Training overview

Implementing Cisco Advanced Call Control and Mobility Services (CLACCM)

Description

The **Implementing Cisco Advanced Call Control and Mobility Services (CLACCM)** training provides you with knowledge about advanced call control and mobility services, focusing on Cisco Unified Communications Manager features such as Globalized Call Routing, Global Dial Plan Replication, Cisco Unified Mobility, Cisco Extension Mobility, SIP URI call routing, Call Admission Control, Cisco Unified Communications Manager Express and SRST gateway technologies, Cisco Unified Board Element Call deployments, signaling and media protocols, and features such as call coverage and time of day routing.

This training prepares you for the 300-815 CLACCM v1.2 exam. If passed, you earn the Cisco Collaboration Specialist – Collaboration Call Control and Mobility Implementation certification and you satisfy the concentration exam requirement for the Cisco Certified Network Professional (CCNP) Collaboration certification. This training also earns you 40 Continuing Education (CE) credits toward recertification.

How you'll benefit

Thistraining will help you:

- Gain the skills to deploy advanced call control and mobility services in Cisco Unified Communications Manager, CME and SRST, Cisco Unified Communications Manager Express and advanced SRST gateway technologies, and Cisco Unified Board Element
- Prepare for the 300-815 CLACCM v1.2 exam
- Earn 40 CE credits toward recertification

Who should enroll

- Collaboration Engineers
- Collaboration Administrators

Technology areas

- NetworkAutomation
- Collaboration

Objectives

- Analyze and troubleshoot SIP and media protocol
- Understand call recording options and implement time-of-day routing, call park, call pickup, and Meet-Me conferences in Cisco Unified Communications Manager
- Describe call recording options in Cisco Unified Communications Manager
- Describe how to implement call coverage in Cisco Unified Communications Manager
- Describe how to configure and troubleshoot Cisco Unified Communications Manager Extension Mobility
- Describe how to configure and troubleshoot Cisco Unified Communications Manager Unified Mobility
- Describe how to implement Cisco Unified Communications Manager Express for SIP phones
- Describe how to implement globalized call routing within and between Cisco Unified Communications Manager clusters
- Describe how to implement advanced and enhanced SRST in Cisco Unified Communications Manager and Cisco IOS gateways
- Describe how to implement CAC and AAR in Cisco Unified Communications Manager
- Describe how to implement URI calling in Cisco Unified Communications Manager for calls within a cluster and between clusters
- Describe how to troubleshoot multisite Cisco Unified Communications Manager deployments
- Describe how to implement ILS between Cisco Unified Communications Manager clusters and enable GDPR
- Configure and troubleshoot Cisco Unified Border Element

Prerequisites

Thereareno prerequisites for this training. However, the knowledge and skills you are recommended to have before attending this training are:

- 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 analogue voice into digital streams
- Knowledge of 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 SIP, H323, and SCCP
- Analyze traffic patterns and quality issues in converged IP networks supporting voice, video, and data traffic
- Define QoS and its models
- Describe the call setup and teardown process for a SIP device, including codec negotiation using SDP and media channel set up

- Manage Cisco Unified CM user accounts (local and via 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 a Cisco gateway for PSTN access
- Deploy a simple SIP dial plan on a Cisco 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 within Cisco Unified CM

These skills can be found in the following Cisco Learning Offerings:

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

Outline

- Signaling and Media Protocols
- Cisco Unified Communications Manager Supplemental Services
- Call Coverage in Cisco Unified Communications Manager
- Cisco Unified Communications Manager Extension Mobility
- Cisco Unified Communications Manager Unified Mobility
- Cisco Unified Communications Manager Express
- Globalized Call Routing
- Advanced Remote Site Survivability
- Call Admission Control in Cisco Unified Communications Manager
- URI Calling in Cisco Unified Communications Manager
- Multisite Cisco Unified Communications Manager Deployments
- Global Dial Plan Replication
- 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 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 Globalized Call Routing
- Implement TEHO, PSTN Backup, and CoS in a Globalized Call-Routing Deployment
- Implement Advanced Survivable Remote Site Telephony
- Implement CAC
- 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

What to expect on the exam

Implementing Cisco Advanced Call Control and Mobility Services (300-815 CLACCM) v1.2 is a 90-minute exam associated with the Cisco Collaboration Specialist – Collaboration Call Control and Mobility Implementation certification and satisfies the concentration exam requirement for the CCNP Collaboration certification.

The multiple-choice format tests your knowledge of advanced call control and mobility services, including:

- Signaling and media protocols
- CME/SRST gateway technologies
- Cisco Unified Board Element
- Call control and dial planning
- Cisco Unified CM Call Control
- Mobility