15 Days

CCIE Collaboration

The Cisco CCIE Collaboration is an expert level certification course that provides essential knowledge and skills in delivering collaboration solutions, configuration, and troubleshooting in complex networks and the challenges of video, mobility, and presence as the foundation for workplace collaboration solutions.

This certification has been designed for Collaboration Architects, Unified Communications Architects, or Voice and Video Network Managers who are responsible for designing, implementing, and troubleshooting of complex collaboration solutions.

The CCIE Collaboration Written Exam (400-051) is a two-hour exam to validates the essential skills to plan, design, implement, operate, and troubleshoot the enterprise collaboration and communication networks.

Course Details

Course Outline

1.0 Cisco Collaboration Infrastructure

1.1 Cisco UC Deployment Models
1.2 User management
1.3 IP routing in Cisco Collaboration Solutions
1.4 Virtualization in Cisco Collaboration Solutions
1.5 Wireless in Cisco Collaboration Solutions
1.6 Network services
1.7 PoE
1.8 Voice and data VLAN
1.9 IP multicast
1.10 IPv6

2.0 Telephony Standards and Protocols

2.1 SCCP
2.2 MGCP
2.3 SIP
2.4 H.323 and RAS
2.5 Voice and video CODECs
2.6 RTP, RTCP, and SRTP

3.0 Cisco Unified Communications Manager (CUCM)

3.1 Device registration and redundancy
3.2 Device settings
3.3 Codec selection
3.4 Call features
3.5 Dial plan

3.6 Media resources
3.7 CUCM mobility
3.8 CUCM serviceability and OS administration
3.9 CUCM disaster recovery
3.10 ILS/URI dialing
3.11 Call Admission Control
3.12 SIP and H.323 trunks
3.13 SAF and CCD
3.14 Call recording and silent monitoring

4.0 Cisco IOS UC Applications and Features

4.1 CUCME
4.2 SRST
4.3 CUE
4.4 Cisco IOS-based call queuing
4.5 Cisco IOS media resources
4.6 CUBE
4.7 Fax and modem protocols
4.8 Analog telephony signaling
4.9 Digital telephony signaling
4.10 Cisco IOS dial
4.11 SAF/CCD
4.12 IOS CAC
4.13 IOS accounting

5.0 Quality of Service and Security in Cisco Collaboration Solutions

5.1 QoS: link efficiency
5.2 QoS: classification and marking
5.3 QoS: congestion management
5.4 QoS: medianet
5.5 QoS: wireless QoS
5.6 Security: mixed mode cluster
5.7 Security: secured phone connectivity
5.8 Security: default security features
5.9 Security: firewall traversal
5.10 Security: toll fraud

6.0 Cisco Unity Connection

6.1 CUCM and CUCME integration
6.2 Single inbox
6.3 MWI
6.4 Call handlers
6.5 CUC dial plan
6.6 Directory handlers
6.7 CUC features
6.8 Voicemail networking

7.0 Cisco Unified Contact Center Express

7.1 UCCX CTI Integration
7.2 ICD functions
7.3 UCCX scripting components

8.0 Cisco Unified IM and Presence

8.1 Cisco Unified IM Presence Components
8.2 CUCM integration
8.3 Cisco Jabber
8.4 Federation
8.5 Presence Cloud Solutions
8.6 Group chat and compliance

9.0 Evolving Technologies

9.1 Cloud
9.1.a Compare and contrast Cloud deployment models
9.1.b Describe Cloud implementations and operations
9.2 Network programmability (SDN)
9.2.a Describe functional elements of network programmability (SDN) and how they interact
9.2.b Describe aspects of virtualization and automation in network environments
9.3 Internet of Things
9.3.a Describe architectural framework and deployment considerations for Internet of Things (IoT)

Who Should Attend

- Collaboration Architects,
- Unified Communications Architects, or
- Voice and Video Network Managers

Pre Requisite

- There are no specific prerequisites for CCIE Collaboration Certification.
- Still, A candidate is expected to possess a thorough understanding of the exam topics and strongly encouraged to have three to five years of job experience before attempting certification.

Exams

CCIE Collaboration [400-051]

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Date - May 03, 2025