

Implementing Cisco Advanced Call Control and Mobility Services

Duration: 5 Days **Course Code: CLACCM** **Version: 1.0**

Overview:

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.

Target Audience:

Collaboration engineers involved in the design, implementation and troubleshooting of Cisco collaboration advanced call control solutions and mobility services.

Objectives:

- **After completing 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

Prerequisites:

Attendees should meet the following prerequisites:

- Internet web browser usability knowledge and general computer usage
- Basic understanding of networking technologies
- Basic understanding of voice and video
- CLFNDU - Understanding Cisco Collaboration Foundations
- CLCOR - Implementing and Operating Cisco Collaboration Core Technologies

Testing and Certification

Recommended as preparation for the following exams:

- **300-815 - Implementing Cisco Advanced Call Control and Mobility Services (CLACCM) exam**
 After you pass the 300-815 CLACCM exam you will earn the Cisco Certified Specialist - Collaboration Call Control & Mobility Implementation certification, and will satisfy the concentration exam requirement for the CCNP Collaboration professional-level certification:

Content:

Analyzing and Troubleshooting Signaling and Media Protocols

- SIP Review
- H.323 Review
- SIP and H.323 Trunking Considerations
- SIP and H.323 Troubleshooting Tools

Implementing Cisco Unified Communications Manager Supplemental Services

- Call Park
- Call Pickup
- Meet-Me Conferences
- Time-of-Day Routing

Implementing Call Coverage in Cisco Unified Communications Manager

- Overview of Call Coverage in Cisco Unified Communications Manager
- Call Hunting
- Call Queuing

Configuring and Troubleshooting Cisco Unified Communications Manager Device Mobility

- Issues with Roaming Devices
- Device Mobility Characteristics
- Device Mobility Operation
- Device Mobility Considerations

Configuring and Troubleshooting Cisco Unified Communications Manager Extension Mobility

- Issues with Roaming Users
- Cisco Unified Communications Manager Extension Mobility Characteristics
- Cisco Unified Communications Manager Extension Mobility Components
- Cisco Unified Communications Manager Extension Mobility Considerations
- Cisco Unified Communications Manager Extension Mobility Troubleshooting.

Configuring and Troubleshooting Cisco Unified CM Unified Mobility

- Issues with Multiple Devices
- Cisco Unified CM Mobility Overview
- Cisco Unified CM Unified Mobility Operation
- Cisco Unified CM Mobility Considerations
- Cisco Unified CM Unified Mobility Troubleshooting

Implementing Cisco Unified Communications Manager Express

- Cisco Unified Communications Manager Express Overview
- Endpoint Addressing and Call Routing in Cisco Unified Communications Manager Express
- Calling Privileges and Toll-Fraud Prevention in Cisco Unified Communication Manager Express
- Hunt Groups
- Call Park
- Paging

Implementing Globalized Call Routing

- Overview of Multisite Dial Plans
- Globalized Call Routing Overview
- Globalized Call-Routing Number Formats
- Globalization of Localized Call Ingress
- Localization During Call Egress
- Calls that involve Non-DID Endpoints
- TEHO, Including Local PSTN Backup
- Class of Service in Globalized Call Routing Deployments

Implementing Remote Site Survivability

- Overview of Remote Site Survivability
- Cisco Unified SRST
- Reachability Within the Remote Site and to the Outside
- Survivability of MGCP Gateways Using MGCP Fallback

Implementing Call Admission Control in Cisco Unified Communications Manager

- CAC Overview
- Location CAC Within a Cluster
- Location CAC for Off-Cluster Calls Using Locally Configured Locations
- Intercluster Location CAC
- PSTN Backup for Intracluster Calls Denied by CAC
- PSTN Backup for Intercluster Calls Denied by CAC

Implementing URI Calling in Cisco Unified Communications Manager

- URI Call-Routing Overview
- Directory URIs in Cisco Unified Communications Manager
- URI Call-Routing Process
- SIP Route Patterns and SIP Trunks
- URI Call Routing Considerations

Troubleshooting Multisite Cisco Unified Communications Manager Deployments

- Call Routing Troubleshooting
- Calling-Party Presentation Troubleshooting
- Egress Device Selection and SIP Trunk Troubleshooting
- CAC Troubleshooting

Examining Global Dial Plan Replication

- GDPR Overview
- ILS Characteristics
- GDPR Components
- Call Routing with GDPR
- PSTN Backup

Configuring and Troubleshooting Cisco Unified Border Element

- Overview of Cisco Unified Border Element
- Cisco Unified Border Element Call Routing
- Explore Advanced Cisco Unified Border Element Dial-Peer Features
- Cisco Unified Border Element SIP Header and SDP Manipulation
- Cisco Unified Border Element Signaling and Media Bindings
- Cisco Unified Border Element Troubleshooting

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 Queuing 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 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

Further Information:

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