Implementing and Operating Cisco Collaboration Core Technologies Hybrid and Cloud (CLCOR-HC) v2.0

What you'll learn on this course

The Implementing and Operating Cisco Collaboration Core Technologies Hybrid and Cloud (CLCOR-HC) training is the second half of the CLCOR training. This training program is designed to give you a working knowledge of hybrid and cloud Cisco collaboration core technologies. After completing this training, you will have a basic understanding of the Cisco collaboration solutions architecture. You will have proven competence in deploying cloud and hybrid services, cloud and hybrid calling, as well as Quality of Service (QoS).

Course duration

- Instructor-led training: 5 days with hands-on lab practice
- Virtual instructor-led training: 5 days of web-based classes with hands-on lab practice
- E-learning: Equivalent of 5 days of instruction with hands-on lab practice

How you'll benefit

This training will help you:

- Gain specialized expertise in deploying and managing modern Cisco collaboration technologies, specifically focusing on the growing hybrid and cloud market
- Develop real-world experience through labs focused on configuring Webex Control Hub, deploying Webex Calling, managing Cloud Connected UC, and implementing QoS for voice and video
- Learn how to navigate transitions from on-premises to cloud environments, including migrating users from Jabber to the Webex App and managing cloud-based user provisioning and APIs

Who should enroll

- Collaboration engineers
- Network administrators

Technology areas

- Collaboration

Course Objectives

After taking this course, you should be able to:

- 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
- Examine the basic structure of Webex
- Apply various methods to add users to the Webex environment
- Examine the Webex collaboration features
- Examine the functions of Cloud Connected UC and migrations to Webex from on-premises
- Explain Jabber functions and capabilities on Cisco Unified Communications Manager and how users can be migrated to the Webex app
- Identify the Webex Calling provisioning options for adding user endpoints
- Understand the foundational concepts of Webex APIs, including their types, authentication, capabilities, and real-time communication mechanisms
- Identify the available options to bring PSTN calling capabilities into the Webex calling solution, identify the devices, and their configuration options, that provide this service
- Describe the different deployment options when using local gateways in a premises-based PSTN Webex Calling solution
- Explore the dial plan components of Webex Calling
- Configure Cisco Unified Border Element and local gateway settings on a Cisco Router to support Webex Calling using a premises-based PSTN deployment
- Explain how an administrator can configure calling features from the Webex Control Hub that will affect the organization
- Describe how converged IP networks transport voice, video, and data over shared infrastructure and how bandwidth availability, delay components, jitter, and packet loss interact with QoS mechanisms to influence service quality and application performance
- Explain how end-to-end QoS converts business requirements into predictable forwarding behavior under congestion across a multi-domain network
- Implement consistent classification and marking policies to protect voice and video quality and resolve quality issues in a production network

- Define QoS trust boundaries, understand Cisco Catalyst 9000 QoS design models, configure QoS marking and table maps, and leverage internal DSCP values for precise QoS actions

Course Outlines

- Collaboration Solutions Architecture
- Cisco Collaboration Solutions Security Requirements
- IP Network Protocols for Collaboration
- Building Blocks of a Cloud Collaboration Solution
- User Management from the Cloud
- Cloud Messaging and Meetings
- Cloud-Connected Unified Communications Updates and Migrations
- Jabber to Webex Migration
- Cloud Device Provisioning Solutions
- Cloud Collaboration APIs
- Cloud and Hybrid Calling Solutions
- Deployment Scenarios for Local Gateways
- Cloud Calling Deployment from Control Hub
- IOS XE Router Settings for Cloud Calling
- Cloud Calling Features
- Quality Issues in Converged Networks
- QoS and QoS Models
- Classification and Marking
- Classification and Marking on Cisco Catalyst Switches

Lab Outlines

- Implement CA-Signed Certificates in Cisco Unified Communications Manager
- Configure Supporting IP Network Protocols
- Manual IP Phone Administration
- Explore the Configuration of Webex Control Hub
- Add Users to Webex Control Hub
- Manage Cisco Unified Communications Manager and Cisco Unity Connection from Webex Control Hub
- Configure Webex Calling Using Cisco Calling Plans
- Configure Webex Control Hub for Webex Calling
- Configure Webex Calling Features in Control Hub, Part 1
- Configure Webex Calling Features in Control Hub, Part 2
- Configure QoS

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)
- The Essentials of Webex Calling (CLWXCALL)