

# CISC-10 - CLCOR - IMPLEMENTING AND OPERATING CISCO COLLABORATION CORE TECHNOLOGIES V1.3

Categoria: **Cisco**

## INFORMAZIONI SUL CORSO



Durata:  
**5 Giorni**



Categoria:  
**Cisco**



Qualifica Istruttore:  
**Cisco Certified  
Instructor**



Dedicato a:  
**Professionista IT**



Produttore:  
**Cisco**

## OBIETTIVI

After completing this course, you should be able to:

- Describe the Cisco Collaboration solutions architecture.
- Compare the IP Phone signaling protocols of SIP, H323, and SCCP.
- Integrate and troubleshoot Cisco Unified Communications Manager with LDAP 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.
- Describe cloud calling using the on-premises local gateway option through Webex by Cisco.
- Configure calling privileges in Cisco Unified Communications Manager.
- Implement toll fraud prevention.
- Implement globalized call routing within a Cisco Unified Communications Manager cluster.
- Implement and troubleshoot media resources in Cisco Unified Communications Manager.
- Implement and troubleshoot Webex Calling dial plan features in a hybrid environment.
- Deploy the Webex app in a Cisco Unified Communications Manager environment and migrate from Cisco Jabber to Webex app.
- Configure and troubleshoot Cisco Unity Connection integration.
- Configure and troubleshoot Cisco Unity Connection call handlers.
- Describe how 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.
- Configure classification and marking options on Cisco Catalyst switches.

## PREREQUISITI

Attendees should meet the following prerequisites:

- Basic understanding of networking technologies
- Basic understanding of voice and video

Recommended prerequisites:

- CCNA - Implementing and Administering Cisco Solutions
- CLFNDU - Understanding Cisco Collaboration Foundations

## CONTENUTI

### **Cisco Collaboration Solutions Architecture**

- Overview of Cisco Collaboration Solutions Architecture
- Collaboration Deployment Models
- Licensing
- High Availability
- Capacity Planning
- Security Requirements
- SIP OAuth on Cisco UCM
- Webex Control Hub Features
- Disaster Recovery
- Dial Plan
- IP Network Protocols
- Codecs

### **Call Signaling over IP Networks**

- IP Phone Initialization
- Single Site On-Cluster Calling
- Single Site On-Cluster Call Setup Troubleshooting
- Describe the Call Setup and Teardown Process
- Describe SIP Call Signaling for Call Setup and Teardown
- Compare the Call Control Protocols
- Describe DTMF Signaling over IP Networks

### **Cisco Unified Communications Manager LDAP**

- Overview of LDAP Integration in Cisco Unified Communications Manager
- Options for Importing and Synchronizing Cisco Unified Communications Manager Users in Webex
- LDAP Synchronization in Cisco Unified Communications Manager
- LDAP Authentication in Cisco Unified Communications Manager
- LDAP Attribute Mapping in Cisco Unified Communications Manager
- LDAP Considerations in Cisco Unified Communications Manager
- Access Control Groups in Cisco Unified Communications Manager
- Feature Group Templates in Cisco Unified Communications Manager
- Directory Connector

### **Cisco Unified Communications Manager Provisioning Features**

- Overview of Provisioning Options
- Self-Provisioning Prerequisites
- Self-Provisioning Components
- Self-Provisioning Authentication Modes
- Batch-Provisioning Tools

### **Exploring Codecs**

- Define Codecs

- Compare Audio Codecs
- Compare Video Codecs
- Evaluate the Effects of Encryption on Codecs
- Describing Call Admission Control

### **Dial Plans and Endpoint Addressing**

- Dial Plan Overview
- Dial Plan Components and Their Functions
- EndPoint Addressing
- Overview of Cisco Unified Communications Manager Call Routing
- Cisco Unified Communications Manager Call-Routing Logic
- Address Methods and Digit Analysis
- Variable-Length Patterns, Overlapping Patterns and Urgent Priority

### **Cloud Calling Hybrid Local Gateway**

- Overview of Webex Calling Using Local Gateway
- Routers Used for Local Gateway
- Scenarios Using Local Gateway

### **Calling Privileges in Cisco Unified Communications Manager**

- Calling Privileges Overview
- Partitions and CSSs
- Partition and CSS Considerations
- Time-of-Day Routing
- Client Matter Codes and Forced Authorization Codes

### **Toll Fraud Prevention**

- Toll Fraud Prevention Overview
- Cisco Unified Communications Manager CoS for Toll Fraud Prevention

### **Globalized Call Routing**

- Overview of Multisite Dial Plans
- Globalized Call Routing Overview
- Globalized Call Routing Number Formats
- Globalization of Localized Call Ingress
- Localization During Call Egress

### **Media Resources in Cisco Unified Communications Manager**

- Media Resources Overview in Cisco Unified Communications Manager
- Media Resource Selection and Access Control in Cisco Unified Communications Manager
- Describing the Annunciator Feature
- Describing Unicast and Multicast MOH Characteristics
- Audio and Video Conference Bridge Devices
- Audio and Video Conference Bridge Integration Options
- MTP and Transcoder Devices
- MTP and Transcoder Requirements

### **Webex Calling Dial Plan Features**

- Webex Control Hub Settings

- Router Configuration
- Testing and Troubleshooting Webex Calling

### **Webex App**

- Migrating Cisco Jabber Users with Cisco Webex Cloud-Connected UC
- Migrating Cisco Jabber Clients to Cisco Webex

### **Cisco Unity Connection Integration**

- Overview of Cisco Unity Connection Integration
- SIP Integration
- Typical Integration Mistakes
- Integration Considerations

### **Cisco Unity Connection Call Handlers**

- Call Handler Overview
- System Call Handler
- Caller Input
- Operator Call Handler
- Goodbye Call Handler
- Directory Handler
- Interview Handler

### **Collaboration Edge Architecture**

- Describe Collaboration Edge ( Expressway -C and Expressway -E)
- Describe Supported Services for B2B Collaboration
- Describe Prerequisites for Mobile and Remote Access
- Describe Service Discovery
- Explore Expressway Settings for MRA
- Describe Cisco Unified Border Element (CUBE)
- Device Onboarding Using Activation Codes

### **Quality Issues in Converged Networks**

- Converged Networks
- Available Bandwidth
- Components of Network Delay
- End-to-End Delay Calculations
- Jitter
- Packet Loss

### **Defining QoS and QoS Models**

- QoS Defined
- Network Traffic Identification
- Divide Network Traffic into Classes and Define Policies
- QoS Mechanisms
- QoS Models
- DSCP Encoding
- Expedited Forwarding and Assured Forwarding
- Class Selector

## Classification and Marking

- Classification and Marking Overview
- Classification and Marking at the Network and Data Link Layers
- QoS Service Class
- Cisco Marking Recommendations
- QoS Markings in a SIP Call Flow
- MQC Classification and Marking Options

## Classification and Marking on Cisco Catalyst Switches

- Overview of QoS Trust Boundaries
- Ingress QoS Models
- QoS Marking and Table Maps
- Internal DSCP

## Labs

- Use Certificates
- Configure IP Network Protocols
- Configure and Troubleshoot Collaboration Endpoints
- Troubleshoot Calling Issues
- Configure and Troubleshoot LDAP Integration in Cisco Unified Communications Manager
- Deploy an IP Phone Through Auto and Manual Registration
- Configure Self-Provisioning
- Configure Batch Provisioning
- Configure Regions and Locations
- Implement Endpoint Addressing and Call Routing
- Configure Calling Privileges
- Implement Toll Fraud Prevention on Cisco Unified Communications Manager
- Implement Globalized Call Routing
- Configure the Integration between Unity Connection and Cisco Unified CM
- Manage Unity Connection Users
- Configure QoS

## INFO

**Esame:** 350-801 - Implementing and Operating Cisco Collaboration Core Technologies

**Materiale didattico:** Materiale didattico ufficiale Cisco in formato digitale

**Costo materiale didattico:** incluso nel prezzo del corso a Calendario

**Natura del corso:** Operativo (previsti lab su PC)