CCNP Collaboration

Introduction

Technology advances are enabling new collaboration applications and businesses that connect everything—people, devices, machines, and applications. With intent-based networking, collaboration teams can take advantage of automation to scale their infrastructure. But to capitalize on these opportunities, today's collaboration professionals need a broader range of skills and deeper focus in strategic technology areas. The CCNP Collaboration certification program gives you exactly that breadth and depth.

CCNP Collaboration certification will help you prove your skills in the ever-changing landscape of collaboration technologies. The certification covers core technologies and a collaboration focus area of your choice. You choose where you want to focus. You choose where to take your career. Among the industry's most widely recognized and respected certifications, CCNP sets you apart

Required exam

350-801 CLCOR: Implementing and Operating Cisco Collaboration Core Technologies

The Implementing and Operating Cisco Collaboration Core Technologies (CLCOR) v1.0 course helps you prepare for advanced-level roles focused on the implementation and operation of Cisco collaboration solutions. You will gain the knowledge and skills needed to implement and deploy core collaboration and networking technologies, including infrastructure and design, protocols, codecs, and endpoints, Cisco Internetwork Operating System (IOS®) XE gateway and media resources, call control, Quality of Service (QoS), and additional Cisco collaboration applications. This course earns you 64 Continuing Education (CE) credits towards recertification.

Duration

5 Days

Course Objectives

- Describe the Cisco Collaboration solutions architecture
- Compare the IP Phone signaling protocols of Session Initiation Protocol (SIP), H323, Media Gateway Control Protocol (MGCP), and Skinny Client Control Protocol (SCCP)
- Integrate and troubleshoot Cisco Unified Communications Manager with LDAP for user synchronization and user authentication
- Implement Cisco Unified Communications Manager provisioning features
- Describe the different codecs and how they are used to transform analog voice into digital streams
- Describe a dial plan, and explain call routing in Cisco Unified Communications Manager
- Implement Public Switched Telephone Network (PSTN) access using MGCP gateways
- Implement a Cisco gateway for PSTN access
- Configure calling privileges in Cisco Unified Communications Manager
- Implement toll fraud prevention
- Implement globalized call routing within a Cisco Unified Communications Manager cluster
- Implement and troubleshoot media resources in Cisco Unified Communications Manager
- Describe Cisco Instant Messaging and Presence, including call flows and protocols
- Describe and configure endpoints and commonly required features

- Configure and troubleshoot Cisco Unity Connection integration
- Configure and troubleshoot Cisco Unity Connection call handlers
- Describe how Mobile Remote Access (MRA) is used to allow endpoints to work from outside the company
- Analyze traffic patterns and quality issues in converged IP networks supporting voice, video, and data traffic
- Define QoS and its models
- Implement classification and marking
- Configure classification and marking options on Cisco Catalyst® switches

Prerequisites

- Working knowledge of fundamental terms of computer networking, including LANs, WANs, switching, and routing
- Basics of digital interfaces, Public Switched Telephone Networks (PSTNs), and Voice over IP (VoIP)
- Fundamental knowledge of converged voice and data networks and Cisco Unified Communications Manager deployment

Target Audience

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

Course Outline

- Describing the Cisco Collaboration Solutions Architecture
- Exploring Call Signaling over IP Networks
- Integrating Cisco Unified Communications Manager LDAP
- Implementing Cisco Unified Communications Manager Provisioning Features
- Exploring Codecs
- Describing Dial Plans and Endpoint Addressing
- Implementing MGCP Gateways
- Implementing Voice Gateways
- Configuring Calling Privileges in Cisco Unified Communications Manager
- Implementing Toll Fraud Prevention
- Implementing Globalized Call Routing
- Implementing and Troubleshooting Media Resources in Cisco Unified Communications Manager
- Describing Cisco Instant Messaging and Presence
- Enabling Cisco Jabber®
- Configuring Cisco Unity Connection Integration
- Configuring Cisco Unity Connection Call Handlers
- Describing Collaboration Edge Architecture
- Analyzing Quality Issues in Converged Networks
- Defining QoS and QoS Models
- Implementing Classification and Marking
- Configuring Classification and Marking on Cisco Catalyst Switches

Lab Outline

- Using Certificates
- Configure IP Network Protocols
- Configure and Troubleshoot Collaboration Endpoints
- Troubleshoot Calling Issues
- Configure and Troubleshoot LDAP Integration in Cisco Unified Communications Manager
- Deploy an IP Phone Through Auto and Manual Registration
- Configure Self-Provisioning
- Configure Batch Provisioning
- Explore the Cisco VoIP Bandwidth Calculator
- Configure Regions and Locations
- Implement Endpoint Addressing and Call Routing
- Implement PSTN Calling Using MGCP Gateways
- Configure and Troubleshoot Integrated Services Digital Network (ISDN) Primary Rate Interface (PRI)
- Examine Cisco IOS Gateway Inbound and Outbound Dial-Peer Functions
- Implement and Troubleshoot Digit Manipulation on a Cisco IOS Gateway
- Configure Calling Privileges
- Implement Toll Fraud Prevention on Cisco Unified Communications Manager
- Implement Globalized Call Routing
- Deploy an On-Premise Cisco Jabber Client for Windows
- Configure the Integration Between Unity Connection and Cisco UCM
- Manage Unity Connection Users
- EAI: Configure QOS

Concentration Exams (Choose One)

1. 300-835 CLAUTO: Automating Cisco Collaboration Solutions

The Implementing Automation for Cisco Collaboration Solutions (CLAUI) v1.0 course teaches you how to implement Cisco® Collaboration automated, programmable solutions for voice, video, collaboration, and conferencing on-premises or in the cloud. Through a combination of lessons and hands-on labs, you will combine tools and processes to tackle communication challenges using key platforms including Cisco Unified Communications Manager, Cisco IP Phone Services, Cisco Unity® Connection, Cisco Finesse®, Cisco Collaboration Endpoints, Cisco Webex Teams™, and Cisco Webex® Meetings. You will also learn how to use Application Programming Interfaces (APIs) interfaces such as Representational State Transfer (REST) and Simple Object Access Protocol (SOAP), parsing data in Extensible Markup Language (XML) and JavaScript Object Notation (JSON) formats, and leverage frameworks such as Python.

Duration

3 Days

Course Objectives

After taking this course, you should be able to:

- Examine API and automation capabilities and concepts for Cisco Unified Communication Manager
- Examine API and automation capabilities and concepts for Cisco Unity Connection
- Examine API and automation capabilities and concepts for Cisco Finesse
- Examine Experience API (xAPI) and automation capabilities and concepts for Cisco Collaboration endpoints
- Examine API and automation capabilities and concepts for Cisco Webex Teams

- Examine API and automation capabilities and concepts for Cisco Webex Meetings

Prerequisites

Before taking this course, you should have the following knowledge and skills:

- Basic knowledge of Simple Object Access Protocol (SOAP) and REST APIs
- Basic programming and scripting skills in Python
- Intermediate knowledge in managing and configuring three or more of the following Cisco Collaboration offerings:
    - Cisco Unified Communications Manager
    - Cisco IP Phones
    - Cisco Finesse
    - Cisco Webex Devices (Collaboration and Video Endpoints)
    - Cisco Webex Teams

Target Audience

This course is designed for network and software engineers interested in Cisco Collaboration and Webex automation and who hold job roles such as:

- Collaboration Sales Engineer
- Collaboration Software Developer
- Collaboration Solutions Architect
- Consulting Systems Engineer
- Network Administrator
- Network Engineer
- Network Manager
- Software Architect
- Software Developer
- Systems Engineer
- Technical Solutions Architect
- Wireless Design Engineer
- Wireless Engineer

Course Outline

- Automating Cisco Unified Communications Manager
- Automating Cisco Unity Connection
- Automating Cisco Finesse
- Examining Cisco Collaboration Endpoint Automation
- Examining Cisco Cloud Collaboration Automation
- Examining Cisco Conferencing Automation

Lab Outline

- Configure the Initial Collaboration Lab Environment
- Verify Phone Details
- Configure Phone Line Label
- Configure User Pin
- Configure System Forward No Answer Timer
- Configure Route Plan Report
- Deploy Basic SQL Query

- Deploy Advanced SQL Query
- Configure an Alternate Extension in Cisco Unity Connection
- Configure Voicemail Pin
- Verify Cisco Finesse Agent Settings and Observe XMPP Messages
- Deploy Cisco Finesse Gadget
- Deploy Modify Call Via Video Codec Programmatically
- Configure System Name and Branding
- Deploy and Monitor Video Call
- Configure Custom Control Panel Using the In-Room Control Editor
- Deploy Macro Using the In-Room Control Editor
- Verify Cisco Webex Organization and License Information
- Configure New Cisco Webex Teams Room
- Deploy Cisco Webex Teams Interactive Bot
- Deploy Cisco Webex Teams Widget
- Configure Cisco Webex Meetings User
- Configure and Record Cisco Webex Meeting
- Verify Cisco Meeting Server System Status
- Configure Host Access on Cisco Meeting Server Spaces

2. 300-825 CLCNF: Implementing Cisco Collaboration Conferencing

The Implementing Cisco Collaboration Conferencing (CLCNF) v1.0 course focuses on Cisco®'s on-premises conferencing architecture and solutions. You will gain knowledge and skills to design and implement common conferencing deployment scenarios of Cisco Meeting Server, its integration with call control features such as Cisco Unified Communications Manager and Cisco Expressway, and other Cisco collaboration conferencing devices.

Duration

5 Days

Course Objectives

- Describe the Cisco conferencing architecture including cloud, hybrid, and on-premises conferencing
- Describe the physical deployment options and deployment models for Cisco Meeting Server, including Cisco Meeting Server 1000, 2000, and virtual machine
- Configure a Cisco Meeting Server single combined deployment for Web-Real Time Communications (WebRTC) endpoints within the enterprise
- Use APIs and the Cisco Meeting Server API Guide to configure profiles using Postman and the Webadmin API tool
- Configure a scalable and resilient deployment of Cisco Meeting Server with three servers for WebRTC endpoints within the enterprise
- Configure a scalable and resilient deployment of Cisco Meeting Server to support standard Session Initiation Protocol (SIP) and WebRTC connectivity outside the enterprise
- Configure a scalable and resilient deployment of Cisco Meeting Server to support recording and streaming of conferences
- Configure Cisco Unified Communications Manager and Cisco Meeting Server to support Rendezvous, Scheduled, and Ad-hoc conferencing for Cisco Unified CM registered endpoints
- Configure Cisco Meeting Server to integrate with a preconfigured on-premise Microsoft Skype for Business installation
- Install Cisco TelePresence Management Suite (Cisco TMS) and Cisco TelePresence Management Suite for Microsoft Exchange (Cisco TMSXE) on a single Microsoft Windows 2012 server and connect to an existing SQL environment
- Install and integrate Cisco Meeting Management with Cisco TMS and Cisco Meeting Server

- Set up and manage a scheduled conference with Cisco TMS and Cisco Meeting Management
- Capture and analyze logs from Cisco Meeting Server and Cisco Meeting Manager to diagnose faults, including a SIP connection error.

Prerequisites

- PC skills
- Addition and management of devices and users in Cisco Unified CM
- SIP signaling fundamentals
- Video endpoint operation and configuration
- Management of media resources in Cisco Unified CM
- Familiarity with Cisco Expressway ideal but not required
- Familiarity with APIs ideal but not required

Target Audience

- Deployment engineer
- Network engineer
- Sales engineer

Course Outline

- Describing Cisco Conferencing Architecture
- Configuring a Single Combined Deployment
- Installing Cisco Meeting Server
- Using APIs with Cisco Meeting Server
- Configuring a Cisco Meeting Server Scalable and Resilient Deployment
- Configuring Business to Business (B2B) and WebRTC Firewall Traversal Connectivity for Cisco Meeting Server
- Configuring Recording and Streaming with Cisco Meeting Server
- Troubleshooting Cisco Meeting Server
- Integrating Cisco Meeting Server with Cisco Unified CM
- Integrating Cisco Meeting Server with Microsoft Skype for Business
- Installing and Operating Cisco TMS and Cisco TMSXE
- Installing and Integrating Cisco Meeting Management

Lab Outline

- Cisco Meeting Server Initial Configuration
- Cisco Meeting Server Single Combined Deployment
- Install a Cisco Meeting Server Virtual Machine
- Using Postman with Cisco Meeting Server
- Using Cisco Meeting Server Webadmin API Tool
- Cluster Cisco Meeting Server Databases
- Cluster Cisco Meeting Server Call Bridges
- Configure Cisco Meeting Server Distributed Spaces and Active Directory
- Configure Cisco Meeting Server Scalable and Resilient Web Bridges
- Configure External WebRTC Connectivity for Cisco Meeting Server
- Configure External B2B Connectivity for Cisco Meeting Server
- Configure Cisco Meeting Server Recording
- Capturing Log Files in Cisco Meeting Server
- Troubleshoot Cisco Meeting Server
- Configure Cisco Meeting Server Integration with Cisco Unified CM Using a SIP Trunk

- Configure Cisco Meeting Server Integration with Cisco Unified CM as a Conference Resource
- Install, Upgrade, and Maintain Cisco TMS and TMSXE
- Configure Cisco TMS for Scheduled Conferences
- Manage Endpoints in Cisco TMS Part 1
- Manage Endpoints in Cisco TMS Part 2
- Cisco Meeting Management Initial Installation
- Integrate Cisco Meeting Management
- Manage conferences in Cisco TMS and Cisco Meeting Management
- Specific Lab Issues

3. 300-820 CLCEI: Implementing Cisco Collaboration Cloud and Edge Solutions

The Implementing Cisco Collaboration Cloud and Edge Solutions (CLCEI) v1.0 course provides you with knowledge about Cisco® Expressway Series solutions enabling business-to-business (B2B) calls, Cisco Mobile, remote access, authentication options, and additional Cisco Expressway Series features. Through 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. This course also prepares you for the 300-820 Implementing Cisco Collaboration Cloud and Edge Solutions (CLCEI) exam.

Duration

5 Days

Course Objectives

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

Prerequisites

- Understanding of networking technologies
- Understanding voice and video
- Knowledge of Cisco collaboration core technologies
- Session Initiation Protocol (SIP) and Extensible Messaging and Presence Protocol (XMPP) signaling protocol fundamentals
- Collaboration call control fundamentals of Cisco Unified Communications Manager

Target Audience

This course is designed for professionals in job roles such as:

- Collaboration engineers
- Collaboration administrators

Course Outline

- Configuring and Troubleshooting the Cisco Expressway Series
- Configuring Cisco Expressway Additional Features
- Configuring and Troubleshooting Cisco Unified Communications Manager and Cisco Expressway Series
- Configuring and Troubleshooting Cisco Collaboration Solutions for Business-to-Business
- Securing Business-to-Business Communication
- Configuring and Troubleshooting Mobile and Remote Access
- Integrating and Securing Mobile and Remote Access
- Configuring Cisco Webex Hybrid Services

Lab Outline

- 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

4. 300-815 CLACCM: Implementing Cisco Advanced Call Control and Mobility Services

The Implementing Cisco Advanced Call Control and Mobility Services (CLACCM) v1.0 course covers advanced call control and mobility services. You will learn how to use Cisco® Unified Communications Manager features to consolidate your communications infrastructure into a scalable, portable, and secure collaboration solution. Through a combination of lessons and hands-on experiences, you will also learn about a wealth of other features such as Globalized Call Routing, Global Dial Plan Replication, Cisco Unified Mobility, Cisco Extension Mobility, Device Mobility, Session Initiation Protocol Uniform Resource Identifier (SIP/ URI) call routing, Call Admission Control, Cisco Unified Communications Manager Express and Survivable Remote Site Telephony (SRST) gateway technologies, Cisco Unified Board Element Call deployments, signaling and media protocols, call coverage, and time of day routing.

Duration

5 Days

Course Objectives

- Analyze and troubleshoot SIP, H.323, and media protocols
- Implement time-of-day routing, call park, call pickup, and meet-me conferences in Cisco Unified Communications Manager
- Implement call coverage in Cisco Unified Communications Manager
- Configure and troubleshoot Cisco Unified Communications Manager Device Mobility
- Configure and troubleshoot Cisco Unified Communications Manager Extension Mobility
- Configure and troubleshoot Cisco Unified Communications Manager Unified Mobility
- Implement Cisco Unified Communications Manager Express for SIP phones
- Implement globalized call routing within and between Cisco Unified Communications Manager clusters
- Implement Media Gateway Control Protocol (MGCP) fallback and Survivable Remote Site Telephony (SRST) in Cisco Unified Communications Manager and in Cisco IOS® XE gateways
- Implement Call Admission Control and Automated Alternate Routing (AAR) in Cisco Unified Communications Manager
- Implement URI calling in Cisco Unified Communications Manager for calls within a cluster and between clusters
- Troubleshoot multisite Cisco Unified Communications Manager deployments
- Implement Intercluster Lookup Service (ILS) between Cisco Unified Communications Manager clusters and enable Global Dial Plan Replication (GDPR)
- Configure and troubleshoot Cisco Unified Border Element

Prerequisites

- Internet web browser usability knowledge and general computer usage
- Basic understanding of networking technologies
- Basic understanding of voice and video
- Describe the different codecs and how they are used to transform analog voice into digital streams
- Knowledge of Cisco Internetworking Operation System (Cisco IOS XE) command line
- Describe the Cisco Collaboration solutions architecture
- Define collaboration and describe the main purpose of key devices in a Cisco collaboration on-premises deployment model
- Configure and modify required parameters in Cisco Unified CM including service activation, enterprise parameters, CM groups, time settings, and device pool
- Deploy and troubleshoot IP phones via manual configuration within Cisco Unified CM
- Describe and configure endpoints and commonly required features
- Compare the IP Phone signaling protocols of Session Initiation Protocol (SIP), H.323, Media Gateway Control Protocol (MGCP), and Skinny Call Control Protocol (SCCP)
- Analyze traffic patterns and quality issues in converged IP networks supporting voice, video, and data traffic
- Define Quality of Service (QoS) and its models
- Describe the call setup and teardown process for a SIP device including codec negotiation using Session Description Protocol (SDP) and media channel setup
- Manage Cisco Unified CM user accounts (local and via Lightweight Directory Access Protocol [LDAP])
- Describe a dial plan and explain call routing in Cisco Unified Communications Manager
- Configure dial plan elements within a single site Cisco Unified CM deployment including Route Groups, Local Route Group, Route Lists, Route Patterns, Translation Patterns, Transformations, SIP Trunks, and SIP Route Patterns
- Implement basic globalized call routing within a Cisco Unified Communications Manager cluster
- Configure calling privileges in Cisco Unified Communications Manager
- Implement toll fraud prevention
- Implement common endpoint features including call park, softkeys, shared lines, and pickup groups
- Implement Public Switched Telephone Network (PSTN) access using Media Gateway Control Protocol (MGCP) gateways
- Implement a Cisco gateway for PSTN access
- Deploy a simple SIP dial plan on a Cisco Interrupt Service Routine (ISR) gateway to enable access to the PSTN network

- Implement and troubleshoot media resources in Cisco Unified Communications Manager
- Manage Cisco Unified CM access to media resources available within Cisco Unified CM and Cisco ISR gateways
- Describe tools for reporting and maintenance including Unified Reports, Real-Time Monitoring Tool (RTMT), Distributed Resource Scheduler (DRS), and Call Detail Records (CDRs) within Cisco Unified CM

Target Audience

- Network administrator
- Network architect
- Network designer
- Network engineer
- Network manager

Course Outline

- Analyzing and Troubleshooting Signaling and Media Protocols
- Implementing Cisco Unified Communications Manager Supplemental Services
- Implementing Call Coverage in Cisco Unified Communications Manager
- Configuring and Troubleshooting Cisco Unified Communications Manager Device Mobility
- Configuring and Troubleshooting Cisco Unified Communications Manager Extension Mobility
- Configuring and Troubleshooting Cisco Unified CM Unified Mobility
- Implementing Cisco Unified Communications Manager Express
- Implementing Globalized Call Routing
- Implementing Remote Site Survivability
- Implementing Call Admission Control in Cisco Unified Communications Manager
- Implementing URI Calling in Cisco Unified Communications Manager
- Troubleshooting Multisite Cisco Unified Communications Manager Deployments
- Examining Global Dial Plan Replication
- Configuring and Troubleshooting Cisco Unified Border Element

Lab Outline

- Analyze SIP, H.323, and Media Protocols
- Troubleshoot SIP and Media Protocols
- Implement Cisco Unified Communications Manager Supplemental Services
- Implement Call Hunting and Call Queueing in Cisco Unified Communications Manager
- Configure Device Mobility
- Troubleshoot Cisco Unified Communications Manager Device Mobility
- Configure Cisco Unified Communications Manager Extension Mobility
- Troubleshoot Cisco Unified Communications Manager Extension Mobility
- Configure Cisco Unified Mobility
- Troubleshoot Cisco Unified Mobility
- Implement Endpoints in Cisco Unified Communications Manager Express
- Implement Endpoint Addressing and Call Routing in Cisco Unified Communications Manager Express
- Implement Calling Privileges in Cisco Unified Communications Manager Express
- Implement Hunt Groups, Call Park, and Paging in Cisco United Communications Manager Express
- Implement Globalized Call Routing
- Implement TEHO, PSTN Backup, and CoS in a Globalized Call-Routing Deployment
- Implement MGCP Fallback and Survivable Remote Site Telephony
- Implement Call Admission Control
- Implement a URI-Based Dial Plan for Multisite Deployments
- Troubleshoot Globalized Call Routing

- Troubleshoot Call Admission Control
- Implement Global Dial Plan Replication
- Implement Cisco Unified Border Element
- Troubleshoot Cisco Unified Border Element

5. 300-810 CLICA: Implementing Cisco Collaboration Applications

The Implementing Cisco Collaboration Applications (CLICA) v1.0 course shows you how to implement Single Sign-On (SSO), Cisco Unified IM and Presence, Cisco Unity Connection, and Cisco Unity Express. You will learn how to streamline communication procedures, strengthen compliance measures, and enhance your communication systems and devices. This course also earns you 40 Continuing Education (CE) credits towards recertification.

Duration

5 Days

Course Objectives

- Configure Cisco Unity Connection integration
- Configure and troubleshoot Cisco Unity Connection and Cisco Unity Connection call handlers
- Configure and troubleshoot Cisco Unity Express
- Describe SSO for Cisco Unified Communications applications
- Describe how Cisco Jabber® and Cisco Unified Communications Manager IM and Presence are integrated with other Cisco or third-party applications
- Customize the Cisco Unified Communications Manager IM and Presence and Cisco Jabber functionality
- Configure and troubleshoot chat rooms and message archiving
- Troubleshoot Cisco Jabber and Cisco Unified Communications Manager IM and Presence
- Integrate Cisco Unified Attendant Console Advanced with Cisco Unified Communications Manager and Cisco Unified Communications Manager IM and Presence server
- Configure call recording and monitoring

Prerequisites

- Basic understanding of networking technologies
- Basic understanding of voice and video
- Cisco Unified Communications Manager (CUCM) experience including single-site dial plan, single Public Switched Telephone Network (PSTN) gateway, and Session Initiation Protocol (SIP) trunks

Target Audience

- Collaboration engineers
- Collaboration administrators

Course Outline

- Configuring and Troubleshooting Cisco Unity Connection Integration
- Configuring and Troubleshooting Cisco Unity Connection Call Handlers
- Troubleshooting Cisco Unity Connection
- Configuring and Troubleshooting Cisco Unity Express

- Configuring Single Sign-On (SSO) for Cisco Unified Communications Applications
- Integrating Cisco Unified Communications Manager IM and Presence and Cisco Jabber
- Customizing Cisco Unified Communications Manager IM and Presence and Cisco Jabber Functionality
- Configuring Cisco Unified Communications Manager IM and Presence Service Compliance and Message Archiving
- Troubleshooting Cisco Unified Communications Manager IM and Presence Service
- Integrating Cisco Unified Attendant Console Advanced
- Implementing Call Recording and Monitoring

Lab Outline

- Integrate and Set Up Cisco Unity Connection
- Configure Cisco Unity Connection Call Handlers
- Implement Toll Fraud Prevention
- Troubleshoot Cisco Unity Connection Call Handlers
- Troubleshoot Cisco Unity Connection
- Configure Cisco Unity Express
- Troubleshoot Cisco Unity Express
- Configure Cisco Unified Communications Manager IM and Presence High Availability
- Implement Cisco Jabber
- Configure Centralized Cisco Unified Communications Manager IM and Presence
- Configure Cisco Unified Communications Manager IM and Presence Service Functionality
- Enable Message Archiving and Chat Rooms
- Troubleshoot the Cisco Unified Communications IM and Presence Database Connection
- Troubleshoot Cisco Unified Communications Manager IM and Presence High Availability
- Troubleshoot Cisco Unified Communications Manager IM and Presence Service
- Integrate Cisco Unified Attendant Console Advanced
- Implement Call Recording and Monitoring Using a Switched Port Analyzer (SPAN)-based Solution
- Implement Cisco Unified Communications Manager Call Recording and Monitoring