

## Implementing Cisco Collaboration Cloud and Edge Solutions

**Duration: 5 Days**    **Course Code: CLCEI**    **Version: 1.2**    **Delivery Method: Virtual Learning**

### 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. This course also provides details about the Webex solution, and the benefits of hybrid integrations between Cisco on-premises solutions and Webex Meetings in the cloud.

**This course is worth 40 Continuing Education (CE) credits towards recertification.**

### Target 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.

### Objectives:

- **After completing this course you should be able to:**
- Describe the Cisco Expressway Core features and functionality within the collaboration architecture
- Describe the Cisco Expressway Core additional features
- Configure and troubleshoot Cisco Unified Communications Manager and Cisco Expressway Series integration
- Configure and troubleshoot Cisco Collaboration solutions for Business-to-Business calls
- Describe how to secure B2B communication with Cisco Expressway Series
- Describe the MRA feature
- Describe the Cisco Expressway MRA security and integration options, including integration with Cisco Unity Connection and Cisco Unified Communications Manager IM and Presence Service
- Describe deployment models for Cisco Webex cloud-based collaboration, management of users and sites within Webex Control Hub, and other administrative tasks.
- Describe Cisco Webex Hybrid Services

### Prerequisites:

**Attendees should meet the following prerequisites:**

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

### Testing and Certification

**Recommended as preparation for the following exams:**

- **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.

## Content:

### Cisco Expressway Series

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

### Cisco Expressway Additional Features

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

### 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

### Cisco Collaboration Solutions for Business-to-Business

- Describing Supported Services for B2B Collaboration
- Describing 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

### B2B Communications Security

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

### Mobile and Remote Access Configuration

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

### Mobile and Remote Access Integration and Security

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

### Cisco Webex Control Hub and User Import

- Cisco Webex Overview
- Administrative Functions in Webex Control Hub
- User Management Integration

### Cisco Webex Hybrid Services

- Hybrid Services Connectors
- Cisco Edge Audio
- Cisco Webex Edge Video Mesh
- Cisco Edge Connect
- Cisco Edge for Devices

### Labs

- Discovery Lab 1: Deploy Virtualized Cisco Expressway
- Discovery Lab 2: Perform the Initial Cisco Expressway Series Configuration
- Discovery Lab 3: Register Endpoints on Cisco Expressway Series
- Discovery Lab 4: Call Search History and Registrations
- Discovery Lab 5: Troubleshooting Tools
- Discovery Lab 6: Configure Cisco Expressway Series Bandwidth Management and Registration Restrictions
- Discovery Lab 7: Troubleshoot Cisco Expressway Series Endpoint Registration and Local Dial Plan
- Discovery Lab 8: Configure Cisco Expressway Series Security Features
- Discovery Lab 9: Configure Cisco Unified Communications Manager to Connect with Cisco Expressway-C
- Discovery Lab 10: Troubleshoot Cisco Unified Communications Manager and Cisco Expressway Series Integration
- Discovery Lab 11: Configure Cisco Unified Communications Manager and Cisco Expressway Series Integration
- Discovery Lab 12: Implement a B2B Cisco Collaboration Solution
- Discovery Lab 13: Troubleshoot B2B Calls on the Cisco Expressway Series
- Discovery Lab 14: Secure a B2B Cisco Collaboration Communication
- Discovery Lab 15: Configure MRA on the Cisco Expressway Series
- Discovery Lab 16: Troubleshoot MRA on the Cisco Expressway Series
- Discovery Lab 17: Configure MRA with Additional Application Integrations
- Discovery Lab 18: Prepare for Cisco Webex Teams Integration

## Further Information:

For More information, or to book your course, please call us on 0800/84.009

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