



CCNP Collaboration - CLCOR Inspired Training: Cisco Webex, CUCM & AV Solutions



AGILE LEADERS
Training Center

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Course Overview:

With the accelerating digital transformation and the rise of hybrid workflows, smart meeting rooms have become a cornerstone of the modern workplace. This advanced training course provides a comprehensive overview of the latest technology solutions and smart systems for meeting room support, including visual communication tools, Cisco Room Kits, and collaboration software such as Webex and CUCM.

This course aims to prepare participants to design, set up, support, and maintain smart meeting room environments using core Cisco Collaboration solutions, including CUCM, Webex, and CMS. The course is based on the CLCOR 350-801 model and reinforces concepts related to communications infrastructure, SIP and VoIP protocols, endpoint support, cloud integration, automation, and information security.

Target Audience:

- IT Support and Helpdesk Staff
- Unified Communication Engineers
- AV and Sound Technicians
- Network and Infrastructure Managers
- Facility Managers and Smart Building Coordinators
- Professionals modernizing workplace communication

Targeted Organizational Departments:

- Information Technology IT
- Network Operations
- AV and Technical Support
- Facilities and Infrastructure Management
- Corporate Planning and Development
- Training, Events, and Internal Communications Units

Targeted Industries:

- Large enterprises and government institutions
- Conference centers and smart meeting venues
- Higher education institutions and universities
- Technology companies and AV service providers
- Smart space design firms and office equipment suppliers



Course Offerings:

By the end of this training course, participants will be able to:

- Design and deploy Cisco-based collaboration infrastructure for smart meeting rooms
- Configure and integrate Webex Room Kits with CUCM and CMS
- Optimize AV quality using QoS policies
- Diagnose SIP, RTP, and call flow issues
- Monitor systems with Webex Analyzer and Cisco Control Hub
- Apply enterprise-grade room security policies
- Operate systems in hybrid and cloud environments
- Automate support tasks using REST APIs and RoomOS Macros
- Create performance reports and monitor SLA metrics
- Complete a hands-on smart meeting room deployment project

Training Methodology:

- Interactive technical presentations
- Hands-on labs with Cisco Room Kits and CUCM
- Real-world case studies
- Daily troubleshooting simulations
- Capstone project

Course Toolbox:

- Official Cisco PDFs for CUCM, Webex, and Room Kits
- SIP and QoS configuration templates
- Cisco Control Hub and TAC utilities
- Support checklists and SLA templates

Course Agenda:

Day 1: Cisco Collaboration Infrastructure for Modern Meeting Rooms

- **Topic 1:** Introduction to CUCM, Webex, and CMS in Meeting Room Environments
- **Topic 2:** Infrastructure Components: Codecs, Microphones, Cameras, and Room Navigator
- **Topic 3:** Types and Use Cases of Webex Room Kits
- **Topic 4:** Key Communication Protocols: SIP, H.323, RTP
- **Topic 5:** Comparing On-Premise vs. Cloud-Based Meeting Room Setups
- **Topic 6:** Initial Device Setup and Network Configuration
- **Reflection & Review:** Network Design and Infrastructure Summary



Day 2: Configuration and Enterprise Integration

- **Topic 1:** CUCM Setup and Endpoint Registration
- **Topic 2:** Webex Control Hub Configuration and Hybrid Integration
- **Topic 3:** Webex Device Registration and Custom User Settings
- **Topic 4:** Meeting Scheduling and Calendar Integration
- **Topic 5:** SIP Trunk Routing and Call Flow Setup
- **Topic 6:** CMS Configuration for Multi-Party Video Conferencing
- **Reflection & Review:** Full Integration Environment Walkthrough

Day 3: QoS, Technical Support, and Troubleshooting

- **Topic 1:** Applying QoS in LAN/WAN to Ensure AV Quality
- **Topic 2:** Analyzing SIP Traces and RTP Streams for Diagnostics
- **Topic 3:** Troubleshooting Audio and Video Issues from End-User and Network Perspectives
- **Topic 4:** Using Webex Analyzer and RTMT for Performance Monitoring
- **Topic 5:** Leveraging Cisco TAC Utilities and Control Hub Logs
- **Topic 6:** Simulating Real-World Troubleshooting Scenarios
- **Reflection & Review:** AV Quality Case Study and Analysis

Day 4: Security and Automation in Smart Meeting Rooms

- **Topic 1:** Implementing Access Controls and Security Policies in CUCM and Webex
- **Topic 2:** TLS and SRTP Certificate Configuration for Secure Communication
- **Topic 3:** Automating Support Tasks with REST APIs
- **Topic 4:** Integrating IoT Devices Sensors, Lighting, Displays in Meeting Spaces
- **Topic 5:** Customizing RoomOS Interfaces Using Macros
- **Topic 6:** Configuring Webex Edge Security for Protected Connectivity
- **Reflection & Review:** Security Audit and Automation Scenario Evaluation

Day 5: Maintenance, Sustainability, and Final Project

- **Topic 1:** Creating SLA Documents and Preventive Maintenance Plans
- **Topic 2:** Performance Monitoring and Reporting Best Practices
- **Topic 3:** Implementing Energy-Efficient AV Solutions for Sustainability
- **Topic 4:** Case Study: Transforming a Traditional Room into a Smart Room
- **Topic 5:** Capstone Project: Full Smart Meeting Room Deployment
- **Topic 6:** Project Presentation and Peer Review
- **Reflection & Review:** Final Summary, Feedback, and Certification Readiness

FAQs:

What are the qualifications or prerequisites for enrolling in this course?

Participants should preferably have some basic IT or technical support experience, particularly in enterprise environments. Knowledge of networking basics IP, SIP is helpful but not required.



How long are the daily sessions and what is the total duration of the course?

Each session lasts 4 to 5 hours, including breaks and practical activities. Total duration: 5 training days, averaging 20 to 25 hours of hands-on training.

Can I apply what I learn directly in a work environment?

Yes. The course is designed to be highly practical, and you will emerge with ready-made templates and skills that support the implementation of smart solutions and direct support for meeting rooms.

How This Course is Different from Other Technical Support & Smart Solutions for Meeting Rooms Courses:

This course stands out by following the Cisco CLCOR 350-801 framework, offering professional-level depth and practical relevance for enterprise environments. It combines hands-on labs with CUCM, Webex, CMS, and Room Kits, and covers the full system lifecycle—from setup and security to automation, troubleshooting, and sustainability. Unlike standard AV support courses, it's built for large-scale, hybrid workspaces and includes real-world case studies and a capstone project to apply learning in a practical, feedback-driven environment.



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