

# Implementing Cisco Collaboration Cloud and Edge Solutions

**Course Code** CLCEI  
**Duration** 5 days

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## Overview

The Implementing Cisco Collaboration Cloud and Edge Solutions (CLCEI) course provides you with knowledge of Cisco® Expressway Series solutions that enable business-to-business (B2B) calls, Cisco Mobile, remote access, authentication options and additional Cisco Expressway Series features.

Though a combination of lessons and hands-on labs, you will learn how to leverage collaborative technology to access secure, collaborative work supports including video, voice, content and remote workloads.

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## Audience

Collaboration Engineers involved in the design, implementation and troubleshooting of Cisco collaboration technologies, as well as administrators involved in the support and troubleshooting of Cisco collaboration technologies.

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## Learning Objectives

By actively participating in this course, you will learn about the following:

- ▶ Configuring and troubleshooting Cisco Unified Communications Manager and Cisco Expressway Series integration.
  - ▶ Describing the Cisco Expressway-C additional features.
  - ▶ Configuring and troubleshooting Cisco Collaboration solutions for B2B calls
  - ▶ Describing how to secure B2B communication with Cisco Expressway Series.
  - ▶ Describing the Mobile and Remote Access (MRA) feature.
  - ▶ Describing the Cisco Expressway MRA security and integration options, including integration with Cisco Unity® Connection and Cisco Instant Messaging and Presence (IM&P).
  - ▶ Configuring Cisco Webex® Hybrid Services.
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## Pre-Requisites

- ▶ Understanding of networking technologies
- ▶ Understanding of voice and video
- ▶ Knowledge of Cisco Collaboration core technologies
- ▶ SIP and XMPP signalling protocols fundamentals
- ▶ Collaboration call control fundamentals of Cisco Unified Communications Manager

## Recommended courses:

- ▶ CLFNDU - Understanding Cisco Collaboration Foundations
- ▶ CLCOR - Implementing and Operating Cisco Collaboration Core Technologies



## Course Contents

### **Configuring and Troubleshooting the Cisco Expressway Series**

- ▶ Cisco Expressway Series Architecture
- ▶ Describe SIP and H.323 in the Cisco Expressway Series
- ▶ Describe Interworking in the Cisco Expressway Series
- ▶ Zones
- ▶ Digit String Manipulation
- ▶ Search Rules
- ▶ Transforms
- ▶ Troubleshoot Call Processing the Cisco Expressway Series
- ▶ Backup and Restore

### **Configuring Cisco Expressway Additional Features**

- ▶ Describe Bandwidth Management
- ▶ Hardening Local Endpoint Registrations
- ▶ Describe Cisco Expressway Security and Clustering Features

### **Configuring and Troubleshooting Cisco Unified Communications Manager and Cisco Expressway Series**

- ▶ Cisco Unified Communications Manager and Cisco Expressway-C Integration Overview
- ▶ Call Flow
- ▶ Dial Plan Overview
- ▶ Call Policy
- ▶ Troubleshooting Options for Cisco Unified Communication Manager and Cisco Expressway-C Integration

### **Configuring and Troubleshooting Cisco Collaboration Solutions for Business-to-Business**

- ▶ Describe Supported Services for B2B Collaboration
- ▶ Describe Prerequisites for Business to Business Collaboration
- ▶ Call Flow Including Cisco Unified Communications Manager Endpoints
- ▶ Network Address Translation in a Collaboration Environment
- ▶ Cisco Expressway Series B2B Call Troubleshooting

### **Securing Business-to-Business Communication**

- ▶ Firewall Traversal
- ▶ Certificates
- ▶ Secure Media
- ▶ Secure Media Between Cisco Unified Communications Manager and Cisco Expressway Series
- ▶ Toll Fraud Prevention

### **Configuring and Troubleshooting Mobile and Remote Access**

- ▶ Describe Prerequisites for Mobile and Remote Access
- ▶ Describe Service Discovery
- ▶ Explore Expressway Settings for MRA
- ▶ Certificates
- ▶ HTTP Proxy
- ▶ Cisco Jabber Registration Procedure
- ▶ Cisco Jabber Registration in Hybrid Deployment
- ▶ Cisco Jabber Configuration File
- ▶ MRA Troubleshooting



## Integrating and Securing Mobile and Remote Access

- ▶ Secure Cisco Unified Communications Integration
- ▶ Cisco Unity Connection Integration
- ▶ Cisco MRA Access Control Options
- ▶ Additional Cisco MRA Features

## Configuring Cisco Webex Hybrid Services

- ▶ Cisco Webex Teams
- ▶ Describe Cisco Webex Control Hub
- ▶ Describe Cisco Webex Hybrid Media Services
- ▶ Describe Cisco Expressway Network Requirements for Using Hybrid Call Service Connect
- ▶ Explore Cisco Expressway Requirements for Using Hybrid Call Service Connect
- ▶ Describe Cisco Webex Video Mesh

## Labs

- ▶ Deploy Virtualized Cisco Expressway
- ▶ Perform the Initial Cisco Expressway Series Configuration
- ▶ Register Endpoints on Cisco Expressway Series
- ▶ Call Search History and Registration
- ▶ Troubleshooting Tools
- ▶ Configure Cisco Expressway Series Bandwidth Management and Registration Restrictions
- ▶ Troubleshoot Cisco Expressway Series Endpoint Registration and Local Dial Plan
- ▶ Configure Cisco Expressway Series Security Features
- ▶ Configure Cisco Unified Communications Manager to Connect with Cisco Expressway-C
- ▶ Troubleshoot Cisco Unified Communications Manager and Cisco Expressway Series Integration
- ▶ Configure Cisco Unified Communications Manager and Cisco Expressway Series Integration (Practice Activity)
- ▶ Implement a B2B Cisco Collaboration Solution
- ▶ Troubleshoot B2B Calls on the Cisco Expressway Series
- ▶ Troubleshoot B2B Calls on the Cisco Expressway Series (practice activity)
- ▶ Secure a B2B Cisco Collaboration Communication
- ▶ Configure MRA on the Cisco Expressway Series
- ▶ Troubleshoot MRA on the Cisco Expressway Series
- ▶ Configure MRA with Additional Application Integrations
- ▶ Prepare for Cisco Webex Teams Integration
- ▶ Configure Cisco Webex Hybrid Services

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## Exam Details

This course leads to the 300-820 - Implementing Cisco Collaboration Cloud and Edge Solutions (CLCEI) exam.

This exam is required for one of the concentrations for the CCNP Collaboration Certification as well as the standalone Cisco Certified Specialist - Collaboration Cloud & Edge Implementation certification.

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## Further Information

For more information or to book this course, please contact our Course Enquiries Team on **01752 227330** (Option 2) or email us at [enquiries@skilltec.co.uk](mailto:enquiries@skilltec.co.uk).