Implementing and Operating Cisco Collaboration Core Technologies On-Premises v2.0

Course Content

The Implementing and Operating Cisco Collaboration Core Technologies On-Premises (CLCOR-OP) training serves as the first half of the CLCOR curriculum. This training is designed to provide you with a deep, working knowledge of on-premises Cisco collaboration infrastructure. After completing this training, you will have demonstrated competence in configuring and troubleshooting Cisco Unified Communications Manager, managing user identity via LDAP, designing complex dial plans, implementing edge services including Cisco Expressway and Cisco Unified Border Element, and integrating unified messaging systems like Cisco Unity Connection.

This training, along with the Implementing and Operating Cisco Collaboration Core Technologies Hybrid and Cloud (CLCOR-HC) training, prepares you for the 350-801 CLCOR v2.0 exam. If passed, you earn the Cisco Certified Specialist – Collaboration Core certification and satisfy the core exam requirements for the Cisco Certified Network Professional (CCNP) Collaboration and Cisco Certified Internetwork Expert (CCIE) Collaboration certifications. This training also earns you 38 Continuing Education (CE) credits toward recertification.

Course Objectives

- Introduce network engineers to the fundamental concepts and deployment models of Cisco collaboration architecture for building high-availability environments
- Understand how to implement layered security across physical, network, and application components of Cisco Collaboration systems
- Gain practical skills and strategic insight to ensure collaboration solutions function seamlessly by understanding the foundational infrastructure, signaling, and media transport protocols
- Describe the options and requirements of clustering Collaboration applications
- Demonstrate how to simplify and automate users in Cisco Unified Communications Manager using LDAP integrations
- Explore the various methods used to provision devices in Cisco Unified Communications Manager
- Apply the functions of Dial plans and Endpoint Addressing within Cisco Unified Communications Manager
- Implement globalized call routing within a Cisco Unified Communications Manager cluster
- Configure calling privileges in Cisco Unified Communications Manager
- Understand the core functions and practical uses of the main Cisco Collaboration APIs, learn secure authentication methods, and gain working knowledge of specific APIs for various Cisco Unified Communication applications
- Determine the tools available to troubleshoot Cisco Unified Communications Manager
- Describe the devices which provide the connections to destinations outside the Cisco Unified Communications Manager cluster
- Describe the Cisco Expressway components, deployment options, and supported features
- Demonstrate the fundamental functions provided by the Cisco Unified Border Element
- Demonstrate the advanced functions provided by the Cisco Unified Border Element
- Apply the Cisco Unified Border Element troubleshooting strategies and tools

- Gain the practical skills and confidence to identify, plan, and configure media resources for seamless communication and interoperability in Cisco collaboration environments
- Assess, design, and implement media resources, including DSPs, transcoders, and recording solutions on Cisco IOS XE devices
- Integrate, configure, and manage a unified messaging system with a call control system to enable essential communication features and optimize user experience

Prerequisites

There are no prerequisites for this training. However, the knowledge and skills you are recommended to have before attending this training are:

- Basic understanding of networking technologies
- Basic understanding of voice and video
- Basic understanding of on-premises, cloud, and hybrid collaboration deployment models

These skills can be found in the following Cisco Learning Offerings:

- Implementing and Administrating Cisco Solutions (CCNA)
- Understanding Cisco Collaboration Foundations (CLFNDU)

Who Should Attend?

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

Course Outline

- Collaboration Solutions Architecture
- Cisco Collaboration Solutions Security Requirements
- IP Network Protocols for Collaboration
- Groups and Clustering
- User Management with LDAP
- On-Premises Device Provisioning Solutions
- Dial Plans and Endpoint Addressing
- Calling Privileges and Toll Fraud Protection
- Globalized Call Routing
- Cisco Unified Communications Manager APIs
- Monitoring Tools and Troubleshooting
- Edge Services
- Cisco Expressway
- Cisco Unified Border Element
- Border Controller Advanced Configuration
- Cisco Unified Border Element Troubleshooting
- Media Resources
- Cisco IOS XE Media Resources
- Cisco Unity Connection Integration

Lab Outline

- Implement CA-Signed Certificates in Cisco Unified Communications Manager
- Configure Supporting IP Network Protocols
- Manual IP Phone Administration
- Configure and Troubleshoot Lightweight Directory Access Protocol (LDAP) Integration
- Deploy IP Phones Using Cisco Self-Provisioning
- Deploy IP Phones Using Batch Provisioning
- Implement Endpoint Addressing and Internal Call Routing

- Configure Calling Privileges
- Implement Toll Fraud Prevention on Cisco Unified Communications Manager
- Implement Globalized Call Routing
- Use APIs in an On-Premises Collaboration Environment
- Troubleshoot Dial Plan Issues with Monitoring Tools
- Implement Session Border Controller
- Troubleshoot Session Border Controller
- Media Resources
- Integrate Cisco Unity Connection with Cisco Unified Communications Manager
- Manage Cisco Unity Connection Users
- Configure Cisco Unity Connection Call Handlers

Associated Certifications

CCIE Collaboration, CCNP Collaboration

Course duration:

5 Days