Implementing Cisco IP Telephony and Video Part 1

Duration: 5 Days      Course Code: CIPTV1      Version: 1.0

Overview:

This course prepares delegates for implementing a Cisco Unified Communications Manager, CUBE and audio and video conferences in a single-site environment. This course focuses primarily on Cisco Unified Communications Manager Version 10.6 which is the call routing and signaling component for the Cisco Unified Communications solution. This course is based on software version 10.6. This overview will be updated further once the CIPTv1 course has been fully released by Cisco.

Target Audience:

Network engineers deploying Cisco IP Telephony and Video solutions and students looking to achieve the CCNP Collaboration Certification.

Objectives:

- After you complete this course you will be able to:
  - Describe Cisco Unified Communications Manager, including its functions, architecture, deployment and redundancy options, and how to install or upgrade
  - Perform Cisco Unified Communications Manager initial configuration and user management
  - Configure Cisco Unified Communications Manager to support on-cluster calling

- Implement PSTN access in Cisco Unified Communications Manager and to build a dial plan in a single-site Cisco Unified Communications Manager deployment
- Implement Cisco Unified Communications Manager media resources
- Implement Cisco Unified Communications Manager features and applications

Prerequisites:

Attendees should meet the following prerequisites:

- Working knowledge of fundamental terms and concepts of computer networking, including LANs, WANs, and IP switching and routing
- Ability to configure and operate Cisco routers and switches and to enable VLANs and DHCP
- Basics of digital interfaces, PSTN, and VoIP
- Fundamental knowledge of converged voice and data networks
- Ability to configure Cisco IOS gateways with traditional and VoIP call legs
- Prior attendance of the following is recommended: ICND1 and ICND2 or CCNABC, CICD or ICOMM and VIVND2 or CIVND2.

Testing and Certification

Recommended preparation for exam(s):

- 300-070 - Implementing Cisco IP Telephony and Video Part 1
CIPTV1 is one of four courses required for the Cisco Certified Network Professional for Collaboration Career Certification

Follow-on-Courses:

The following courses are recommended for students looking to achieve their CCNP in collaboration.

- CIPTV2 – Cisco IP Telephony and Video Part 2
- CAPPS – Implementing Cisco Collaboration Applications
- CTCOLLAB – Troubleshooting Cisco IP Telephony and Video
Content:

Cisco Unified Communications Manager Introduction
- Describing the role of Cisco Unified Communications Manager, its architecture and its deployment and redundancy options.
- Performing Initial Cisco Unified Communications Manager Configuration
- Deploying Endpoints and Users
- Deploying IP Phone Services

Dial Plan Introduction and Implementation of Single-Site On-Cluster Calling
- Describing Dial Plan Components
- Implementing Endpoint Addressing and Call Routing
- Implementing Calling Privileges
- Implementing Call Coverage in Cisco Unified Communications Manager

Implementation of Single-Site Off-Cluster Calling
- Analysing Single-Site Off-Cluster Calling Requirements
- Implementing PSTN Access Using MGCP Gateways
- Describing Cisco IOS H.323 and SIP Gateways
- Implementing PSTN Access Using H.323 Gateways
- Describing the Cisco Unified Border Element
- Using the Cisco Unified Border Element to Access the PSTN via a SIP Trunk
- Using the Cisco Unified Border Element for URI Dialing
- Describing Dial Plan Interworking

Audio and Video Conferencing
- Describing Conferencing Devices and their Functions
- Implementing Conference Bridges
- Describing Cisco TelePresence MSE 8000
- Implementing Cisco TelePresence Server
- Implementing Cisco TelePresence Conductor

Quality of Service
- Analysing Quality of Service Requirements
- Describing QoS Components and their Functions
- Implementing Marking
- Implementing Policing and Shaping

Media Resources
- Describing Media Resources in Cisco Unified Communications Manager
- Implementing Announciers and MOH
- Implementing MTPs

Additional Information:

Recertification:
Cisco Professional-level certifications (CCNP, CCNP Wireless, CCDP, CCSP, CCNP Security, CCNP Collaboration, CCNP Service Provider, and CCNP Data Center) are valid for three years. To recertify, pass ONE of the following before the certification expiration date: Pass any current 642-XXX Professional-level or any 300-XXX Professional-level exam, or Pass any current CCIE Written Exam, or Pass the current CCDE Written Exam OR current CCDE Practical Exam, or Pass the Cisco Certified Architect (CCAr) interview AND the CCAr board review to extend lower certifications.

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931
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