Implementing Cisco Collaboration Core Technologies v1.0 (350-801)

Exam Description: Implementing Cisco Collaboration Core Technologies v1.0 (CLCOR 350-801) is a 120-minute exam associated with the CCNP and CCIE Collaboration Certifications. This exam tests a candidate's knowledge of implementing core collaboration technologies including infrastructure and design, protocols, codecs, and endpoints, Cisco IOS XE gateway and media resources, Call Control, QoS, and collaboration applications. The course, Implementing Cisco Collaboration Core Technologies, 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.

20% 1.0 Infrastructure and Design

1.1 Describe the key design elements of the following, pertaining to the Cisco Collaboration architecture as described in the SRND/PA
- 1.1.a Licensing (Smart, Flex)
- 1.1.b Sizing
- 1.1.c Bandwidth
- 1.1.d High availability
- 1.1.e Disaster recovery
- 1.1.f Dial plan
- 1.1.g Security (certificates, SRTP, TLS)
- 1.1.h QoS

1.2 Describe the purpose of Edge devices in the Cisco Collaboration architecture such as Expressway and Cisco Unified Border Element

1.3 Configure these network components to support Cisco Collaboration solutions
- 1.3.a DHCP
- 1.3.b NTP
- 1.3.c CDP
- 1.3.d LLDP
- 1.3.e LDAP
- 1.3.f TFTP
- 1.3.g Certificates

1.4 Troubleshoot these network components in a Cisco Collaboration solution
- 1.4.a DNS (A/AAA, SRV, Reverse Pointer Record (PTR))
- 1.4.b NTP
- 1.4.c LDAP integration on Cisco Unified Communications Manager

1.5 Explain these components to support Cisco Collaboration solutions
- 1.5.a SNMP
- 1.5.b DNS

20% 2.0 Protocols, Codecs, and Endpoints

2.1 Troubleshoot these elements of a SIP conversation
- 2.1.a Call set up and tear down
- 2.1.b SDP
- 2.1.c DTMF

2.2 Identify the appropriate collaboration codecs for a given scenario

2.3 Configure codec negotiations

2.4 Deploy SIP endpoints
- 2.4.a Manual
- 2.4.b Self provisioning
- 2.4.c Bulk Administration Tool (BAT)

2.5 Troubleshoot collaboration endpoints

15% 3.0 Cisco IOS XE Gateway and Media Resources

3.1 Configure these voice gateway elements
- 3.1.a DTMF
- 3.1.b Voice translation rules and profiles
- 3.1.c Codec preference list
- 3.1.d Dial peers

3.2 Configure ISDN PRI/BRI

3.3 Troubleshoot ISDN PRI/BRI

3.4 Configure and verify the MGCP

3.5 Identify the appropriate media resources for a given scenario (hardware and software)

25% 4.0 Call Control

4.1 Describe the Cisco Unified Communications Manager digit analysis process

4.2 Implement toll fraud prevention on Cisco Unified CM

4.3 Configure globalized call routing in Cisco Unified CM
- 4.3.a Route patterns (traditional and +E.164 format)
- 4.3.b Translation patterns
- 4.3.c Standard local route group
- 4.3.d Transforms
- 4.3.e SIP route patterns

4.4 Describe Mobile and Remote Access (MRA)

10% 5.0 QoS

5.1 Describe problems that can lead to poor voice and video quality
- 5.1.a Latency
- 5.1.b Jitter
- 5.1.c Packet loss
- 5.1.d Bandwidth

5.2 Describe the QoS requirements for these application types (voice and video)

5.3 Describe the class models for providing QoS on a network
- 5.3.a 4/5 Class model
- 5.3.b 8 Class model
- 5.3.c QoS Baseline model (11 Class)

5.4 Describe the purpose and function of these DiffServ values as it pertains to collaboration
- 5.4.a EF
- 5.4.b AF41
- 5.4.c AF42
- 5.4.d CS3
- 5.4.e CS4

5.5 Describe QoS trust boundaries and their significance in LAN-based classification and marking

5.6 Describe and determine location-based CAC bandwidth requirements

5.7 Configure and verify LLQ (class map, policy map, service policy)

10% 6.0 Collaboration Applications

6.1 Configure Cisco Unity Connection mailbox and MWI

6.2 Configure Cisco Unity Connection SIP integration options to call control

6.3 Describe Cisco Unity Connection call handlers

6.4 Describe Cisco Unified IM&P protocols and deployment
- 6.4.a XMPP
- 6.4.b High availability

6.5 Deploy Cisco Jabber on premises