

CLACCM

Implementing Cisco Advanced Call Control and Mobility Services

40 horas

Collaboration

Cisco

Cisco Continuing Education Credits

40 CE Credits

INTRODUÇÃO

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.

OBJETIVO DO CURSO

After taking this course, you should be able to:

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 General Data Protection Regulation (GDPR)

Configure and troubleshoot Cisco Unified Border Element

PÚBLICO-ALVO

This course is designed for Collaboration engineers and administration professionals in job roles such as:

Network administrator

Network architect

Network designer

Network engineer

Network manager

PRÉ-REQUISITOS

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

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 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

The following Cisco courses can help you gain the knowledge you need to prepare for this course:

Understanding Cisco Collaboration Foundations (CLFNDU)

Implementing and Operating Cisco Collaboration Core Technologies (CLCOR)

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 Unified 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 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