- **Implementing Voice Gateways**
- **Configuring Calling Privileges in Cisco Unified Communications Manager**
- **Implementing Toll Fraud Prevention**
- **Implementing Globalized Call Routing**
- **Describing Cisco Instant Messaging and Presence**
- **Enabling Cisco Jabber®**
- **Configuring Cisco Unity Connection Integration**
- **Analyzing Quality Issues in Converged Networks**
- **Defining QoS and QoS Models**
- **Implementing Classification and Marking**

- **Configuring Classification and Marking on Cisco Catalyst Switches**