Implementing Cisco Advanced Call Control and Mobility Services (CLACCM)

Cisco

- **Nível:** Avançado
- **Duração:** 35h

Sobre o curso

The **Implementing Cisco Advanced Call Control and Mobility Services (CLACCM)** 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.

This course prepares you for the **300-815 Implementing Cisco Advanced Call Control and Mobility Services (CLACCM)** exam.

This course will help you:

- Learn how to manage the tools of Cisco Unified Communications Manager (CM) for secure communication to facilitate team-based collaboration from any location using Voice over Internet Protocol (VoIP), video, unified messaging, and IM
- Gain hands-on experience in using Cisco Unified Communications Manager for secure, compliant communication protocols
- Acquire the knowledge to prepare for the **300-815 CLACCM**

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

Destinatários

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

Condições

Após a formação, é possível adquirir, o exame de certificação do parceiro oficial com 10% de desconto. Oferta válida até 6 meses após a conclusão do curso.

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)

Metodologia

Instructor-led training: 5 days in the classroom plus hands-on lab practice.

Programa

- 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

Labs

- 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