

CS-CLCOR

CCNP AND CCIE COLLABORATION CORE CLCOR 350-801



DURATION	LEVEL	TECHNOLOGY	DELIVERY METHOD	TRAINING CREDITS
5 Days	Professional	Collaboration	ILT / VILT	No

INTRODUCTION

The Implementing Cisco Collaboration Core Technologies (CLCOR 350-801) exam is the required “core” exam for the CCNP Collaboration and CCIE Collaboration certifications. If you pass the CLCOR 350-801 exam, you also obtain the Cisco Certified Specialist– Collaboration Core certification.

This course covers core Collaboration technologies including infrastructure and design; protocols, codecs, and endpoints; Cisco IOS XE gateways and media resources; call control; QoS; and Collaboration applications.

AUDIENCE PROFILE

This course is primarily intended for:

- System Engineers , Enterprise network engineers, Network Administrators
- Individuals preparing for the #350-801 - Implementing and Operating Cisco Collaboration Core Technologies (CLCOR) exam

PREREQUISITES

The recommended knowledge and skills that a learner must have before attending this course are as follows:

- Working knowledge of fundamental terms of computer networking, including LANs, WANs, switching, and routing

COURSE OBJECTIVES

On completion of this course, participants should be familiar with:

AV Fundamentals

- The history of voice and video communication, and illustrate the evolutionary path communication has followed leading to the collaboration architecture that exists today.
- Discuss the differences between analog and digital audio communication, and explain how the audio codecs we use today came into existence.
- Discuss how light can be used to capture video, and explain how the video codecs we use today came into existence.
- Examine how audio acoustics behave in an environment where audio communication is set up, and take a close look at the audio components needed for communication.
- The two forms of communication, circuit-switched and packet switched.
- The designing aspects that must be considered before deploying a Cisco Collaboration solution.

Endpoints

- The designing aspects that must be considered before deploying a Cisco Collaboration solution.
- The features and capabilities of the 7800 and 800series phones and explain the differences between Enterprise software and Multiplatform Phone (MPP) software.
- Cisco Telepresence Endpoints
- The registration and call setup settings that exist on Cisco Telepresence endpoints.

- How to access and configure various call settings on Cisco CE software-based endpoints, such as calling options, content sharing options, and several other options.
- Explain how to perform various maintenance tasks from the Cisco Telepresence endpoints.

Network requirements for collaboration deployments

- The LAN, WAN, and wireless LAN network components and IOS gateways as they pertain to collaboration.
- QoS related issues, QoS requirements, class models for provisioning QoS, DiffServ values, QoS Trust boundaries, and how to configure and verify LLQ.
- DNS settings, NTP settings, and SNMP settings within a network as they pertain to collaboration.

Call Control mechanisms

- Key settings on the Cisco Unified Communications Manager that should be configured before using this server in a production environment.
- The differences between application users and end users on the Cisco Unified Communications Manager, and how to use an LDAP service for user synchronization and authentication.
- The three different methods for registering endpoints to the Cisco Unified Communications Manager: registering manually, Self-Provisioning, and using the Bulk Administration Tool.
- The Cisco Unified Communications Manager endpoint addressing, digit analysis process, and toll fraud prevention components using Cost of Service (COS). Then , delve into location-based CAC deployment through the Cisco Unified Communications Manager.
- How to configure globalized call-routing components on the Cisco Unified Communications Manager, such as route patterns, translation patterns, SIP route patterns, and the standard local route group.

Edge Services

- Describe and understand the three Edge products in the Cisco Collaboration architecture.(Cisco Expressway Series, Cisco Voice Gateway, Unified Border Element)
- The different elements required to set up a complete Mobile and Remote Access solution in a Cisco Collaboration environment, including security settings, infrastructure configuration steps, and interconnecting trunks between all the various components involved.
- The various configuration components involved with configuring a Cisco IOS XE gateway for ISDN access.

Collaboration Applications

- Understanding Cisco Unity Connection
- How to configure different components within a Cisco Unity Connection application.
- The features and functionalities, architecture, and basic IM and Presence server setup tasks.
- The registration options for the Cisco Jabber client.

Troubleshooting Collaboration Components

- Identifying the logs available on Cisco Unified IP phones and Cisco CE software-based endpoints.
- How the Dialed Number Analyzer and CAR tool can be used in the CUCM to troubleshoot issues related to registration, call setup, and media-related issues.
- The Real-Time Monitoring Tool and how to use this tool to monitor activity over the Cisco Unified Communications Manager.
- How to create a backup of the Cisco Unified Communications Manager configuration and how to do a restore of those configuration settings in the event they need to be recovered after a disaster.
- How to generate reports on the Cisco Unity Connections server and through the Cisco Unified Serviceability page.
- Tips and strategies for studying for the CLCOR #350-801 exam

Course Content

1. Lesson 1: Introduction to Collaboration

- Foundation Topics
- Audio Communication
- Video Communication
- Unified Communication
- Driving Change in the Industry

2. Lesson 2: Audio Basics

- Basic Understanding of Sound
- Analog vs. Digital Signals
- ITU Audio Encoding Formats

3. Lesson 3: Video Basics

- Basic Understanding of Light
- Capturing and Cameras
- Standard Video Codecs
- Video Container Formats and Codecs

4. Lesson 4: Collaboration Endpoint Components and Environment

- Physical Components
- Sound Behavior
- Light Behavior

5. Chapter 5: Communication Protocols

- PSTN Communication
- H.323 Communication
- SIP Communication
- NAT and Firewall Traversal Solutions

6. Lesson 6: Cisco Solution for Converged Collaboration

- Introduction to Cisco Endpoints
- Introduction to Cisco Call Control
- Introduction to Cisco Applications
- Designing a Cisco Collaboration Solution

7. Lesson 7: Cisco Unified Communications Phones

- 7800 Series Phones
- 8800 Series Phones
- Software Versions for Phones

8. Lesson 8: Cisco Telepresence Endpoints

- CE Software
- DX Series
- SX Series
- MX Series
- Webex Series

9. Lesson 9: Endpoint Registration

- SIP Registration to the Cisco Unified Communications Manager
- SIP Registration to Expressway Core
- H.323 Registration to the Expressway Core

10. Lesson 10: Call Settings on Cisco CE Software-Based Endpoints

- Calling Options
- Content Sharing Options
- Other Features

11. Lesson 11: Maintaining Cisco Endpoints

- Upgrading Endpoints
- Backing Up and Restoring CE Software-Based Endpoints

12. Lesson 12: Cisco Core Network Components

- LAN, WAN, and Wireless LAN

- Gateways

13. Lesson 13: Layer 2 and Layer 3 QoS Parameters

- QoS-Related Issues
- Class Models for Provisioning QoS
- QoS Requirements
- Traffic Classifications
- Configure and Verify LLQ

14. Lesson 14: DNS, NTP, and SNMP

- DNS Settings
- NTP Settings
- SNMP Settings

15. Lesson 15: Cisco Unified Communications Manager Setup

- Services
- Enterprise Parameters
- Service Parameters
- Other Settings (Groups, Device settings, Device Defaults, Phone button template, etc)

16. Lesson 16: LDAP Integration with Cisco Unified Communications Manager

- Application Users and End Users
- Cisco Unified Communications Directory Architecture
- LDAP Synchronization
- LDAP Authentication

17. Lesson 17: Registering SIP Endpoints to the Cisco Unified Communications Manager

- Bulk Administration Tool (BAT)

18. Lesson 18: Cisco Unified Communications Manager Call Admission Control (CAC)

- Endpoint Addressing
- Call Privileges
- Call Coverage

19. Lesson 19: Configuring Globalized Call Routing in Cisco Unified Communications Manager

- Call Routing and Path Selection
- Digit Manipulation

20. Lesson 20: Introduction to Cisco Edge Services

- Cisco Expressway
- Cisco Voice Gateway Elements
- Cisco Unified Border Element

21. Lesson 21: Mobile and Remote Access (MRA)

- Requirements for MRA

- Cisco Unified Communications Manager Settings for MRA
- TLS Verify Requirements
- Initializing MRA on Expressway Servers
- Collaboration Traversal Zones and Search Rules

22. Lesson 22: Cisco IOS XE Gateway and Media Resources

- DTMF
- CUCM Call-Routing Options
- Cisco IOS XE Gateway Settings for ISDN Routing
- Configure and Troubleshoot ISDN BRI
- Configure and Troubleshoot ISDN PRI

23. Lesson 23: Understanding Cisco Unity Connection

- Cisco Unity Connection Integration
- Cisco Unity Connection System Settings
- Cisco Unity Connection Call Handlers
- Cisco Unity Connection Call Routing
- Cisco Unity Connection Distribution Lists
- Cisco Unity Connection Authentication Rules
- Cisco Unity Connection Dial Plan

24. Lesson 24: Cisco Unity Connection End-User and Voice Mailbox

- Cisco Unity Connection End-User Templates
- User Templates Basics
- Default Class of Service
- Password Settings and Roles
- Transfer Rules and Greetings
- Call Actions
- Message Actions and Caller Input
- TUI Experience
- Cisco Unity Connection End Users
- Cisco Unity Connection Voice Mailboxes

25. Lesson 25: CUCM IM and Presence Service

- CUCM IM and Presence Service Features and Functionalities
- CUCM IM and Presence Service Architecture
- CUCM IM and Presence Service High Availability

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| <ul style="list-style-type: none">- Configure the CUCM IM and Presence Server <p>26. Lesson 26: Users and Cisco Jabber Soft Clients</p> <ul style="list-style-type: none">- Registration Options for Jabber Client- Configure Cisco Unified Communications Manager for Jabber Client <p>27. Lesson 27: Troubleshooting Endpoints</p> <ul style="list-style-type: none">- Accessing Logs on Cisco Unified IP Phones- Accessing Logs on CE Software-Based Endpoints- Call Signaling and Quality | <ul style="list-style-type: none">- Troubleshooting Cisco Jabber <p>28. Lesson 28: Cisco Unified Communications Manager Reports</p> <ul style="list-style-type: none">- Dialed Number Analyzer- CAR Tool- CDR and CMR Logs on CUCM <p>29. Lesson 29: Real-Time Monitoring Tool (RTMT)</p> <ul style="list-style-type: none">- Cisco Unified RTMT Overview- Monitor Systems with RTMT- Monitor the CUCM with RTMT <p>30. Lesson 30: Understanding the Disaster Recovery System</p> | <ul style="list-style-type: none">- Disaster Recovery System Overview- Backup Cisco Unified Communications Solutions- Restore Cisco Unified Communications Solutions <p>31. Lesson 31: Monitoring Voicemail in Cisco Unity Connection</p> <ul style="list-style-type: none">- Generate Reports on Cisco Unity Connection- Generate Reports in Cisco Unified Serviceability- Use Reports for Troubleshooting and Maintenance |
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ASSOCIATED CERTIFICATIONS & EXAM

This course help prepare you to take exam #350-801 - Implementing and Operating Cisco Collaboration Core Technologies (CLCOR), which satisfies the core requirements for CCNP and CCIE Collaboration certification.

This exam tests your knowledge of implementing core collaboration technologies, including: infrastructure and design Protocols, codecs, and endpoints ; Cisco IOS XE gateway and media resources ; Call Control ; QoS and Collaboration applications.