Implementing Cisco Collaboration Core Technologies v1.1 (350-801)

Exam Description: Implementing Cisco Collaboration Core Technologies v1.1 (CLCOR 350-801) is a 120-minute exam associated with the CCNP and CCIE Collaboration Certifications. This exam certifies a candidate's knowledge of implementing core collaboration technologies including infrastructure and design, protocols, 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 Cisco on-premises, hybrid, and cloud collaboration solution design elements 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 UCM

1.5　　Explain these components to support Cisco Collaboration solutions
1.5.a　　SNMP
1.5.b　　DNS
1.5.c　　Directory Connector

1.6　　Describe Webex Control Hub features

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 collaboration codecs for a given scenario

2.3　　Deploy SIP endpoints
2.3.a　　Manual
2.3.b　　Self provisioning
2.3.c　　Bulk Administration Tool (BAT)
2.3.d　　Onboarding cloud devices
2.3.e　　Device onboarding via activation codes (MRA/on-premises)

2.4　　Troubleshoot SIP endpoints

2.5　　Describe SIP OAuth on Cisco UCM

15%　3.0　Cisco IOS XE Gateway and Media Resources
3.1　　Configure 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　　Troubleshoot ISDN PRI/BRI

3.3　　Identify the appropriate IOS XE media resources

3.4　　Describe cloud calling hybrid local gateway

25%　4.0　Call Control
4.1　　Describe the Cisco UCM digit analysis process

4.2　　Implement toll fraud prevention on Cisco UCM

4.3　　Configure globalized call routing in Cisco UCM
4.3.a　　Route patterns (traditional and +E.164)
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)

4.5   Describe Webex Calling dial plan features
4.5.a   Locations and numbers
4.5.b   Outgoing and incoming permissions
4.5.c   Transfer and forwarding restrictions

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 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 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   Deploy Webex App