Implementing Cisco Advanced Call Control On-Premises v2.0 (300-815)

Exam Description: Implementing Cisco Advanced Call Control On-Premises v2.0 (CLACC 300-815) is a 90-minute exam associated with the CCNP Collaboration Certification. This exam certifies a candidate's knowledge of advanced call control and mobility services, including signaling and media protocols, session border controller and voice gateway technologies, supplemental features and security, business to business solutions, and remote connectivity and mobility. The course, Implementing Cisco Advanced Call Control On-Premises, helps candidates to prepare for this exam.

The following topics are general guidelines for the content likely to be included on the exam. However, other related topics may also appear on any specific delivery of the exam. To better reflect the contents of the exam and for clarity purposes, the guidelines below may change at any time without notice.

10% 1.0 Signaling and Media Protocols

- 1.1 Troubleshoot advanced elements of a SIP conversation
  - 1.1.a Ring back
  - 1.1.b PRACK
  - 1.1.c UPDATE
- 1.2 Describe media optimization features and NAT traversal protocols such as STUN, TURN, and ICE
- 1.3 Troubleshoot mid-call signaling
  - 1.3.a Hold/resume with new media
  - 1.3.b Call transfer (blind, consult, refer or reinvite)
  - 1.3.c Conferencing and barge
  - 1.3.d Session timers, retries, and refresh

30% 2.0 Session Border Controller and Voice Gateway Technologies

- 2.1 Configure Cisco UCME and SIP SRST
- 2.2 Troubleshoot Cisco Unified Border Element dial plan elements using VoIP Trace and debugs
  - 2.2.a DTMF interoperability
  - 2.2.b Codec preference list
  - 2.2.c SIP and SDP header manipulation with SIP profiles
  - 2.2.d Signaling and media bindings
  - 2.2.e TLS profiles and SRTP
- 2.3 Troubleshoot Cisco Unified Border Element advanced dial peer features
  - 2.3.a URI matching
  - 2.3.b Dial peer groups
  - 2.3.c E.164 pattern map
  - 2.3.d Voice VRF and multi VRF

2.3.e Hunt stop

2.4 Configure advanced SIP interoperability with Cisco Unified Border Element
- 2.4.a Video interworking
- 2.4.b Media flow through flow around
- 2.4.c LTI transcoders
- 2.4.d Filtering or blocking mid-call signaling
- 2.4.e EO/DO interoperability
- 2.4.f Secure SIP trunk interoperability

25% 3.0 Advanced Call Control

3.1 Configure advanced SIP interoperability with Cisco UCM
- 3.1.a EO/DO interoperability
- 3.1.b SIP normalization and transparency
- 3.1.c SIP profiles
- 3.1.d SIP trunk security profile

3.2 Describe call recording options
- 3.2.a Network-based gateway recording (XMF)
- 3.2.b SIPREC
- 3.2.c Built in bridge

3.3 Troubleshoot globalized call routing elements in Cisco UCM
- 3.3.a Route patterns (traditional and +E.164), route groups, route lists
- 3.3.b Translation patterns, transformations, and transformation patterns
- 3.3.c Local route group
- 3.3.d Time-of-day routing
- 3.3.e Partitions and Calling Search Space (CSS)
- 3.3.f Forced authorization code (FAC)
- 3.3.g Urgent priority

20% 4.0 Supplemental Features and Security

4.1 Describe certificate management in Cisco UCM
- 4.1.a Trust store usage
- 4.1.b Secure phone registration
- 4.1.c Phone security profile

4.2 Configure supplementary functions
- 4.2.a Call park
- 4.2.b Call pick-up
- 4.2.c Hunt groups
- 4.2.d Call queuing with announcements
- 4.2.e MoH
- 4.2.f Barge
- 4.2.g BLF

4.3 Troubleshoot Cisco UCM Mobility
- 4.3.a Unified Mobility (excluding dual-mode phones)

4.3.b Extension Mobility
4.3.c Extend & Connect

4.4 Configure ILS, URI synchronization, and GDPR

15% 5.0 Remote Connectivity and Business to Business Solutions

5.1 Configure a Mobile and Remote Access (MRA) solution
5.2 Troubleshoot a Mobile and Remote Access (MRA) solution
5.3 Describe Expressway media traversal
5.4 Describe protocol interworking on the Expressway (IPv4 and IPv6)
5.5 Configure encrypted calling in Expressway
5.5.a TLS
5.5.b MTLS
5.5.c Zone media encryption modes
5.5.d Certificate management (including ACME protocol)

5.6 Configure security for Cisco Expressway
5.6.a Toll fraud prevention using local call policy rules
5.6.b Automated intrusion detection
5.6.c Zone media encryption modes
5.6.d Firewall rules

5.7 Troubleshoot a Business to Business (B2B) collaboration solution
5.7.a DNS records
5.7.b Certificates
5.7.c Traversal zones
5.7.d Neighbor zones
5.7.e DNS zones
5.7.f Transforms
5.7.g Search rules
5.7.h SIP trunk integration with Cisco UCM